Wellbeing: A Complete Reference Guide
Volume VI

Interventions and Policies to Enhance Wellbeing

Edited by
Felicia Huppert and Cary L. Cooper

WILEY Blackwell

Interventions and Policies to Enhance Wellbeing

Wellbeing: A Complete Reference Guide, Volume VI

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Volume I: Wellbeing in Children and Families
Edited by Susan H. Landry and Cary L. Cooper

Volume II: Wellbeing and the Environment
Edited by Rachel Cooper, Elizabeth Burton, and Cary L. Cooper

Volume III: Work and Wellbeing
Edited by Peter Y. Chen and Cary L. Cooper

Volume IV: Wellbeing in Later Life
Edited by Thomas B. L. Kirkwood and Cary L. Cooper

Volume V: The Economics of Wellbeing
Edited by David McDaid and Cary L. Cooper

Volume VI: Interventions and Policies to Enhance Wellbeing
Edited by Felicia A. Huppert and Cary L. Cooper

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Editorial Offices
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The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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About the Editors

Felicia A. Huppert is Emeritus Professor of Psychology and the Director of the Well-being Institute at the University of Cambridge, U.K. Felicia also has a part-time Professorship in the Centre for Positive Psychology and Education at the University of Western Sydney, Australia. She has been involved in the design and analysis of major longitudinal studies of wellbeing, and is currently engaged in interventions to enhance wellbeing, including the Mindfulness in Schools Project. She headed the consortium that has developed national indicators of wellbeing for the European Social Survey, and advises governments and organizations on the measurement of wellbeing.

Cary L. Cooper, CBE, is Distinguished Professor of Organizational Psychology and Health at Lancaster University Management School, U.K. He is the author/editor of over 150 books, has written over 400 scholarly articles for academic journals, and is a frequent contributor to national newspapers, TV, and radio. He is the Chair of the Academy of Social Sciences (comprised of 46 learned societies in the social sciences, with nearly 90,000 social scientists), President of RELATE, President of the Institute of Welfare, and immediate past President of the British Association of Counselling and Psychotherapy. He was the Founding President of the British Academy of Management, Founding Editor of the *Journal of Organizational Behavior*, and is currently Editor-in-Chief of the international scholarly journal *Stress & Health*. He has received honorary doctorates from a number of universities (e.g., University of Sheffield, Aston University, and Heriot-Watt University). He has been awarded honorary fellowships by the Royal College of Physicians, Royal College of Physicians of Ireland, British Psychological Society, European Academy of Occupational Health Psychology, and Institute of Occupational Safety and Health. In 2010 Professor Cooper was awarded the Lord Dearing Lifetime Achievement Award at the *The Times Higher Education* Awards for his distinguished contribution to higher education. He was lead scientist on

the U.K. Government's Foresight program on Mental Capital and Well-being, which had a major impact in the United Kingdom and Europe. Professor Cooper was Chair of the Global Agenda Council on Chronic Diseases in the World Economic Forum in 2009–2010. In 2012, *HR* magazine voted him the Fourth Most Influential HR Thinker. In 2001, he was awarded a CBE by the Queen for his contribution to occupational health.

Contributors

Saamah Abdallah, Centre for Well-being, New Economics Foundation, U.K.

Peter Anderson, University of Newcastle, U.K.

Jacqueline Barnes, Birkbeck, University of London, U.K.

Christine Burke, Bangor University, U.K.

David J. Cann, University of Cambridge, U.K.

Michelle C. Carlson, Johns Hopkins University, U.S.A.

Katarzyna Charzyńska, Institute of Psychiatry and Neurology, Poland

Adam P. Coutts, University of Cambridge, U.K.

Czesław Czabała, The Maria Grzegorzewska Academy of Special Education, Poland

Marten W. deVries, Maastricht University, The Netherlands

Anna K. Forsman, National Institute for Health and Welfare (THL), Finland and Nordic School of Public Health NHV, Sweden

Barbara L. Fredrickson, University of North Carolina at Chapel Hill, U.S.A.

Kevin D. Frick, Johns Hopkins University, U.S.A.

Linda P. Fried, Columbia University, U.S.A.

Katherine D. Giuriceo, Johns Hopkins University, U.S.A.

Tara Gruenewald, University of Southern California, U.S.A.

David Halpern, No. 10/Institute for Government, U.K.

Trevor Hazell, Hunter Institute for Mental Health, Australia

John F. Helliwell, University of British Columbia, Canada

Helen Herrman, University of Melbourne, Australia

Felicia A. Huppert, University of Cambridge, U.K. and Centre for Positive Psychology and Education University of Western Sydney, Australia

Eva Jané-Llopis, World Economic Forum, Switzerland

Daniel Johnson, Queensland University of Technology, Australia

Catherine Kilfedder, BT, U.K.

Bethany E. Kok, University of North Carolina at Chapel Hill, U.S.A.

Sara Konrath, University of Michigan and University of Rochester Medical Center, U.S.A.

Paul Litchfield, BT, U.K.

Nic Marks, Centre for Well-being, New Economics Foundation, U.K.

Sylvia McGill, Retired, Greater Homewood Community Corporation, U.S.A.

Juliet Michaelson, Centre for Well-being, New Economics Foundation, U.K.

Melanie Nind, University of Southampton, U.K.

Jeanine M. Parisi, Johns Hopkins University, U.S.A.

George W. Rebok, Johns Hopkins University, U.S.A.

Sue Roffey, University of Western Sydney, Australia

William A. Romani, AARP Experience Corps, U.S.A.

Louise Rowling, University of Sydney, Australia

Charles Seaford, Centre for Well-being, New Economics Foundation, U.K.

Teresa Seeman, UCLA, U.S.A.

Eija Stengård, Pirkanmaa Hospital District and Tampere University Hospital, Finland and National Institute for Health and Welfare (THL), Finland

Sarah Stewart-Brown, University of Warwick, U.K.

David Stuckler, University of Oxford, U.K.

Penny Sweetser, Queensland University of Technology, Australia

Elizabeth K. Tanner, Johns Hopkins University, U.S.A.

Kristian Wahlbeck, National Institute for Health and Welfare (THL), Finland

Katherine Weare, University of Exeter and University of Southampton, U.K.

Peta Wyeth, Queensland University of Technology, Australia

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Introduction to *Wellbeing: A Complete Reference Guide*

Cary L. Cooper
Lancaster University, U.K.

This series of six volumes explores one of the most important social issues of our times, that of how to enhance the mental wellbeing of people, whether in the developed, developing, or underdeveloped world, and across the life course from birth to old age. We know that 1 in 4–6 people in most countries in the world suffer from a common mental disorder of anxiety, depression, or stress. We also know that mental ill health costs countries billions of dollars per annum. In the United Kingdom, for example, mental health-care costs have amounted to over £77 billion per annum, the bill for sickness absence and presenteeism (people turning up to work ill or not delivering due to job stress) in the workplace is another £26 billion, and the costs of dementia will rise from £20 billion to an estimated £50 billion in 25 years' time (Cooper, Field, Goswami, Jenkins, & Sahakian, 2009). In Germany, the leading cause of early retirement from work in 1989 was musculoskeletal disease but by 2004 it was stress and mental ill health, now representing 40% of all early retirements (German Federal Health Monitoring, 2007). In many European countries (e.g., Finland, Holland, Norway, and Switzerland) the cost of lost productive value due to lack of mental wellbeing is a significant proportion of gross domestic product (McDaid, Knapp, Medeiros, & MHEEN Group, 2008). Indeed, the costs of depression alone in the European Union were shown to be €41 billion, with €77 billion in terms of lost productivity to all the economies (Sobocki, Jonsson, Angst, & Rehnberg, 2006).

The issue of wellbeing has been around for sometime but has been brought to the fore more recently because of the global recession and economic downturn, which have made the situation worse (Antoniou & Cooper, 2013). But it was as early as 1968 that politicians began to talk about the inadequacy of gross national product as a measure of a society's

success. In a powerful speech by Bobby Kennedy at the University of Kansas, when he was on the campaign trail for the Democratic Party nomination for U.S. President, he reflected:

> But even if we act to erase material poverty, there is another greater task, it is to confront the poverty of satisfaction—purpose and dignity—that afflicts us all. Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our gross national product, now, is over $800 billion a year, but that gross national product—if we judge the United States of America by that—that gross national product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in the chaotic sprawl. It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities. . . . Yet the GNP does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile.
>
> University of Kansas, March 18, 1968,
> http://www.americanswhotellthetruth.org/portraits/robert-f-kennedy

Since that time there have been numerous studies to show that the wealth of a country is not related to its happiness (Cooper & Robertson, 2013); indeed, as you earn far beyond your means you may become less happy or content. More recently, we have had politicians like former President Sarkozy of France, Prime Minister Cameron of the United Kingdom, and the King of Bhutan extoll the virtue of gross national wellbeing; that is, that the goal of a nation's politicians should be to enhance wellbeing among its citizens, with gross national product being only one indicator of a country's success. Indeed, Prime Minister Cameron has instituted an annual assessment of this through the U.K. Office of National Statistics which measures wellbeing among a large sample of the U.K. population, publishing the results, highlighting concerns, and ultimately considering policies to deal with them. The World Economic Forum of leading global companies, nongovernmental organizations, international bodies, and global charities now has one of its Global Agenda Councils on "mental health and wellbeing." Happiness and wellbeing indices abound (e.g., The Happy Planet), and many countries are being compared and assessed on a range of

quality-of-life metrics. Indeed, in April 2012, 79 countries in the General Assembly of the United Nations signed the Bhutan Agreement, supporting the view that an overarching goal of a country should be to enhance the wellbeing and happiness of its people.

The biggest study of its kind undertaken by any government was the 2 year U.K. Government's Foresight project on mental capital and wellbeing, the aim of which was "to produce a challenging and long-term vision for optimising mental capital and wellbeing in the United Kingdom in the 21st century—both for the benefit of society and for the individual" (Cooper et al., 2009). Mental capital was defined as the metaphorical "bank account of the mind," which gets enhanced or depleted throughout the life course (see figure). Mental wellbeing was defined as "a dynamic state that refers to individuals' ability to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community" (Beddington et al., 2008).

Over 85 international science reviews were commissioned to assess the factors that influence an individual's mental capital and wellbeing throughout life, from early childhood to school years to working life to old age. There were numerous findings in this report, which were costed and developed as potential government policy and/or interventions. An example of some of the findings were: (a) if society does not catch learning difficulties in children early enough, there will be increased personal and economic costs downstream, leading to depleted mental wellbeing in terms of increased antisocial behavior as well as significant health costs; (b) if society does not identify the common mental disorders (CMDs) of anxiety, depression, and stress early enough, and provide appropriate treatment and support, society won't be able to tackle the 1 in 4–6 people suffering from depression and other CMDs; (c) with the workplace being more insecure, people working longer hours, and being more overloaded, occupational stress in many countries is now the leading cause of sickness absence and presenteeism, which has implications for the viability of businesses and their productivity; and, finally, (d) with the doubling of over-65-year-olds and the tripling of over-80-year-olds over the next 30 years, society needs to deal with the consequences of dementia now with preventative strategies, better early diagnosis, and more successful and evidence-based treatment regimes. The Foresight project developed many recommendations to enhance mental capital and wellbeing not only in the United Kingdom but also for other countries (Cooper et al., 2009), and its legacy has provided a roadmap for how other countries should think about this in the future, in terms of both policies and interventions for wellbeing.

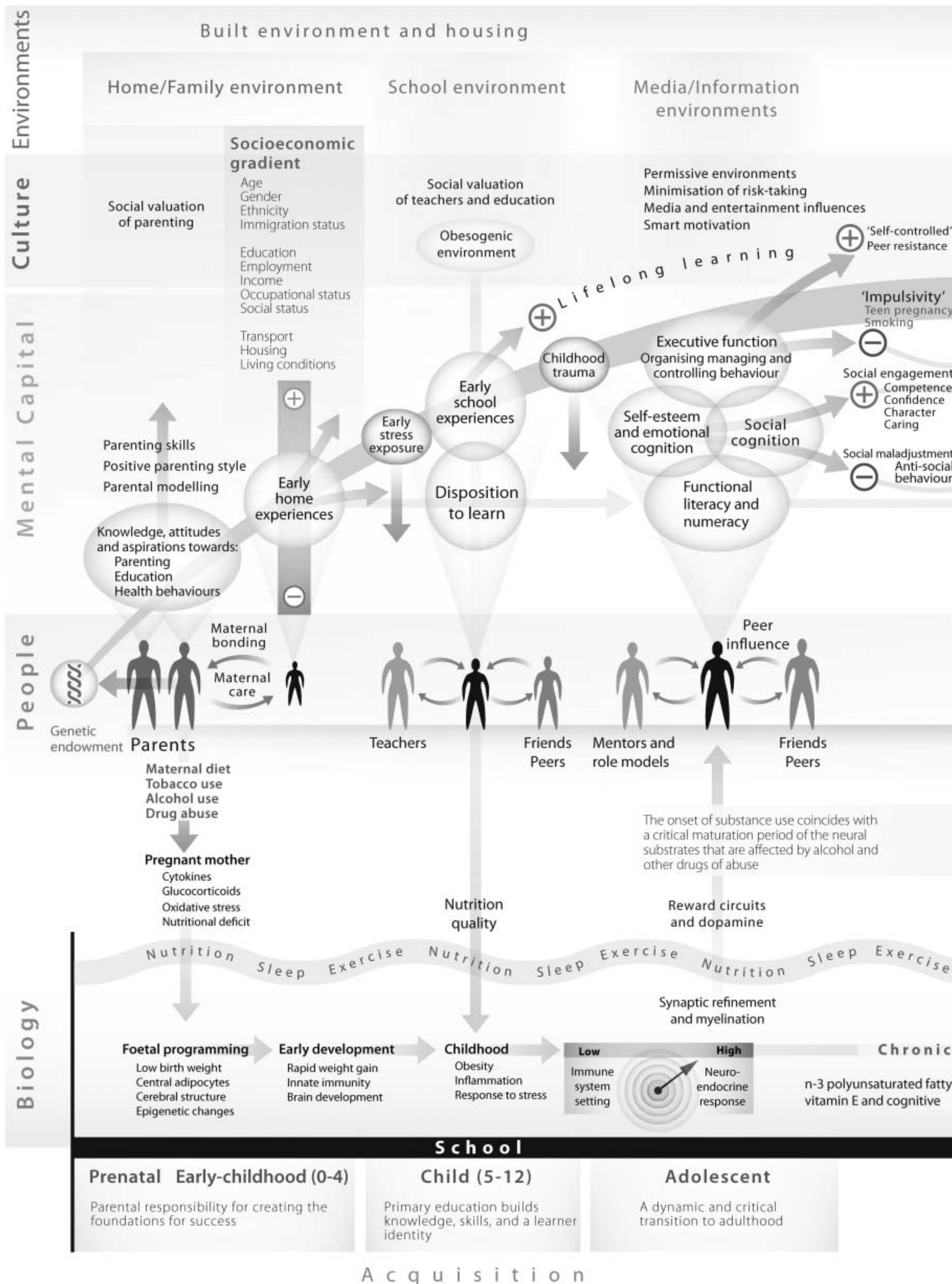
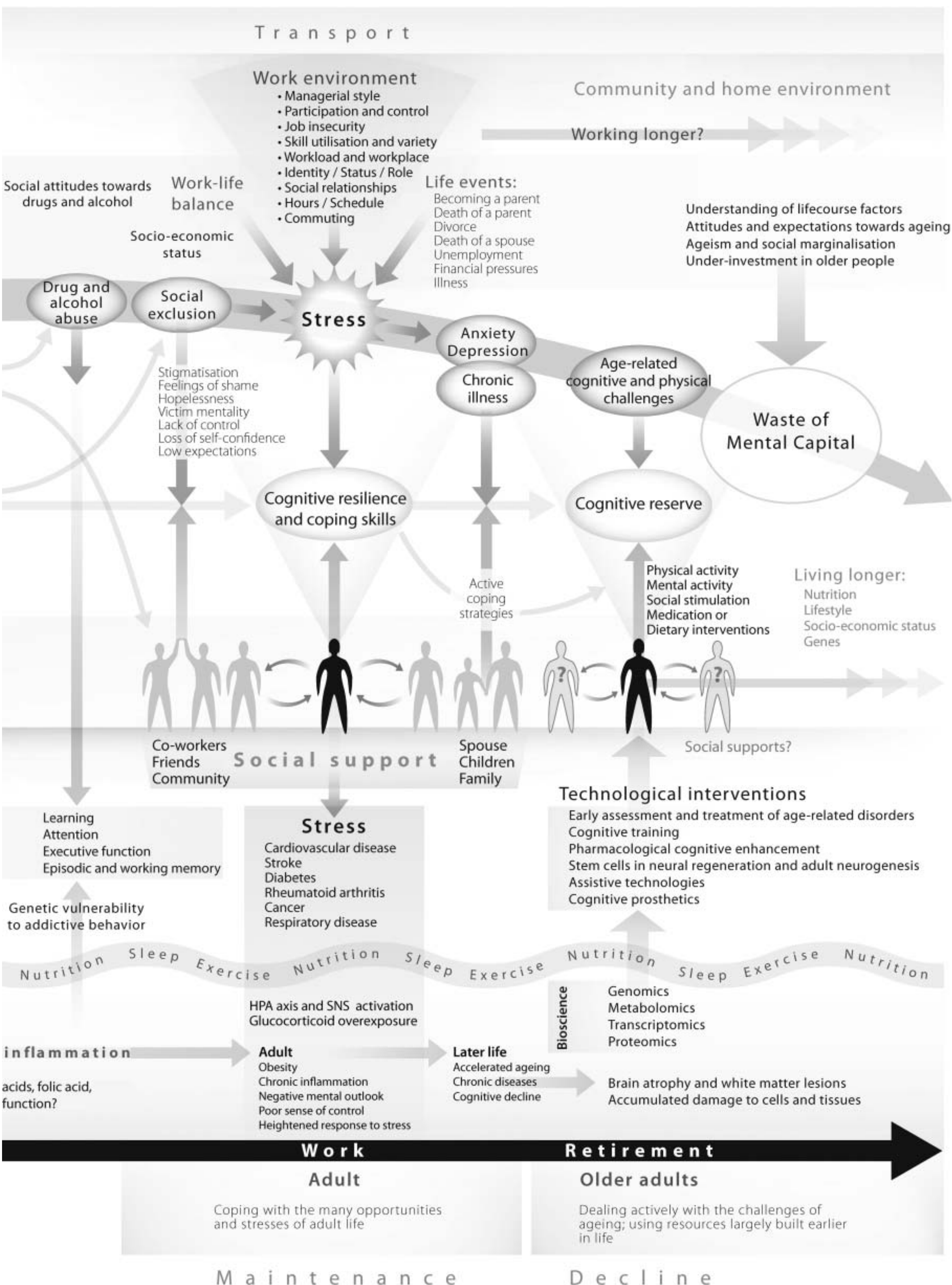


Figure. Synthetic View of the Mental Capital Trajectory.


Transport
Work environment
• Managerial style
• Participation and control
• Job insecurity
• Skill utilisation and variety
• Workload and workplace
• Identity / Status / Role
• Social relationships
• Hours / Schedule
• Commuting
Community and home environment
Working longer?
Social attitudes towards drugs and alcohol
Work-life balance
Socio-economic status
Life events:
Becoming a parent
Death of a parent
Divorce
Death of a spouse
Unemployment
Financial pressures
Illness
Understanding of lifecourse factors
Attitudes and expectations towards ageing
Ageism and social marginalisation
Under-investment in older people
Drug and alcohol abuse
Social exclusion
Stress
Anxiety Depression
Chronic illness
Age-related cognitive and physical challenges
Waste of Mental Capital
Stigmatisation
Feelings of shame
Hopelessness
Victim mentality
Lack of control
Loss of self-confidence
Low expectations
Cognitive resilience and coping skills
Cognitive reserve
Active coping strategies
Physical activity
Mental activity
Social stimulation
Medication or
Dietary interventions
Living longer:
Nutrition
Lifestyle
Socio-economic status
Genes
Co-workers
Friends
Community
Social support
Spouse
Children
Family
Social supports?
Technological interventions
Early assessment and treatment of age-related disorders
Cognitive training
Pharmacological cognitive enhancement
Stem cells in neural regeneration and adult neurogenesis
Assistive technologies
Cognitive prosthetics
Learning
Attention
Executive function
Episodic and working memory
Stress
Cardiovascular disease
Stroke
Diabetes
Rheumatoid arthritis
Cancer
Respiratory disease
Genetic vulnerability to addictive behavior
Nutrition Sleep Exercise Nutrition Sleep Exercise Nutrition Sleep Exercise Nutrition
HPA axis and SNS activation
Glucocorticoid overexposure
Bioscience
Genomics
Metabolomics
Transcriptomics
Proteomics
inflammation
acids, folic acid, function?
Adult
Obesity
Chronic inflammation
Negative mental outlook
Poor sense of control
Heightened response to stress
Later life
Accelerated ageing
Chronic diseases
Cognitive decline
Brain atrophy and white matter lesions
Accumulated damage to cells and tissues
Work
Retirement
Adult
Coping with the many opportunities and stresses of adult life
Older adults
Dealing actively with the challenges of ageing; using resources largely built earlier in life
Maintenance
Decline

The Volumes in the Series

Each volume in the series has a senior editor who is a leading international scholar in a particular field, following the life-course model described by the Foresight program. We start with Wellbeing in children and families and progress to Wellbeing and the environment, Work and wellbeing, Wellbeing in later life, The economics of wellbeing, and, finally, Interventions and policies to enhance wellbeing. The contributors to each of these volumes are distinguished international academics who work in the domain covered, reviewing the evidence that can help to develop policies and interventions to enhance wellbeing in that particular context.

In the first volume on children and families we explore four different themes, with a number of chapters under each of these: the development of the early social and cognitive skills that are important in child wellbeing, parenting and children's development, school and child care-settings that impact child and family wellbeing, and stress and family and child wellbeing.

The second volume is on wellbeing and the environment. This comprises sections, with chapters in each, on wellbeing and the neighborhood, wellbeing and buildings, wellbeing and green spaces, crime and the urban environment (and the implications for wellbeing), and wellbeing and the environmental implications for design.

The third volume highlights the issues of work and wellbeing. A range of topics is covered here: the impact of job demands, the role of workplace control, the organizational characteristics of "happy organizations," leadership behaviors that influence employee wellbeing, the sustainable workforce, the "working wounded" (including stigma and return to work), organizational coping strategies and wellbeing, and many more.

The fourth volume highlights wellbeing in later life. Topics covered include the changing demographic context of aging, biological determinants and malleability of aging, psychological aspects of wellbeing in later life, nutrition and lifelong wellbeing, physical exercise and aging, combating isolation through technology in older people, the threat to wellbeing from cognitive decline, and maintaining wellbeing through the end of life, among others.

The fifth volume explores the economics of wellbeing, with chapters on income and wellbeing, alternative measures of national wellbeing, the impact of the great recession on economic wellbeing, whether recessions are good for one's health, investing in the wellbeing of children, investing in

wellbeing in the workplace, promoting health and wellbeing of older people and protecting population mental health, wellbeing during an economic crisis, and many others.

Finally, the sixth volume highlights interventions and policies that can enhance wellbeing throughout the life course. There are three sections, with chapters on the state of wellbeing science, individual/group interventions on childhood and adolescence, promoting mental health and wellbeing in schools, mindfulness training for children and adolescents, interventions in working years and post retirement, mental health promotion in the workplace, intergenerational interventions to enhance wellbeing among retired people, interventions to create positive organizations and communities with wellbeing as a business priority, the power of philanthropy and volunteering, and creating community connections. Finally, policies are discussed, such as mental health and wellbeing at the top of the global agenda, how subjective wellbeing can influence policy, media and the public's mental health, and promoting wellbeing through new technology.

These volumes contain the leading-edge research, practice, and policies to help government, businesses, local authorities, and global institutions consider how we can action some of what Bobby Kennedy suggested were an important set of outcomes for a successful society. Our institutions need to change, and we as individuals need to do so as well, if we are to achieve personal wellbeing, or as Abraham Lincoln wrote during the American Civil War, "it is not the years in your life which are important, but the life in your years." Winston Churchill reflected on this as well, when he wrote in an essay on how he dealt with the excessive pressures of life and found solace: "many remedies are suggested for the avoidance of worry and mental overstrain by persons who, over prolonged periods, have to bear exceptional responsibilities and discharge duties upon a very large scale. Some advise exercise, and others, repose. Some counsel travel, and others, retreat. . . no doubt all of these may play their part according to individual temperament. But the element which is constant and common in all of them is Change. . . a man can wear out a particular part of his mind by continually using it and tiring it, just in the same way as he can wear out the elbows of his coats. . . but the tired parts of the mind can be rested and strengthened, not merely by rest, but by using other parts. . . it is only when new cells are called into activity, when new stars become the lords of the ascendant, that relief, repose, refreshment are afforded."

I hope that these volumes will provide you with the science, practice, and tools to enhance the mental wellbeing of people in your own work.

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Introduction to this Volume

Felicia A. Huppert
University of Cambridge, U.K.
Centre for Positive Psychology and Education University of Western Sydney, Australia

Cary L. Cooper
Lancaster University, U.K.

In all the volumes of this reference work on wellbeing we have seen the enormous costs of a lack of mental capital and wellbeing in countries throughout the world. In the United Kingdom alone this cost was estimated to be well over £100 billion per annum throughout the life course (Cooper, et al, 2009). This work has highlighted the costs, issues, and challenges throughout the life course; for children and families, for the workplace, for communities, for the environment, and for the elderly.

In this final volume we explore in the first section what research has told us about the interventions that might be implemented to enhance wellbeing in childhood, adolescence, in schools, in communities, and for the elderly and retired. In the second section we examine the interventions that create positive organizations and communities. And in the final section we explore the policies that help to create the foundation stones for promoting wellbeing.

Our objective is to embrace the challenges of going beyond gross domestic product, which Robert Kennedy highlighted in his 1968 speech, when he movingly advocated the importance of the quality of our lives versus gross national product:

> But even if we act to erase material poverty, there is another greater task, it is to confront the poverty of satisfaction—purpose and dignity—that afflicts us all. Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our gross national product, now, is over $800 billion a year, but that gross national product—if we judge the United States of America by that—that gross

> national product counts air pollution and cigarette advertising, and ambulances to clear out highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities.... Yet the GNP does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile.
>
> University of Kansas, March 18, 1968, http://www.americanswhotellthetruth.org/portraits/robert-f-kennedy

This volume starts with an overview by Felicia Huppert of the kind of policies and interventions that we need to consider in enhancing wellbeing throughout the life course. From then on, we have collected an array of distinguished international contributors to explore what has been done to promote and develop wellbeing in a range of contexts. Alongside the interventions, we also explore the enabling policies and practices that governments, and global bodies, have developed to provide the platform for change to stimulate wellbeing. We hope that you will find much of practical value in this volume, mindful that change is not easy to create or implement. As Machiavelli wrote in *The Prince*: “It should be borne in mind that there is nothing more difficult to arrange, more doubtful of success, and more dangerous to carry through than initiating change.... The innovator makes enemies of all those who prospered under the old order, and only lukewarm support is forthcoming from those who would prosper under the new”. Yes, change is very difficult, particularly when the economic times are tough, but enhancing people’s wellbeing is a worthwhile challenge that we should and need to embrace. Otherwise, as Mark Twain once colloquially wrote: “if you always do what you always did, you’ll always get what you always got,” or as Proust more elegantly put it: “the only paradise is the paradise lost.”

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1

The State of Wellbeing Science

Concepts, Measures, Interventions, and Policies

Felicia A. Huppert
University of Cambridge, U.K. and Centre for Positive Psychology and Education University of Western Sydney, Australia

What is Wellbeing?

Wellbeing is a fundamental human goal—we all have a desire for our life to go well. The experience of life going well involves both feeling good and functioning well. Feeling good all the time would not be conducive to wellbeing, as it would devalue the role of negative or painful emotions, which play an important part in our lives when experienced in the appropriate context, such as sadness following misfortune, and distress or even anger following injustice. Some scholars define wellbeing in terms of positive emotions alone (e.g., Layard, 2005, 2011) or the balance of positive to negative emotions (e.g., Kahneman & Krueger, 2006). However, emotional experiences or "hedonic" wellbeing are only part of wellbeing, since emotions are by their nature transient, whereas wellbeing refers to a more sustainable experience. Sustainable wellbeing includes the experience of functioning well, for instance, having a sense of engagement and competence, being resilient in the face of setbacks, having good relationships with others, and a sense of belonging and contributing to a community. The functioning component of wellbeing is similar to Aristotle's notion of eudaimonic wellbeing, and a number of scholars have equated psychological wellbeing with

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eudaimonic wellbeing (e.g., Ryan, Huta, & Deci, 2008; Ryff, 1989; Waterman, 1993). However, the more general sense of wellbeing described here combines both hedonic and eudaimonic aspects. This combined position has been taken by a number of authors (Huppert, 2009; Keyes, 2002b; Marks & Shah, 2005; Seligman, 2002, 2011).

Some scholars use a very broad definition of happiness that is roughly synonymous with the combined hedonic/eudaimonic view of wellbeing described above. Sometimes this is termed "authentic happiness" (e.g., Seligman, 2002) or "real happiness" (e.g., Salzberg, 2010). The notion of happiness enshrined in Bhutan's Gross National Happiness (GNH) is another example of a very broad use of the term. In the words of Jigmi Thinley, the prime minister of Bhutan: "This 'happiness' has nothing to do with the common use of this word to describe an ephemeral, passing mood–happy today or unhappy tomorrow due to some temporary external condition like praise or blame, gain or loss. Rather, it refers to . . . deep, abiding happiness" (United Nations, 2012, p. 89).

Wellbeing can be used to describe an objective state as well as a subjective experience. Objective wellbeing refers to wellbeing at the societal level: the objective facts of people's lives; this contrasts with subjective wellbeing, which concerns how people actually experience their lives. As an objective state, wellbeing relates to the quality of outcomes for which a government or organization traditionally regards itself to be responsible; for example, education, health, employment, housing, security, and the environment. In this context, the term wellbeing is often used synonymously with welfare, the latter term emphasizing what governments do to improve objective wellbeing, as opposed to simply evaluating wellbeing. Used in its subjective sense, wellbeing refers to the way citizens experience their lives, which may bear a strong or only a weak relationship to the objective facts of people's lives. This chapter, and indeed this volume, is focused primarily on wellbeing in its subjective sense. As with objective wellbeing, we can examine its components and current state, and the variety of ways in which efforts have been made, or are being made, to improve it.

What is the Relationship Between Wellbeing and Illbeing?

Wellbeing versus the Absence of Illbeing

A senior civil servant in the United Kingdom recently made the encouraging comment that wellbeing is the core aim of all government departments. He

went on to explain that since no department has the intention of making life worse for citizens, wellbeing must therefore be their goal. This comment reflects a classic misunderstanding of the relationship between wellbeing and illbeing.

Wellbeing is more than the absence of illbeing, just as health is more than the absence of disease (World Health Organization, 1946). Yet it is remarkable how resistant large sectors of the academic, practitioner, and policy communities are to recognizing the importance of positive wellbeing or of positive health. Many, if not most of the studies that purport to improve health or wellbeing in fact focus on symptom reduction, and their outcome measures usually do not even include assessment of positive feeling or positive functioning. Surprisingly, this is even true of the numerous trials using the Penn Resiliency Program undertaken in various parts of the world to increase social and emotional wellbeing in schoolchildren (Challen, Noden, West, & Machin, 2011; Gillham et al., 2007). The primary outcome measure has been reduction in symptoms of depression, anxiety, and conduct disorders. In the same way, school-based interventions to prevent bullying rarely go on to examine improvements in subjective wellbeing, interpersonal relationships or pro-social behavior. Likewise, work-based interventions too often assume that wellbeing will result from programs designed to reduce stress, but rarely do they evaluate increases in positive emotions, vitality, perceived competence, and the like. However, as contributions to this volume indicate, the situation is beginning to change, and increases in positive wellbeing outcomes are beginning to be measured in addition to decreases in negative wellbeing outcomes.

Unfortunately, resistance to prioritizing positive outcomes remains high in the field of health, including mental health. In the 1930s, a working group involved in planning a national health system for the United Kingdom wrote:

> Health must come first: the mere state of not being ill must be recognised as an unacceptable substitute, too often tolerated or even regarded as normal. We must, moreover, face the fact that while immense study has been lavished on disease, no-one has intensively studied and analysed health, and our ignorance of the subject is now so deep that we can hardly claim scientifically to know what health is.
>
> Political and Economic Planning (1937), p. 395

Sadly, within the medical profession the situation has hardly changed over the intervening 80 years, although some recent attempts are being made to conceptualize and measure positive physical health (e.g., Seeman, 1989;

Seligman, 2008). One manifestation of this is the refocusing which has taken place within the American Heart Association, which now emphasizes cardiovascular vitality rather than cardiovascular disease. Within the mental health profession, an encouraging sign comes from the collaborative recovery model, where it is recognized that patients want to move beyond the absence of symptoms, towards feeling good and being fully functional (Oades et al., 2005).

Wellbeing as Positive Mental Health

The real developments in positive mental health, however, have come from non-clinicians, including psychologists, social scientists, and public health researchers, Jahoda (1958) is generally regarded as the first person to have promoted the idea of positive mental health, which she defined in terms of six elements of positive functioning: "attitudes of an individual towards his own self," "self-actualization," "integration," "autonomy," "perception of reality," and "environmental mastery" (Table 1.1). In the 1980s, Ryff (1989) proposed six dimensions of positive mental health or "psychological wellbeing" that bear some resemblance to Jahoda's six elements of positive functioning: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. Antonovsky (1987) coined the term "salutogenesis" to promote an interest in the development of

Table 1.1. Components of Positive Mental Health or Psychological Wellbeing.

Jahoda (1958)	**Ryff (1989)**	**Antonovsky (1987)**	**Ryan and Deci (2001)**	**Seligman (2011)**
Autonomy	Autonomy	Comprehensibility	Autonomy	Positive emotion
Environmental mastery	Environmental mastery	Manageability	Competence	Engagement
Self-actualization	Personal growth	Meaningfulness	Relatedness	Relationships
Self-attitude	Self-acceptance			Meaning
Integration	Purpose in life			Accomplishment
Perception of reality	Positive relationships			

health rather than of disease. Central to his concept of health is a "sense of coherence," whereby life is seen as comprehensible, manageable, and meaningful. All three of these theorists view mental health and mental illness as lying along a continuum, with mental illhealth at one end and mental health at the other, although each has a different list of what they regard as the key components of mental health.

Other wellbeing theorists do not explicitly refer to a mental illness/health continuum but can nevertheless be regarded as contributing to the body of theories about what constitutes positive mental health. Seligman, who initially regarded wellbeing ("authentic happiness") as the combination of pleasure, engagement, and meaning (Seligman, 2002), has added two components in his more recent book (Seligman, 2011). These are relationships and accomplishment, which creates the acronym PERMA: positive emotion, engagement, relationships, meaning, accomplishment. For Ryan and Deci (2001), wellbeing arises from the fulfilment of what they describe as the basic psychological needs, and which they identify as autonomy, competence, and relatedness.

Although there is substantial overlap between these major theoretical approaches to psychological wellbeing or positive mental health, each scholar has their own preferred list of components. A recent paper by Huppert and So (2013) endeavored to derive a list of the components of psychological wellbeing in a more objective manner. They began by proposing a single, underlying mental health spectrum, with mental illbeing at one end and mental wellbeing at the opposite end. This meant that they conceived wellbeing not as the absence of illbeing, but as its *opposite* (Figure 1.1). To establish the components that comprise wellbeing, they examined the internationally agreed criteria for the common mental disorders (as defined in the Diagnostic and Statistical Manual of Mental Disorders, DSM-IV, and the International Statistical Classification of Diseases and Related Health Problems, ICD-10) and for each symptom listed the opposite characteristic. This resulted in a list of 10 features which represent positive mental health or "flourishing": competence, emotional stability, engagement, meaning, optimism, positive emotion, positive relationships, resilience, self-esteem, and vitality. And just as symptoms of mental illness are combined in specific ways to provide an operational definition of each of the common mental disorders, they proposed that positive features could be combined in a specific way to provide an operational definition of flourishing.

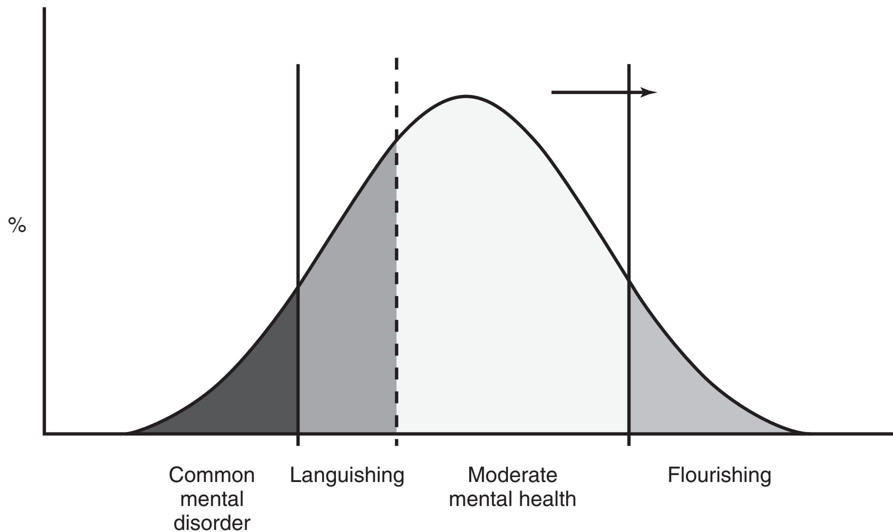

Figure 1.1. The Mental Health Spectrum. Based on Huppert et al. (2009).

Having an operational definition of flourishing makes it possible to examine the prevalence of flourishing within or between groups and the factors associated with flourishing.

One Mental Health Continuum or Two?

There is an alternative school of thought which proposes that mental wellbeing and illbeing are not at opposite ends of a continuum, but rather form two different continua. According to this view, it is possible to have both a serious mental illness, and be flourishing at the same time. The strongest proponent of the two-continua model is Keyes (2002b); one continuum goes from severe mental disorder to no mental disorder, while the other goes from low wellbeing ("languishing") to high wellbeing ("flourishing"). This is a reasonable position to take in the case of certain chronic mental disorders, such as schizophrenia or personality disorder, in which there are undoubtedly times when the person may be feeling and functioning well, despite their clinical diagnosis. But it is argued by Huppert and So (2013) that this model is less convincing in relation to the common mental disorders, such as major depression and anxiety. Such disorders are common both in the sense that they are very prevalent in the population, and in the sense that virtually any member of the population may be diagnosed

with one of these disorders at some point in their life. It is difficult to conceive how someone with a current diagnosis of major depressive disorder could be regarded as flourishing at the same time. Certainly in the course of recovery, when the person no longer meets diagnostic criteria, and is feeling and functioning better, they may move towards flourishing. Indeed it is encouraging that the recovery model now recognizes that for patients who have had a mental disorder, it is not sufficient to be relieved of their symptoms; rather, they want to be able to feel good and function well.

The fact that symptoms of mental disorder can coexist with some features of flourishing is not in doubt; it is the interpretation of this coexistence which requires examination. For example, in a representative population sample of over 6,000 U.K. adults, Huppert and Whittington (2003) created scales of both positive and negative wellbeing from the General Health Questionniare (GHQ-30) (Goldberg, 1972; Goldberg & Williams, 1988) and reported that there was some degree of independence between these measures. While the majority of people (65%) who had high scores on one of the scales (either high negative or high positive) had low scores on the other scale, 35% either had high scores on both positive and negative wellbeing measures, or low scores on both. There are at least two explanations for this finding, and similar ones reported by Keyes (2002a, 2002b), which do not require us to postulate a dual continuum model. The first concerns the timeframe over which the respondent is being asked to rate their experiences. In the case of the GHQ, the timeframe is "Have you recently . . .?" It is possible that a person could have recently experienced periods of despair or high anxiety, as well as periods of pleasure and positive functioning. In Keyes' (2002b) original paper on this topic, the timeframe for reporting wellbeing was one month, and the timeframe for reporting mental illness was the past year, so it is entirely possible that respondents had periods of mental illness as well as periods of flourishing. This does not constitute compelling evidence that illbeing and wellbeing can coexist at one and the same time.

The second reason why it appears to be possible for illbeing and wellbeing to coexist is related to the nature of diagnostic criteria and operational definitions. The diagnostic criteria for a mental disorder do not require that all the symptoms be present; likewise, the operational definitions of flourishing (Huppert & So, 2013; Keyes, 2002b) do not require that all the features of positive feeling and functioning be present. It would therefore be unsurprising to find an overlap between symptoms of mental disorder and features of flourishing. Thus it appears that while there is no dispute about the evidence of overlap between symptoms/features of positive/negative

mental health, there is no necessity to postulate a dual continuum model, at least in the case of the common mental disorders.

Measuring Wellbeing

In 2011, the most senior civil servant in the U.K. Government, Gus O'Donnell, said in a speech about wellbeing "If you treasure it, measure it." If we accept wellbeing as a fundamental human goal, and recognize that GDP and other indicators beloved of governments are just the means to that goal, we need to measure wellbeing—and we need to measure it well. This requires the use of subjective indicators to establish how people experience their lives and this, in turn, requires us to measure how people feel, and how well they perceive themselves to be functioning. So how good are our measures of wellbeing and what do they tell us about the causes of wellbeing and how to improve it?

The measurement of wellbeing has a long history, going back to at least the 1960s. Wellbeing measurement developed in the context of utilitarian economics (i.e., the idea that happiness was the greatest good, and that the aim of government should be creating the greatest happiness for the greatest number). This idea has much earlier origins in the philosophical writings of Priestley (1768), Bentham (1789), and Mill (1863/1972). However, it was not until the twentieth century that attempts were made to measure happiness. Since behaviorists were in the ascendance in the early part of the twentieth century, economists opted to measure behavioral proxies for happiness, such as consumption, since it was assumed that people chose to spend money on the things that brought them pleasure. Attempts to measure the feeling of happiness were regarded as being deeply suspect and, in principle, impossible. But as the cognitive revolution took over from behaviorism in the second half of the twentieth century, we witnessed the advent of measures of subjective wellbeing. The earliest, most influential of these is Cantril's (1965) Ladder of Life scale, which is still widely used as a measure of life satisfaction today (e.g., in the Gallup World Poll). The wording of the Cantril scale is as follows:

> Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you personally say you stand at this time?

A few years later, Bradburn (1969) published his Affect Balance Scale, which comprises five questions about positive emotions and five about negative emotions. However, it is the life satisfaction approach, either using Cantril's scale or other single-item measures of life satisfaction that have predominated in the literature, presumably because the designers of large-scale surveys would prefer to measure wellbeing with one item rather than ten. There are also a number of single-item measures of happiness which have been used in survey research, including questions such as, "Taking all things together, how happy would you say you are?" (European Social Survey, Jowell & the Central Co-ordinating Team, 2003).

Is Life Satisfaction a Good Measure of Wellbeing?

By far the most widely used conceptualization of wellbeing has been the sense of satisfaction with one's life. This conceptualization is inferred from the fact that the vast bulk of research on wellbeing uses a single question about life satisfaction such as "All things considered, how satisfied are you with your life as a whole these days?" (World Values Survey, www.worldvaluessurvey.org). It would, of course, be very efficient to be able to measure wellbeing with just one question. However, we need to consider whether such a question really captures the essence of wellbeing (i.e., the experience of feeling good and functioning well).

There have been numerous critiques of life satisfaction as a valid indicator of subjective wellbeing. One is that it suffers from contextual effects, the evidence showing that responses (typically on a scale from 0 to 10) can be easily influenced by current mood or adjacent questions (Schwarz & Strack, 1999). Although this is certainly true, it is not a criticism unique to measure of life satisfaction, but applies to any self-report item. Another is that life satisfaction is a trait-like variable reflecting the way in which a person likes to think of themselves. For instance, few people like to think they are the sort of person who is generally dissatisfied, and this may account for the marked skew typically seen on this measure (most people score 7 or 8 out of 10). Another critique is that scores on life satisfaction measures typically show little variation within individuals or nations, which is consistent with their trait-like property. They typically move only a few decimal points in response to major events. But since surveys are usually conducted on very large samples, those tiny movements are often statistically significant, and regarded as meaningful and informative (e.g., Diener, Inglehart, & Tay, 2013). There are, in my view, three more important criticisms of the use of

a life satisfaction item (or several) to indicate how a person is experiencing their life; these concern the question's comprehensibility, complexity, and congruence with related constructs.

First, when questioned using cognitive interviewing, a high percentage of respondents do not really understand what is meant by the term "satisfied" (e.g., Ralph, Palmer, & Olney, 2012), but nevertheless feel obliged to give a response. In the case of Cantril's (1965) original phrasing of the question about life satisfaction, it is not clear whether it has ever been cognitively tested. It seems very unlikely that different respondents would have a similar understanding of what to regard as the best possible and worst possible life. Some may limit the comparison to a realistic estimate of what could happen to people like them, while others may compare their life to those very unlike them, such as those suffering from real or imagined horrors. Thus, how respondents comprehend life satisfaction questions is likely to vary widely.

Second, a question about satisfaction requires a complex evaluation. Not only is one invited to consider all aspects of one's life (an impossible task in a few seconds), but one has tacitly to balance experience with expectations. Thus, one respondent may give a high score on a life satisfaction scale because their experience is genuinely very good, while another respondent may give a high score although their experience is not very good but their expectations are low. This complexity is particularly troubling if life satisfaction is used to measure the outcome of interventions or policies, since it is not possible to know whether a change in score reflects a change in experience or a change in expectations. A fine policy may result in little or no change in life satisfaction because it both resulted in more positive experiences and also raised expectations.

Third, if life satisfaction was really a good indicator of the experiences that matter to people in their lives, we would expect it to correlate highly with measures of the things that matter. There is abundant evidence that relationships and having a sense of meaning in one's life are profoundly important to people's wellbeing, yet the correlation between a life satisfaction measure and scores on specific questions about the things that really matter are very low (e.g., Huppert & So, 2013; Ryff & Keyes, 1995), typically around 0.2–0.3 in population samples.

For all these reasons, it is clear that if we want a valid and reliable measure of wellbeing, and if we want to measure what really matters to people, we need to go beyond measures of life satisfaction. Indeed, if we were beginning afresh to consider how to measure wellbeing, it is most unlikely

that we would come up with a question about life satisfaction. On the other hand, most researchers and policy makers would argue that it is worth retaining such a question, if only because without it we could not make historical comparisons. Interestingly, even Ed Diener, an ardent advocate of life satisfaction measures who developed one of the best known scales, the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), has recently developed two new measures of wellbeing that focus on feeling and functioning: the Scale of Positive and Negative Experience, and the Flourishing Scale (Diener et al., 2010).

Beyond Measures of Happiness and Life Satisfaction: Wellbeing as a Multidimensional Construct

There is new widespread agreement that wellbeing is more than just happiness and cannot be captured by measures of affective state alone, even if the balance between positive and negative affect is measured, as some authors advocate (e.g., Kahneman & Krueger, 2006). Nor, as indicated above, can the notion of wellbeing be adequately captured by a measure of life satisfaction, even if this is measured using several items (e.g., Diener et al., 1985) or across multiple domains of life (e.g., Cummins Eckersley, Pallant, Van Vugt, & Misajon, 2003). The research community now generally concurs that to do justice to the concept of wellbeing, measures need to include an evaluation of how well people perceive themselves to be functioning: often referred to as eudaimonic wellbeing or psychological wellbeing.

So what exactly should we be measuring? What are the key components of perceived positive functioning? Here we encounter a problem. Depending on their theoretical framework, each set of researchers comes up with a different list of the key components. Some of the most influential lists were summarized in Table 1.1. Most of these lists have measurement scales associated with them, or in the case of the newest list by Seligman, a measurement scale is currently being developed (Butler & Kern, 2013). There are also measures that have been developed more pragmatically by reviewing existing scales and items assessing wellbeing and related constructs, and identifying what the authors regard as the key components. Examples of this approach include the widely used Warwick–Edinburgh Mental Wellbeing Scale (Stewart-Brown et al., 2009; Tennant et al., 2007) and the Flourishing Scale of Diener et al. (2010). There are many more initiatives which have

reviewed existing measures and come up with their own recommendations, such as NHS Scotland (Parkinson, 2007), NIH Toolbox (Gershon et al., 2010; Salsman et al., 2013), and the European Social Survey (Huppert, Abbott, Ploubidis, Richards, & Kuh, 2009). Most of the measures have been developed for adults, but there is a large parallel endeavor that has reviewed and developed numerous wellbeing scales for children (e.g., Hicks, Newton, Haynes, & Evans, 2011; New Economics Foundation, 2009; Parkinson, 2012).

Managing the Multiplicity of Wellbeing Theories and Measures

The plethora of different approaches used to identify the key components of wellbeing, and the huge number and variety of available scales can cause confusion for investigators who wish to establish whether their intervention has increased wellbeing. Which approach and scale should they use? It is also confusing and unhelpful for policy makers, who need the experts to agree on what they should be measuring in population surveys to establish that their policies have had wellbeing benefits.

I believe there are three types of solutions to this impasse. The first is to find an objective way to create a list of the key components of wellbeing; the second is to engage experts within the research community to arrive at a consensus; the third is to apply psychometric techniques to establish the minimum set of components that cover the key wellbeing constructs.

The first approach is exemplified by the work of Huppert and So (2013), described in an earlier section. They used an objective approach to creating a list of the components of wellbeing by making the assumption that mental wellbeing was the opposite of mental illbeing (the common disorders of depression and anxiety), and defining the features of wellbeing as the opposite of the internationally agreed symptoms of depression and anxiety (Huppert & So, 2013). This resulted in the following 10 features of well-being or "flourishing": competence, emotional stability, engagement, meaning, optimism, positive emotion, positive relationships, resilience, self-esteem, and vitality.

The second approach is an expert consensus. A recent endeavor to obtain a consensus on the measurement of eudaimonic wellbeing has been spearheaded by Abdallah at the New Economics Foundation. Abdallah has contacted a large and growing list of experts to contribute to a debate and

discussion about what should be regarded as the scope and components of eudaimonic wellbeing.

Ultimately, however, a good measure of wellbeing will need to be based on sound psychometric principles. Experts may (or may not) in the end agree on what to include as the key components of wellbeing, but knowing how these components relate to each other, and whether one needs a subscale to measure each of them, remains an empirical question. The techniques of factor analysis need to be used to establish how the different components cluster together, and how much additional information is provided by the components within a factor. For example, it may be that constructs such as engagement, competence, self-efficacy, self-esteem, are so closely related that little additional information is provided by measuring all of them, rather than measuring just one of them. Ideally therefore, what is required is an exercise in which the experts agree on the key components of wellbeing as well as key items that measure these components, and then this set of items is administered to very large and representative population samples to establish the factorial structure, and to identify which items provide the maximum information for each factor. The consistency of the factorial structure would need to be checked across demographic groups and across cultures or nations. But the final result could be a very efficient measuring instrument, containing a small number of items that maximize the information captured. Additional analysis using item response theory (IRT) would ensure that each item measured and any overall scales or subscales provide reliable measures across the full range of scores from very low wellbeing to very high wellbeing.

Composite Measure or a Dashboard?

A composite measure can be useful as a summary, provided there are good theoretical and empirical reasons to put a number of measures together. In economics, the most widely used composite measure is gross domestic product (GDP), which combines the amount spent by individuals, businesses and other organizations, and by government. Of course, each of these three areas itself combines many distinct components. It took many years for international organizations to agree on which measures to combine to create GDP as a composite measure of economic growth. Although the present measure of GDP has many critics, and will undoubtedly be improved in time, such a composite provides a useful summary of economic performance over time or between nations. However, a composite measure of this type is

of limited value in guiding interventions. Knowing a nation's GDP gives no indication of how to go about increasing it. For the purposes of intervention, it is essential to consider the components of the composite measure, and to decide which of the components need to be changed, and then work out the best ways to change them. Some governments may decide that the best way to increase GDP is to target just one area of spending (e.g., to encourage individuals to spend more), or for the government to increase the amount it spends on welfare, infrastructure projects, and the like. Another government may focus on the business sector, or increase expenditure in all three domains. Whatever decision they make, it is essential to keep track of change in the various components of GDP.

Likewise, it will be valuable in due course to create a composite measure of wellbeing. Useful as such a wellbeing composite will be, it will never be enough if we are interested in interventions or policies to improve wellbeing. We will always need to know which of the key components needs improving, and whether the intervention or policy has been successful in improving that component. We therefore also need to think in terms of a dashboard of wellbeing components. So how many components should one have on a dashboard? There is no simple answer to this question. Clearly, fewer is better, so long as the elements in the dashboard provide all the essential information. At this early stage in the science of wellbeing and wellbeing measurement, we should err on the side of having too many indicators rather than too few. Further developments in theory, empirical research, and psychometric analysis can then establish the minimum number of indicators that provide the essential information.

To illustrate the importance of examining the components of wellbeing, Huppert and So (2013) provided profiles of scores across the 10 features of flourishing in 22 European nations. A selection of these profiles, using rank ordering, can be seen in Figure 1.2.

As can be seen, countries in Western Europe show very different profiles across the 10 features of flourishing. France has often been a puzzle for well-being researchers since it usually has low scores on global measures of wellbeing, such as life satisfaction (6.4 in the ESS data) despite its relative wealth, short working hours, and commitment to quality food, wine, and leisure activities. Examining the French profile is very informative; of the 22 countries studied, France had the highest ranking on the measure of engagement, but the lowest on self-esteem, and was also among the lowest on optimism and positive relationships. In contrast, Spain had the highest ranking on self-esteem, but the lowest rankings on the measures

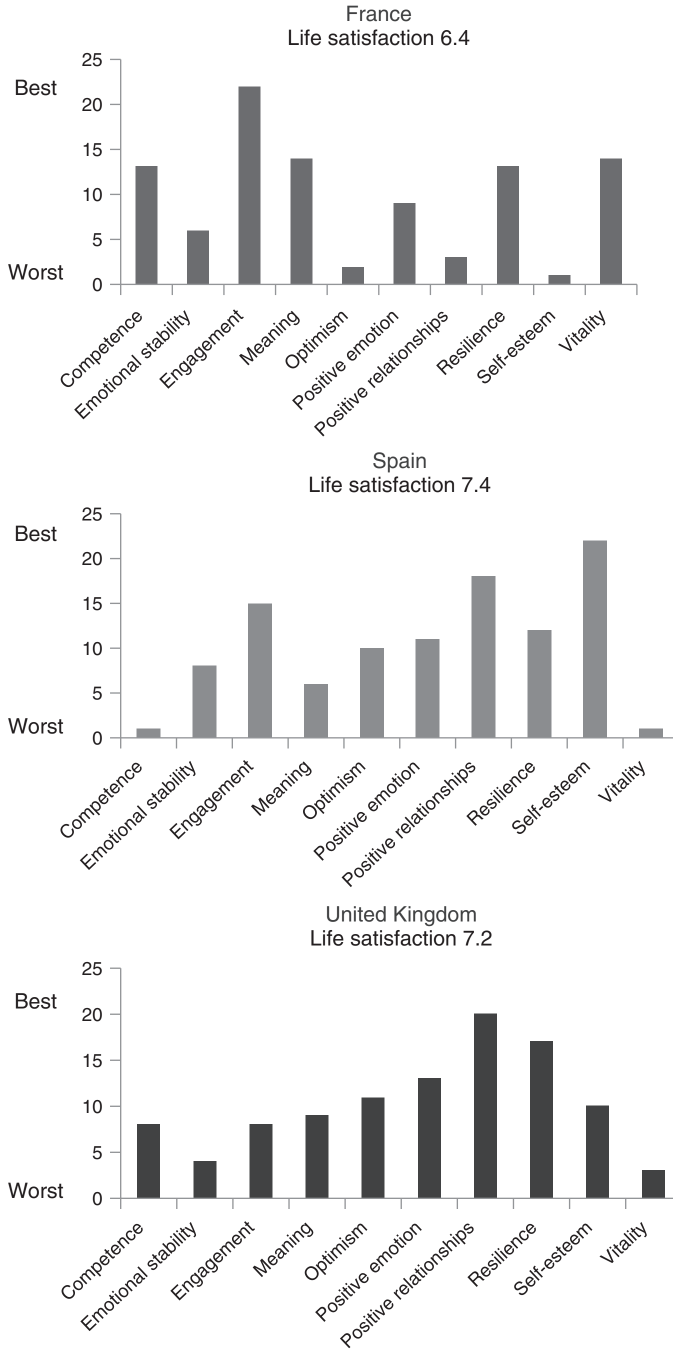

Figure 1.2. Profiles of Flourishing in Three European Countries.

of competence and vitality. Despite the fact that Spain and the United Kingdom have almost identical scores on life satisfaction in this study (7.4 and 7.2, respectively), Figure 1.2 shows that their profiles are very different. Although cultural differences may account for some of the variation between countries, Huppert and So (2013) demonstrated structural invariants of the measurement scale and measurement equivalence across European regions. Furthermore, So and Huppert (2013) have demonstrated scale invariants and measurement equivalents across almost all the individual European countries studied, including France, Spain, and the United Kingdom, the exceptions being Cyprus, Estonia, and the Ukraine.

What is clear from the sample countries presented in Figure 1.2, is that much valuable data would have been lost if we did not take a multidimensional approach to the measurement of subjective wellbeing. Furthermore, the findings have clear implications for policy; if the French government wishes to improve wellbeing, they need to focus on self-esteem, optimism, and relationships, whereas if the Spanish government wishes to improve wellbeing, they should focus on sense of competence and vitality, while the United Kingdom needs to focus on vitality and emotional stability.

What Do We Know about the Causes of Wellbeing?

The development of interventions to enhance wellbeing presupposes that we understand the causes of wellbeing. If we know what causes wellbeing in individuals, families, organizations, or nations, we should be able to use this knowledge to develop effective interventions. So how much do we know about the determinants of wellbeing?

In truth, we know remarkably little about what causes wellbeing. There are four main reasons for this: (a) the vast majority of studies report cross-sectional associations, and neither causality, nor its direction, can be deduced with certainty; (b) longitudinal studies, particularly when analyzed with structural equation modeling, provide a better indication of causality, but there is always the possibility of a third factor (e.g., genetic predisposition, early environment) which causes both wellbeing and its apparent antecedents; (c) experimental studies are valuable for showing the direction of causality, but usually investigate very short-term outcomes; (d) very few of the studies designed to establish causality contain adequate measures of wellbeing, either because wellbeing has been equated with the absence of illbeing, or because the studies do not incorporate adequate

measures of wellbeing; rather, they tend to be restricted to measuring life satisfaction, a wellbeing measure which is seriously flawed (see section on Life Satisfaction, above).

Furthermore, even when we find a strong association between wellbeing and some of its putative causes, and even if this relationship can be shown to be causal, it may well be a bi-directional relationship. Many of the socio-economic, health, personal, and lifestyle factors that have been linked to wellbeing are as likely to be the consequence of wellbeing as its cause. For instance, having good relationships or engaging work may enhance wellbeing, but a high level of wellbeing may also increase the chance of developing good relationships and finding engaging work. Thus, a person can get into an upward spiral in which socioeconomic circumstances and individual behaviors can enhance wellbeing, which in turn increases the likelihood of having desirable socioeconomic circumstances and positive behaviors.

Drivers of Wellbeing

With the above caveats in mind, we can summarize the factors that have been strongly associated with and are perhaps causally related to wellbeing; such factors are often known as the drivers of wellbeing. A comprehensive and authoritative review of the drivers has recently been published by Stoll, Michelson, and Seaford (2012). Below is a summary of their key findings, along with some additional material. Note that these findings are based on associations which have received the most attention from researchers, who have mostly come from economics and the social sciences rather than psychology; they are not necessarily the associations which have the strongest relationship to wellbeing. More detail on the psychological variables associated with wellbeing can be found in the section on Attitudes, Behaviors, and Wellbeing.

Material living conditions.

Individual or household income is positively related to life satisfaction within and between countries and at any point in time (e.g., Blanchflower & Oswald, 2004; Easterlin, 2001; Frey & Stutzer, 2000; Helliwell, 2003; Kahneman & Deaton, 2010). However, this relationship shows diminishing marginal returns, that is, the effect is smaller at higher levels of income (e.g., Diener, Diener, & Diener, 1995; Veenhoven, 1991). Evaluative measures such as life satisfaction are more strongly related to income than

are other measures of wellbeing, such as happiness or emotional wellbeing (e.g., Kahneman & Deaton, 2010). Relative income explains more of the wellbeing variants than absolute income, at least in high-income countries (e.g., Layard, 2005). Material disadvantage, such as poor housing quality, unaffordability of a one-week holiday, and difficulty in making ends meet, is strongly associated with low subjective wellbeing (e.g., Evans, Wells, & Moch, 2003; Watson, Pichler, & Wallace, 2010).

Insecurity also has a powerful effect on wellbeing, particularly job insecurity (e.g., Blanchflower & Oswald, 2011; Burchell, 1994) and unmanageable debt (Brown, Taylor, & Wheatley Price, 2005; Cummins et al., 2004). Although these relationships can be bi-directional, there is longitudinal evidence of both debt and job insecurity being causally related to low subjective wellbeing (e.g., Blanchflower & Oswald, 2011; Jenkins et al., 2008a). Another aspect of insecurity associated with wellbeing is fear of crime (e.g., not feeling safe walking alone locally after dark), and this effect is greater than the effect of actual crime statistics on wellbeing (Adams & Serpe, 2000; Lelkes, 2006).

Employment and work-related factors.
Being employed is related to subjective wellbeing, and unemployment is strongly negatively related to various measures of subjective wellbeing (Blanchflower & Oswald, 2011; Clark & Oswald, 1994; Frey & Stutzer, 2000; Helliwell, 2003). Although low wellbeing can lead to unemployment, there is clear evidence from longitudinal studies that the experience of unemployment leads to low subjective wellbeing (e.g., Dolan, Peasgood, & White, 2008; Oswald & Powdthavee, 2005), and there is evidence that the loss of wellbeing far exceeds that expected from the reduction in income from unemployment (e.g., Clark & Oswald, 1994; Dolan et al., 2008). There is also evidence of a relationship between subjective wellbeing and quality of work (e.g., workplace trust, having a job that requires skills, offers variety, and can be completed satisfactorily) (Helliwell & Huang, 2010). Other work-related variables, such as work–life balance and commuting time, are also associated with subjective wellbeing. There is an inverse U-shaped relationship between hours worked and subjective wellbeing (Helliwell & Huang, 2010; Luechinger, Meier, & Stutzer, 2010; Weinzierl, 2005), and longer commuting time is associated with lower subjective wellbeing, including life satisfaction and negative emotions (e.g., Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004a; Putnam, 2000).

Health.

Numerous studies show a relationship between low subjective wellbeing and poor self-reported health, even after controlling for the reverse impact that wellbeing has on health (Dolan et al., 2008; Helliwell, 2003; Winkelmann & Winkelmann, 1998). Although people may adapt to some degree to chronic illness, complete adaptation does not seem to occur (e.g., Oswald & Powdthavee, 2005). Poor objective health and disability are also associated with lower subjective wellbeing, although this relationship is weaker than that of self-reported health and subjective wellbeing (e.g., Dolan et al., 2008). In relation to psychological illhealth, affective disorders (e.g., depression, anxiety) are associated, unsurprisingly, with poor subjective wellbeing (e.g., Diener & Seligman, 2004), but even conditions such as schizophrenia are linked to significantly lower levels of wellbeing (e.g., Suslow, Roestela, Ohrmanna, & Arolta, 2003). Overall, it is disappointing that research on the relationship between health and wellbeing has focused almost exclusively on poor health and low subjective wellbeing. The importance of conceptualizing and investigating positive physical health has been made previously (Seeman, 1989; Seligman, 2008). It is to be hoped that future research will focus on the relationship between positive physical health and subjective wellbeing.

With respect to health-related behaviors, physical activity has a beneficial effect on subjective wellbeing (e.g., Biddle & Ekkekakis, 2005), and is also associated with reduced mental health problems (e.g., O'Connor, Smith, & Morgan, 2000), though there is limited evidence on the direction of causality. Sufficient sleep (typically 6–8 hours per night) is associated with better psychological functioning and positive emotions, and with fewer symptoms of anxiety and depression (Hamilton, Catley, & Karlson, 2007; Hamilton, Nelson, Stevens, & Kitzman, 2007; Kahneman et al., 2004a; Steptoe, O'Donnell, Marmot, & Wardle, 2008). Conversely, poor sleep is associated with low subjective wellbeing, although the direction of causality in these relationships remains to be established. Surprisingly, little research has yet been undertaken on the relationship between diet and wellbeing, although there is some evidence that eating fresh fruit and vegetables, and limiting fat intake, is related to overall life satisfaction (e.g., Blanchflower & Oswald, 2011; Grant, Wardle, & Steptoe, 2009), although yet again the direction of causality has not been established.

Education.
There is usually a relationship between education and subjective wellbeing (Blanchflower & Oswald, 2004; Frey & Stutzer, 2000), but this is probably mediated by other factors, including health, income, and social mobility (e.g., Diener, Suh, Lucas, & Smith, 1999; Dolan, Peasgood, & White, 2006). Some studies have shown a non-linear relationship between education level and life satisfaction, whereby an average level of education rather than the highest level is related to higher life satisfaction (e.g., Helliwell, 2003). Quality of education is important in making learning enjoyable, fostering personal development, and promoting social wellbeing, all of which are associated with later subjective wellbeing (Gutman & Feinstein, 2008a, 2008b; Statham & Chase, 2010).

Social relationships.
Some studies have found that an individual's relationship with their partner and family is the single most important determinant of wellbeing (e.g., Bacon, Brophy, Mguni, Mulgan, & Shandro, 2010; Kapteyn, Smith, & van Soest, 2010). Numerous studies, both cross-sectional and longitudinal, show that being married is strongly associated with overall life satisfaction, happiness, and positive psychological functioning (e.g., Blanchflower & Oswald, 2011; Diener et al., 1999; Dolan et al., 2006; Marks & Lambert, 1998). However, the effect of marriage is probably mediated through having a secure and supportive relationship: the wellbeing effect of living with a partner is high when the relationship is perceived to be stable (Brown, 2000). In general, social trust (trust in other people) is strongly associated with high life satisfaction and happiness (e.g., Helliwell, 2003), and the number and strength of social connections are among the largest and most robust predictors of subjective wellbeing, including life satisfaction, overall happiness, and decrease in depressive symptoms (e.g., Dolan et al., 2008; Helliwell & Putnam, 2004; Pichler, 2006; Powdthavee, 2008).

There is also a positive relationship between volunteering or altruistic behavior and wellbeing, which appears to be universal (e.g., Helliwell, 2003; Plagnol & Huppert, 2010) and related to the frequency of volunteering (Meier & Stutzer, 2008). Participation in leisure activities in general contributes positively to subjective wellbeing (e.g., Brajsa-Zganec, Merkas, & Sverko, 2011), although this applies more to active participation. In contrast, television viewing, which is largely passive, has a negative effect on

life satisfaction (e.g., Yang & Oliver, 2010), and this effect appears to be mediated by perceived social comparison and materialist values.

Regular engagement in religious activities is positively related to life satisfaction (e.g., Clark & Lelkes, 2005), happiness (e.g., Cohen, 2002), and positive emotion (e.g., Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004b), and negatively associated with depressive symptoms (e.g., Lee, DeMaris, Bavin, & Sullivan, 2001). The wellbeing benefits of religion appear to come from its social aspects—regular attendance at religious services and building social networks—rather than from overtly religious factors like theology and private religious practices (Lim & Putnam, 2010).

Governance and basic rights.

The reported quality of public services, and trust in key public institutions such as government, the police, and the legal system, is associated with higher life satisfaction (Helliwell & Putnam, 2004; Watson, Pichler, & Wallace, 2010). Perceived discrimination is associated with lower life satisfaction, lower self-esteem, and depressive symptoms (e.g., Seaton, Caldwell, Sellers, & Jackson, 2008). Perceived discrimination is also the main factor underlying the lower subjective wellbeing of many immigrant communities (e.g., Mirna, 2010).

Natural and living environment.

The most comprehensive and up-to-date evidence on the relationship between wellbeing and the natural and physical environment can be found in Volume II of this Wiley series on wellbeing, entitled *Wellbeing and the Environment*. Prior to this, an important review of the health and wellbeing effects of viewing landscapes was published by Velarde, Fry, and Tveit (2007). The authors conclude that although, broadly speaking, natural environments have more positive effects than urban environments on health and wellbeing, the categories used in the existing research were very coarse, and provide little information about the specific elements that can make a difference in terms of health or wellbeing benefits.

It should be noted that most of the research on this topic uses cross-sectional surveys or naturalistic observation (e.g., an experience sampling method). Although there are a number of experimental studies where participants are allocated to different groups (e.g., Hartig, Evans, Jamner, Davis, & Gärling, 2003), these studies rarely compare like with like; for example, hospital patients with a view of trees are compared to patients with no view,

and there do not appear to be any studies which compare a beautiful urban setting with an ugly natural environment.

With these methodological limitations in mind, the following broad conclusions receive some support. Perceived access to green spaces is positively associated with subjective wellbeing (e.g., Gidlof-Gunnarsson & Ohrstrom, 2007; Guite, Clark, & Ackrill, 2006). Walking or jogging in a natural landscape such as a park has a stronger effect on measures of psychological health than walking or jogging in the street (Bodin & Hartig, 2003; Hartig et al., 2003). Using an experience sampling method, MacKerron and Mourato (2013) found that time spent in all types of green or natural environments is reported as between 1.8 and 2.7 points happier than time spent in urban environments. However, there is evidence that features of the built environment of neighborhoods, such as "walkability" and street layout, are positively related to wellbeing (e.g., Halpern, 2008; Rogers, Halstead, Gardner, & Carlson, 2010), and it is likely that some of this benefit is related to improved social interactions. A positive perception of the surrounding physical environment is associated with positive emotions, reduced stress, and increased social wellbeing (e.g., Abraham, Sommerhalder, & Abel, 2010; Hartig et al., 2003; Korpela, Hartig, Kaiser, & Fuhrer, 2001; Korpela, Klementtila, & Hietanen, 2002; Kuo, Bacaicoa, & Sullivan, 1998; Kweon, Sullivan, & Wiley, 1998; Ulrich et al., 1991). A substantial amount of research has focused on perceived environmental problems, such as air pollution and noise, which are associated with lower subjective wellbeing, even when adjustment has been made for potential confounders such as income (Ferrer-I-Carbonell & Gowdy, 2005; Luechinger, 2009; MacKerron & Mourato, 2009; van Praag & Baarsma, 2005; Welsch, 2002, 2003).

Personal characteristics.

Wellbeing is related to gender, age, personality, and personal values. In a recent report using data from the Gallop World Poll collected between 2005 and 2010, Graham and Chattopadhyay (2012) found that women have higher average levels of reported wellbeing than men worldwide. In contrast, an important paper on gender and time trends in wellbeing by Stevenson and Wolfers (2009) reported that women in the United States had higher levels of life satisfaction than men from the 1970s until roughly the mid-1990s, after which men had higher life satisfaction scores than women. However, their data only go up to the year 2000. They also report gender and time trends in 12 European countries where the findings are similar but where the gender gap is considerably smaller. Such inconsistent

findings on the relationship between gender and wellbeing contrast with the clear evidence that women demonstrate substantially higher levels of illbeing, such as symptoms of anxiety and depression (Jenkins et al., 2008b). International comparisons show that the gender gap in wellbeing is most marked in economically developed countries, among people with a higher level of education, and in urban compared with rural areas (Graham & Chattopadhyay, 2012).

When wellbeing is assessed using a life satisfaction measure, the relationship between age and wellbeing is U-shaped, with the highest levels in young adulthood and early old age, followed by a decrease in the over 70s (e.g., Baetschmann, 2012; Blanchflower & Oswald, 2008; de Ree & Alessie, 2011). This observation holds for both men and women. The wellbeing dip commonly seen between the ages of about 35 and 55 coincides with the period of maximum career development and financial needs, as well as responsibility for family care: often both for one's children and one's parents. The U-shape may be mediated in part by the problem of work–life balance, which many people experience. However, a more complex picture emerges when wellbeing is assessed using multidimensional measures of wellbeing. For example, sense of coherence improves with advancing age (Stephens, Dulberg, & Joubert, 1999), as do the Ryff dimensions of autonomy and environmental mastery (Ryff & Singer, 1998).

Personality traits are also strongly related to subjective wellbeing (DeNeve & Cooper, 1998). The strongest relationships are found with the personality variables extraversion and neuroticism; extraversion is strongly related to positive emotion (e.g., Diener, Oishi, & Lucas, 2003) and neuroticism to negative emotion (e.g., Schimmack, Schupp, & Wagner, 2008), although Vittersø and Nilsen (2002) found that neuroticism explained eight times as much of the subjective wellbeing variants as extraversion. Longitudinal studies confirm that personality characteristics of individuals in their early teens predict psychological wellbeing in mid- and later life (e.g., Abbott et al., 2008). A strong association between personality and wellbeing may explain why regression models based on data from social surveys often explain only small amounts of variants in wellbeing, since detailed personality measures are rarely included in large-scale social surveys. Since personality tends to be established relatively early in life, what this data underlines is the importance of early experience (and to some degree the role of genetic factors) in the development and maintenance of psychological wellbeing.

Another aspect of personal characteristics which relates to subjective wellbeing is the values that one holds. Individuals who hold more materialistic

values are less happy and less satisfied with their life than those whose values are less materialistic (e.g., Kasser, 2002; Ryan & Dziurawiec, 2001). This effect may be partly mediated through whether one pursues intrinsic or extrinsic goals. Intrinsic goals are defined as being inherently rewarding, and they do not depend on external validation, whereas extrinsic goals are typically pursued as a means to some external reward such as wealth, status, or image. Individuals who are more intrinsically motivated show higher wellbeing relative to those who are more extrinsically motivated (Kasser & Ryan, 1993; Sheldon & Kasser, 2005).

Population-level variables.

The previous sections have all concerned drivers which are measured at the level of the individual. In addition, there is evidence that some population-level variables have effects on wellbeing independent of individual-level variables. The key population-level variables include income inequality, unemployment rate, life expectancy, public spending on welfare, and the presence of democratic institutions. Most, but not all, studies indicate that a higher level of income inequality in a country reduces the average subjective wellbeing of its citizens (e.g., Diener et al., 1995; Helliwell & Huang, 2008; Winkelmann & Winkelmann, 2010). Oishi, Kesebir, and Diener (2011) confirmed this finding in longitudinal data, showing that on average Americans were happier in the years with less income inequality, and found that this relationship could be explained by perceived fairness and general trust. While there is some evidence that income inequality has its greatest effect on lower income groups (Alesina, Di Tella, & MacCulloch, 2004; Oishi et al., 2011). Winkelmann and Winkelmann (2010) have found that the impact of inequality also holds for people on middle incomes. There is some evidence that in Europe those politically on the left are more affected by income inequality (Alesina et al., 2004), and it has been suggested that the relationship between income inequality and subjective wellbeing depends partly on real or perceived social mobility (e.g., Alesina et al., 2004; Senik, 2005). With respect to the unemployment rate, both national and regional data show that higher employment rates reduce subjective wellbeing even for those who are employed (e.g., Helliwell & Huang, 2011) and this has been confirmed in longitudinal data (Luechinger, Meier, & Stutzer, 2010). This effect could be in part mediated by the individual-level variable of job insecurity, as described in an earlier section.

In their analysis of the relationship between population health and subjective wellbeing, Abdallah, Thompson, and Marks (2008) found average life

expectancy to be the strongest predictor of life satisfaction at the national level, for example ahead of GDP, although there was no similar relationship observed for healthy life expectancy.

In general, higher public spending on social welfare is associated with higher wellbeing at the national level (e.g., Di Tella, MacCulloch, & Oswald, 2003; Kotakorpi & Laamanen, 2010; Pacek & Radcliff, 2008). Flavin, Pacek, and Radcliff (2011) found that in advanced industrial democracies life satisfaction was directly related to the extent of state intervention to protect citizens against pure market forces, controlling for economic social cultural and individual-level factors. They also found that this relationship held across different income levels and political ideologies. However Veenhoven (2000) found no relationship between welfare expenditure and subjective quality of life.

International data show a positive relationship between democratic institutions and life satisfaction (e.g., Helliwell & Huang, 2008), including the extent to which individuals participate in referenda (Frey & Stutzer, 2000). In their analysis of wellbeing in 79 countries, Abdallah et al. (2008) found that accountability and having a voice, as measured by the World Bank's Governance Matters indicators, was a better predictor of life satisfaction than was GDP.

Is there a Genetic Predisposition for Wellbeing?

There are two general statements which can be made concerning the link between genes and subjective wellbeing. First, for any complex outcomes such as mental health and wellbeing, there will be the involvement of multiple genes, each with a small effect. Second, the effects of these genes, even if they are all added together, do not determine wellbeing outcomes: they simply predispose individuals to certain outcomes depending on their environments and experiences, particularly the early environment and the quality of the nurturing which the infant has experienced (e.g., Meaney, 2001).

Studies of twins who have completed a wellbeing questionnaire have claimed to show a large hereditary component underlying responses to the questionnaire (Lykken, 2000). The correlation between the scores of identical twins was around .5, whereas the correlation between the scores of same-sex non-identical twins was around .5, leading the author to conclude that approximately 50% of the variation in subjective wellbeing is heritable. However, this figure is almost certainly an overestimate, since the author did not adequately take into account the differences between the parenting

received by identical and non-identical twins (Maccoby & Martin, 1983). Parenting is an interactive process, and parents respond differently depending upon the needs, interests and characteristics of their individual children. Thus, parents treat identical twins more or less identically, whereas they treat non-identical twins differently, and these differences may have a bearing on the child's experience of being nurtured. It is hardly surprising therefore, that identical twins show a high correlation on wellbeing measures, since they have identical genes and have received more or less identical parenting. Likewise, it is hardly surprising that non-identical twins show a very low correlation, since they share only half their genes and have had different experiences of parenting. From the classic study of Lykken (2000), what we can safely conclude is not that 50% of the variation in wellbeing is heritable, but that around 50% of the variation in wellbeing reflects a combination of genes and early environment.

With respect to specific genes and their relationship to mental health and wellbeing, most of the research has focused on the bottom end of the wellbeing spectrum, and little is yet known about specific genes linked to positive wellbeing or flourishing. Several genes have been consistently linked to common mental disorders. These include the monoamine oxidase inhibitor gene (MAOA) the serotonin transporter gene (5-HTT), and the dopamine receptor gene (DRD4). What has become clear is that a specific variant of each of these genes predisposes an individual to having a disorder, but only if they have experienced a number of adverse life events (e.g., Caspi et al., 2003; Kendler, Kuhn, Vittum, Prescott, & Riley, 2005) or an adverse early environment (e.g., Bakermans-Kranenburg & van Ijzendoorn, 2006; Caspi et al., 2002; Taylor et al., 2006), thereby underlining the importance of gene–environment interactions.

In relation to positive aspects of wellbeing, a gene that is receiving a great deal of attention relates to the neuropeptide oxytocin. Oxytocin has long been known for its important role in childbirth and lactation, although it is produced by both males and females. Experimental studies have also shown an effect on mother–infant bonding (Kendrick, 2004), pair-bonding (Wang & Aragona, 2004), interpersonal trust (Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005), generosity (Zak, Stanton, & Ahmadi, 2007), and empathy (Barraza & Zak, 2009). One particular variant of the oxytocin receptor gene (OXTR) has been implicated in social behavior. Individuals homozygous for the G allele (GG genotype) compared with carriers of the A allele (AA, AG genotypes) self-report higher levels of empathy (Rodrigues, Saslow, Garcia, John, & Keltner, 2009), positive emotions

(Lucht et al., 2009), sociality (Tost et al., 2010), and parental sensitivity (Bakermans-Kranenburg, & van Ijzendoorn, 2008). Cultural differences in the expression of this gene have also been reported (Kim et al., 2010, 2011; Kogan et al., 2011).

Perhaps the most exciting development in the field of gene–environment interactions has come from the recognition that the very same genotype which predisposes an individual to having a mental health problem if they experience an adverse early environment, also predisposes an individual to flourishing if they have a positive early environment (Belsky and Pluess, 2009; Pluess, Belsky, Way, & Taylor, 2010) For example, it has been known for some time that individuals who have the short allele of the serotonin transporter (5-HTT) gene are more susceptible to adversity and more likely to become depressed than individuals who have the long allele of the gene. It was accordingly hypothesized that the long allele conveyed resilience to adversity (i.e., mental wellbeing in spite of adverse experiences). New data have turned this theory on its head. The short allele is associated both with succumbing to the negative effects of adversity, and with reaping the benefits of supportive and enriching experiences. In contrast, individuals with the long allele of the 5-HTT gene may appear resilient, since they do not readily succumb to mental disorder despite adversity, but neither do they appear to reap the benefits of positive experiences (Belsky & Pluess, 2009; Pluess et al., 2010).

Attitudes, Behaviors, and Wellbeing

People high in subjective wellbeing tend to have attributional styles that are more self-enhancing and more empowering than those low in subjective wellbeing (e.g., Ryan & Deci, 2001). Although the causal direction is unclear, it is likely that positive attributional styles, including optimism and self-esteem, may contribute to overall subjective wellbeing. A large body of research, both experimental and observational, demonstrates that aspects of motivation or goal pursuit can enhance subjective wellbeing. For example, subjective wellbeing is increased when goals are intrinsically motivated (e.g., Kasser & Ryan, 1993), when there is a sense of progress towards a valued goal (e.g., Sheldon & Kasser, 1998), and when goal pursuit is congruent with personal values (e.g., Sheldon & Elliot, 1999). The research of Little and colleagues has demonstrated that undertaking personally meaningful projects can have an important effect on subjective wellbeing (McGreggor & Little, 1998). Indeed, Little has suggested that subjective wellbeing is

not increased by the pursuit of happiness, but rather by the happiness of pursuit (Little, 2014).

Active participation in social activities, involvement in one's community, volunteering, and providing help to others are all associated with high levels of happiness and life satisfaction (e.g., Argyle, 1987; Helliwell & Putnam, 2004; Putnam, 2000). Indeed, it has been shown that having a sense of belonging to one's community has a larger effect on life satisfaction than a trebling of household income (Helliwell & Huang, 2011).

Our consumer culture would have us believe that spending money on products that enhance our status or attractiveness is a key to our happiness. However, a seminal study by Dunn (2008) showed that spending money on others led to greater happiness than spending the same sum on one's self. This study used an experimental design in which students were given a small sum of money and were randomly assigned either to spending it on themselves or spending it on someone else. Although both groups showed an increase in their scores on a happiness questionnaire, the increase was larger in the group who spend money on someone else. A major observational study which analyzed survey data from 136 countries showed that prosocial spending is consistently associated with greater happiness (Aknin et al., 2010).

In a masterly summary of the huge mass of evidence on the determinants of wellbeing collected as part of the Foresight Report on Mental Capital and Wellbeing (2008), the New Economics Foundation distilled the "Five Ways to Wellbeing," namely: connect, be active, take notice, keep learning, and give (New Economics Foundation, 2008). These are the actions or behaviors for which there is the strongest evidence of benefit for subjective wellbeing. The Five Ways to Wellbeing can be implemented both in the form of actions that individuals can take, or behaviors that can be encouraged by organizations or communities to enhance wellbeing, and numerous applications of the Five Ways have shown evidence of benefit (New Economics Foundation, 2008).

Interventions to Enhance Wellbeing

Although there is much we have yet to learn about the causal mechanisms that lead to high levels of sustainable subjective wellbeing, there is a dazzling array of interventions on offer to increase wellbeing: everything from the growing volume of self-help books and online advice, to community and

environmental projects, such as pedestrianization, cycling campaigns, and community gardens. To bring some order to the bewildering variety of approaches, it is helpful to consider the main targets of the intervention and the main types of intervention.

Target of the Intervention

Interventions may be targeted at individuals, groups, or organizations (e.g., family, school, workplace), at communities or neighborhoods, or whole regions or nations. They may be focused on a particular life stage, such as primary or secondary school years, new parents, or older adults. Further, interventions may be universally applied to a whole group or targeted at those judged to be most at need. Each of these approaches is illustrated below.

Individual-level interventions.
Interventions targeted at individuals, whether through self-help books, online courses, or more formal training programs, can serve to develop the skills that underlie wellbeing. Solid evidence of individual-level benefit comes mainly from formal, group-based courses, briefly reviewed in the section on types of intervention.

Interventions to enhance wellbeing can be successfully administered at any stage in the life course (Foresight Report on Mental Capital and Wellbeing, 2008), however, the greatest benefit is likely to occur at the early stages of the life course, when both the brain and behavior are at their most malleable. For instance, good nurturing, secure attachment, and the development of trust in early life are likely to lead to sustainable wellbeing benefits throughout life. To date, however, most of the evidence concerns the effects of the early social environment on illness, and relatively little longitudinal research has focused on positive wellbeing outcomes. Several studies which have analyzed data from the longest-running British birth cohort—the 1946 birth cohort study—have demonstrated that parenting style is strongly related to positive measures of subjective wellbeing outcomes in later life (e.g., Huppert et al., 2009). Early characteristics of the child, such as happiness, sociability, and optimism, have also been linked with wellbeing later in life (e.g., Daukantaite & Bergman, 2005; Richards & Huppert, 2011).

Although the greatest benefits are likely to occur with early interventions, interventions can certainly be effective in later stages of the life course. Enhancing the wellbeing of older adults has been sadly neglected to date.

Most interventions in late life regard elderly people as being dependent on support, rather than recognizing they can play in contributing to the wellbeing of others, which in turn will enhance the wellbeing of the older person. A fine example of a wellbeing intervention targeting older people is the Experience Corps study (see Chapter 8, this volume).

It is important to recognize that interventions targeted at individuals have their limitations. For one thing, they are too often targeted at those in distress, and although they may relieve the distress of the effected individuals, they do nothing to reduce the overall burden of distress in the population. This is because individuals with common mental disorders, such as depression and anxiety, do not constitute an isolated group, but come from the general population. Anyone of us can experience these symptoms and disorders at some point in our lives. In order to reduce the total burden of distress and the common mental disorders, the epidemiological evidence suggests that we need to shift the whole population towards positive mental health. This can be done by training members of the general population in the skills that underlie wellbeing. As shown in Figure 1.3, a very small population shift towards positive mental health can lead to a large reduction in the prevalence of common mental disorders, as well as a large increase in the percentage of the population that is flourishing (Huppert, 2009).

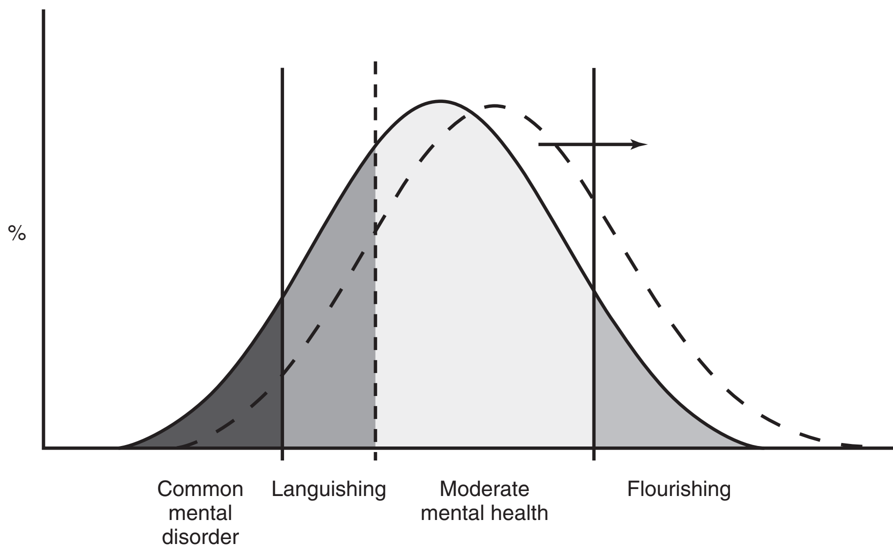

Figure 1.3. The Effect of Shifting the Mean of the Mental Health Spectrum.

The social context also plays an important role in the effectiveness of interventions. Maintaining a high level of subjective wellbeing, or practising the skills that underlie wellbeing, can be difficult if the individual is in an unsupportive context; conversely, having others around you who also practise these skills can be extremely helpful in the development of sustainable wellbeing. For this reason, interventions that are targeted at the institutions and organizations in which we live and work can have benefits above and beyond those that target individuals alone. For instance, although parenting classes are often targeted at families with the greatest need (e.g., because a child has a conduct disorder), there is strong evidence that a universal approach which offers parenting courses independent of need improves the wellbeing of the majority of children, as well as having their strongest effect on the children who need it most. Further, the benefits extend beyond the child by improving the relationship between the parents (e.g., Stewart-Brown & Schrader-McMillan, 2011; see Chapter 2, this volume).

Organizational level interventions.

Schools form an ideal context in which to teach the skills of wellbeing, and there have been, and continue to be a myriad different approaches to this task. Relatively few, however, have been properly evaluated, and most focus on reducing illbeing (e.g., depression, bullying), making the tacit assumption that wellbeing will automatically arise. However, studies are increasingly beginning to look at positive wellbeing outcomes and the factors associated with them, such as improved relationships with peers and teachers, and increase academic performance. A systematic review of this research has been published by Weare and Nind (2011), and the authoritative highlights of this review are included in this volume (Chapter 3).

On average, half our life is spent at work, and there has been growing acceptance of the importance of wellbeing in the workplace. As is the case with school wellbeing programs, it is rare that the plethora of wellbeing courses offered to staff in their workplace are properly evaluated, and this is an area which is ripe for more research. However, there have been some good studies which show not only that workplace programs can improve the wellbeing of individual employees, relationships within the workplace, and productivity, but that the benefits extend beyond the workplace into the family and relationships beyond work. A systematic review of this literature is included in this volume (Chapter 6), along with a first-rate report from professionals working within a major U.K. corporation (Chapter 10).

At a community or societal level, developing civic engagement, strong social networks, and identifying assets rather than deficits are all associated with increased wellbeing at both the individual and group level (Halpern, 2005, 2009; McClean & Dellot, 2011; Putnam, 2000). Helliwell (see Chapter 19) cites a number of examples where the life of a community has been enhanced, either deliberately through demonstration projects or as a result of natural disaster, such as the experience of Aceh, Indonesia following the 1994 tsunami. Helliwell draws attention to institutions as enablers of wellbeing, citing the example of the Singapore Prison study, in which inmates and the prison service worked together to redesign the prison experience, with the result that staff morale improved, better connections were formed between prison and the rest of society, and levels of re-offending dropped by one third (Helliwell, 2011). Initiatives such as the creation of community gardens, or walkable neighborhoods, for example, where groups of schoolchildren accompanied by an adult are walked to school, have multiple benefits for individuals, communities, and the environment. They lead to building connections, reduction of social isolation, and increased physical activity, and at the psychological level to increased engagement, sense of purpose and a feeling of belonging, all of which are related to high subjective wellbeing.

Societal level interventions have also been implemented through the media. DeVries (Chapter 15) shows how media approaches anchored in concepts of positive thinking at the individual level and empowerment and participation at the community level, can become a powerful ally for the improvement of people's wellbeing. TV, radio, web, and new social media platforms are now being specifically designed to engage populations and promote mental health and wellbeing. As DeVries points out, "In this approach the social media intervention itself is shaped interactively, in a context of mutual learning, so that the user/community is not just 'the object' of the production but a co-producer." He goes on to provide specific examples of how this approach has been used to improve mental health and the wellbeing of whole communities, both geographical and virtual.

Types of Intervention

There are two broad categories of intervention. One involves changing external circumstances, such as living conditions or infrastructure (e.g., quality of education or healthcare), the other involves changing internal experiences, including attitudes, emotions, and behaviors.

Within each of these broad intervention categories there are a number of approaches to bringing about the desired changes. In the case of altering external conditions to enhance wellbeing, this can be achieved through a regulatory approach (e.g., banning smoking in public places), a fiscal or monetary approach (e.g., minimum pricing for alcohol, or high tax on cigarettes or carbon emissions) or mandated changes to public services (e.g., requiring the teaching of social and emotional skills in schools, or better access to counseling services through family doctors or workplaces). Another approach which has been gaining in popularity is the use of "nudge" techniques (i.e., contextual changes which encourage individuals to make personally or socially desirable choices) (Sunstein & Thaler, 2003; Thaler & Sunstein, 2008). Examples include putting healthy food in the most prominent locations in cafeterias, restaurants, or supermarkets, rather than fatty foods, sweets, or alcohol, which are often strategically displayed in prominent places to tempt customers. Techniques such as these may indeed lead to improvements in subjective wellbeing. They are, however, by their nature imposed on individuals, who are essentially the passive recipients of the resulting benefits. Moreover, we need to know much more about the extent to which subjective wellbeing is improved by such indirectly administered "top-down" techniques. Evidence has often been cited that external circumstances only account for around 10% of the variation in wellbeing scores between individuals (Sheldon & Lyubomirsky, 2004) but within individuals such changes could have a more marked effect.

In contrast, the direct experiential focuses on internal changes, through training in wellbeing skills. There is abundant evidence that the skills for sustainable happiness or wellbeing can be learnt. Again, there are a variety of techniques which can be used. One is psychoeducation, through the media, or other education or training settings. However, it is well known that psychoeducation alone is of limited benefit in changing behavior, and needs to be combined with practising the skills that one has learned. A range of self-help courses are also available, online or in printed format, and wellbeing improvement is widely reported from people using such materials. However, in terms of a solid evidence base, the strongest evidence of wellbeing benefits comes from formal training in such techniques as cognitive behavior therapy (CBT) or mindfulness. CBT is mainly used in clinical settings to alleviate symptoms of mental disorder or distress. Mindfulness techniques, such as mindfulness-based stress reduction (MBSR) or mindfulness-based cognitive therapy (MBCT) have also been used in clinical settings, but are increasingly used in nonclinical contexts, including schools and workplaces.

Numerous trials and systematic reviews show substantial wellbeing benefits of mindfulness training on wellbeing or on the reduction of physical or mental health problems which interfere with wellbeing (Chambers, Gullone, & Allen, 2009; Hofmann, Sawyer, Witt, & Oh, 2010; Meiklejohn et al., 2012; Weber, Jermann, Lutz, Bizzini, & Bondolfi, 2012). Among the reported benefits of mindfulness training, those which are related to subjective wellbeing include: reductions in stress and anxiety, increased positive mood, improved sleep quality, better emotion regulations, greater bodily awareness and increased vitality, and greater empathy. These reported benefits are further substantiated by findings on the neuroscience of mindfulness training. For example, a recent study showed structural changes in brain regions subserving some of the above benefits functioning following a standard 8-week MBSR course (Hölzel et al., 2011), as well as improvements in executive function (Tang, Yang, Leve, & Harold, 2012). Changes in brain function have also been described following a standard MBSR course, including the classic study of Davidson et al. (2003), in which a group receiving mindfulness training showed an improved antibody response to the influenza virus compared to a control group, and the magnitude of the antibody response was directly related to the increase in left prefrontal activation, an area which is associated with positive emotions and attention control.

Policy Implications of Wellbeing Science

In an ideal world, policies would be based on incontrovertible evidence of causal linkages between variables that are amenable to change, and their outcomes. Clear examples include the relationship between smoking or excessive alcohol consumption and serious health conditions (e.g., cancer, heart disease), or between insufficient fluoride and tooth decay. Not only is there strong evidence of association in these cases, but the direction of causality is absolutely clear: the serious health conditions do not cause smoking or alcohol abuse, nor does tooth decay cause lack of fluoride. In contrast, the situation is more complex when it comes to the policy implications for improving wellbeing. Not only are the causes (as opposed to associations) less well established, but in most cases there is a bi-directional relationship whereby high levels of wellbeing can lead to desirable behaviors and improved socioeconomic circumstances, as well as the reverse.

As researchers in wellbeing science, we would love to have incontrovertible evidence of factors amenable to change that can increase wellbeing, before

making policy recommendations. On the other hand, the fundamental importance of wellbeing for individual and societal progress means that policy makers cannot wait until researchers have completed their investigations: which of course they never do. It is right that policy makers are impatient to get on with the job of increasing wellbeing, using the best data available at the time.

Importantly, bi-directionality of wellbeing and its causes/consequences implies that there can be a two-pronged approach to the enhancement of wellbeing. One approach would involve improving the external conditions or circumstances, such as living conditions, health, and social relationships that are linked to subjective wellbeing; the other approach would involve enhancing the mental attitudes and behaviors that are the components of wellbeing. Economically oriented policy makers would be drawn to the first approach, while psychologically or behaviorally oriented policy makers would be attracted to the second. In the first approach, an individual is viewed essentially as the passive recipient of external inputs; in the second, the individual is the active agent of positive change. It is likely that for people experiencing great hardship, for example, in terms of social isolation, or health or economic deprivation, changing the external circumstances could have a large effect on improving subjective wellbeing. On the other hand, people whose external circumstances (described earlier as their "objective wellbeing") can be regarded as average or above average, frequently report very low levels of subjective wellbeing, and in these cases the more effective strategy may be to focus on improving their internal resources by training in the skills of wellbeing.

Whichever approach or combination of approaches policy makers choose, it is essential to evaluate outcomes using a common set of metrics. Without this, wellbeing policy, and the science of wellbeing itself, will be unable to progress. Earlier sections of this chapter have described the importance of recognizing that subjective wellbeing is a multidimensional construct, and urged the need for a consensus on the measurement of these multiple dimensions. Further, we need both long-term and short-term evaluations of policy initiatives. Some policies may have measurable benefits in the short term, but their impact may not be sustainable. Others may take time for their impact to be felt, but their effects may be long-lasting (e.g., Knapp, McDaid, & Parsonage, 2011).

As recognition of the importance and social value of wellbeing grows, so does the variety of well-intentioned (and often financially profitable) interventions to improve wellbeing. At this early stage in wellbeing science

and policy, it is arguably a good thing to "let all flowers bloom," encouraging the development of original and innovative approaches. But this must be combined with sound evaluation of the success of any intervention program, both in the short and longer term. Moreover, it is not enough to show that wellbeing has been improved following a specific intervention, since almost any program that focuses on positive aspects of individual or organizational recipients will be favorably evaluated. It is therefore important that different interventions are compared against each other so that evidence can be accumulated on what are the most effective ingredients of the programs. This requires using a common set of multidimensional indicators of wellbeing. This approach will guarantee that, in time, policy makers can be confident that they are employing sound, evidence-based programs and the lives of individual citizens, communities, and nations can be transformed for the better.

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Part 1

Individual and Group Interventions across the Life Course

2

Parenting Interventions to Promote Wellbeing and Prevent Mental Disorder

Sarah Stewart-Brown
University of Warwick, U.K.

Background

The last two decades have witnessed the emergence of a large body of research from several different disciplines, including biology, psychology, social science, psychiatry, and epidemiology, which has put parenting at the forefront of determinants of wellbeing. At the same time, parenting represents something of a paradox. It is one of the oldest human activities and one we seem to have mastered pretty well. Human infants very rarely survive without the care of their parents (or surrogate parents) and survival rates in the Western world are now very high. Perhaps as a result, in Western societies, parenting is now often regarded as a low-status activity and relegated to low-paid, poorly educated women. Parenting is one of the few essential societal roles which is entirely voluntary and unpaid, and for which, until recently, there has been no training.

Families are regarded as private, and policy makers are often reluctant to intervene in family life or to specify the nature of good parenting. At the same time, recent research on the developing brain and the profound influence of early relationships on future functioning (Gerhardt, 2004; Shonkoff & Phillips, 2000) has required policy makers and practitioners to rethink parenting as a political and social issue. At this time of transition, established

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political attitudes towards parenting—that it is an instinctual private affair, in which cultural patterns are handed on from one generation to another and that it is sacrosanct and not to be interfered with by outsiders—coexist alongside more recent views: that parenting is so important to the future wellbeing of children and society that it is of concern to us all and warrants high-quality state support.

Most parents recognize that parenting, although rewarding in many ways, can be a difficult and demanding task and most will say, when asked, that they have wanted help with parenting from time to time. In the past, much of the help on offer for parents has been insensitive and disempowering: professionals coming into the home and telling parents what to do without understanding of, or sympathy for the issues families are facing in their day-to-day lives. At the most problematical end of the parenting spectrum, "help" has resulted in parents losing their children to local authority care because parents are deemed to have been abusive or neglectful. So parents too may be ambivalent about support for parenting. Together with political ambivalence this makes parenting a challenging area in which to work, but the outcomes of different approaches to parenting are so important that the challenge is one which needs to be taken up, albeit in a sensitive way that respects cultural variation and empowers parents to offer their best to their children.

Although there is still a need for research on some aspects of parenting, there is a growing measure of consensus with regard to the definition of good parenting (Gerhardt, 2004). This starts infancy with parents who take the time to learn to read their baby's cues and thus learn about their needs. These parents are sensitive; they develop the capacity to keep their baby "in mind," that is they can sense what the baby is feeling and what would make things better. They become attuned to their babies' needs. Another key attribute of parenting is containment, being able to comfort the baby when distressed without being overwhelmed by the crying. These skills remain important throughout childhood, during which time the well-parented child becomes more able to give voice to their feelings and explain what they want in words. They also develop the capacity to sooth themselves, containing their distress–emotional regulation. They experience their parents as warm and supportive. As the child grows, good parenting comes to encompass the creation of boundaries, things the child is and is not allowed to do. These boundaries need to be age-appropriate, so they change as the child ages. They also need to be consistent. They need to be reinforced with positive discipline in which parents notice and praise the behavior they want

and use penalties for behavior they do not want as a last resort. The latter need to be neither emotionally nor physically violent. Parents who have been parented in this way do these things instinctively for their infants and children. Parents who have not, and in the Western world there are relatively few who have been parented optimally, instinctively do what was done to them and create the patterns of disadvantage that are well known to life-course researchers. Fortunately, many of these parents are able to benefit from the wide range of parenting interventions that have been developed.

Outcomes of Parenting

Psychotherapeutic Perspective

The outcomes of parenting that first attracted attention were antisocial behavior, criminality, and violence. Bowlby, a psychoanalyst and psychiatrist, drew attention to this link (Bowlby, 1953), described infant attachment, and demonstrated in observational studies that infants who had poor attachment relationships because they had been cared for by the state or by affectionless mothers grew up to be antisocial adults lacking the capacity to make close rewarding relationships. Attachment came to be measured according to the way 1-year-olds responded to separation from their mothers in observational settings. Approximately a third of the population of infants in Western societies are insecurely attached at 1 year in one of a number of ways. Subsequently, a number of child psychiatrists, psychologists, and pediatricians have refined attachment theory, researching the wider concepts of warm, responsive maternal care (Winnicot, 1964) and extended the outcomes of parenting to include broader social and mental health issues like poor peer relationships, depression, and anxiety (Sroufe, Egeland, Carlson, & Collins, 2005). The concept of parental mentalization—being able to hold the baby in mind—is a more recent refinement of attachment theory (Fonagy, Gergely, Jurist, & Target, 2004) with yet more subtle effects on mental health and well-being in later life. A new specialist area of practice called infant mental health has developed from this work. This comprises professionals who work primarily with mothers and infants aiming to put right damaging parental attitudes, beliefs, and behaviors very early in the baby's life.

Social Science and Educational Perspective

Social scientists and psychologists investigating the causes of antisocial behavior in teenage children have shown that the combination of harsh and inconsistent discipline, and lack of warmth, support, and positive regard from parents is an important determinant (Patterson, DeBaryshe, & Ramsey, 1989). Educationalists (Baumrind, 1971) have become interested in parenting for its effect on educational outcomes. Baumrind described the combination of warmth and positive discipline as authoritative parenting and contrasted it with the less supportive approaches: authoritarian (neither support nor warmth and negative discipline) and permissive (warm but boundaryless parenting). Parenting programs that help parents of young children understand the importance of positive attention (focusing on desired rather than undesirable behavior), positive discipline (rewarding good behavior and ignoring bad), and consistent, age-appropriate boundaries have now been demonstrated in many trials to have a positive effect on behavioral outcomes, confirming the causal nature of these aspects of parenting (Dretzke et al., 2005).

In keeping with much of the literature on health and social outcomes, the focus in the majority of these studies has been disease, disorder, and its antecedents, and studies confirming positive psychological outcomes are much less common.

Biological Mechanisms and Animal Studies

The results of these studies have been mirrored in the results of studies in animals (Shonkoff & Phillips, 2000). Infant monkeys raised by noncaring, violent mothers have been shown to grow up to be antisocial as adults and eventually to become outcasts from the troupe (Sanchez, Ladd, & Plosky, 2001). The behavior of mature voles and rats has been shown to be dependent on their mother's behavior to them as infants and the link between infant grooming and the release of oxytocin, one of the "feel good" hormones, has been shown to play a part in this transmission (Sanchez et al., 2001). A further contribution to understanding the effects of parenting on future outcomes was contributed by Megan Gunnar (Gunnar & Quevedo, 2007), who showed that the infant stress response, as measured by cortisol secretion, is dependent on the quality of parenting and documented the way in which stress impacts on development (Lupien, McEwan, Gunnar, & Heim, 2009). Consistently unresponsive or threatening parenting lowers the threshold for arousal of the stress response, setting children on a life

course of hyperarousal and low resilience. The plethora of studies on brain development (Shonkoff & Phillips, 2000) and the extent to which this is determined by the emotional and relational environment in infancy and early childhood, have increased our understanding of potential mechanisms. It is becoming clear that infant brains model themselves according to the stimuli they receive and that this includes emotional stimuli. It would seem that sensitive, responsive, warm parental care coupled with encouragement and support and positive management of behavior, sets the scene for the development of an individual who in adulthood has the attributes of psychological and mental wellbeing.

Nature and Nurture

Parenting is by no means the only influence on these outcomes. Both the child's temperament (C. H. Hart, Newell, & Olsen, 2003) and their genetic makeup play a part, together with environmental and social factors. However, there is evidence to suggest that parenting interacts with genetic risk (Caspi et al., 2003; Perry, 2002), such that the phenotypic expression of genetic risk for depression and conduct disorder does not occur if parenting is good. Children born with problem temperaments are particularly susceptible to suboptimal parenting (Belsky, 2005). Further research in this area suggests that children differ in their susceptibility not just to poor parenting but also to good parenting. Children with genetic variants affecting the serotonin transporter and dopamine receptor, for example, seem to be more "plastic" from a developmental point of view. With positive parenting these children do better on a range of outcomes than their peers without the variants, but if parented poorly these children do worse (Belsky & Pluess, 2009; Pluess & Belsky, 2010). The story has developed further with demonstration of epigenetic effects related to early experience. High-quality care, it would seem, modulates the genetic expression in the offspring with consequences for expression of neuroreceptors critical for the development, maturation and functioning of the brain (Meaney, 2001). There is early evidence that this may be mediated by methylation of genes involved in cellular signaling systems (Naumova et al., 2012).

Long-Term Outcomes

A variety of longitudinal studies have now linked parenting to poor mental health in later life (Morgan, Fryers, Brugha, & Stewart-Brown,

2012; Repetti, Taylor, & Seeman, 2002; Weich, Patterson, Shaw, & Stewart-Brown, 2009) and to the onset of substance misuse (D. Cohen, Richardson, & Labree, 1994). The most severe manifestations of problem parenting—abuse and neglect—are most strongly linked (Carlson, 1998), but relatively minor and common manifestations statistically increase the chances of a variety of mental health problems in adulthood (Morgan et al., 2012). Parenting has been shown to play a part in determining health-related lifestyles including healthy eating (Kremers, Brug, de Vries, & Engels, 2003) and teenage pregnancy (Scaramella, Conger, Simons, & Whitbeck, 1998), aspects of physical health (Belsky, Bell, Bradley, Stallard, & Stewart-Brown, 2006; Clover, Abell, Becker, Crawford, & Ramsey, 1989; Stewart-Brown, Fletcher, & Wadsworth, 2005) social competence (MacCoby & Martin, 1983), and educational achievement (Gorard, See, & Davies, 2011). Sub-optimal parenting is, therefore, a risk factor for many negative outcomes which are linked to poor mental health.

Through its impact on educational achievement and social competence, parenting is a determinant of future employability and thus of social inequalities in future generations. In keeping with much of the literature in this area, studies showing lack of parental care has an adverse effect on development are much commoner than those showing effects of good parenting on wellbeing in later life, but those that have looked for the latter have shown that they exist (Huppert, Abbott, Ploubidis, Richards, & Kuh, 2010).

Determinants of Parenting and Risk Factors for Poor Parenting

The profile of risk factors for poor parenting described in the literature is influenced by the availability of data. So, for example, information on maternal age is readily available, as are measures of maternal education and these closely linked risk factors have both been shown to be strong predictors of problem parenting (Belsky et al., 2006). Interestingly, however, some aspects of problem parenting (resentment of the child) are more common among older mothers (Waylen, Stallard, & Stewart-Brown, 2008). Less commonly investigated, because not well recorded, are parental mental illness (Ramchandani & Stein, 2003; Serbin & Karp, 2004) and parental drug and alcohol misuse (Kolar, Brown, Haertzen, & Michaelson, 1994; Repetti et al., 2002), both sequelae of inadequate parenting in the previous generation and at the same time predictors of mental health

problems in the next generation (Rutter & Quinton, 1984). Links are particularly strong when both parents are affected by mental illness (Kahn, Brandt, & Whitaker, 2004). Genetic mechanisms play a part in this, but much of the transmission can be shown to be through parenting (Leinonene, Solantuas, & Punamaki, 2003) and outcomes can be improved with family-based intervention (Beardslee et al., 1997). Both parental mental illness and parental drug and alcohol misuse are common reasons for child abuse and for children being admitted to local authority care, and these are both recognized clinically to be strong risk factors for poor parenting of the next generation.

Many studies have also linked problem parenting to poverty, but the relationship of parenting to poverty is not straightforward. Although trends can be shown, the variation in parenting between social groups is less than the variation within groups (B. Hart & Ridley, 1995). Both good and problem parenting can be seen in all social groups (Waylen & Stewart-Brown, 2010). Parental mental illness, drug and alcohol misuse, and violent antisocial behavior are all risk factors for family poverty and may be the reason for the link identified in observational studies between problem parenting and poverty. One series of studies (Conger & Conger, 1992; Conger & Patterson, 1995) has suggested that supportive parenting can protect children from the adverse effects of social disadvantage and studies that have tried to investigate the effects of increasing family income on parenting have not shown that this on its own improves the parenting quality (Waylen & Stewart-Brown, 2010). On the other hand, the latter study showed that changes in maternal mental health, either improvements or deterioration, were followed by changes in parenting for better or worse.

Interventions to Support Parenting

Children in the Western world have been offered some protection from abusive and neglectful parenting for more than a century, on human rights grounds. Many have been taken from abusive parents and cared for by the state. The point at which problem parenting is deemed to be abusive or neglectful has varied over time and in different cultures and countries. As research on the impact of parenting on future health and life chances has emerged, the threshold for intervention is changing and as the potential to offer effective parenting programs has grown, so more problem parenting can be managed in the home with or without community-based support.

The growing body of literature on the impact of parenting on children and society has happily resulted in investment in research and development for parenting support and there are now a wide range of programs and approaches to help parents. In general, although fathering is widely recognized to matter (Dunn, Davies, & O'Connor, 2000; Kraemer, 1999), there are considerably fewer programs specifically designed to support fathering and the great majority of research on the effectiveness of generic parenting programs has been conducted with mothers. This is a situation which needs rectifying. Most of the programs have been developed to support parenting in high-risk groups, defined on the basis of the characteristics described above: teenage parenting and poverty, or in families where problems have already arisen. Some have been developed for universal populations.

The evidence base for parenting support is now very large indeed and can only be covered in overview in a chapter like this. Fortunately, this research has been summarized in many systematic reviews examining the effectiveness literature from various different angles. One recent project undertook to review and synthesise the evidence from all existing reviews (Stewart-Brown & Schrader-McMillan, 2011). This project examined the evidence in four broad areas, pulling together relevant material from a range of reviews:

- Programs suitable for parents in the perinatal period, covering both universal antenatal approaches and prevention and intervention in postnatal depression.
- Parenting support programs in infancy and the early years. These are the programs which focus on maternal sensitivity and attunement and parenting in infancy more generally; they are often offered through home visiting.
- Parenting programs with a focus on children's behavior. Many of these programs are based on cognitive behavioral approaches; they are offered to parents of toddlers and older children often in groups.
- Parenting support in the highest risk groups. This covers programs for families where parents have a mental illness, abuse drugs and alcohol, or have abused their children.

Although this grouping worked pragmatically, the authors recognized that the distinction between groups was far from absolute and that there was a lot of overlap.

Perinatal Programs

Postnatal Depression

Maternal postnatal depression is a well-recognized risk factor for poor mother–infant relationships, with the potential for lasting impact on the infant. Perinatal depression in fathers is also now recognized as at risk factors for poor infant mental health. Parents may feel ambivalent about seeking help for this condition and so it often goes unrecognized. Considerable research effort has been invested in developing approaches to prevention, identification, and treatment.

Relevant reviews (Dennis & Creedy, 2004; NICE, 2007; Shaw, Levitt, Wong, & Kaczorowski, 2006) agree that universally delivered preventive interventions have no impact on rates of postnatal depression. However, studies in at-risk populations have shown that it is possible to reduce risk by about two thirds. The interventions which have been tried in these populations include antenatal and postnatal classes to raise awareness and offer guidance and support, hospital-based guidance, screening for parental relationship difficulties, and professional and lay home visiting offering psychosocial support and psychotherapy. One-to-one interventions seem to be more effective than group-based ones.

One approach to intervention has been shown not to be effective. Debriefing or nondirective counseling following childbirth (Gamble, Creedy, Webster, & Moyle, 2002), a one-off semi-structured conversation that is used by psychologists to support individuals who have had a traumatic childbirth experience, has no value in reducing psychological morbidity and may even be harmful.

The use of questionnaires to identify postnatal depression is now common in many maternal and child health services. The problem with existing measures is that they lack sensitivity: that is, they tend to miss many cases. This is true of the most commonly used inventory, the Edinburgh Post Natal Depression Inventory. The most recent review found that three questions "During the past month, have you often been bothered by feeling down, depressed or hopeless?" "During the past month, have you often been bothered by having little interest or pleasure in doing things?", and "Is this something with which you would like help?" gave the best combination of sensitivity and specificity (NICE, 2006, 2007).

Identification is worthwhile because there are a range of effective interventions for postnatal depression. Looking at the outcome of maternal mental

health (Gjerdingen, 2003; NICE, 2007), cognitive behavioral therapy, interpersonal psychotherapy, psychodynamic psychotherapy, and nondirective counseling all seem to be effective and all to the same extent. They reduce levels of postnatal depression by between half and two thirds. In studies in which comparisons have been made, interpersonal therapy was more effective than psychoeducation; six sessions of counseling more effective than one session; psychoeducation with women's partners more effective than psychoeducation with women alone; and individual counseling more effective than group counseling. A small number of studies have also looked at nonpsychological interventions (infant massage, exercise, acupuncture). The evidence is not of high quality, but group exercise may be of benefit for depression.

The effect of interventions for postnatal depression on parenting and infant outcomes (Poobalan et al., 2007) are not so clear cut. Although psychotherapy and interpersonal therapy both improve mother–infant interaction in the short term, positive long-term outcomes have not been demonstrated and studies are too small to be conclusive. It contrast, interventions designed to improve mother–infant interactions seem to be able to alleviate or prevent depressive symptoms in the mother even if the intervention is not designed specifically to target this (NICE, 2007).

Other Perinatal Approaches

Several other approaches to supporting parenting offered during the perinatal period have been investigated. Because these are often implemented by parents they are usually low cost. They include kangaroo care (close contact care of the baby either in arms, pouch, or sling on an ongoing basis) particularly for preterm infants in resource-poor countries; the use of tools like the Brazelton Neonatal Assessment Scale to help parents appreciate the sensory and perceptual capabilities of their infants; infant massage; and anticipatory guidance. The last is offered in the perinatal period and early infancy primarily by pediatricians in clinic settings, on a one-to-one basis. Its objective is to preempt common infant problems like excessive crying and poor sleep patterns, to promote sensitive parent–infant interaction and greater understanding of individual infant temperament and needs. It has been particularly targeted at parents of infants that have "difficult temperaments."

Kangaroo care seems to improve the confidence of mothers with preterm infants (Conde-Agudelo, Diaz-Rossello, & Belizan, 2003), but

not necessarily parent–infant interaction. It may enhance fathers' sensitivity (Magill-Evans, Harrison, Rempel, & Slater, 2006). It may increase maternal sensitivity in normal infants (Bakermans-Kranenburg, Van IJzendoorn, & Juffer, 2005). It is a very low-cost intervention and there is no evidence that it could be harmful.

The Brazelton Neonatal Assessment Scale (Das Eiden & Reifman, 1996) increased maternal sensitivity in most trials and may also be useful for fathers (Magill-Evans et al., 2006). It may be more effective if administered by parents under the guidance of professionals rather than by professionals. This is another relatively low-cost intervention that has little potential for harm.

Anticipatory guidance is popular with parents who find it helpful (Regalado & Halfon, 2001). The evidence suggests that it is helpful in managing infant behaviors like sleep and feeding patterns and enhancing parent–infant interaction.

Infant massage can be carried out by professional staff in hospital, particularly with preterm infants or by parents in the community. Many of the studies have focused on the outcomes of infant growth patterns rather than parenting, but the studies that have been undertaken are suggestive that this is another useful approach to promoting good attachment for both mothers and fathers (Magill-Evans et al., 2006; Underdown, Barlow, Chung, & Stewart-Brown, 2006).

One final approach that has been investigated has already been incorporated into routine clinical care in many countries. This is the practice of placing the naked newborn on the mother's body immediately or within a short time after delivery (skin-to-skin care). The evidence suggests that this zero-cost intervention is helpful in promoting bonding (Moore, Anderson, & Bergman, 2007).

Antenatal Care

The antenatal period offers great opportunity to help parents learn strategies and approaches to parenting which will be useful to them after birth. However, while antenatal classes are common in the Western world, they usually focus on the practicalities of childbirth and the physical care of the infant. A small number of studies hint at the likely value of such intervention (Barnes & Freude-Lagevardi, 2003) both for mothers and fathers (Magill-Evans et al., 2006) and more work is now underway in this area.

Antenatal depression is now coming to be recognized as important in affecting infant outcomes. It is possibly as important as postnatal depression. Fathers' depression may matter too. Perhaps because it has only recently been recognized to be important there has been very little research on either identifying or treating antenatal depression. One review (Dennis, Ross, & Grigoriadis, 2007) identified one small study which compared interpersonal psychotherapy with a parenting program for the treatment of antenatal depression. Interpersonal psychotherapy was associated with a reduced risk of postpartum depression. This is a fruitful area for future research.

Overview

Several different approaches to supporting parenting in the perinatal period have been developed and tested and some of these work. Others show promise and warrant further investigation. As is perhaps to be expected, the area includes many low-cost universal programs designed to improve parenting in all groups, but there are also targeted programs. Most of the latter are targeted at mothers at risk of postnatal depression and in this group, a number of different approaches have been shown to be valuable both from the point of view of prevention and of treatment. The key unresolved issue for postnatal depression is the best approach to identification.

Parenting Support in Infancy and Early Years

Infant and early years programs are often delivered in the home on a one-to-one basis, but home visiting is a delivery method which also has been used for multiple purposes in the field of child health and not all home-visiting programs include support for parenting. Some, for example, focus on other aspects of infant health like feeding or immunization. Home-visiting programs with parenting support have also been offered as standalone programs or one component of multimodal interventions which include center-based and group-based initiatives (see Benasich, Brooks-Gunn, & Clewell, 1992; Elkan et al., 2000; MacLeod & Nelson, 2000). These programs may begin in the perinatal period, some before birth, but they carry on beyond this period.

Reviews of programs to support parenting in infancy and early years have tended to adopt one of three foci: enhancing maternal sensitivity and

attunement; early prevention of the most damaging parenting–child abuse, and programs to support teenage parenting. There are, however, also many generic home-visiting programs which have more than one focus. Most of these programs have been developed for high-risk groups.

Attachment Sensitivity and Attunement

Several research groups have developed interventions specially to enhance maternal sensitivity and attunement, and infant attachment. These aspects of parenting are influenced by a number of factors relating to maternal wellbeing. Maternal representation of the infant—the way the mother interprets infant behaviors and states—is one of these. Parental mental illness is another. Mothers who are depressed show reduced levels of sensitivity and attunement and research groups investigating interventions for postnatal depression have sometimes included maternal sensitivity as one of the outcomes of interest. Social support, or lack of it, is a risk factor for maternal depression.

There is clear evidence that it is possible to help mothers develop their capacity for sensitivity and attunement to infant needs (Bakermans-Kranenburg et al., 2003, 2005; Barnes & Freude-Lagevardi, 2003; Doughty, 2007). Interventions that have been studied include interventions focusing just on maternal sensitivity, interventions to enhance maternal representations, and interventions to increase social support, or any combination of the three. For example, interaction guidance with or without video is used to enhance parental sensitivity; psychotherapy is used to transform maternal representations; and in social support interventions, experienced mothers befriend and offer practical help to highly anxious mothers. In video interaction guidance mothers and infants are videorecorded interacting with one another. The mother and therapist then view the tape together, stopping it to discuss what the mother was feeling and thinking at key moments and the mother's interpretation of the infant's feelings (Van Doesum, Hosman, & Riksen-Walraven, 2005).

Interventions with a clear focus on enhancing maternal sensitivity are more effective than those with other orientations (i.e., focused on support and/or changing maternal representations). The effects are the same in groups with and without specific risk factors (e.g., teenage parents). Overall, these interventions deliver an effect size of around 0.4 (Bakermans-Kranenburg et al., 2003). Involving fathers as well as mothers may increase impact (Bakermans-Kranenburg et al., 2003). Studies that include the measurement

of infant attachment show smaller effect sizes (0.19). Infant attachment may be less sensitive to intervention in the short term, and there may be a "sleeper" effect, that is an effect which shows up over the course of time. It may also be that methods of measuring attachment security are less sensitive to change than those used to measure maternal sensitivity. Interventions focusing on maternal sensitivity are effective in improving the most severely disturbed attachments (disorganized attachment) (Bakermans-Kranenburg et al., 2005), but other approaches are not. Interventions with high-risk infants (irritable or preterm) are more likely to be successful than those focusing on high-risk mothers. It is likely that low-risk mothers are able to respond to these interventions more readily than high-risk ones.

Specific psychotherapeutic approaches have also been investigated (Doughty, 2007). Trials in this area are few and far between and tend to be small. Both psychoeducation and parent–infant psychotherapy have been shown in one trial to be effective in improving mother–infant interaction. Parent–infant psychotherapy resulted in the intervention infants attaining rates of secure attachment that were comparable with those of children in the nondepressed control group (Cicchetti, Toth, & Rogosch, 1999). A specific approach called Watch Wait and Wonder (N. Cohen et al., 1999), in which parents are trained just to pay attention to their children as they play for 10 minutes a day without intervening, was as, or slightly more, effective than the mother–infant psychotherapy in decreasing parenting stress, and reducing maternal intrusiveness and mother–infant conflict.

Prevention of Abuse and Neglect

Early prevention of abuse and neglect is such an important area of parenting that many researchers have conducted reviews of this topic, each taking a slightly different approach and therefore often covering different literature (Guterman, 1997; Lundahl, Nimer, & Parsons, 2006; MacLeod & Nelson, 2000; MacMillan, 2000; MacMillan, MacMillan, & Offord, 1993; Roberts, Kramer, & Suissa, 1996). One review was restricted to home visiting (Roberts et al., 1996) but all reviews included a majority of studies of this approach. These home-visiting programs are often holistic, aiming to impact on a wide range of outcomes as well as child abuse and neglect. Most of the studies gathering data on verified cases of abuse and neglect are negative in this regard and in some cases interventions appear to increase

rates of abuse. Two of the studies included in all of these reviews (Hardy & Street, 1989; Olds, Henderson, Chamberlain, & Tatelbaum, 1986) reported positive outcomes on verified cases of abuse; in one (Olds et al., 1986), analysis was restricted to a subgroup and effects disappeared in longer term follow-up studies. As two of the reviewers (Guterman, 1997; Roberts et al., 1996) pointed out, these studies are at high risk of bias because the increased contact resulting from intervention (i.e., home visiting) increases the identification of abuse. For this reason many studies have focused on proxy measures of abuse, such as self-reported child abuse potential or mother–infant interaction.

The largest review of proxy measures of abuse (MacLeod & Nelson, 2000), undertaking a meta-analysis of 56 studies, concluded that preventive interventions were effective in improving proxy measures with an overall effect size of 0.41. Home-visiting (ES 0.41) and multicomponent approaches (ES 0.58) were both effective; the effect of social support alone was not. In this meta-analysis effective preventive interventions were more likely to be intensive, carried out over 6 months or more, take a strengths-based empowering approach, and provide a component of social support. This is an example of a phenomenon observed in other programs. Program components may be ineffective on their own, but potentiate positive outcomes when used in combination. For preventive interventions effect sizes were greater at follow-up than immediately post interventions. This large review, like the others, reported less effect when verified child abuse was the principal outcome.

Half of the studies in another review examining proxy measures (Guterman, 1997) reported positive results and the remainder no significant effects. Studies with a high frequency of visiting (weekly or more) lasting for 2 years or more were positive; long-term interventions with lower intensity of visiting were not. Some short-term intervention studies reported positive findings but only when outcomes were measured soon after the end of intervention; studies of similar interventions with longer term follow-up did not report positive results. Studies which employed screening for psychosocial risk reported less good outcomes than those offering universal services to demographically high-risk populations. Programs offering interventions to enhance parent–infant interaction reported more positive outcomes than those offering more general parent education, and interventions aiming to link parents with formal or informal support were more effective than those which did not.

Supporting Teenage Parenting

Many home-visiting programs are restricted to teenage mothers and one well-known example, the Family Nurse Partnership program developed by Olds et al. (1986, 1998) has been included in all reviews to date. This intervention, which provides wide-ranging support to teenage mothers by highly skilled nurses, starts antenatally and carries on over a period of 2 years. Research has consistently shown positive effects on parenting and also long-term effects on disruptive behavior problems, convictions/arrests, and probation violations. Another study (S. Field, Draper, & Kerr, 1982; T. Field, Widmayer, Stringer, & Ignatoff, 1980) is also included in many reviews. This compares 6 months of nursery-based support with 6 months of home-based support for cognitive development by teachers and psychology graduates to low-income black teenage mothers and shows better parent–child interaction in the home-visited group in early evaluations, which disappears in later evaluations.

Only one review seems to have aimed to isolate the effectiveness of interventions with teen parents (Letourneau, Stewart, & Barnfather, 2004) and this included interventions other than home visiting. These interventions also included multimodal approaches, peer education, parenting groups, and practical guidance. Study outcomes included parenting, parental confidence and psychological wellbeing, and return to education. Multimodal parenting support programs for adolescent mothers included group work, home visiting, and treatment in primary health-care settings, combined with a variety of practical adjunctive supports. Many studies reported positive effects on parenting, parental confidence, and wellbeing. However, weaknesses in the studies, particularly attrition affecting over 50% of the population, limits the reliability of findings.

Generic Home Visiting Programs

The generic home-visiting literature (Benasich et al., 1992; Bernazzini, 2001; Ciliska et al. 1996; Elkan et al., 2000, Guterman, 1997; Kendrick et al., 2000; MacLeod & Nelson, 2000; MacMillan, 2000; Roberts et al., 1996) supports these conclusions and confirms that the approach is pertinent to broader populations of high-risk families. Interventions need to include specific parenting support to change parenting, but this can come in a variety of forms. Studies of interventions providing social support without support for parenting do not show impact on parenting (Ciliska et al.,

1996). Home visiting seems to be an important component of programs to enhance early parenting but some research groups have shown a positive improvement with only center-based interventions (Benasich et al., 1992).

Overview

Reviewers who have attempted to cover the entire gamut of approaches concluded (Barnes & Freude-Lagevardi, 2003) that no single approach is effective with all infant populations and most effective interventions include more than one approach. Many programs demand highly skilled professionals who can develop therapeutic relationship with parents who themselves have had damaging early experiences and do not trust easily. The theoretical approach to intervention may be less important than the quality of the relationship established with the practitioner. Trained paraprofessionals may also have a role to play in outreach and support for professionals, providing valuable support and, community knowledge. Interventions focusing on the positive—enhancing positive mother–infant interaction and enjoyment and taking a strengths-based, empowering approach—seem to be more effective than psychodynamic programs focusing on problems in the relationship and difficult past life histories.

In interventions targeted at vulnerable, high-risk populations, the impact of brief interventions may be short lived. Failure to engage and drop out are common, especially among vulnerable families, and using outreach to understand local issues and circumstances can reduce attrition and participation.

The evidence relating to one area of importance is still unclear: that of intervention length. Some reviewers (Barnes & Freude-Lagevardi, 2003) have found that for high-risk populations, interventions starting prenatally and continuing with weekly contact for a year were more likely to be effective than either shorter or longer term interventions. But the most effective interventions in other reviews (Bakermans-Kranenburg et al., 2003, 2005) were shorter, lasting less than 6 months. The effective interventions in the latter review focused on maternal sensitivity. It seems highly likely that the latter approaches can be effective in as little as six sessions, but that not all families can respond to such approaches. The optimum approach to supporting the most vulnerable families is still not entirely clear, partly because this is a very difficult group to study, particularly in the context of randomized controlled trials (RCTs).

Parenting Programs with a Focus on Children's Behavior

Typical parenting programs comprise brief, manualized interventions aimed at improving the capacity of parents to support their children's emotional and behavioral development. They are, therefore, different from home-visiting programs, which can be flexible, tailored to individual parents needs, and often continue over long periods. Parenting programs are underpinned by a range of theoretical approaches, much the most common of which is cognitive behavioral therapy. These programs aim to break the cycle of parents failing to pay attention to children when they are behaving well and giving attention, albeit negative, when problems emerge. Because children need the attention of their parents, this approach inadvertently encourages problem behavior. Programs based on relational approaches, focusing more on the emotional quality of parent–child interaction than on behavior management and taking a more psychotherapeutic approach, are common but have not been subject to as many controlled trials as the behavior management programs. Some programs aim to combine both approaches. Parenting programs may be offered using a range of media (e.g., books, booklets, videos, DVDs, Internet-based programs, etc.), on a one-to-one basis or in groups. They may also be combined with other interventions for parents, families, or children. They have been successfully offered in the community in a variety of settings, in schools, workplaces, and even prisons.

Although some studies have reported effects on parenting and also mothers' mental health, most have focused on the outcome of children's behavior. Some reviewers have covered specific age groups (Barlow & Parsons, 2003; Barlow & Stewart-Brown, 2000; Lundahl, Risser, & Lovejoy, 2006; Serketich & Dumas, 1996); some other specific demographic groups: teenage parents (Coren & Barlow, 2001), parents with intellectual disabilities (Feldman, 1994), and parents from minority ethnic groups (Barlow, Shaw, & Stewart-Brown, 2004). One review has focused on media-based programs (Montgomery, 2006). Magill-Evans et al. (2006) reported the results of trials of parenting programs in a review covering a wide range of programs for fathers. One review covered studies measuring impact on maternal mental health (Barlow, Coren, & Stewart-Brown, 2003). Participants in the programs reviewed in these reviews typically included a mixture of parents from families where children were at risk of problem behavior and parents of children with subclinical and clinical level behavior problems.

Children Aged 0–12

Reviews in this area (Barlow & Parsons, 2003; Barlow & Stewart-Brown, 2000; Cedar & Levant, 1990; Lundahl, Risser et al., 2006; Nowak & Heinrichs, 2008; Serketich & Dumas, 1996) look at parenting programs designed to modify disruptive child behavior, improve parental behavior, and modify perceptions of the parenting role. Like other reviews of parenting programs, they include both children with behavior problems and children at risk. Overall moderate effect sizes are noted both for parenting and for children's behavior, but the effects on all outcomes are smaller at long-term follow-up. Relational and behavioral programs seem equally effective (Lundahl, Risser et al., 2006). The effectiveness of programs on children's behavior declines with child age, showing most effect for children 5 years and under and least for children over 12 years. Effects on parent behavior and confidence do not show such trends. As behavior problems tend to emerge at around 3 years, programs for the under threes are uncommon and preventive in nature; generally these showed less effect, perhaps because parental engagement is easier to achieve once child behavior starts to become an issue (Barlow & Parsons, 2003).

Special Groups

These include teenage mothers, parents with disability, and parents from minority ethnic groups. The effects of the rare programs for fathers are also covered in this section.

The commonest approach to supporting parenting in teen mothers is the long-term home-visiting programs described above, but group-based, community programs have also been developed and tested (Coren & Barlow, 2001). These show positive effects on mother–child interaction and parental attitudes, but the results are less reliable for children's behavior. Programs for fathers are few and far between (Magill-Evans et al., 2006). Some show increased father involvement with childcare and self-reported competence, but not all have been effective. Programs have also been tested with parents with low IQs (Feldman, 1994). These programs cover basic childcare, safety, nutrition, and problem solving as well as positive parent–child interactions and child behavior management. The most successful interventions with this group involve specific skill assessment using direct observational techniques, modeling, practice, feedback, and praise,

and are located in the home or a home-like environment rather than clinic settings.

Programs for parents in minority ethnic groups have been considered controversial. Parenting is culturally specific and approaches valued in one group may be inappropriate in others. However, it appears from the quantitative and qualitative studies that have looked at this (Barlow et al., 2004) with Black, Hispanic, Chinese, and Native American groups that they are useful. In fact, the results for programs that have been specifically developed for certain ethnic groups or have been adapted for these purposes seem to show mixed results, whereas studies of traditional parenting programs show little evidence of differential effects among different ethnic groups (including White parents). Effective parenting programs require the program facilitators to be sensitive to parents' needs and aware of both cultural and social differences in approaches to parenting. Nonjudgmental attitudes are a key starting point. New approaches are offered for parents to try out, with no requirement that all are adopted, so there is no reason why parents from minority communities should not benefit in the same way as parents from majority communities in programs that are well facilitated.

Media-Based Parenting Programs

Some of the best known and most strongly evidence based of the parenting programs, like the Incredible Years Series and Triple P program, have now been presented for use in books and in audio and video tape; some have also been developed for interactive use via the Internet. In general, these programs have a small effect on behavior problems (Montgomery, 2006). Effects are larger when up to 2 hours of therapist time are included. No differences are observed between the type of media-based approaches (booklet, video, audiotape) used in these studies.

Impact of Parenting Programs on Mother's Mental Health

Most studies of parenting programs focus on behavior problems, but some have also included results relevant to parental mental health (Barlow et al., 2003). Together these show a small effect on mothers' depression, a slightly larger effect on anxiety/stress, self-esteem, and relationship with spouse/marital adjustment group.

Engaging and Retaining Parents in Programs

Irrespective of the type of program being provided, engagement and retention of parents is an important factor in the success of parenting programs and attrition has been noted by several reviewers as of particular importance in interpreting the results of trials, especially trials in high-risk groups: teenage parents, those at risk of abuse, those who abuse drugs and alcohol, and those who have been convicted of abuse.

Studies looking at predictors of drop-out (Reyno & McGrath, 2006) show low family income, low maternal education, young maternal age, parental psychopathology, and minority group status as predictors. The same factors predict the impact of the programs on outcomes. These groups require the most skilled facilitation and drop-out may be an indicator of suboptimal facilitation. Approaches associated with more positive outcomes include coverage of positive parent–child interaction and emotional communication skills; teaching parents to use time out and be consistent, having a curriculum or manual and requiring parents to practice new skills with their children during sessions. Teaching of problem solving, promotion of children's academic and cognitive and social skills, and provision of additional services were associated with reduced impact (Kaminski, Valle, Filene, & Boyle, 2008).

A different perspective on factors influencing success can be gleaned from qualitative studies. A review of these studies (Kane, Wood, & Barlow, 2007) found that parents begin parenting programs with feelings of failure, guilt, and lack of control. During the program attitudes change to wanting to find ways of understanding and managing their perceived problems and their children's behavior. Acquisition of knowledge, skills, and understanding, together with feelings of acceptance and support from other parents in the group, enable them to regain control and feel more able to cope. This leads to a reduction in feelings of guilt and social isolation, increased empathy with their children and confidence in dealing with their behavior. The need for parents' own needs to be recognized and respected together with nonjudgmental, strengths-based support from program facilitators seem to be key. Support and acceptance by other parents, which can require skilled facilitation, is critical to retention of participants and the success of the intervention.

Overview

These programs are probably the most widely known of interventions to support parenting and are therefore most likely to be mentioned in mental wellbeing policy and plans. They are most pertinent to families with 3- to 12-year-olds. Group-based programs are less expensive than one-to-one programs and may be popular because of this. There is no doubt that they are helpful to parents and that different approaches, behavioral and relational, are both effective. The importance of skilled facilitation is not always widely appreciated and the need to up-skill the existing workforce can be a rate-limiting step in provision. Recruitment and retention of parents remain as issues for further work, but with skilled facilitation and well-researched manualized programs, it seems that programs can be useful with parents from a wide range of sociodemographic and cultural backgrounds. The most damaged parents and those with the most problems, however, are likely to require more intensive one-to-one support over long periods of time before they can benefit from group-based provision.

Interventions with the Most Seriously Compromised Parents

Parents with severe mental health problems and addiction to drugs and alcohol and those who have already abused their children represent the most challenging group to work with. These parents have multiple problems of their own to contend with and many have themselves been abused as children so have little in the way of positive models of family life. Yet these are also the families in which most damage is done to the prospects of mental wellbeing in the next generation. There is a lot of overlap between these groups: parents with severe mental illness are often those who abuse alcohol or drugs and those are also the parents most at risk of abusing or neglecting their children. Although there is some overlap between programs being delivered after abuse has occurred and those aiming to prevent abuse (discussed above) the latter are most often delivered to demographically high-risk groups like teenage mothers whose abuse potential can vary greatly.

These groups also present a great challenge for RCTs. These parents often live chaotic family lives and/or are very wary of professional support. They are less likely to want to take part in RCTs, and more likely to drop

out. A wider variety of research approaches is needed, but reviewers tend to concentrate on quantitative and controlled studies and the quality of many of these studies is not strong.

In general in abuse trials (Skowron & Reineman, 2005) the evidence as far as it goes suggests that psychological treatments are more effective than waiting list, community case management, or placebo groups and positive for child and parent self-report of further episodes of abuse, behavioral observation of child, and behavioral observation of family. There do not seem to be differences in magnitude of effects between mandated and voluntary treatments.

Of the specific approaches, Intensive Family Support, multisystemic family therapy, behavioral and cognitive behavioral interventions, multicomponent programs and parent training all show promise when physical abuse is involved, but the quality of studies precludes certainty (Corcoran, 2000; MacLeod & Nelson, 2000). High levels of participant involvement and strengths-based approaches increase effectiveness. Very few studies have examined emotional abuse and neglect in isolation from physical abuse, with which it commonly occurs (Barlow & Schrader-MacMillan, 2009). Emotional abuse can be defined as: (a) emotional unavailability, unresponsiveness and neglect; (b) parents' negative attributions or misattributions; (c) developmentally inappropriate or inconsistent interactions with the child; (d) failure to recognize the child's individuality and psychological boundaries; (e) failure to promote the child's social adaptation. Here again the evidence base is weak, but there is some evidence that emotionally abusive parents who have difficulties in controlling anger, or who have unrealistic expectations of small children's behavior, may benefit from group-based behavioral parenting programs like Triple P, with enhanced anger management/attributional retraining components. They may also benefit from a combination of individual and group-based parent training. There is some evidence that the social reinforcement and support provided by the group may help to reinforce change. Interaction guidance and parent–infant psychotherapy (in particular mentalization-based approaches) showed promise in increasing caregiver sensitivity and need more research. With regard to sexual abuse, most interventions have focused on supporting the child, and cognitive behavioral therapy offers benefits to both survivors and their non-abusing parents. Parental interventions at the time of a disclosure, like instructional videotapes, may be beneficial to children's psychosocial functioning (Corcoran & Pillai, 2008).

Parental Drug and Alcohol Abuse

Effective programs for drug and alcohol-misusing parents are only just beginning to emerge.

Of the current programs, intensive, multicomponent, relational approaches, and motivational interviewing have shown promise, improving infant cortisol levels, social and mental development, parent–infant interaction, and maternal mental health (Suchman, Pajulo, Decoste, & Mayes, 2006). A new Australian program called Parenting Under Pressure (PUP), an intensive, multicomponent intervention targeting affect regulation, mood, views of self as a parent, drug use, and parenting skills, has reported positive results on parental mental health, child abuse potential, and methadone (but not alcohol) use, as well as positive effects on child behavior problems and prosocial behavior. This study is one of a new breed of parenting interventions that incorporate elements of mindfulness (Dawe & Harnett, 2007; Dawe, Harnett, Rendalls, & Staiger, 2003).

Reviewers of this area noted that multiple problems faced by mothers with addiction to drugs warranted more comprehensive and practical treatment. The occurrence of comorbid psychiatric disorders, in particular, highlights the need for psychiatric diagnostic services. Issues related to engagement and retention in programs are often raised. Parents with low motivation are unlikely to benefit from programs. As parents begin to realize that they, rather than their child, are the "problem," program retention requires very skilled and sensitive support often with teamwork between different provider agencies.

Parenting Programs for Parents with Severe Mental Illness (SMI)

Reviewers of this very important area have found no experimental studies at all (Craig, 2004). Intervention research in families where parents have a mental health problem other than postnatal depression is beginning (Beardslee et al., 1997). Existing programs do not have a parenting component. This is an area which is badly in need of research and development.

Overview

Research and development of programs for the highest risk families is the least well-developed area of parenting support. Most research has focused on parents who have abused their children and there are a number of

promising approaches. Because these parents are usually those who have been most damaged in their childhood it is perhaps not surprising that the most promising programs offer the most intensive and long-lasting support of all parenting programs. Effective programs specially developed for parents who abuse drugs and alcohol or have a mental illness are only just beginning to appear and warrant much more investment.

Common Findings

Some factors emerge from these reviews as important in all approaches to parenting support. Perhaps pre-eminent among these is the need for highly sensitive, attuned practitioners who can maintain a nonjudgmental stance and work with a strengths-based approach. Parents are often trying to parent in very difficult, stressful circumstances and are highly sensitive to criticism. Facilitators who can see parents' strengths and work to enhance these achieve outcomes where those who see only problems do not.

It is perhaps for this reason that programs that are specially advertised for parents or children with problems may be less easy to recruit to than those that are offered to all parents. Targeting areas with a high proportion of families with problems is a more successful approach than one targeting individual parents. It meets the needs of policy makers to support those most in need while avoiding the stigma of individually targeted programs. Given the prevalence of parenting that is suboptimal for future health and wellbeing (Waylen, Stallard, & Stewart-Brown, 2008) there are strong arguments for the provision of truly universal programs (Stewart-Brown, 1998). By normalizing parenting support and offering a route to identifying parents who need more intensive support, these can underpin targeted approaches. Even in times of scarce resources the English Government is currently experimenting with universal provision of parenting support by offering all parents vouchers to pay for parenting classes.

Universal provision requires a large workforce of highly skilled practitioners. The skill set required to be an effective parent supporter has a lot in common with the skill set of those with high levels of mental wellbeing. These include resilience and the strong personal boundaries which enable practitioners to look after their own mental wellbeing; the capacity for compassion and empathy; and the skills to make trusting relationships with those who find trust difficult. Paradoxically, universal provision of parenting support may be the way to increase the proportion

of the adult population who have sufficient levels of mental wellbeing themselves to provide this support to those who are struggling.

Existing research supports the idea that a variety of approaches to parenting support can work and offering parents a choice of approaches may be important. In this field, as in other areas of psychotherapy, the theoretical approach to support may matter less than the quality of the relationship practitioners can form with parents. The most skilled practitioners may be trained in a variety of approaches and be able to adopt those that seem needed by individual parents when these are called for. The findings in all reviews that there is inconsistency in the outcomes of trials may point to the importance of careful implementation, including training and supervision of practitioners, and ensuring the programs are delivered with consistency and fidelity according to a manual.

The need for multicomponent approaches was noted in several reviews and may be especially important in the highest risk groups. Some components, for example social support and involvement of volunteers, do not seem to be useful alone but can potentiate other approaches when used in combination. The optimum length of some programs is still uncertain. It is now well established that group-based parenting programs need to offer weekly sessions for at least 8 weeks and sometimes 12, but the length of home-visiting programs is not so clear cut. It may be that length needs to be tailored to the individual families and for those most at risk may require intensive support over long periods.

Failure to engage and drop-out is a perennial problem in trials of parenting interventions. The research setting may both exacerbate and minimize this. Some research has been sufficiently well funded to offer parents many incentives to attendance, like transport, hot meals, and crèche facilities, which may not be practical when programs are rolled out. On the other hand, the need to accept randomization which might result in no support and to spend time completing questionnaires and observational outcomes may be a strong deterrent.

Approaches to Research

Systematic reviews tend to focus on interventional research, particularly controlled and randomized controlled trials, and a consistent comment in many reviews of parenting programs is that the quality of trials is poor. Common findings include inadequate approaches to randomization

concealment, lack of blinding of researchers and participants, drop-out from the intervention and drop-out from the research. Complex interventions like parenting programs present many challenges for researchers. Reviewers are not always aware of these challenges and expect the standards applicable to trials of clinical interventions for people with defined illnesses to be applied in these settings. Blinding, for example, is impossible for participants in these trials and this creates potential bias for parent report outcomes. But even with observational outcomes assessed by researchers who are theoretically blind to intervention status, parents will often inadvertently reveal their group by talking about the program. Selection of outcome measures is a further issue. Programs offer parents a range of new skills and ideas, not all of which will be applicable in all settings. Parents may change as a result of attending programs in a number of different ways. Some may concentrate on improving relationships, some on mastering behavior management, others may just benefit from the insights they have gained into the origins of their children's "bad" behavior. Although all approaches are likely to support children's wellbeing in the longer term, some approaches will impact on some outcomes more than others in the short term. The planning of RCTs requires a primary outcome to be selected on which the outcome of the trial is judged. This may miss some of the beneficial effects of programs.

These practical issues may add to other conceptual problems in applying the RCT model to parenting programs. The latter by definition involve a measure of personal development on the part of parents and usually a change in behavior. One well-respected model of behavior change is Prochaska and Diclemente's transtheoretical model (Prochaska, DiClemente, & Norcross, 1992). This describes seven stages: precontemplation, contemplation, preparation, action, maintenance, termination, and relapse. The message for practitioners is that their actions need to be related to their client's stage of readiness to change (Hunt & Pearson, 2001). In precontemplation and contemplation, the approach is to motivate change; in preparation to encourage personal choice, ownership and engagement; in action to encourage and support, etc. These important differences are not taken into account in recruitment to RCTs. If they were, a potentially important problem with RCTs in this area of practice might become manifest. People who are at the point of "readiness to change," those who are most ready to benefit from an intervention, are unlikely to agree to take part in a study in which they might be randomized not to get the help they feel they need. In clinical terms, participants who are "ready to change" are not in "equipoise" with regard to the potential value of the intervention. In clinical trials, it is not difficult

to control access to the intervention and in the evaluation of pharmaceutical products patients do not need to engage actively to benefit. It is much more difficult to control access to a parenting intervention, especially if equivalent interventions are already established in the community and the knowledge base is available in books, the Internet, and television. Even if a parenting intervention is new, parents will have access to a wide range of other parenting support initiatives, which they can take up with greater or lesser degrees or enthusiasm. If this theoretical problem is real—and there is some evidence that it may be (Stewart-Brown et al., 2011)—those who are most likely to be recruited to parenting trials are those who are least likely to be able to benefit. Because they are not well placed to change, they are more likely to drop out of the intervention during the course of the trial, or not to engage fully in the program. In clinical trial jargon, this would be called recruitment bias and would be held to effect external validity, meaning that the results of the trial cannot be held to be applicable to population groups who were not included in the trial. In clinical trials, this is usually groups who are less likely to benefit from the intervention, the elderly, people with multiple problems, or people who do not speak English (Britton et al., 1998), but the reverse may be true in preventive interventions. Recruitment bias in favor of those least likely to benefit would lead studies to find smaller effects than could be achieved if the program were offered to people most likely to benefit. So it does not invalidate research on the programs that do have trial evidence, it just means that the program might be much more effective and cost effective than the results suggest and that programs with negative trial results may not be ineffective.

Personal development and behavior change are complex and organic. Timing can be very important. Some approaches may appeal to some not others. One experience can build on another so that something that is seemingly ineffective potentiates the impact of another later experience. Personal development takes time and works best if taken at a pace that suits the individual. Any pressure from others, any attempt to control development, however well meaning, is likely to be counterproductive. It is just a fact of life that RCTs by their nature aim to control. They aim to control the timing, the intervention, the length of support, the nature of ancillary support, and the ways and times at which participants can report change. There is, therefore, a mismatch between the goals of the intervention and the goals of the research, and to a greater or lesser extent this is bound to have some impact on the effectiveness of the intervention and its measurement. RCTs are arguably most useful when participants are

passive recipients of a treatment and least useful when participants need to engage very actively in achieving outcomes.

Developments in Parenting Support

Parenting support is a relative newcomer to the field of mental wellbeing and many well-researched approaches are not yet well known or understood. Reviews of reviews are very valuable in this situation because they enable those who need a rapid overview of a large body of research carried out over several decades.

The downside of reviews of reviews is timeliness. Developing interventions to support parenting takes time. Several stages are involved from proof in principle in pilot studies through several iterations of evaluation and modification. The best-evidenced parenting programs like Triple P, Incredible Years, and the Family Nurse Partnership approach have been through many phases of development. Identifying funding to carry out controlled trials of these programs and carrying out the trials themselves takes further time. Systematic reviews cover programs only when results of controlled trials are published, and reviews of reviews add a further delay. It is therefore important not to look to reviews of reviews for cutting edge developments.

New approaches to parenting support are appearing all the time. These all build on what is already known, modifying the approaches to better suit different groups of families or adding insights from other areas of wellbeing research. So more programs are being developed for the parents of teenagers, enabling them to cope constructively with the development of autonomy in adolescence. More programs are appearing to support parenting in the antenatal period. Programs are being developed which aim particularly to support educational outcomes (Scott et al., 2012). Others aim to support parenting in families where children are obese or overweight (Robertson et al., 2008). Some newer programs try to instil the skills of parenting into young children by introducing babies into the classroom (Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman, 2011). Others argue that the focus of school-based programs should be the development of children's own wellbeing through emotional literacy and social competence programs and that parenting support in schools should focus on the parental generation.

Some parenting programs, like the school-based FAST program (Kratochwill, McDonald, Levin, Scalia, & Coover, 2009) and Mellow Parenting (Puckering et al., 2011) now incorporate extensive modeling

of supportive parenting. These programs work with parents and children together and focus on "showing" as opposed to "telling." In contrast, many existing programs rely on parents practicing on their own at home and reporting back at the next meeting. Instructions can get distorted in the latter approach and valuable behavioral management strategies used in ways which border on the abusive. It is of interest that modeling was one of the approaches found to be important in the provision of parenting programs for parents with learning disabilities (Feldman, 1994).

An interesting development in parenting support in recent years has been the explicit inclusion of elements of mindfulness (Harnett & Dawe, 2012). Since parental mental health is such an important determinant of parenting quality and mindfulness is a valuable tool in promoting adult wellbeing (Kabat-Zimm, 2003), this approach has great potential. Mindfulness is being used to help parents become more self-aware and perhaps to calm themselves on a regular basis. Mindfulness training is a component of the only parenting program so far to show benefit with parents who abuse drugs and alcohol (Dawe et al., 2003; Dawe & Harnett, 2007).

Another interpretation of mindfulness is also evident in programs like Watch, Wait and Wonder (N. Cohen et al., 1999). This program encourages parents to sit with their children for, say, 15 min a day in a safe and interesting environment and to observe them with affection and curiosity. Parents are encouraged to observe their own reactions to things their children do or say but not to act on these or to advise or comment on the children's actions. This mindful, kindly attention is also a component of child-led play as taught in some behavior management programs. It seems to have a potent effect in improving child wellbeing and parent–child relationships.

In this respect it is interesting to speculate on further potential "fusions". Problem parenting is increasingly recognized as creating a form of posttraumatic stress disorder in children which does not resolve with age and creates difficulty in parenting the next generation. Therapies such as Eye Movement Desensitization (NICE, 2005) and Emotional Freedom Technique (Feinstein, 2008), both themselves fusions of Eastern therapeutic traditions and Western psychotherapeutic approaches, could be incorporated into parenting support, enabling step changes in parents' wellbeing with knock-on effects to children.

The development of research in economic evaluation of parenting support and the demonstration of the extent to which it can save governments money is important (Lee et al., 2012; McDaid & Park, 2011). This does not help in understanding what can be done to support parents, but by increasing

awareness of the long-term savings that can accrue from parenting support it is perhaps the best way of ensuring funds are made available to translate existing knowledge into practice. The latter, of course, presents its own challenges. Rolling out or "upscaling" programs is a science in its own right (Little, 2011). Many programs that have been shown to work in research settings do not achieve the desired effect when rolled out across large sectors of the population, and further research on ways to optimize programs as they are implemented on a grand scale is needed. Embedded in the topics of economics, resources, and rolling out to scale is a further question that is not finally answered, that of the optimum balance of universal and targeted parenting support provision.

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3

Promoting Mental Health and Wellbeing in Schools

Katherine Weare
University of Exeter and University of Southampton, U.K.
Melanie Nind
University of Southampton, U.K.

Introduction

Aims of this Chapter

This chapter is based on a systematic review undertaken by the "DataPrev project" which is a large, cross-European project, funded by the European Union. The project aimed to establish the evidence base for developing policy and practice in promoting mental health and wellbeing in four areas: parenting, school, the workplace, and for older people. This chapter gives an account of the findings of the schools' review and explores what it can tell us about "what works" in promoting mental health and wellbeing in schools. A summary of the key points can be found at the end.

The School as an Opportunity for Promoting Mental Health and Wellbeing

Childhood and adolescence present a real opportunity to develop the foundations for mental health and wellbeing, and schools form a powerful way to deliver this. In the developed world at least, school is compulsory and provides direct day-to-day contact with children, young people, often

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with their families. Schools have an important role to play in cognitive development and academic achievement, and also in social and emotional development, and indeed current thinking is that both the cognitive and noncognitive aspects of learning are inextricably intertwined, with school achievement bringing a sense of self-worth and efficacy, and emotional and social development being an essential prerequisite for effective learning. School is where young people interact with others, and ideally make positive relationships and friendships, and where they are influenced by a wide range of adult role models. Along with the family, the peer group, and the community, school has a major impact on all kinds of learning and achievement and on socialization, for good or ill.

Effective schools have a key role helping young people learn the skills that promote mental health and wellbeing that are critical throughout life, but are especially important during the school years (Harden et al., 2001), providing confidence in self-worth, competence, and engagement. Schools help to develop and establish a sense of identity, interpersonal relationships, self-control, motivation, resilience, empathy, and other vital lifeskills. These skills can help in negotiating the challenges of growing up and making transitions (Newman & Blackburn, 2002) and may act as protective factors by preventing the development of risky behavior. They lead to increased school attainment and completion, less involvement in the criminal justice system, lower costs to public services, higher earning potential, and resilience for life (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Zins, Weissberg, Wang, & Walberg, 2004). Higher school achievement often enhances self-concept and confidence, and leads to life opportunities such as employment and social support, while having a "sense of connectedness" with school is a recognized protective factor for mental health (Catalano et al., 2003).

Interventions can attempt to intervene to help those with problems by addressing the needs of those at risk (the so-called "targeted" approach) or those with an established problem (the "indicated" approach). They can also attempt to promote the positive mental health of all through working with the entire school population (the "universal" approach) (Wells, Barlow, & Stewart-Brown, 2003). It is worth recalling too that schools are also workplaces for school staff, who are some of the most dedicated but overstretched and stressed public workers (Bowers, 2004) and deserve to have their own mental health needs met, not least because without this they are unlikely to be able to promote the mental health of those of whom they have charge (Howard & Johnson, 2004).

Positive Health and Wellbeing

The needs of children with problems and a recognition of the role of the school in addressing them are extremely important and will be discussed below, but using a model of mental health which starts with an overall focus on positive wellbeing is more inclusive and enables schools to meet the needs of all in the community and push the "norm" towards greater health and wellbeing for all. It is worth recognizing that most young people report at least reasonable levels of mental health: an overview (P. Graham, 2004) concluded that, contrary to the stereotype, most young people enjoy and work hard at school, get along with their parents, and do not engage in high levels of risky behavior. Furthermore taking a positive and universal approach appears to do more to produce a reduction in mental health problems than a problem-based focus alone (Huppert & Whittington, 2003).

A positive approach is concerned with actions to promote wellbeing, sometimes known as "flourishing," which recognizes strengths and capacities as well as vulnerabilities, and explores the characteristics of mentally healthy people as well as those with problems (Huppert & Whittington, 2003). The overall shift to taking a more positive perspective on mental health had been strongly assisted by the recent growth of interest in positive psychology (Snyder & Lopez, 2005), with its focus on such positive qualities as optimism, resilience, and motivation. Similarly, shifts in fundamental thinking about health, partly inspired by the World Health Organization (WHO) "settings" approach developed in the 1980s, which focuses on the social environments that create health for all, and "salutogenic" approaches to health which focus on positive health, has naturally encouraged the development of "universal" approaches that are concerned with mental health for all (Antonovsky, 1987).

Mental, Emotional, and Social Difficulties

Within this overall positive focus we do also need to pay attention to the high levels of mental health need in the school community. Of course "mental health" labels are contentious: those such as "conduct disorder" or "attention deficit disorder" may tell us more about what schools find difficult to handle than they tell us about what bothers young people themselves. So we need to keep an overall sense of perspective and critical awareness when we explore mental health problems and difficulties.

These problems are massive and distressing, however, and do need to be addressed energetically and urgently. There are an alarming and possibly growing number of children and young people who experience mental health problems, and this number appears to be rising as affluence increases in the West and as life becomes more complex and stressful, particularly for the young (UNICEF, 2007). The mental health problems of children and young people are a significant personal, social, and economic burden on the young people themselves, their families, and the community (Zubrick, Silburn, Burton, & Blair, 2000). It would appear that around 25% of children and young people in the developed world have an identifiable mental health problem, of whom 10% fulfill the criteria for a mental health disorder (Harden et al., 2001). The problems experienced are varied. So-called "antisocial behavior" is the most common mental health problem presenting to psychiatrists, affecting over 5% of children, particularly boys. Anxiety and depression affect 4%. Suicide is thankfully relatively rare, but is still among the three most common causes of death in youth, and the numbers of suicides among young men has risen steadily over the last two decades, while attempted suicides have increased among girls (Coleman & Brooks, 2009). Up to 90% of young people who commit suicide have evidence of serious mental health problems, in particular depression, while self-harm and eating disorders are a growing problem, particularly in girls (Harden et al., 2001). Many young people experience multiple problems, which frequently are undetected and not addressed by the helping services (Offord, Kraemer & Kazdin, 1999).

Poor mental health impacts severely on life chances, and can increase the risk of the young person being constructed as delinquent, getting into trouble with the police, smoking, developing substance use disorders, and teenage pregnancy (H. Graham & Power, 2003). It also depresses educational attainment: in a recent survey of child mental health in Great Britain, 44% of children with emotional disorders were behind in their overall educational attainment, 43% missed at least five school days in the previous term, 1 in 3 children had officially recognized special educational needs, and 12% were excluded (H. Green, McGinnity, Meltzer, Ford, & Goodman, 2005). These rates are even higher for children with recognized behavioral problems/conduct disorders. Mental health problems in childhood are major predictors of mental health problems in adulthood: half of all lifetime mental disorders are reported as beginning before the age of 14 years (WHO/HSBC Forum 2007 Task Force, 2007).

The rising prevalence of mental health problems suggests that the demand for services simply cannot be met in the clinic or therapist's office, and the prevention of problems and the promotion of mental health are the only viable solutions (Zubrick et al., 2000). In this effort, schools are naturally seen as having a strong role to play in attempting to tackle mental health problems, using a variety of approaches and interventions and the intervention of a school or even an individual teacher can be the turning point for many deprived children (Gross, 2008).

Risk and Protective Factors

The concept of risk and protective/resilience factors has come to be seen as a useful one as it brings together the negative and the positive influences and their outcomes in one dynamic perspective. There is a strongly confirmed association between emotional and behavioral development and a wide range of influences on children and young people, which are both positive and negative, direct and indirect, and biological and social (Greenberg, Domitrovich, & Bumbarger, 2001). Social and contextual factors emanate from the family, school, neighborhood, and community (Offord & Lipman, 1996). In less than optimal situations, these factors can be an accumulating risk, undermining mental health (Benson & Saito, 1999) and increasing the likelihood of mental health, developmental, or behavioral problems (Offord et al., 1999). Taking schools as an example, low achievement and school dropout are known risk factors for a range of problems such as drug use, teenage pregnancy, behavior problems, and crime (Dryfoos, 1997; Wells et al., 2003). Conversely, schools can be a positive influence by protecting mental health and creating resilience, providing the child or young person with the inner resources and a buffer to help them to cope and indeed thrive despite deficits. Schools can strengthen the mental "immune system" in children by creating the kind of environments which promote wellbeing, providing caring people for support and guidance. This is especially true for children who come from ineffective home backgrounds and neighborhoods, where the intervention of the school can be the turning point for many children with few other supports (Gross, 2008).

School-Based Interventions

Schools therefore need to strive consciously be part of the solution not part of the problem. Fortunately, the past two decades have seen a significant growth of research and good practice in mental health and wellbeing

and in prevention and promotion in schools (Fundacion Marcelino Botin, 2008; Hosman, Jané-Llopis, & Saxena, 2004; Mental Health Foundation, 1999; WHO/HSBC Forum 2007 Task Force, 2007). Across the world, an increasing number of schools are engaging in a wide range of mental and wellbeing health-related initiatives and policies, which in many places are showing promising results. Activities operate under a variety of headings, not only "mental health" and "wellbeing" but also those such as "social and emotional learning" "emotional literacy," "emotional intelligence," "resilience," "lifeskills," and "character education" (Weare, 2010). The world leader in terms of interventions is the United States, generating the greatest number of interventions and investing the most in evaluation. Thousands of what are effectively mental health and wellbeing interventions are operating with various levels of demonstrable success. Of these, around 20 major interventions are consistently identified as successful by rigorous systematic reviews (CASEL, 2010; Zins et al., 2004). Australia is also the scene of thriving work, with some interventions starting to produce robust and positive evaluations (Adi, Killoran, Janmohamed, & Stewart-Brown, 2007; Shucksmith, Summerbell, Jones, & Whittaker, 2007).

The Context of this Review

Against this background, the DataPrev schools' workpackage, on which this chapter reports, aimed to clarify the evidence for and create a database of evidence-based principles, approaches, and interventions and produce policy and practice guidelines to assist policy makers in selecting approaches and interventions for implementation. Three other workpackages explored mental health and wellbeing for parenting, the workplace, and older people. A full report of this, the other workpackages, and the economic costs of these activities are available on the DataPrev website (http://dataprevproject.net/).

Methods

Identifying Reviews

The review looked at existing good-quality systematic reviews, reviews of reviews, data synthesis, data extraction, meta-analyses, and evidence-based databases between 1990 and the time of the review (2010). There were already many good-quality reviews of primary studies in the field in both the schools and the parenting workpackages and so a review of the primary

literature was thought unnecessary in both cases. The schools review looked at work with school-aged children and young people (4–19 years) in mainstream, special, and independent institutions. It included universal, targeted, indicated interventions, based in school and/or classrooms, and interventions that involved families and the community.

Databases searched for this review included MEDLINE, EMBASE, ERIC, CINALH, Sociological Abstracts, ASSIA, Psycinfo, the Cochrane Database of Systematic Reviews, DARE CENTRAL, SIGLE, and the Social Sciences Citation Index. Further reviews were identified through contacting research agencies in the field that use rigorous evaluation methods, following up references from previous reviews and overviews, hand-searching two journals—*Advances in School Mental Health Promotion* and *International Journal of School Mental Health*—and personal contacts.

Over 80 search terms were used to reflect the current broad concepts of mental health and wellbeing outlined in the introduction to this chapter. Taking an inclusive and broad approach was clearly going to produce a set of somewhat heterogeneous reviews in terms of target group, focus, subject matter, methodology, and so on. However, recent large-scale good-quality reviews had also taken such a broad approach (e.g., Adi, Killoran, et al., 2007; Adi, Schrader-McMillan, Killoran, & Stewart-Brown, 2007; Shucksmith et al., 2007) and it was felt important to bring together findings from the widest possible range of studies to reflect the breadth of the field to try to achieve a comprehensive picture. Generic terms such as “mental health,” “wellbeing,” and “quality of life” were used. Positive mental states were represented by terms such as “happiness” and “self-esteem.” Skills and capacities were tapped into with terms such as “resilience” and “communication.” To reflect both internalizing and externalizing mental health problems, terms such as “anxiety,” “depression,” and “anger” were also used.

Analysis and Critical Appraisal

Two standardized forms were used to extract data. One noted aspects of the content, including the focus of review, the aims of the intervention, who delivered, frequency and duration, population, setting, and timing. The second noted results, the number of included studies, relevant outcomes including effects sizes where given, findings, and authors’ conclusions.

It was felt to be important to be discriminating about the quality of the evidence reviewed, and so particular attention was paid to the process of being able objectively to assess the relative weight to give to the conclusions

of previous reviews. A third standardized form was used for critical appraisal. It was informed by other well-conducted reviews of reviews in this area (Adi, Killoran, et al., 2007, Adi, Schrader-McMillan, et al., 2007; Browne, Gafni, Roberts, Byrne, & Majumdar, 2004), by the review of reviews carried out by the parallel workpackage on parenting (Stewart-Brown & Schrader-McMillan, 2011) and a seminal paper by Oxman, Cook, and Guyatt (1994) The criteria used to judge the reviews are set out in Table 3.1.

Reviews were graded on a starring system, which has also been used throughout the chapter in an attempt to make the basis of the judgment clear. The reviews judged to be of high quality met 6 or 7 criteria and were used to form the main conclusions of the review; these are indicated with three hashes ###. Those of medium quality met 5 criteria; they were used to support or shed further light on the key results and they are indicated by two hashes ##. Those of low quality met 4 or fewer criteria and were used only where there was already strong evidence from high- and medium-quality reviews and as additional support and they are indicated by one hash #.

The reviews also were subjected to content and thematic analysis, with recurrent themes and trends identified and particular attention paid to any quantitative estimates of effectiveness.

Results

Number of Reviews

Over 500 studies were identified, of which 52 reviews met the inclusion criteria. The reviews were carried out by researchers representing a wide range of countries. Just over half (27) were carried out by researchers based in the United States, but nearly half were not, and came from the United Kingdom (13), the Netherlands (3), Germany (2), Canada (2), Australia (2), New Zealand (1), Norway (1), and the Netherlands and Belgium combined (1).

Quality

Twenty seven of the reviews were judged to be high quality, 18 of medium quality and 7 of low quality. All 52 reviews had an explicitly stated appropriate and comprehensive search strategy; 51 included a meta-analysis or narrative data synthesis; 47 assessed the quality of studies and used their assessment to guide results; and 46 asked a clearly focused question. The most common "methodological weakness" was the inclusion of studies without an element of control (18 reviews); these studies mostly used interrupted

Table 3.1. Critical Review and Quality Assessment.

Author (Year)	**Review focused only on interventions centered around schools (i.e., not clinical)?**	**Clearly focused question?**	**Only controlled trials (RCTs, CCTs) included?**	**Stated and appropriate and comprehensive search strategy?**	**Quality of studies assessed and used to guide results?**	**Substantial meta-analysis/data synthesis?**	**Results presented to allow quantitative assessment of impact?**	**Quality**
Adi, Killoran, et al. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Adi, Schrader-McMillan, et al. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Bayer et al. (2009)	Yes	No	Yes	Yes	Yes	Yes	No—a narrative review	##
Beelmann et al. (1994)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Beelmann and Losel (2006)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Berkowitz and Bier (2007)	Yes	Yes	No, also included pre- and post-design	Yes	Yes	Yes	Yes	###

(Continued overleaf)

Table 3.1. (*Continued*)

Author (Year)	Review focused only on interventions centered around schools (i.e., not clinical)?	Clearly focused question?	Only controlled trials (RCTs, CCTs) included?	Stated and appropriate and comprehensive search strategy?	Quality of studies assessed and used to guide results?	Substantial meta-analysis/ data synthesis?	Results presented to allow quantitative assessment of impact?	Quality
Blank et al. (2009)	Yes	Yes	No, also included interrupted time series	Yes	Yes	Yes	Yes	###
Browne et al. (2004)	Yes	Yes	No, included reviews using wide range of studies but mostly with controls	Yes	Yes	Yes	Yes	###
Catalano et al. (2002)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###

Clayton et al. (2001)	Yes	No	No, included wide range of studies	Yes	No, programs with low quality evaluations and inconclusive results included as “promising”	Yes	No	#
Diekstra (2009a)	Yes	Yes	No, review of reviews using wide range of studies	Yes	Yes	Yes	No—described features of the review	#
Diekstra (2009b)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Durlak and Wells (1997)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Durlak et al. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Durlak and Weissberg (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###

(Continued overleaf)

Table 3.1. (*Continued*)

Author (Year)	Review focused only on interventions centered around schools (i.e., not clinical)?	Clearly focused question?	Only controlled trials (RCTs, CCTs) included?	Stated and appropriate and comprehensive search strategy?	Quality of studies assessed and used to guide results?	Substantial meta-analysis/ data synthesis?	Results presented to allow quantitative assessment of impact?	Quality
Durlak et al. (2011)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Ekeland et al. (2004)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Farrington and Ttofi (2009)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Gansle (2005)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Garrard and Lipsey (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###

J. Green, Howes, Waters, Maher, & Oberklaid (2005)	Yes	No	No, review of reviews but no requirement that the primary research used controls or comparison groups	Yes	Yes	Yes	No, described features of the reviews	#
Greenberg et al. (2001)	No	Yes	Yes	Yes	Yes	Yes	No, descriptively by features of the programs	##
Hahn (2007)	Yes	No	No, included wide range of designs	Yes	Yes	Yes	Yes	##
Haney and Durlak (1998)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Harden et al. (2001)	No	Yes	No, included wide range of designs	Yes	Yes	Yes	Yes, for the systematic review and in-depth review	##

(Continued overleaf)

Table 3.1. (*Continued*)

Author (Year)	Review focused only on interventions centered around schools (i.e., not clinical)?	Clearly focused question?	Only controlled trials (RCTs, CCTs) included?	Stated and appropriate and comprehensive search strategy?	Quality of studies assessed and used to guide results?	Substantial meta-analysis/data synthesis?	Results presented to allow quantitative assessment of impact?	Quality
Hoagwood and Erwin (1997)	Yes	No	Yes	Yes	Yes	Yes	No, results described as significant, programs as effective, or not	##
Horowitz and Garber (2006)	No	Yes	Yes	Yes	Yes	Yes	No, results described as effective, mixed or not effective	##
Kragg et al. (2006)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Maxwell et al. (2008)	No	No	No, included wide range of designs	Yes	No, wide range of studies included some of medium methodological quality	Yes	No, thematically and descriptively	#

McCarthy and Carr (2003)	Yes	Yes	No, included wide range of designs	Yes	Yes	Yes	No, descriptive/narrative review	##
Merry et al. (2004)	No	Yes	Yes	Yes	Yes	Yes	Yes	##
Mytton et al. (2006)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Neil and Christensen (2007)	Yes	Yes	No, included before and after	Yes- of studies from Australia only	Yes		No, descriptive/narrative review	##
O'Mara et al. (2006)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Park-Higgerson et al. (2008)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Payton et al. (2008) (indicated)	Yes	Yes	Yes	Yes		Yes	Yes	###

(Continued overleaf)

Table 3.1. (*Continued*)

Author (Year)	Review focused only on interventions centered around schools (i.e., not clinical)?	Clearly focused question?	Only controlled trials (RCTs, CCTs) included?	Stated and appropriate and comprehensive search strategy?	Quality of studies assessed and used to guide results?	Substantial meta-analysis/data synthesis?	Results presented to allow quantitative assessment of impact?	Quality
Reddy et al. (2009)	Yes	Yes	No, included various research designs	Yes	Yes	Yes	Yes	###
Rones and Hoagwood (2000)	Yes	Yes	Yes	Yes	Yes	Yes	No, descriptive/narrative review	##
Schachter et al. (2008)	Yes	Yes	No, included pre-post test or post test	Yes	No, most studies classified as poor	Yes	No	#
Scheckner et al. (2002)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Shucksmith et al. (2007)	Yes	Yes	Yes	Yes	Yes		Yes	###

Sklad et al. (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Stage and Quiroz (1997)	Yes	Yes	No used the Interrupted Time Series	Yes	Yes	Yes	Yes	##
Tennant et al. (2007)	Yes	Yes	No, review of reviews, looking at systematic reviews	Yes	Yes	Yes	No (for one study only)	##
Tilford et al. (1997)	Yes	No	No, used wide range of designs	Yes	No	No	No, narrative review	#
Vreeman and Carroll (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Waddell et al. (2007)	No	Yes	Yes	Yes	Yes	Yes	No (for one study only)	##
Wells et al. (2003)	Yes	Yes	Yes	Yes	Yes	Yes	No, narrative synthesis	###
Wilson et al. (2003)	Yes	Yes	No, included pre–posttest design	Yes	Yes	Yes	Yes	###

(Continued overleaf)

Table 3.1. (*Continued*)

Author (Year)	Review focused only on interventions centered around schools (i.e., not clinical)?	Clearly focused question?	Only controlled trials (RCTs, CCTs) included?	Stated and appropriate and comprehensive search strategy?	Quality of studies assessed and used to guide results?	Substantial meta-analysis/data synthesis?	Results presented to allow quantitative assessment of impact?	Quality
Wilson and Lipsey (2006a)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Wilson and Lipsey (2006b)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	###
Wilson and Lipsey (2007)	Yes	Yes	No, included pre–post test	Yes	Yes	Yes	Yes	###

Key for assessment for quality: ### = high quality 6 or 7 of the criteria met, including no interventions in clinical settings included (column 2); ## = medium quality, 5 criteria met; # = low quality <4 criteria met.

time line. The second most common weakness, in 15 reviews, was a failure to enumerate results.

Positive or Negative Impacts

The vast majority, 50 (of 52) reviews came to positive conclusions about the evidence they reviewed, concluding that at least one of the interventions or approaches they reviewed at were in some way "effective" with at least small effect sizes. Interventions reviewed had wide-ranging beneficial effects on individual children and young people, on classrooms, families, and communities and on an array of mental health, social, emotional, and educational outcomes. The remaining two reviews were inconclusive rather than negative, citing methodological weaknesses as the reason why they could not come to firm conclusions: Schachter et al. (2008[#]) on mental health stigma interventions and Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, and Singh (2008[###]) on violence prevention interventions. Only four minor examples of apparent "adverse effects" were found and all were small. Of these, two noted increases in bullying after interventions, connected, it was felt, with putting together children who bullied for peer education (Adi, Schrader-McMillan, et al., 2007[###]; Blank et al., 2009[###]; Shucksmith et al., 2007[###]).

Overall Impact of Interventions

In what follows we will make use of the common way of reporting impact which is "effect size" (ES), but it is important to get a sense of perspective on this way of reporting. Interventions may be showing "small to moderate" impact in terms of ES but this represents changes in the experience of real people that are relatively large. Both Durlak and Wells (1997)[###] and Stage and Quiroz (1997)[##] commented that interventions to improve mental health and wellbeing have outcomes similar to, or better than, those obtained by many other established preventive and treatment interventions in the social sciences and medicine. Durlak and Wells (1997)[###] estimated that the average participant in school-based primary prevention interventions experiences an improvement of between 59 and 82% at the end of the intervention compared with the control group.

Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011)[###] carried out a major meta-analysis of 207 social and emotional learning (SEL) interventions in the United States. They calculated that impacts averaged out to an 11% improvement in achievement tests, a 25% improvement in

social and emotional skills, and a 10% decrease in classroom misbehavior, anxiety, and depression, effects which were still apparent 6 months after the intervention.

Impacts on Wellbeing, Positive Mental Health, and Social and Emotional Learning

The impact of interventions on children's wellbeing and positive mental health was clear and positive, with small to moderate effect sizes (ES) of 0.15–0.37. To give more details:

- Three reviews found that well-implemented social and emotional learning interventions had mean ES of 0.24–0.35 (Adi, Killoran, et al., 2007[###]; Durlak & Weissberg, 2007[###]).
- Two reviews calculated a grand study-level mean ES of 0.28 for 207 SEL interventions (Durlak et al., 2011[###]; Durlak & Weissberg, 2007[###]).
- Three other reviews showed impacts on social and emotional skills and competences to be moderate to strong (ES 0.5–1.49) (Berkowitz & Bier, 2007[###]; Catalano et al., 2002[###]; Scheckner, Rollin, Kaiser-Ulrey, & Wagner, 2002[###]).
- Impacts on self-esteem and self-confidence were consistently shown to be moderate across a range of high-quality reviews, with ES of 0. 34–0.69 across five reviews (Durlak & Weissberg, 2007[###]; Ekeland, Heian, Hagen, Abbott, & Nordheim, 2004[###]; Haney & Durlak, 1998[##]; O'Mara, Marsh, Craven, & Debus, 2006[###]; Sklad, Diekstra, Gravesteijn, de Ritter, & Ben, 2010[###]).

Impacts on Mental Health Problems

Nineteen reviews included mental health problems and disorders such as depression and anxiety among the outcomes they examined. All concluded that the overall impact of work was clear and positive. Where reviews calculated ES, the impact appeared on the whole to be small to modest. Focusing only on the nine reviews that were concerned only with work in schools (10 others included interventions in clinical contexts), three showed ES of 0.10–0.50 (Payton et al., 2008[###]; Reddy, Newman, DeThomas Courtney, & Chun, 2009[###]; Sklad et al., 2010[###]), and one (Browne, Gafni, Roberts, Byrne, & Majumdar, 2004[###]) suggested modest to large impacts with ES of 0.41–1.70. Evidence from moderate-quality reviews,

most of which included work in clinical as well as school contexts, was consistent with these results, with the four reviews that enumerated results showing ES that varied from small to large, between 0.16 and 0.93 (Durlak & Wells, 1997[##]; Haney & Durlak, 1998[##]; Horowitz & Garber, 2006[##]; Merry, McDowell, Hetrick, Bir, & Muller, 2004[##]). The other 11 reviews that did not provide a numerical set of results also claimed that the impact of interventions on internalizing mental health problems was positive.

Impacts on Conflict: Violence, Bullying, and Anger

Fifteen reviews addressed interventions that aimed to reduce and prevent conflict of some kind, such as violence, bullying, and conflict. Ten focused predominantly on aggression, violence, and conflict resolution, four focused predominantly on bullying, one focused on anger, and one focused on disruptive classroom behavior. Some of the key results were as follows:

- The impact on universal populations was positive if not particularly large (ES 0.1 on average) (Adi, Schrader-McMillan, et al., 2007[###]; Blank et al., 2009[###]; Catalano et al., 2002[###]; Farrington & Ttofi, 2009[###]; Garrard & Lipsey, 2007[###]; Hahn, 2007[##]; Mytton, DiGuiseppi, Gough, Taylor, & Logan, 2006[###]; Scheckner et al., 2002[###]; Wilson & Lipsey, 2006a[###]; Wilson, Lipsey, & Derzon, 2003[###]).
- Impact was generally stronger for high-risk children (ES 0.21–0.35 on average).
- Impact was generally stronger for older students (Farrington & Ttofi, 2009[###]).
- Cognitive–behavioral interventions also consistently showed a larger effect than average with an ES of 0.5 (Beelmann & Losel, 2006[##]; Shucksmith et al., 2007[###]).
- Targeting children who have violent or bullying behavior, and especially carrying out peer-based work with them, in which difficult children work together, generally had an adverse effect, with more bullying and victimization resulting (Farrington & Ttofi, 2009[###]; Shucksmith et al., 2007[###]).

Impacts on Attitudes to School and Academic Achievements

Five studies assessed the impact of interventions on aspects of children's academic learning and attitudes towards school which were significant and positive. They reported ES relating to commitment to schooling that were

small to moderate (ES 0.14–0.6) and of a similar magnitude for achievement in test scores and school grades (ES 0.11–0.5) (Berkowitz & Bier, 2007[###]; Catalano et al., 2002[###]; Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]; Sklad et al., 2010[###]).

Impacts on Classrooms and Families

One study (Durlak et al., 2007[###]) found positive results of SEL programs for family environments (ES 0.34) and classroom environments (ES 0.78).

The Characteristics of More Effective Interventions

The reviews looked at many different issues, topics, and populations, were undertaken across a 20-year period and were of varied quality. Some interventions cropping up consistently across reviews and consistently provided evidence of impact. Their impact was still variable, however, it would appear that even effective interventions only worked sometimes, and were considerably more effective in some circumstances than others. It leads to the conclusion that the effectiveness of any intervention cannot be relied upon. Hence this review sought to open the "black box" and identify the principles that appear to make an intervention more or less effective. In exploring this we will revisit some of the themes already identified in the breakdown of impacts above.

Whole-school approaches.

The whole-school approach has long been seen as more effective in terms of outcome than a skills-focused, curriculum-based approach alone. To take a whole-school approach means using what the WHO term a "settings" focus, in which the total environment is seen as the arena for change rather than just the behavior and attitudes of the individuals who work and learn there. Such a "multimodal" approach operates on a range of fronts, involves a wide range of agents, methods, and levels of intervention, and mobilizes the whole school as an organization. Areas for intervention typically include not only the curriculum/teaching and learning but also changes to school culture and ethos, school policies and practice, staff development, parental involvement, including sometimes parenting education, and the coordinated involvement of the local community and supportive health, public service, social work, and voluntary agencies.

Five reviews covering a range of topics found supportive evidence for the use of a whole-school, multicomponent approach (Adi, Killoran, et al., 2007[###]; Adi, Schrader-McMillan, et al., 2007[###]; Catalano et al., 2002[###]; Vreeman & Carroll, 2007[###]; Wells et al., 2003[###]). Catalano et al. (2002)[###] found that in developing prosocial behavior and social competence, simply the more components an intervention covered the better. Vreeman and Carroll (2007)[###], reviewing interventions to address bullying, compared interventions that focused only on curriculum with those using a whole-school approach. They found only 4 of the 10 curriculum-based interventions showed decreased bullying, and 3 of those 4 also showed no improvement in some populations. In contrast, 7 of the 10 interventions that used a whole-school approach showed decreased bullying in all populations.

However, Wilson and Lipsey (2007)[###], reviewing interventions to prevent violence, and Durlak et al. (2011)[###], reviewing interventions to develop social and emotional learning, both concluded that the multicomponent interventions they reviewed did not generally show significant effects compared with interventions which only involved one aspect of school life. Both reviews commented that these findings were unexpected and went against previous evidence, including some they had collected in previous years. Both attributed this failure to the broad scope of some of the more recent multicomponent interventions which appeared to lead to dilution of the intensity and focus and weaker implementation, so that students had less engagement with these interventions.

Culture and ethos.

Six reviews concluded that the school's culture and ethos is a major determinant of the success of interventions (Adi, Killoran, et al., 2007[###]; Adi, Schrader-McMillan, et al., 2007[###]; Catalano et al., 2002[##]; Durlak & Wells, 1997[##]; Greenberg et al., 2001[##]; Wilson et al., 2003[###]). Culture and ethos refers to the underlying values and attitudes of the school, and particularly to the quality of the relationships between staff and students, and the level of pupil engagement and sense of belonging. Two reviews of mental health and wellbeing in primary schools, both in general (Adi, Killoran, et al., 2007[###]) and in the prevention of violence (Adi, Schrader-McMillan et al., 2007[###]), found that efforts to change school ethos and culture were positive and very promising for future research. The review by Greenberg et al. (2001[##]), on preventing mental disorder, concluded that school ecology should in future be a central focus for interventions.

Skills.

Ten reviews explored the role of skills. Teaching and learning skills emerged as a central part of any effective intervention (Berkowitz & Bier, 2007[###]; Catalano et al., 2002[###]; Durlak & Weissberg, 2007[###]). The acquisition of social and emotional skills and competences was associated with a wide range of outcomes including:

- positive youth development (Catalano et al., 2002[###]; Durlak & Weissberg, 2007[###]);
- character education (Berkowitz & Bier, 2007[###]);
- a reduction in depression and anxiety (Blank et al., 2009[###]; Shucksmith et al., 2007[###]; Waddell, Peters, Hua, & McEwan 2007[##]);
- conduct disorders (Waddell et al., 2007[##]; Shucksmith et al., 2007[###]);
- externalizing behavior—violence (Mytton et al., 2006[###]), bullying (Farrington & Ttofi, 2009[###]), conflict (Garrard & Lipsey, 2007[###]; Waddell et al., 2007[##]), and anger (Gansle, 2005[###]).

Six reviews nominated cognitive behavioral therapy (CBT) as a particularly effective approach, suggesting that it impacted on:

- antisocial behavior (Beelmann & Losel, 2006[##]);
- violence and aggression (Wilson et al., 2003[###]);
- conduct disorder (Waddell et al., 2007[##]);
- prosocial behavior and skills, conflict resolution, anger management, and reduced aggression (Scheckner et al., 2002; Shucksmith et al., 2007[###]);
- anxiety and depression (Neil & Christensen, 2007[##]; Shucksmith et al., 2007[###]; Waddell et al., 2007[##]).

Shucksmith et al. (2007)[###], in their review of targeted approaches to mental health and wellbeing in primary schools concluded that the more complex and effective interventions were based on skills development, and offered a very similar mix of CBT and social skills training for children, training of parents and teachers in appropriate reinforcement, and better methods of discipline. They commented that this combination was very similar whether for internalizing problems, such as depression and anxiety, or for externalizing behaviors, such as conduct disorders.

Three reviews concluded that the teaching of skills had more and longer term impact when mental health issues were integrated into the general

classroom curriculum than when the skills were focused on in isolation, and that interventions covering social problem solving, social awareness, and emotional literacy, in which teachers reinforce the classroom curriculum in all interactions with children, were particularly effective (Adi, Killoran, et al., 2007[###]; Berkowitz & Bier, 2007[###]; Rones & Hoagwood, 2000[##]).

Teaching methods.

Although one review (Hahn, 2007[##]) concluded that the teaching methodologies employed by interventions made no difference, this was an isolated finding and most reviews that explored the issue concluded that the choice of teaching strategies and methods strongly influenced an intervention's effectiveness.

Five reviews concluded that more effective interventions used active rather than didactic methods, typically interactive games, simulations and small group work (Berkowitz & Bier, 2007[###]; Browne et al., 2004[###]; Diekstra, 2009a[#]; Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]). Two reviews suggested that using a range of integrated and coordinated methods, groups, levels of intervention, one-to-one and whole-class work was more effective than using just one or two approaches (Browne et al., 2004[###]; Rones & Hoagwood, 2000[##]).

Holistic approaches or behavior management.

Five reviews suggested the need for a positive and holistic approach. Three reviews concluded that interventions were more effective if they were positive rather than fear- or problem-based or focused on problem behavior (Browne et al., 2004[###]; J. Green, Howes, Waters, Maher, & Oberklaid, 2005[#]; Wells et al., 2003[###]). Three reviews concluded that behavioral or informational strategies on their own were unlikely to be effective, and that interventions need also to impact on attitudes, values, feelings, as well as behavior (Greenberg et al., 2001[##]; Merry et al., 2004[##]; Wells et al., 2003[###]). One review concluded that interventions were more effective if they addressed the needs of the whole child, rather than just seeing them as a "problem" (Browne et al., 2004[###]).

Who should deliver the intervention?

Eleven reviews explored the issue of effective leadership and which agents were more effective.

Many of the early interventions reviewed had used clinical staff, mainly psychologists, to deliver small-scale demonstration programs using experimental designs and involving small samples of children. They were usually focused on specific issues and with short-term evaluation. This approach remained the most common for targeted interventions (although universal interventions then often went on to be delivered by teachers, an approach reviewed below). Adi, Killoran, et al. (2007)[###] found that using specialist staff was effective for short-term stress and coping interventions while Blank et al. (2009)[###] suggested it was useful for interventions to address anxiety and depression.

Shucksmith et al. (2007)[###] concluded that it was particularly appropriate to use specialist staff when the interventions were in the early stages of development.

However, they also concluded that this use of specialist staff was unsustainable in the longer term and for larger scale and universal interventions. More recently, there has been a shift towards using those routinely involved in the life of the school, mainly such as teachers, and sometimes parents and peers.

Evidence on the absolute effectiveness of teachers compared with specialist staff was mixed. Three reviews suggested that teachers are not as effective as specialist staff (Beelmann & Losel, 2006[##]; Wilson & Lipsey, 2006a[###]; Wilson et al., 2003[###]) and hypothesized that this was because interventions delivered under routine circumstances were less intense. However, three other reviews concluded that teachers were at least as effective as specialists (Adi, Killoran, et al., 2007[###]; Diekstra, 2009a[#]; Wilson & Lipsey, 2007[###]). Two reviews concluded that it is particularly important that teachers are involved if interventions are to get to the heart of the school process and result in integration and attitude change (Diekstra, 2009a[#]; Durlak et al., 2011[###]; Wilson & Lipsey, 2007[###]). Two concluded that it is only when school staff conduct the intervention that student academic performance improves significantly and mental health starts to impact on school culture, maybe because school staff are involved in both aspects of school life and can bring it all together (Diekstra, 2009a[#]; Durlak et al., 2011[###]).

Several reviews (commented on the need for extensive and intensive training for those involved in leadership (e.g. Adi, Killoran, et al., 2007[###]; Adi, Schrader-McMillan, et al., 2007[###]; Berkowitz & Bier, 2007[###]; Diekstra, 2009a[#]). One review, looking at interventions that promote prosocial behavior and skills, concluded that impact was significantly affected by having a qualified intervention leader (Scheckner et al., 2002[###]).

The evidence on peer work was mixed. Six reviews found that peers can be an effective and significant influence for good. Three found reasonable evidence that peer mediation in conflict resolution is effective in the short term (Adi, Killoran, et al., 2007[###]; Garrard & Lipsey, 2007[###]; Rones & Hoagwood, 2000[##]) with one concluding it to be effective in the longer term (Blank et al., 2009)[###]. Two found some evidence that peer norming (putting children with problems with those without) has short-term modest impacts on the mental health of children with problems (Browne et al., 2004[###]; Shucksmith et al., 2007[###]). However, as has already been mentioned, two reviews found that peer work which is only carried out with children who bully increased their subsequent bullying and victimization of other children, with bullying children reinforcing one another's attitudes and behaviors (Farrington & Ttofi, 2009[###]; Shucksmith et al. 2007[###]).

Family and community involvement.
Durlak et al. (2007)[###] found 64% of the positive youth development interventions attempted some type of systemic change involving schools, families, or community-based organizations. Both Browne et al. (2004)[###] and Greenberg et al. (2001)[##] commented on the importance of embedding interventions within multidisciplinary teams and communities to provide support. Four reviews all looking at broad issues such as positive youth development and mental health concluded that engagement with and support from families and communities is helpful (Browne et al., 2004[###]; Catalano et al., 2002[###]; Diekstra, 2009a[#]; Greenberg et al., 2001[##]). One review suggested that it is more effective than prevention programs that focus only and independently on the child's behavior (Greenberg et al., 2001[##]).

Ten reviews nominated the involvement of parents as a key component of effective multicomponent interventions, suggesting that it increased effectiveness for a range of specific outcomes, as follows:

- prosocial youth development (Catalano et al., 2002[###]; Durlak et al., 2007[###]),
- universal interventions to promote mental health (Adi, Killoran, et al., 2007[###]; Wells et al., 2003[###]),
- stress and coping interventions (Adi, Killoran, et al., 2007[###]),
- interventions to reduce violence and bullying (Adi, Schrader-McMillan, et al., 2007[###]; Blank et al., 2009[###]; Farrington & Ttofi, 2009[###])
- targeted approaches to prevent mental disorders (Greenberg et al., 2001[##]; Shucksmith et al., 2007[###])

- conduct disorder (Shucksmith et al., 2007###; Waddell et al., 2007##). Both reviews suggested that this is because parents can support and reinforce the messages children are learning at school.

Durlak et al. (2007)###, looking at positive youth development interventions that attempted to change schools, families, and community-based organizations, suggested that the link was two way, finding some modest to large effects in families and communities as a result of school-based interventions.

Intensity and length.
Fifteen reviews explored how long interventions should last and how intensive they should be. Some of the evidence on the associations between impact and duration was inconclusive (Blank et al., 2009###; Hahn, 2007##), but some clear patterns emerged.

There was no evidence that single brief interventions or one-offs have any worthwhile role. Three reviews produced some evidence in support of short-term interventions (8–10 weeks) for specific and mild problems including conflict resolution (Adi, Killoran, et al., 2007###; Garrard & Lipsey, 2007###) and minor anxiety and emotional disorders (Shucksmith et al., 2007###).

However, the majority of reviews concluded that interventions of at least 9 months to a year were needed in order to be effective, especially in broad areas and/or in response to more severe problems. Specifically, longer and more intense interventions appeared to be more effective than brief ones for

- positive mental health (J. Green et al., 2005#; Wells et al., 2003###),
- positive youth behavior (Catalano et al., 2002###),
- preventing violence and bullying (Adi, Schrader-McMillan, et al., 2007###; Farrington & Ttofi, 2009###; Scheckner et al., 2002###),
- anger (Gansle, 2005###; Scheckner et al., 2002###),
- preventing mental disorders (Greenberg et al., 2001##).

Most of the evaluations of the included studies took place immediately after the intervention and had small to moderate short-term effects, which lessened in the longer term but usually remained significant (Diekstra, 2009b###; Horowitz & Garber, 2006##).

Age and stage.
Eleven reviews explored the issue of age and stage. The results were mixed:

- Five concluded that interventions need to start early, with younger children (Browne et al., 2004[##]; Durlak & Wells, 1997[##]; Greenberg et al., 2001[##]; Shucksmith et al., 2007[###]; Waddell et al., 2007[##]).
- Two suggested that the age of introduction may not be so crucial (Adi, Killoran, et al., 2007[###]; Durlak et al., 2011[###]).
- Reviews of interventions specifically to prevent bullying, conflict, and violence suggested that working with older students is more effective (Garrard & Lipsey, 2007[###]; Farrington & Ttofi, 2009[###]; Mytton et al., 2006[###]).
- Three reviews concluded that there was evidence both for intensive interventions in the early years and for supportive "booster" sessions later (Browne et al., 2004[###]; Diekstra, 2009a[#]; Shucksmith et al., 2007[###]).

However, Blank et al. (2009)[###] commented that this is something of a vague area in terms of hard evidence, with little work for older students on which to base comparisons. Those few studies that do exist tend to be one-off interventions in local contexts, narrowly focused mainly on improving adolescent behavior (unsurprisingly) for example reducing violence and bullying and developing prosocial behavior and skills. There is no evidence-based work on what is called, in the United Kingdom, "emotional literacy," on improving self-understanding, empathy, or compassion for older young people and no interventions that passed systematic review used in wider strategies such as the involvement of parents, the community, wider school factors, or school ethos.

Universal and targeted approaches and differential impact.
Forty-eight reviews were universal (i.e., targeted all children in the group). Of these 14 also looked at the impact on targeted or indicated populations within universal samples. Six focused entirely on targeted and/or indicated populations, including mixed mental health problems (2), violence and aggression (2), and emotional and behavioral problems (2). We have already noted that the impact on universal populations was clearly positive, and that, as Durlak and Wells (1997)[###] noted, there was a 59–82% improvement on average for all children, including clear and long-term impacts on social and emotional skills, decreases in classroom misbehavior and anxiety and depression, and academic learning.

The reviews were varied in their conclusions about the balance to achieve between universal and targeted approaches. Three concluded that universal

approaches provided a more effective context for working with students with problems than targeted or indicated alone (Browne et al., 2004[###]; Diekstra, 2009a[#]; Wells et al., 2003[###]). Two concluded greater emphasis needed to be placed on targeted approaches (Beelmann & Losel, 2006[##]; Rones & Hoagwood, 2000[##]). One concluded that both universal and targeted approaches are stronger in combination, but was not able to find enough evidence to make recommendations on the optimum balance to achieve (Adi, Killoran, et al., 2007[###]).

Differential impact.

There was not a great deal of evidence on most types of "differential impact" (in other words the impact of interventions on different groups). Adi, Killoran, et al. (2007)[###] found no trials to show clear effects according to age, gender, ethnic, or social groups.

The level of risk was a significant variable, with nine reviews showing that interventions consistently have a more dramatic effect on higher risk children (Adi, Schrader-McMillan, et al., 2007[###]; Beelmann & Losel, 2006[##]; Diekstra, 2009a[###]; Haney & Durlak, 1998[##]; Horowitz & Garber, 2006[##]; Park-Higgerson et al., 2008[###]; Waddell et al., 2007[##]; Wilson & Lipsey, 2006b[###]; Wilson et al., 2003[###]). Two reviews suggested that this may be due to the "ceiling effect" with populations without major problems not having the same scope for improvement (Adi, Schrader-McMillan, et al., 2007[###]; Horowitz & Garber, 2006[##]).

The quality of the implementation.

Eleven reviews explored the issue of intervention quality and all concluded that it was an important determinant of the effectiveness of interventions. Berkowitz and Bier (2007)[###], reviewing interventions on character education, concluded that complete and accurate implementation resulted in greater effectiveness than incomplete or inaccurate implementation. Three reviews reviewing a range of interventions across violence interventions and social and emotional learning found that interventions that had no obvious implementation difficulties produced the larger effects than those with difficulties (Durlak et al., 2011; Wilson & Lipsey, 2006a[###]; Wilson et al., 2003[###]). Wilson and Lipsey (2006a[###]) concluded that schools seeking prevention interventions might be well advised to give priority to those that are going to be easiest to implement in their settings.

Some of the key interrelated features of high-quality implementation identified by the reviews were:

- a sound theoretical base (Browne et al., 2004[###]);
- explicitness (i.e., specific, well-defined goals and rationale), communicated effectively to staff and leaders through thorough training and linked explicitly with the intervention components (Browne et al., 2004[###]; McCarthy & Carr, 2003[##]; Rones & Hoagwood, 2000[##]; Sklad et al., 2010[###]);
- complete and accurate implementation (Berkowitz & Bier, 2007[###]; Catalano et al., 2002[###]; Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]; McCarthy & Carr, 2003[##]);
- high levels of intensity, consistency, clarity, and program fidelity (Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]);
- a direct, intense, and explicit focus on the desired outcome rather than using a different focus and hoping for indirect effects (Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]; Harden et al., 2001[##]; O'Mara et al., 2006[###]);
- explicit guidelines, possibly manualized (Durlak & Weissberg, 2007[###]; Durlak et al., 2011[###]; McCarthy & Carr, 2003[##]);
- ensuring quality from stuff with thorough training, consistent staffing, and the specification of individual responsibilities (Browne et al., 2004[###]).

Discussion—What Works?

Promoting Mental Health and Wellbeing is Effective

This review clearly demonstrates the continuing importance for schools of consolidating and expanding their efforts to promote mental health and wellbeing. It is the largest and most comprehensive review of reviews so far undertaken, and includes many that come from outside the United States, the traditional home of the evidence base in this area. It confirms the findings of earlier reviews and recent overviews (e.g., Jenkins & Barry, 2007), which showed that a group of programs and interventions have emerged over the last 25 years which show repeated and clear evidence of positive impact.

The cumulative evidence suggests that the impact of such work is small to moderate in terms of effect sizes (a tough test) but relatively large in percentage terms, especially when compared with other educational and health-related interventions (Durlak & Wells, 1997[###]; Stage & Quiroz, 1997[##]). Impacts are also stronger in the short than the long term. There is clear impact on a very wide range of outcomes. They include those of interest

to those who would like to influence the world of the school, such as the health and welfare services, with impacts on positive mental health, mental health problems, and disorders, and the criminal justice system with impacts on violence and bullying. There is, however, only so far we can expect schools to go in pursuing extrinsic goals, so it is particularly useful that interventions meet the goals and interests of schools themselves, most pointedly academic achievements, behavior for learning, productive and pleasant classroom environments, and teaching positive social and emotional life skills. This is a point we return to below.

There were very few examples of adverse effects, which is reassuring in the face of some concerns that have been expressed about the "dangers" of work in this area (e.g., Ecclestone & Hayes, 2009). It is important to spread this message. In some parts of the world there is a good deal of well-publicized but ill-founded and sometimes even mischievous claims by opponents of work to promote wellbeing and particular social and emotional learning. To simplify and summarize a range of often disparate work, the basic thesis is that such work is a dangerous foray by education into the world of therapy, giving rise to emotional and even mental health problems, and creating a generation of narcissistic children without tougher aspects of character such as resilience. Such dramatic claims are naturally getting the ear of the media and therefore sometimes governments, and entering public consciousness in ways that are unhelpful and do not reflect the facts. They need to be energetically refuted with a robust defense, based on the clear evidence base for the overall beneficial effects of this work, including on resilience, "grit," and the development of strong and robust character traits in children.

Reviews showed that many types of interventions can be effective, in some cases strikingly so, but also showed that effects are variable and cannot be relied upon. It is important then to follow the lead of good-quality recent reviews and focus on the sometimes subtle characteristics of effective interventions.

Take a positive and holistic approach.

The evidence is clear that positive approaches that promote wellbeing work better than those that focus only on mental illhealth, problems, and weaknesses. Fear, as usual, turns out not to be an effective motivator. The reviews demonstrate that effective education for wellbeing influences the whole person, their heart, as well as their mind, and interventions need to influence attitudes, values, and feelings rather than just focus on knowledge or behavior in isolation from the deeper processes that create them.

The use of holistic, educative, and empowering theories and interactive pedagogical methods was endorsed by many of the reviews which found that behavioral and information-based approaches and didactic methodologies were not as effective. Skills teaching is most effective in the long term when integrated into the general classroom curriculum, covering issues such as social problem solving, social awareness and emotional literacy, in which teachers reinforce the classroom curriculum in all interactions with children.

The centrality of teacher education that emerged also points to the need to look at the behavior, attitudes, and needs of all parties in the school situation, not focus on the child only. Similarly, the evidence for the importance of school culture and ethos reminds us that behavior does not occur in a vacuum and is strongly shaped by the surrounding environment and the culture of relationships and values.

Balance targeted and universal approaches.

This review shows that more effective interventions focus on positive mental health, not just on problems, and that universal approaches have a positive, albeit small, impact on the mental health of everyone. Universal approaches also, on balance, appear to provide a more effective context for working with students with problems than targeted or indicated approaches alone.

However, it is clear that interventions have a more dramatic effect on higher risk children, that universal approaches on their own are not as effective for those with problems as those that add a robust targeted component, and that adding this targeted approach does not diminish the impact on children without clear problems.

It would seem that from the evidence of this review that it would be better to include routinely both universal and targeted approaches, which appear to be stronger when used together. The exact best balance has yet to be determined, and seems to vary across different context: clarifying the optimum mix between the two would be an interesting area for further research to explore.

Catch them young and keep going with a long-term approach.

This review reinforces the widespread view that early intervention works, particularly when approaching broad and fundamental areas such as promoting wellbeing and learning basic social and emotional skills. It also supports the need for a longer term approach in continuing to develop these fundamental skills, attitudes and attributes. Regular revisiting of core learning with booster/top-up sessions with older students can be an effective way to

overcome the recurrent problem of the tail off of effects from an intervention. There is also clear effectiveness for work that targets older children with more focused interventions that help them develop the competences for the challenges they are facing right now, particularly in relation to bullying, conflict, and violence.

Shorter interventions aimed at specific problems, such as mild conduct disorder, are sometimes effective. If, however, the aim is to teach generic skills or impact on more severe problems then longer interventions, of at least nine months to a year, are required. More intense interventions, with more sessions per week, generally work better than more diluted ones.

Curriculum and skills at the heart of the process.

This review reminds us that wellbeing is taught as well as caught, and does not happen by osmosis alone. The curriculum and the explicit teaching and learning of well-defined skills, and especially CBT type approaches, prove to be the essential heart of any effective intervention, across a wide range of issues. In practice, what works across a range of wellbeing issues, for internalizing and externalizing mental health problems and for promoting wellbeing, is usually a very similar mix of CBT and social skills training for children, training of parents and teachers in appropriate reinforcement, and better methods of discipline.

Link with learning.

It is increasingly accepted by those keen to promote mental health and wellbeing in schools that linking with the core goals of the school, in other words learning and academic achievement, is essential. Meeting this felt need both improves the impact of interventions and ensures that hard-pressed schools can justify a concern with mental and wellbeing health to any staff, parents, governors, and funding bodies who may be skeptical about their intrinsic value (Zins et al., 2004). It is helpful then that this review showed that interventions designed to impact on mental health and wellbeing also often impact on academic learning, attitudes, and behavior for learning, including test scores and school grades, commitment to school and school attendance. They show greater and longer term impact of interventions when mental health issues are integrated into the general classroom curriculum than focused on in isolation. This link with learning is important and it is essential that work in this area continues to explore and reinforce it.

A range of program leaders—for different purposes.
There has been some debate about who is best placed to lead interventions. This review concludes that different types of leaders have a range of roles to play.

A common problem with using teachers from the outset of a novel intervention is the "we are doing this already" mentality, where busy teachers are inclined to want to see fresh approaches as old wine in new bottles and turn what was intended to be an innovative approach into a rebranding exercise. Specialist, often clinically trained, staff such as psychologists or their research students have been shown to be particularly effective in getting a new intervention going, perhaps because they are not part of the routine school culture and are therefore prepared to stick to the script and transmit a novel and possibly tricky intervention in genuinely innovative ways, and be more inclined to evaluate its impact dispassionately.

However, using outside specialists is expensive, ultimately unsustainable, and does not embed the new approach in the culture of the school, its routines, and with the curriculum, teaching, and learning, and is thus less likely to influence school achievement. The reviews suggest that to achieve these desirable goals, the normal school staff, and in particular teachers, need to take over interventions once they are successfully piloted by specialists, running them as they are intended to be run and in the long run integrating them with routine school life.

Pupils can also be effective educators, using so-called "peer learning" to educate one another, for example in teaching basic skills or mediating conflicts. They need to be well taught and carefully mentored, not least to know their own limitations and when to seek help. This review has clearly shown, however, that we need to avoid putting together students with difficulties, particularly if their difficulties involve acting out, bullying, violence, and aggression, as working with others of the same mind set only serves to reinforce undesirable attitudes and behavior.

Families and communities clearly add strength and depth to work in schools if appropriately involved, and can help to support and reinforce the messages children are learning at school.

A whole-school approach.
The United States has made some use of whole-school, multicomponent approaches, which is where the original evidence for the effectiveness of the approach has come from, with some large-scale projects, such as the

Seattle Social Development Project, which address several different aspects of school life. Outside the United States, program development by agencies such as the European Union, World Bank, and various national governments has been moving even more strongly in this direction, influenced by the "settings" approach of the World Health Organization, with its focus on creating healthy environments (healthy schools, health cities, healthy hospitals, and so on). The whole-school approach is very popular in many parts of the world, including Europe and Australia. Europe in particular is the home to several large-scale, agency-led, whole-school programs such as Health Promoting Schools (Schools for Health in Europe, 2010), Healthy Schools (2011), Social and Emotional Aspects of Learning (Department for Education and Skills, 2010), and the Good and Healthy School (Paulus, 2009). Australia has developed the state-led Mind Matters (2009) program and the government-led Kidsmatter (2009) framework.

The balance of the evidence from this review continues to be in favor of using a whole-school approach, showing that interventions which focus on more than one aspect of school life are generally more effective. Many reviews focused on what they saw as the essential and promising concept of school ecology/ethos/culture in which the underlying values and attitudes of the school are seen as core. Appropriate environments in which pupils thrive are essentially those which strike the right balance between various dimensions which are sometimes in tension with one another, such as warmth, respect, boundary setting, participation, a sense of belonging, the encouragement of autonomy, and the building of resilience (Weare, 2000). It would appear that exploring further the kind of school ethos that enhances wellbeing and the complex balances that need to be stuck within real-life contexts may be a fruitful area for future research.

However, recently some doubts have crept in, not so much about the basic good sense of the whole-school concept, but about what else needs to be in place for a whole-school approach to work. Some recent reviews suggest that interventions that use whole-school approaches are starting to fail to show impact (Wilson & Lipsey, 2007; Durlak et al., 2011), a conclusion which the authors commented surprised them and went against previous evidence, including from their own studies. The problem seemed to be around the area of implementation, which we will explore next.

High-quality implementation.

The review helped to clarify the criteria needed for effective implementation. They include having specific, well-defined goals and rationale, a

strong concern with program fidelity, a direct and explicit focus on desired outcomes, explicit guidelines, possibly manualized, thorough training and quality control, and complete and accurate implementation. Programs that were implemented in high-quality ways showed positive measurable impacts, those that were not thus implemented did not.

Implementing whole-school approaches.

The doubts about the ability of the whole-school approach to deliver consistent impact were attributed by reviewers to them sometimes lacking the tough criteria needed for effective implementation, outlined above. The theory is that the lack of consistent, rigorous, and faithful implementation is causing some holistic approaches to be too vague and dilute to be motivating and effective. This is an important new finding with strong implications for international policy development on wellbeing in schools, so we will dwell on it in some detail here.

In Europe, and to some extent Australasia, health education and health promotion tend to be values driven and based on "bottom-up" principles such as empowerment, autonomy, democracy, and local adaptability and ownership (WHO, 1997). The whole-school programs that have resulted have given rise to splendid resources produced by the best minds available, such as lively teaching and learning materials, strong guidelines, sound advice based on practical experience, engaging training, informative and motivating case studies, and so on. However, they are explicitly nonprescriptive and principles based, in line with an overall emphasis on the lay voice and end-user involvement. This is in contrast to approaches in the United States, which are generally more "top-down," prescriptive, manualized, often scripted, and with the expectation of a strict adherence to program fidelity by those delivering them.

It is clear from the finding of this review that such flexible, nonprescriptive styles are likely to make it challenging for whole-school approaches to achieve hard outcomes and measurable changes using experimental approaches, however splendid their resources.

Enabling frameworks.

If the whole-school programs are simply seen as loose enabling frameworks this may not matter. The bottom-up approach can then be seen as providing essential supportive structures, positive climates, empowered communities and end-user involvement, which may well lead to well-rooted and

long-lasting changes of attitudes and policies that are necessary to support sustainable changes in mental health and wellbeing.

In any case, work on mental health and wellbeing does not always have to live in thrall to the experimental approach. Randomized controlled trials (RCTs) on the whole are not very suitable for wide-ranging, multifaceted, environmental approaches, especially when the approaches explicitly encourage leeway, choice, local adaptation, and tailoring. There are many types of quantitative and qualitative method and data collection which can more appropriately be used to provide useful information about how well an enabling framework is delivering attitude and policy change. We should be clear that the evaluation approach first and foremost needs to fit the nature and aims of the intervention.

Finding a balance between frameworks and fidelity.

However, large-scale programs are usually required to be more than an enabling framework which may or may not prove to be effective. They are expensive, and often publicly funded, and expected to show clear results.

There are two obvious ways forward out of this dilemma. We might look for opportunities to evaluate parts of whole-school approaches that are being delivered with high-quality intervention methods using control trials. We can then use softer methods to understand the wider picture of changes to underlying attitudes, policy, and practice.

However, in the final instance, if a controlled evaluation of the entire program is a political necessity, then the whole program needs to be delivered in a focused, and more prescriptive manner, as has been achieved already in some of the more demonstrably effective whole-school programs in the United States (such as the Seattle Social Development Project/Communities that Care; Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005). This requires a great deal of time to discover empirically what works and ways to assess it appropriately, but once a whole-school program is piloted and the parameters established those involved can build on what is now known, consolidate and formalize their guidance and procedures, and provide clarity and direction for future developments to ensure more consistent implementation of clear, evidence-based interventions that can be subject to controlled evaluations.

Larger, well-established, multifaceted interventions might do well to ensure that generally they do more to meet the implementation criteria for clarity and fidelity, and give concrete advice on such issues as where to start, how to set measurable goals and evaluate them, and the need to prioritize,

to phase in changes slowly and ensure that they are properly embedded before going on to the next.

It may, however, also be the case that once any approach becomes set in stone people from a new generation or in a new context need to reinvent it for themselves in order to gain a sense of ownership, and so program fidelity and high-quality implementation can only take us so far. Effective program development for wellbeing will always be a matter of managing complex and changing balances and tensions, using nuanced thinking and empirically based compromises. There are no easy or universal answers, as ultimately we are dealing with human beings who will always be a contrary and paradoxical bunch.

Strengths and limitations of the evidence.

Several reviews commented that a lack of methodological rigor in many of the studies analyzed made reaching firm conclusions a challenge. The problems encountered included: lack of control groups; lack of randomization; small numbers; short duration; poor reporting quality; inadequate description of methodological procedures; lack of assessment of intervention implementation; missing data; and failure to report all outcomes.

Reviews of reviews cover a large number of studies and can produce some robust and reliable evidence. The systematic reviews looked at are generally acknowledged as powerful tools which provide quantitative estimates of the average impact of interventions and reducing bias through their rigorous strategies. However, there are things such a design necessarily misses. This review of reviews could not, by definition, identify new primary studies and the reviews it reviewed were restricted to work that passes the quality criteria of systematic review, which means it only includes what has been evaluated through controlled trials. This review of reviews may therefore have missed promising interventions that have not yet been reviewed and/or have been evaluated in other ways than through a controlled trial.

However, the methodological weaknesses may not in practice greatly affect the validity and reliability of the conclusions. Wilson and Lipsey (2006a), reviewing universal school-based social information-processing interventions on aggressive behavior, found that studies with higher quality methods (e.g., those with random assignment or low attrition) did not produce better (or worse) outcomes than studies using less rigorous methods. The same authors also found that there were no significant differences in terms of outcome between experimental and quasi-experimental studies (Wilson & Lipsey, 2006b). The lack of difference made by methodological rigor lends support

to the idea that the findings of this review in terms of core principles identified may be applicable across a broad range of work, including that which falls outside the strict parameters of this review.

Summary and Conclusions

The interventions identified by the reviews had a wide range of beneficial effects on children, families, and communities and on a range of mental health, social, emotional, and educational outcomes. The principles that need to drive effective approaches and interventions include:

- taking a broad focus on positive mental health and wellbeing within which a concern with mental health problems is located;
- working holistically to understand the underlying causes of behavior, such as emotions, attitudes, and beliefs of all parties, and understanding the influence of the surrounding cultural context, rather than focusing only on managing students' overt behavior;
- introducing foundation work on generic social and emotional learning early with the youngest children and continuing to reinforce this learning through the school career of students in a spiral manner;
- introducing new age relevant topics, such as conflict and bullying, and assertiveness, as young people mature;
- mobilizing the curriculum—identifying the key skills for wellbeing and teaching them explicitly;
- integrating work to promote wellbeing with the academic goals of the school, including learning and behavior for learning;
- balancing targeted and universal approaches in ways that are appropriate for the specific context;
- allowing time—both in terms of the life course of the child and the amount of time to allow a program to develop;
- developing a school ethos that ensures the right balance between key factors, such as warmth, respect, boundary setting, participation, and autonomy;
- using appropriate leaders at different points in the life course of a project, with some specialist input at the start to ensure program fidelity, and handing over to teachers to ensure that programs are integrated with the overall work of the school;
- liaising effectively with parents and the community;

- embedding work within a multimodal/whole-school approach that includes, for example, the school ethos, school policies, school staff development, teaching and learning and the curriculum, and the involvement of parents and the community;
- ensuring that focused interventions are completely and accurately implemented, with clarity, intensity, and program fidelity;
- achieving an optimal balance in whole-school interventions between using them as loose frameworks with flexibility and a sense of ownership and including within them more focused elements which are implemented with high levels of fidelity and clarity and can be subject to controlled evaluations.

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4

An Exploration of the Effects of Mindfulness Training and Practice in Association with Enhanced Wellbeing for Children and Adolescents

Theory, Research, and Practice

Christine Burke
Bangor University, U.K.

Introduction

The interest in mindfulness-based approaches with children and adolescents has burgeoned in very recent years, stimulated by several decades of growth in the empirical evidence from the adult mindfulness research field, and an increasingly broadened acceptance into wider populations. The empirical evidence base with younger populations is currently in an early developmental stage, yet the evidence suggests these approaches are feasible and acceptable with younger populations (Burke, 2010; Meiklejohn et al., 2012). Mirroring the adult field, the majority of youth mindfulness research stems from a clinical orientation, studying intervention effects on psychological and other clinical symptoms. However, as we witness the emergence of more universal applications, particularly in schools, it is timely to consider whether mindfulness training and practice may be of benefit to a

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broader range of children and adolescents, and if and how mindfulness may be associated in enhancing positive wellbeing outcomes.

Capturing mindfulness in a single definition is somewhat paradoxical, as mindfulness is fundamentally *experiential*, it is both a process and an outcome, it is an inherent human capacity and a practice for cultivating this capacity, and, essentially, mindfulness is *a way of being* (Germer, 2005; Kabat-Zinn, 2003, 2005). Mindfulness has been described as the *awareness* that emerges when we pay attention to our experience in a particular way: intentionally, in the present moment, with curiosity, acceptance and kindness, and nonjudgmentally (Bishop et al., 2004; Kabat-Zinn, 2003; Shapiro, Carlson, Astin, & Freedman, 2006). Mindfulness invites a willingness to be with our experience *just as it is*, in each unfolding moment, aware of the ebb and flow, the flux and change of experience from one moment to the next.

Mindfulness is an *embodied* practice, explicitly recognizing the interconnection of the body–mind system, and how the body experiences cognition and affect. Felt awareness of body sensations is integral in practicing mindfulness, in providing immediate contact with one's present-moment experience, and providing an "anchor" for attention. Equally integral is the awareness of the felt experience of cognition and affect *in the body*, as these co-occur. Bringing awareness to body sensations assists one to distinguish their immediate, present experience from thoughts or mental storylines *about* the experience (McCown & Reibel, 2009).

The empirical literature, largely from adult studies, suggests positive associations between indicators of wellbeing and dispositional mindfulness, and as an outcome of mindfulness training interventions (Brown & Ryan, 2003; Carmody & Baer, 2008; Keng, Smoski, & Robins, 2011). Mindfulness may enhance wellbeing in a number of ways, possibly by heightening the richness and clarity of everyday experiences through present-centered, receptive awareness, and more indirectly, by nurturing self-regulatory capacities and behaviors, and through clarification and enactment of one's values (Brown & Ryan, 2003; Josefsson, Larsman, Broberg, & Lundh, 2011; Nyklíček, 2011; Ryan, Huta, & Deci, 2008). The associations of mindfulness and heightened self-compassion have been suggested as possibly crucial in the relationship with enhanced wellbeing (Baer, 2003; Birnie, Speca, & Carlson, 2010; Hollis-Walker & Colosimo, 2011; Neff, 2004).

Empirical investigation of mindfulness and wellbeing have some parallels: they are both felt and lived experiences, difficult to define neatly, and notoriously challenging to measure empirically. There may be some paradox when investigating mindfulness for the purpose of enhancing of wellbeing:

practicing mindfulness for the *purpose* of achieving or improving wellbeing (or to feel good, reduce anxiety or anger, etc.) may limit an individual's awareness of just being present with experience, thus limiting the process of mindfulness, and its potential benefits (Brown & Ryan, 2003; Epstein, 2001). Mindfulness requires letting go of expectations or goals of change (Semple & Lee, 2011). This non-goal orientation can bring distinctive challenges to practicing and teaching mindfulness, and to utilizing mindfulness as a salutary intervention. Yet the empirical research suggests that mindfulness *does* facilitate beneficial change, and the theorized mechanisms of change are explored in detail later in this chapter. Mindfulness may offer a unique contribution to the empirical field of wellbeing, given that wellbeing research has revealed "surprising little about how to *change* wellbeing" (Lyubomirsky, Sheldon, & Schkade, 2005, p. 112). Mindfulness may enhance wellbeing, perhaps by letting go of the *pursuit* of wellbeing and just *being*; the empirical investigation of how this may occur, particularly with children and adolescents, has only just begun.

The fields of child and adolescent wellbeing and mindfulness are both significantly informed by the more abundant adult-centered theory and research, and therefore provide valuable background to this exploration of mindfulness, wellbeing, and youth. In considering how mindfulness and wellbeing may be associated, first the terrain of child and adolescent wellbeing is reviewed, including current conceptualizations, empirical measurement and relevant developmental issues. Then an account is provided of mindfulness, its processes and theorized mechanisms, its empirical measurement, and an overview of the associations between mindfulness and wellbeing in youth. The developmental and contextual issues relevant to sharing mindfulness with children and adolescents are addressed, with reference to current practice. The chapter concludes with suggestions on how the empirical field can advance the understanding of the associations between mindfulness and enhanced wellbeing, particularly in consideration of the recent growth in universal, school-based applications.

Child and Adolescent Wellbeing

Conceptualizations of child and adolescent wellbeing draw predominantly from adult models, which include both specific and broad, general constructs. Current conceptualizations recognize wellbeing as a positive state, rather than merely the absence of disease or disorder, and have described

wellbeing as feeling good and functioning well across personal and interpersonal domains (Huppert et al., 2009). This encompasses the two strands of hedonic (feeling good, contentment, life satisfaction) and eudaimonic wellbeing (fully functioning, living well, actualizing one's potentials) (Deci & Ryan, 2008; Ryff & Singer, 2008). Wellbeing is also recognized as a dynamic, relational and contextual process occurring within a culture, place and time (New Economics Foundation, 2009; White, 2010). Children's *total* wellbeing may also include the relationship between wellbeing as a state, experienced in the present, and a developmental process of well-*becoming*, which encompasses the realization of children's potential in future wellbeing, as their life paths unfold (Ben-Arieh & Frønes, 2011). Child and adolescent wellbeing is understood within these overall frameworks, while recognizing the pivotal role of family, peer and school relationships, as well as community and structural influences on wellbeing (Shucksmith, Spratt, Philip, & McNaughton, 2009).

Multiple dimensions of child and adolescent wellbeing have been studied using both objective and subjective indicators. These include material circumstances, environment, health, education, behavior/risks, peer and family relationships, and satisfaction with some of these areas of life (Bradshaw, Keung, Rees, & Goswami, 2011; Ipsos MORI & Nairn, 2011; The Children's Society, 2012; UNICEF, 2007). The importance of children and adolescents' subjective experience of wellbeing is widely recognized, and recent empirical literature demonstrates increasing reference to hedonic and eudaimonic wellbeing constructs in youth research, often identified as subjective wellbeing (SWB) and psychological wellbeing (PWB) (Deci & Ryan, 2008; Ryff & Singer, 2008). However, the literature more frequently evidences broad terms such as "psychological," "mental," "social and emotional" wellbeing, which offer diverse indicators, and vary in their incorporation of subjective perspectives, and of feeling/functioning dimensions.

"Subjective wellbeing" has been used in the child and adolescent literature to describe both the specific construct of "SWB," as a hedonic/feeling dimension and also as a two-strand approach to the subjective experiences of feeling and functioning. As "SWB" is increasingly used in child and adolescent research, it is helpful to describe its construct. SWB derives from personal evaluations about the elements of one's own life and has a cognitive component (satisfaction with life, globally and in important domains) and an affective component (the balance of positive and negative affect) (Diener, 2000). The construct of SWB appears to be viable and visible with

adolescents (McCullough, Huebner, & Laughlin, 2000; Park, 2004) and with children as young as 8 years (Huebner, 2004; Konu, Lintonen, & Rimpela, 2002). SWB has been suggested as an important indicator of positive youth development, a potential buffer against psychological disorders, and a facilitating factor in promoting optimal youth mental health (Park, 2004). Child and adolescent studies have assessed SWB using youth-specific scales of life satisfaction and affective components (e.g., Long, Huebner, Wedell, & Hills, 2012), or combined component scales (Ivens, 2007; Konu et al., 2002), or scales of life satisfaction without the affective component (see Proctor, Linley, & Maltby, 2009 for a review of youth life satisfaction research).

There is some adolescent research that uses "psychological wellbeing" to represent the construct PWB, as a eudaimonic/functioning dimension (purpose in life, environmental mastery, positive relationships, personal growth, autonomy, self-acceptance: Ryff & Singer, 2008). Adult PWB scales have been deemed suitable for use in several adolescent studies (e.g., Garcia & Siddiqui, 2009; Ruini et al., 2009; Salami, 2011), and in combination with SWB scales (Garcia, 2011), although there does not appear to be similar use of the PWB construct or related measures in child research.

The broader use of the term "psychological wellbeing" includes a range of concepts that often do not explicitly articulate hedonic–eudaimonic dimensions. Concepts include psychological or mental health symptoms, psychological constructs (e.g., attachment, attitudes, self-esteem, adjustment, optimism, self-concept, resilience, etc.), and emotional, behavioral and attention difficulties (Pollard & Lee, 2003). "Social and emotional" wellbeing also draws on broad concepts, including feelings, behavior, relationships and personal strengths (ARACY, 2010). Particularly within education frameworks, children and adolescents' social and emotional wellbeing is linked with social and emotional competencies (e.g., self-awareness, self-management, social awareness, relationship skills, responsible decision-making: CASEL.org; http://casel.org). In addition to these social–emotional competencies, positive approaches to wellbeing in schools also highlight resilience skills, positive emotions (belonging, safety, satisfaction, excitement, optimism), positive relationships (with peers and teachers), engagement through strengths, and a sense of meaning and purpose (Noble & McGrath, 2008).

These broad, varied concepts and indicators of wellbeing employ a diverse range of quantitative measurement approaches, that include both positive and deficit approaches to wellbeing. Empirical research has primarily

employed self-report and parent/teacher rating scales of psychological symptoms, behaviors, attention, social skills/competencies, affect, mood, and scales of various psychological constructs (as above) (ARACY, 2010; Pollard & Lee, 2003; Schonert-Reichl, Lawlor, Oberle, & Thomson, 2009). Such measures, as with any self- or third-party ratings, reflect subjective evaluations of experience, couched in a particular time and context, and are subject to a range of influences that potentially hamper their reliability. Child and adolescent self-reports may be influenced by response biases, such as social desirability or acquiescence, are influenced by factors such as reading comprehension (Dadds, Perrin, & Yule, 1998; Weems, Onwuegbuzie, & Collins, 2006), and are particularly influenced by cultural factors (Gilman et al., 2008; Roth & Gilman, 2006; Schmitt & Alik, 2005). Similarly, parent or teacher reports are subject to the influence of their own expectations, their perceptions of the child/adolescent's experience, and findings suggest that there are only low to modest associations between self- and third-party reports (Achenbach, McConaughy, & Howell, 1987).

Overall, child and adolescent wellbeing literature reflects diversity in conceptualizations, indicators, and measurement scales. Quantitative analysis dominates the empirical research, with little use of formal qualitative analysis. Although the combined PWB and SWB constructs may be valid representations of total wellbeing in adults, this is an area of emerging study with youth. There may be utility in drawing on the SWB–PWB construct with adolescents, but this is less clear with children. There are a myriad of wellbeing indicators that can be selected as dependent variables in mindfulness intervention research. Some may offer more precise and comprehensive depictions of wellbeing than others. Indeed, how we explore the association of mindfulness and wellbeing is particularly influenced by which indicators and measures are selected to represent "wellbeing."

Developmental Factors in Child and Adolescent Wellbeing

Wellbeing in children and adolescents is a dynamic process, occurring in constant transactional relationships between their individual characteristics and multiple external factors and environments. Key aspects of the environment are relationships, and their contexts, in both microsystems (e.g., family, school) and macrosystems (e.g., cultures/subcultures, belief systems) (Lippman, Moore, & McIntosh, 2011; New Economics Foundation, 2009). Clearly, child and adolescent wellbeing is not solely an individual pursuit. It is noteworthy that "individual characteristics" too, are shaped

by interactions and relationships. To significant degrees, child and adolescent wellbeing is embedded within the systems in which they live. Adults are largely responsible for creating these systems, at the level of family, schools, and the broader societal and cultural systems, and play significant roles in maintaining these systems. There is growing recognition that some adult-created cultural/societal systems may be promoting environments that have negative impacts upon children's wellbeing, such as commercialization, and excessive media use (Linn, 2010; Nairn, Ormrod, & Bottomley, 2007). Thus it is important to recognize that adults maintain vital roles and responsibilities in nurturing and supporting the wellbeing of children and adolescents throughout their development. These responsibilities can be shared with them gradually, as their individual characteristics shape, evolve and consolidate and can eventually be handed over to them as they establish themselves as adults in the world, in the process of well-becoming.

The path to wellbeing may begin in the earliest moments of life, and it is continually shaped through experience and dynamic transactions with the environment along the way. Genetic heritage, maternal stress, personality and its early foundational state of temperament, early caregiving environment, stressful experiences, parental wellbeing, attachment relationships, and the development of self-regulation capacities have all been associated with later wellbeing (Bradshaw et al., 2011; Diener, Suh, Lucas, & Smith, 1999; Holder & Klassen, 2010; Lyubomirsky et al., 2005; Mikulincer, Shaver, & Pereg, 2003; Siegel, 2007; Weinstock, 2005).

Affective neuroscience provides some insight into possible neural correlates of wellbeing that appear to be present from infancy. Adult research suggests that greater left than right prefrontal cortex activation correlates significantly with greater SWB and PWB (Urry et al., 2004). This pattern of asymmetry is also believed to reflect an approach rather than an avoidance preference in motivation and emotion, and be associated with positive affect (Davidson, 2004). Similar patterns have been found in infants aged 9 months. Those with higher levels of positive affect displayed greater left prefrontal activation, and those with higher levels of negative affect displayed greater right-side activation, with the latter also predictive of social withdrawal at 4 years of age (Calkins & Fox, 2002). Further studies have suggested that infancy and childhood may be a period characterized by discontinuity rather than stability in neurology, and associated temperament and behavioral characteristics. Several studies found that only 25–30% of children identified with early right-side prefrontal asymmetry (characterized by negative affect, and avoidance tendencies) remained that way over time

(Davidson & Rickman, 1999, cited in Davidson & Begley, 2012; Fox, Henderson, Rubin, Calkins, & Schmidt, 2001). The childhood caregiving environment has been suggested as a significant moderator of early affective and temperamental style, and potentially influencing neural continuity or discontinuity, as well as providing essential foundations for the development of self-regulatory capacities (Calkins & Fox, 2002).

Through early and later childhood, multiple new influences on wellbeing enter into transactional relationships with the child, including cognitive, emotional, and physical developmental factors, siblings, peers, and ever widening social and cultural environments, and significantly, school, and all of the relationships entailed therein. The transition into and through adolescence brings more influences into interactions, and shifts in what are perceived as the important domains in life satisfaction. For example, while parent and teacher relationships are critical in childhood, these shift to satisfaction with appearance and romantic relationships in adolescence, as predictors of global life satisfaction (Long et al., 2012). Throughout development, the role of stress, stressors, and coping in shaping child and adolescent wellbeing are extensive, with daily life hassles reported as the most common cause of stress experiences, and the most deleterious are ongoing stress experiences where they have no control (Byrne, Thomas, Burchell, Olive, & Mirabito, 2011; Kraag, Zeegers, Kok, Hosman, & Abu-Saad, 2006).

The vital roles of adults, relationships, and contexts in child and adolescent wellbeing is of particular significance when considering interventions for enhancing wellbeing. If an intervention teaches new skills, attitudes, and ways of relating to self and others, it is far more likely to be successful in effecting change if those teaching the skills model congruent skills, attitudes, and relational behaviors. The likelihood of sustaining beneficial change is improved if systems in which children and adolescents are embedded, particularly family and school, are supportive of and congruent with these skills, attitudes, and relational behaviors.

Child and Adolescent Mindfulness

Background

Secular mindfulness-based approaches have a relatively short history in Western health and psychology, first appearing in the late 1970s, with the introduction of mindfulness-based stress reduction (MBSR) as a novel

group intervention for adults with chronic pain in a medical setting (Kabat-Zinn, 1990). MBSR developed from a behavioral and mind/body medicine perspective (Kabat-Zinn, 2000), integrating universal elements of Buddhist mindfulness meditation practices that are not tied to any religious or philosophical tradition (Baer, 2003; Kabat-Zinn, 2003). Mindfulness-based cognitive therapy (MBCT) is a more recent development, based largely on MBSR foundations and curriculum with additional cognitive elements specific to individuals with experiences of depression, and incorporate case formulation models (Segal, Williams, & Teasdale, 2002; Teasdale, 2004). MBSR and MBCT are considered as strength-based approaches, drawing on the inherent capacity of each individual's interconnected body-mind system to self-regulate, heal, and embrace health (Kabat-Zinn, 1990).

MBSR and MBCT are 8-week group programs, teaching mindfulness through experiential and participatory learning approaches, and emphasize self-responsibility within a supportive and collaborative context (Santorelli & Kabat-Zinn, 2009; Segal et al., 2002). Central to MBSR and MBCT is the regular practice of "formal" mindfulness meditation practices, in group sessions and home practice, and "informal" practice, bringing mindfulness to everyday life experiences. Teachers of MBSR and MBCT group programs are expected to have a depth of personal experience of mindfulness, developed through regular ongoing mindfulness practice, and an embodiment of foundational attitudes of mindfulness, considered to be of particular significance to the teacher's competence and effectiveness in facilitating the skills and capacities for mindfulness in others (Crane, Kuyken, Hastings, Rothwell, & Williams, 2010).

The focus of this investigation is on empirical research of recently developed child and adolescent mindfulness programs founded on the models of MBSR & MBCT (sometimes termed mindfulness training*)* in both clinical and universal contexts, and the suggested associations with enhanced wellbeing. As a nascent field, there is little child- or adolescent-specific empirical theory of mindfulness, although there are very specific developmental adaptations in practice, and there is an assumption that mindfulness operates in similar ways with youth as it does in adults. In the absence of contrary evidence, the generally theorized processes and mechanisms of mindfulness are deemed relevant to children and adolescents, and many of the theorized associations with enhanced wellbeing may also be applicable. The specific developmental issues are then addressed, before proceeding to review the current empirical field, the measurement of mindfulness, and the findings

from child and adolescent mindfulness research and what this reveals about the associations with enhanced wellbeing.

Mindfulness: Theoretical Processes, Outcome, Mechanisms

Mindfulness is considered both a process and an outcome. At a basic level, as a process, mindfulness involves paying attention in the present moment *in a particular way*. As an outcome, mindfulness is the *awareness* that emerges when we pay attention in this way, the present-centered state of being that is mindfulness. Three interrelated components occur simultaneously to allow mindfulness to emerge: *intention, attention*, and *attitudes* (Shapiro, Carlson, Astin, & Freedman, 2006).

Intention includes the intention to set aside a specific time to practice mindfulness, and the intention, in practice, to be present-focused, maintain particular attitudes, and intentionally focus attention in the practice. It also includes the intention to bring mindfulness to everyday life experiences. *Attention* is explicit in mindfulness practice, with the purposeful and repeated practice of attention skills, focusing, sustaining, disengaging, shifting, and refocusing attention, as well as narrowing and expanding the field of attention. The *attitudes* brought to oneself and own experiences are as vital as intention and attention in the process of mindfulness, otherwise it could become just a process of cold or harsh intentional attention. Mindfulness invites a gentle, affectionate, curious, and kindly attitude, with attitudes of nonjudgment, nonstriving, patience, and trust. An attitude of beginner's mind supports the process, letting go of expectations and approaching each moment as if it is fresh and new—which it is (Kabat-Zinn, 1990).

As an outcome, mindfulness is simply the awareness that emerges through the process of bringing together intention, attention, and attitudes to experience in the present. With mindful awareness, one can intentionally adopt a mindful or "being" mode of conscious processing, from where one can observe the elements of inner experience as they are happening, and with objectivity and clarity (Segal et al., 2002). This mode of mind is contrasted to a "doing" mode of mind, a mode that arises from a continuous process of monitoring and comparing an idea of how things are (or are anticipated to be) with an idea of how things should be, or ought to be. When a discrepancy between the two is registered, a doing mode automatically triggers negative affect, which then initiates a cognitive response (such as rumination or avoidance strategies) in an attempt to reduce the discrepancy, and, if successful, may bring a feeling of wellbeing, until the next discrepancy

is registered (Bishop et al., 2004). Adopting a being mode of mind invites direct and receptive contact with experience, which allows disengagement from narrow self-focused processing, from constant discrepancy monitoring, from the associated negative affect, and from automatic, reflexive habits of mind.

Mindfulness invites the observation of thoughts, emotions, and sensations as separate, yet interrelated phenomena, and as transitory events that arise, linger, or move fleetingly, and pass, from one moment to the next. Thoughts, emotions, and sensations can be recognized as "just" thoughts, "just" emotions, "just" sensations, rather than stable reflections of reality, or an intrinsic part of one's identity. In what may initially feel counterintuitive, mindfulness invites us to hold *any* thought (emotion, sensation)—whether pleasant, neutral, or unpleasant—with nonreactive, non-evaluative awareness.

For most people, this entails shifting to a new perspective on their inner experience. This shift in perspective is known as reperceiving or decentering (Shapiro et al., 2006). A decentered perspective can engender a shift in one's *relationship* with inner experience, where thoughts, emotions, and sensations can be acknowledged, and observed as transient phenomena, without any need to react to or change the experience (Segal et al., 2002). Decentering allows an opportunity to release from the overpersonalization with thoughts (emotions, sensations) and to hold these experiences in a wider, more spacious field of awareness, in metacognitive awareness (Teasdale et al., 2002). This perspective allows a space between observed phenomena and one's response, and within this space lies the power to consciously choose one's response (Frankl, 1984). As such, decentering is considered as holding a key role in engendering beneficial, therapeutic changes associated with mindfulness practice.

Mindfulness offers a way of relating to our inner experience, and equally a way of relating with the world. With mindful awareness, one can intentionally open to a wider field of awareness, incorporating awareness of external experience, while maintaining openness to noticing what is happening internally (in thoughts, emotions, body sensations). Bringing present-centered embodied awareness to whatever you are in engaged with offers the possibility of engaging more fully in life, whether you are in conversation with a friend, washing the dog, or preparing a presentation. For much of our waking lives, many of us are not often fully engaged with what is happening in the present: our minds are frequently occupied in streams of thought or mental storylines, often centered in the past or future, disconnecting us from being present with what we are engaged with, and limiting our

awareness of the fullness of experience, such as the myriad of sensory experiences surrounding us. Mindfulness provides an opening to seeing the extraordinary in the ordinary, and living more fully, in the present.

A number of mechanisms and interrelated processes of mindfulness have been proposed, that may facilitate the beneficial outcomes of mindfulness practice. Reperceiving, or decentering, as described above, is the shift in perspective that can lead towards a changed relationship with one's inner experience. Reperceiving/decentering has been described as a meta-mechanism, which initiates further mechanisms of self-regulation (of attention, emotions and behavior), enhanced body awareness, experiential exposure and values clarification. All of these mechanisms are considered to interact interdependently rather than independently. (Baer, 2003; Hölzel et al., 2011; Nyklíček, 2011; Shapiro et al., 2006). Self-compassion, described as the interrelated components of self-kindness, common humanity and mindfulness (Neff, 2004), is emerging in research as significantly associated with mindfulness processes. Self-compassion has been suggested as both a potential mechanism of mindfulness (Baer, 2003), and as a significant component in the beneficial treatment effects of MBCT (Kuyken et al., 2010).

How Might the Mechanisms and Processes of Mindfulness Enhance Wellbeing?

There are number of ways in which mechanisms of mindfulness may interact to bring beneficial effects that may enhance wellbeing, in adults, as well as children and adolescents, in feeling and functioning aspects in both personal and interpersonal domains. Significantly, intentionally adopting a being mode of mind offers an alternate way of relating to inner experience that may foster beneficial effects. As described above, the doing mode of mind involves constant discrepancy monitoring, between a *desired* state and one's perceived state (i.e., wanting things to be different from how they are). When discrepancies are noticed, negative affect arises, and reflexive cognitive and behavioral attempts are made to reduce the discrepancies. This doing mode of mind is incompatible with a mindful, being mode which invites nonreactive, non-evaluative awareness of whatever is present. Adopting a being mode means that discrepancy monitoring, and associated reactivity becomes irrelevant, and the associated negative affect simply may not arise. If negative affect does arise, it is simply observed as "just" affect,

as a passing event in the body–mind, and awareness can be returned to the direct observation of experience as it is in the moment.

The perspective of reperceiving/decentering, with its nonreactive observation of thoughts, emotions, and sensations as passing events, brings a shift in one's relationship with inner experience, with the realization that "I am not my thoughts," "I am not this pain," "I am not this feeling of anxiety" (McCown & Reibel, 2009). This recognition offers a shift away from overidentification with thoughts, emotions, and sensations. A decentered perspective provides a space between stimulus and response, thus reducing automatic reactivity, and a space from where choices can be consciously made, and enacted. This process is likely to have effects on one's sense of autonomy and self-efficacy, in knowing that choices are available, and then intentionally choosing to enact these.

Reperceiving/decentering is considered as the central mechanism of change in mindfulness. As a meta-mechanism, it is thought to activate related mechanisms of self-regulation (attention, emotion, and behavior), experiential exposure, and values clarification. These processes operate in concert with enhanced bodily (interoceptive) awareness, bringing a felt sense to the observation and experiencing of thoughts and emotions in the body–mind system. Nonjudgmental observation of experiences in the body provides a valuable source of information about our inner states, providing an early warning of changes in mood, and informing conscious choices in behavior and interactions in personal and interpersonal domains (Williams & Duggan, 2006).

Reperceiving, suffused with interoceptive awareness, and the reduced reactivity that may accompany it, allows for self-regulatory capacities to be exercised consciously. The capacity for self-regulation of attention underpins emotion and behavior regulation capacities, and is cultivated intentionally in mindfulness practice. The regular, repeated practice of focusing, sustaining, disengaging, shifting, and refocusing of attention from one object of awareness to another may hone and strengthen the capacity for attentional control. This is likely to improve capacities for volitional self-regulation of attention, which can be brought to everyday life activities. Neuroimaging studies with adults suggest that mindfulness practice is associated with enhanced attentional capacities (Brefczynski-Lewis, Lutz, Schaefer, Levinson, & Davidson, 2007; Hölzel et al., 2007), and although there is no current child or adolescent neural research, intervention studies to be later reviewed suggest there may be comparable effects. For children and adolescents engaged in learning activities, in or outside the classroom, mindfulness may bring improved

capacity to focus and attend to the task at hand, offering the possibility of heightened competence, self-efficacy, and functioning, with related effects for wellbeing.

Attention regulation further influences emotion regulation, which is viewed as crucial for wellbeing (Nyklíček, 2011). Enhanced emotion regulation may occur through the practice of mindfulness, by intentionally bringing an embodied awareness to the felt experience of emotions, with decentering allowing for emotions to be noticed, differentiated, acknowledged as passing events in experience, without any need to do anything with them. This leads to a subsequent reduction in reactivity or automatic responding, and allows for choices over how to respond. This process is incompatible with cognitive-affective responses of avoidance, such as distraction, rumination, or suppression (Nyklíček, 2011), and may be consequential in alleviating any habitual or automatic tendency to over-engage in emotional experience. Reducing habits of either experiential avoidance or over-engagement with emotions has understandable benefits for mental health and psychological wellbeing. Additionally, it may offer preventative effects for children or adolescents before such habits become entrenched.

In the process of decentering, even strong and painful emotions can be acknowledged as present, experienced in the body–mind, supported by attitudes of kindness and gentleness to oneself in the midst of the experience, without reacting or struggling against having the experience. Experiential exposure may act as a mechanism of beneficial change in this process. Embodied exposure to strong emotions, without reacting to avoid the experience, may bring increased tolerance of strong emotions. This exposure may facilitate the extinction of reactive emotional responses, such as fear, as strong emotions become viewed as less threatening, acknowledged as passing events in the body–mind. Exposure may also encourage the extinction of cognitive and behavioral avoidance strategies. (Baer, 2003; Hölzel et al., 2011; Nyklíček, 2011). For example, unhealthy responses employed to numb or avoid strong emotions (e.g., alcohol and substance misuse) may be replaced by conscious, volitional choices in behavioral responses.

Aforementioned mechanisms all support the improved capacity for behavior self-regulation, and from choosing to respond rather than react across multiple contexts. Improved self-regulation of behavior is suggested as linked to enhanced wellbeing through adopting healthy coping skills, improved self-management and heightened sense of self-efficacy and autonomy (Baer, 2003; Shapiro et al., 2006). For children and adolescents, the associated effects may be experienced in both improved personal and

interpersonal functioning. Reduced reactivity supports relationship skills, potentially improving the quality of interpersonal relationships, with peers, siblings, and with adults in their lives, particularly parents and teachers. It is also likely that enhanced emotion and behavior regulation capacities can assist in coping with the daily life hassles, which are children and adolescents' most frequent source of stress. Coping more effectively with these regular stress experiences will have positive effects on wellbeing.

Values clarification may operate via reperceiving, and has been directly associated with autonomy and eudaimonic aspects of wellbeing (Ryan et al., 2008). From the perspective of reperceiving, one may recognize and clarify what is truly valued and personally meaningful (Shapiro et al., 2006). This offers the opportunity to choose to act consciously in accordance with personal values, rather than reactively, perhaps in discord with personal values (Nyklíček, 2011). There may be developmental distinctions in these processes for children, adolescents, and adults. Children and adolescents' formation of values is a dynamic developmental process, particularly influenced by parental and family values, and subject to increasing influences during development as interactions with wider environments increase. As an unexplored area in child and adolescent mindfulness literature, it can only be speculated if and how values clarification may operate in youth. Perhaps mindfulness, and the perspective of reperceiving, could offer a capacity to children and adolescents to be aware of the flux and change of external influences on their values and choices, and perhaps could facilitate the processes of forming and firming their own values developmentally.

Self-compassion, with interrelated components of self-kindness, common humanity and mindfulness, is associated with wellbeing (Neff, 2004), and increased self-compassion appears to be associated with mindfulness practice (Baer, 2003). Self-compassion is considered as an adaptive way of relating to oneself, and may support emotion regulation mechanisms of mindfulness (Hölzel et al., 2011). Though not yet explored extensively in child and adolescent research, self-compassion has been associated with adolescent wellbeing (Neff & McGehee, 2010). The concept of "attunement" is also associated with mindfulness, as both intrapersonal and interpersonal attunement. Attunement is considered as a felt sense of connection in one's relationship with oneself, and in relationship with others, akin to that experienced in a secure attachment relationship (Siegel, 2007). Mindfulness practice is considered as a way of becoming one's own best friend, and developing a self-aware, attuned relationship with oneself. A heightened self-awareness supports interpersonal relationships, and one's capacity to

engage in attuned connections with others. Attunement may offer potential benefits for one's personal sense of wellbeing, and in one's experience of wellbeing in relationships with others. Self-compassion and attunement present directions for future child and adolescent research, and how these may relate to enhanced wellbeing.

Beneficial effects from mindfulness may emerge through the process of *being fully present* in one's own life. Intentional present-centered awareness may open individuals to enhanced awareness of the vibrancy and fullness of experience that may not otherwise be noticed, if we are predominantly caught up in merely *thinking* about our lives rather than actually *living* them. Practicing mindfulness regularly can enhance a capacity to bring open, receptive awareness to our lived experience, in the present, and to live our lives *as if they really mattered*. The association of this aspect of mindfulness with the subjective nature of the felt and lived experience of wellbeing is likely to be equally accessible to children and adolescents as it is to adults.

A related effect may come from rebalancing the way we process information from both our inner and outer world, with a move away from overreliance on "top-down" influences on information processing to a more balanced position where we open more readily to information through "bottom-up" processing. "Top-down" influences draw on invariant representations, expectational biases, judgments, categorizations, generalizations, etc. All of these have evolutionary value, and aid in the rapidity of information processing, but can impede our direct contact with what is actually happening in the present (Siegel, 2007). Direct contact with sensory experience, through "bottom-up" processing, may open us to greater richness and vividness in our experiences, without limiting or obscuring our experience in the present by preconceptions or judgments of how experience should, or ought to be. Sharing mindfulness with children and adolescents may offer the opportunity to enhance their wellbeing through establishing a balanced approach to their lives, and may have the potential to be of positive influence on their well-*becoming*.

Mindfulness does not actively engage individuals in promoting positive affect, nor decreasing negative affect: in fact, it encourages *nonjudgment* of affective experience, where it is all viewed as "just" affect, neither good nor bad. Paradoxically, it does appear that shifts in levels of positive and negative affect are an emergent property of mindfulness practice. A controlled neuroimaging study with adult MBSR participants reported a significant shift from right-side prefrontal asymmetry towards greater left-sided prefrontal activation after an 8-week course. (Davidson et al., 2003).

This pattern of neural asymmetry, as noted, is associated with an approach over an avoidance preference, and is associated with positive affect and wellbeing (Davidson, 2004). Similar research has not, as yet, been reported with children or adolescents.

In summary, changes in positive and negative affect may result as a beneficial by-product of mechanisms of mindfulness, rather than a specific goal. For example, negative affect may reduce as reactivity reduces, as a consequence of accepting experience *as it is*, and from adopting a non-evaluative perspective to one's inner experiences. Positive affect may increase as a consequence of engaging in the full *experience* of life, in relating to oneself with awareness, self-compassion, and attunement, and extending this way of relating into relationships with others. These and other potential beneficial outcomes of mindfulness practice are offered as possibilities, rather than goals or expectations to strive to achieve. Teaching mindful attitudes and practices to others, without setting expectations of what *will* happen, entails a *skillful* approach to teaching. The brief, 30-year history of secular mindfulness interventions suggests that this is most effectively undertaken by those who themselves embody the experience of the attitudes and practices of a mindfulness-based approach.

Empirical Research of Mindfulness with Children and Adolescents

Measuring mindfulness in children and adolescents.

Within the last decade, a number of self-report questionnaires for adults have been developed. For a review of five prominent measures, and development of a Five Factor Mindfulness Questionnaire (FFMQ) see Baer, Smith, Hopkins, Krietemeyer, and Toney (2006). Measures are suggested as sensitive to both dispositional mindfulness, and increases in mindfulness following training, although there is some conjecture in the field as to whether any of these measures adequately capture "mindfulness" (see, e.g., Baer, Walsh, & Lykins, 2009; Brown, Loverich, Ryan, Biegel, & West, 2011; Grossman, 2011; Grossman & Van Dam, 2011). Adult measures of mindfulness are used widely in non-intervention studies, as a measure of dispositional mindfulness, and in intervention studies, as both outcome and meditational variables.

There are currently two published validated measures of mindfulness in children and/or adolescents, the Child and Adolescent Mindfulness Measure (CAMM; Greco, Baer, & Smith, 2011) and the Mindful Attention Awareness Scale—Adolescent (MAAS-A; Brown, Loverich, West, & Biegel,

2011). The CAMM is a specifically designed 20-item child report measure of mindfulness, and has been validated in several large normative samples, aged 10–17 years. The MAAS-A is a 14-item measure adapted from the 15-item MAAS (Brown & Ryan, 2003), and has been validated in large normative samples aged 14–18, and a clinical sample, and has also been validated in a large normative Dutch sample, aged 11–17 years (de Bruin, Zijlstra, van de Weijer-Bergsma, & Bögels, 2011). Several studies have utilized adult validated measures, considered feasible with adolescents (e.g., Huppert & Johnson, 2010; Lau & Hue, 2011; Parto & Besharat, 2011).

The experiential nature of mindfulness, and issues around the sufficiency of quantitative measures alone, encourage utilization of formal qualitative analyses in adult mindfulness research (see Malpass et al., 2012, for meta-analysis of 14 studies). Child and adolescent research has yet to take this approach in all but a few studies, for example, Kerrigan et al. (2011) used content analysis methodology with urban adolescents in an MBSR intervention study, and several others have included informal qualitative interviews or self-reports (e.g., Broderick & Metz, 2009; Huppert & Johnson, 2010).

Empirical associations between dispositional mindfulness and wellbeing in children and adolescents.

Children's development of dispositional mindfulness, as a human capacity, is a virtually unstudied area, we know very little about it. From the field, it appears that, if introduced skillfully, a capacity for mindfulness may be realized and fostered in children as young as 4–5 years (Kaiser-Greenland, 2010; Saltzman & Goldin, 2008). Children's capacity for mindfulness may parallel a similar developmental path to cognitive and emotional development as per Piaget's stage model of development (Wadsworth, 1996), and thorough investigation of this area may illuminate whether this is the case. A child's self-awareness capacities develop over the first years of life, and by age 4–5 they generally have begun developing meta-cognitive self-awareness, representational abilities, and can hold multiple perspectives of objects and others (Rochat, 2003), and perhaps the capacity for mindfulness may emerge similarly. It is suggested as probable that the developmental path of dispositional mindfulness is experience-dependent. Brown, Ryan, and Creswell (2007) suggest that experiences such as chronic fear, threat, excessive external control, or contingent self-worth may hamper the developing child's dispositional mindfulness.

The capacity for voluntary control of attention emerges towards the first year of infancy, and continues to develop throughout pre-school and school

years, though marked individual differences are apparent (Calkins & Fox, 2002). Attention capacities are influenced by multiples factors through early development, such as temperament, affective reactivity, caregiver responsiveness, and cognition (Rueda, Posner, & Rothbart, 2005), all of which may come into play in the development of dispositional mindfulness. There is no shortage of examples of young children displaying the ability to be present and fully engaged with what they are doing in the present: the infant intently exploring the bowl of stewed apples with his hands, the toddler in the sandpit with her spade, digging and filling up a bucket with sand, the 6-year-old intently building his toy truck town. The capacity to be fully engaged with the present and sensory experience appears to be available from a very young age. A key question is when and how judgments and evaluations become a dominant feature of children's experiences, and how the process shifts from being fully present *with* experience to thinking *about* their experience.

Empirical studies of adults' dispositional mindfulness, using mindfulness measures, report significant correlations with a variety of wellbeing indicators (see Keng, Smoski, & Robins, 2011 for a review). The child and adolescent scales, which may provide a measure of dispositional mindfulness, have a much shorter history, though do appear to be associated positively with wellbeing indicators. Validation studies with normative samples of the CAMM (aged 10–17 years), found significant correlations between mindfulness and scores on a youth quality-of-life scale, somatic and internalizing symptoms, and externalizing behavior (Greco et al., 2011). The MAAS-A (aged 11–17 years and 14–18 years) significantly correlated with wellbeing measures on a youth quality-of-life scale, positive/negative affect, wellness, as well as factors associated with wellbeing, such as personality factors, healthy self-regulation, and substance use/coping behaviors (de Bruin et al., 2011; Brown et al., 2011).

Dispositional mindfulness, on the MAAS-A, was found to attenuate the relationship between everyday life hassles and symptoms of depression, anxiety, and stress in a large normative sample of 14- to 19-year-olds (Marks, Sobanski, & Hine, 2010), and using an adult measure (Philadelphia Mindfulness Scale, PHLMS), significant correlations were found between dispositional mindfulness and psychological distress, psychological wellbeing, autonomy, and self-regulation in a large sample of high school students in Tehran (Parto & Besharat, 2011).

As a very novel area, dispositional mindfulness, and its development in children and adolescents, warrants further study. If mindfulness is an inherent

dispositional capacity, and, as suggested, may be experience-dependent, it would be of interest to investigate whether factors in a child's early environment might nurture this capacity. Would, for example, being born to mindful parents, and raised in a mindful family, facilitate a child's capacity for mindfulness, and would this demonstrate any association with positive child and adolescent wellbeing?

Intervention studies: Child and adolescent mindfulness and wellbeing. The evidence base on child and adolescent mindfulness research is in an early developmental stage, and although it suggests mindfulness interventions are feasible and acceptable for school-age children and adolescents, there are few empirically robust findings to date. It is intriguing, however, that this appears to have had little effect on the rising popularity of mindfulness in the broader community, particularly in schools. Possible explanations of the popularity surpassing the evidence will be explored in later sections. Here, the research findings that suggest associations between mindfulness and enhanced wellbeing are reviewed, with consideration of the diverse range of wellbeing indicators identified previously.

An earlier review reported on 14 published and one unpublished studies (Burke, 2010), and the review undertaken for this chapter identified a further 14 new studies and one reanalysis published since the 2010 review. Of the total 29 studies, eight were randomized controlled trials (RCTs), six employed nonrandomized control groups, and the remainder open trials and non-experimental designs. Although feasibility studies are essential in early stages of research in an unknown area, and are significant as pilot studies of novel interventions, the non-experimental studies are not generally further reported here.

In the experimental and quasi-experimental design studies, five studies were undertaken with clinical groups (i.e., identified/diagnosed mental health and/or attention/behavior disorders, specific learning difficulties), the other nine studies with universal, nonclinical groups. Dependent variables were predominantly symptoms measures, including self- and/or parent/teacher ratings of psychological symptoms (depression, anxiety), and internalizing/externalizing behaviors. In addition, measures of attention and executive function were frequently studied. It is noteworthy that in the nine studies with nonclinical (universal) participants, most often, clinical symptom measures were employed. Given that many participants did not have clinical range symptoms to begin with, the sensitivity of such measures to detect change is limited. Most studies reported significant improvements

in some but not all outcome measures (Biegel, Brown, Shapiro, & Schubert, 2009; Bögels, Hoogstad, van Dun, de Schutter, & Restifo, 2008; Flook et al., 2008; Haydicky, Wiener, Badali, Milligan, & Ducharme, 2012; Liehr & Diaz, 2010; Mendelson et al., 2010; Napoli, Krech, & Holley, 2005; Oord, Bögels, & Peijnenburg, 2011; Saltzman & Goldin, 2008; Semple, Lee, Rosa, & Miller, 2010).

A number of nonclinical studies have included other variables reflecting a range of wellbeing indicators, elements of SWB, PWB, physical health, and measures associated with positive wellbeing outcomes. In a school-based quasi-experimental study of a 10-week manualized Mindful Education program delivered by classroom teachers with 1 day of training to 9- to 13-year-olds ($n = 139$ intervention group, $n = 107$ control), significant differences were found post-test in self-reported optimism, positive affect, school self-concept, and teacher-rated social–emotional competence (Schonert-Reichl & Lawlor, 2010). A study of a modified 6-week MBSR intervention completed by 24 adolescents aged 14–16 ($n = 50$ control), found significant improvement in the Personal Growth Scale of PWB, Mindful Presence subscale (FMI: Freiburg Mindfulness Inventory), as well as decreased depressive symptoms (Lau & Hue, 2011). A pilot trial of a 10-session classroom-based mindfulness curriculum, Learning to Breathe, undertaken with 120 students aged 17–19 ($n = 30$ control) found significant reduction in negative affect, and an increase in a measure described as calm/relaxed/self-accepting. No change in positive affect, self-regulation, or rumination was found (Broderick & Metz, 2009).

One school-based study used a comprehensive self-report measure of wellbeing, WEMWBS (Warwick-Edinburgh Mental Well-Being Scale) in a non-randomized 4 week mindfulness-based intervention with 78 students aged 14 to 15 years ($n = 56$ control), and although no main effects were found, the amount of mindfulness practice outside sessions was significantly associated with improved wellbeing (WEMWBS), and mindfulness (CAMS-R: Cognitive and Affective Mindfulness Scale-Revised) (Huppert & Johnson, 2010). In a clinical wait list control trial of an adapted MBCT program with 14 adolescents with diagnosed externalizing disorders, aged 11–18 years, self-reported happiness (SHS: Subjective Happiness Scale) and mindfulness (MAAS), as well as clinical symptom measures, showed significant improvements post-test, that were maintained at 3-month follow-up. Quality of life (Pediatric Quality of Life Inventory) was also assessed, but no significant change was demonstrated (Bögels et al., 2008).

A school-based 3-month trial on physical health indicators used a mindfulness practice of breath awareness meditation (BAM; in class and regular home practice) in the experimental group (*n* = 53), where randomized control groups participated in life skills (*n* = 69) or health education classes (*n* = 44). Analysis of ambulatory blood pressure, heart rate, and urine samples (measure of sodium excretion, indicating high salt diet) indicated significant group differences, with BAM participants having greatest reduction in blood pressure, heart rate, and a nonsignificant trend for sodium excretion (Gregoski, Barnes, Tingen, Harshfield, & Treiber, 2011). Studies such as this suggest potential physical health benefits from the breath awareness component of mindfulness programs, which may positively contribute to overall wellbeing.

To date, there has been one study that has used combined quantitative and qualitative formal analysis of a mindfulness intervention. Although a non-experimental design, it is worthwhile referring to, as qualitative analysis offers a valuable contribution in this field of research. In an MBSR intervention with 33 urban youth aged 13–21 years, 11 of whom were HIV-infected, quantitative results suggested improvement in general and emotional discomfort and reduced hostility (Sibinga et al., 2011). Content analysis of in-depth interviews with 10 participants indicated themes related to acceptability and effects of participation. Themes included a shift in perspective, akin to reperceiving, which was seen to bring enhanced self-awareness. This opened new psychosocial possibilities, attributed by participants to early identification of thoughts and emotions, which enabled reduced stress and hostility, and engendered feelings of relaxation. New behavioral options opened in their interpersonal interactions, school achievement, and in managing their own health (including improved adherence to HIV medication, physical exercise, healthy eating, and improved sleep hygiene) (Kerrigan et al., 2011). Analysis such as this provides insight into how mindfulness *might* operate, in factors associated with enhancing wellbeing.

In summary, there is a small base of empirical evidence suggesting that mindfulness interventions may be associated with improvement in a range of wellbeing indicators. However, few of the reported studies are empirically robust, although the clinical study of Biegel et al. (2009) continues to stand out as the exception. Few studies have used a measure of mindfulness or examined mediating effects, but given the absence of any measure of mindfulness for children under 10 years, or any published validated measures at all prior to 2011, this is not surprising. The absence of active controls, the distinct lack of standardization in treatment protocols, program duration,

home practice expectations, and the inclusion of additional components as well as mindfulness practice, add to the challenges in extracting the *effects* that may be attributable to mindfulness per se. The issue of personal practice of those teaching mindfulness to youth is certainly of relevance. Although many studies report mindfulness experience and training of instructors, those that omit any reference to this feature leave it as an unknown quantity.

Mindfulness-Based Programs with Children and Adolescents: Developmental Considerations

Mindfulness practices, as offered in the MBSR/MBCT models, can be skillfully adapted for school-age children and adolescents, providing the teacher has a depth of knowledge and experience of the age, abilities, and particular needs of the participants, and of mindfulness foundations, attitudes, and practice. The aspect of self-responsibility inherent in adult MBSR/MBCT shifts somewhat for children and adolescents, and needs to be moderated according to developmental capacities. For children, and to considerable degrees, adolescents, support for their mindfulness practice, particularly home practice, warrants some level of support from the adults in their lives. Additionally, children and adolescents will come to mindfulness programs mostly at the behest of adults, it is not often their own idea, making considerable difference to how adults generally engage in mindfulness programs. This may be of significance in bringing mindfulness programs to children and adolescents, in that, contextually, these programs may not reflect the invitational nature of mindfulness found in adult group contexts.

Adapting mindfulness programs for children and adolescents requires specific developmental considerations to the use of language, content, learning materials, delivery style, and the varieties and duration of practices, to suit the age-stage of the participants' cognitive, affective, social, physical development, and their attentional capacities (Semple & Lee, 2011). Furthermore, mindfulness programs need to be engaging, enjoyable, and to connect with youthful participants in ways that are accessible and meaningful in their own lives. Generally, programs founded on the MBSR/MBCT model include practices of mindfulness of body sensations, of sensations of breathing, of sensory experiences (sight, sound, taste, smell, touch), mindful movement practices, and mindful awareness of thoughts and emotions, with gradations for different ages and contexts. Mindfulness programs have been shared with children from age 4 years (Flook et al., 2008; Kaiser-Greenland, 2010), and there is some consensus that children from about age 7–9 can apply

mindfulness practices similarly as adults do, with awareness of thoughts, emotions, body sensations, and are able to practice responding rather than reacting in the context of their own lives (Flook et al., 2010; Saltzman & Goldin, 2008; Semple & Lee, 2011).

Mindfulness practices.

For both children and adolescents, brief mindfulness practices are recommended. Saltzman and Goldin (2008) suggest 1 min per year of age, though shorter (3–5 min) frequent practices have been suggested in beginning practice with older children (Semple, Lee, & Miller, 2006). Adolescent programs have offered practices of varying lengths, of up to 8 min (Huppert & Johnson, 2010) to 20 min (Biegel et al., 2009), and regular short, 3-min practices (Bögels et al., 2008). Responsive flexibility by the teacher is also necessary, sensing when movement or stillness or something other is required in the group. There are a multitude of mindfulness practices delivered through activities and games that are engaging and fun, and provide accessibility to engage awareness in the present moment through the senses, and through the body in movement as well as in stillness (see Saltzman & Goldin, 2008; Kaiser-Greenland, 2010; Semple & Lee, 2011 for examples).

Engaging Children and Adolescents in Mindfulness-Based Programs

Engaging children and adolescents is supported through appropriate adaptions, use of a variety of multisensory modes of learning, and a teacher who is responsive and flexible to participants' needs as they may shift and change in any one session. Creatively integrating multimedia technologies and culturally relevant examples into learning materials and delivery is suggested as essential for engaging adolescents (Burnett, Cullen, & O'Neil, 2011). Experienced educators recognize that children and adolescents need structure and predictability to support learning, and this may be particularly relevant when teaching mindfulness, where we invite participants to become aware of the constant flux and change of experience, in essence, to become aware of the *un*predictable. Experienced mindfulness teachers set clear boundaries and guide sessions age-appropriately, with structured session outlines, clear, concrete steps, and explicit learning objectives, providing a framework that fosters a sense of safety, and predictability in the group setting (Burnett & Cullen, 2011; Kaiser-Greenland, 2010; Semple & Lee, 2011).

Making Mindfulness Meaningful for Children and Adolescents

Sharing mindfulness in ways that are meaningful to children and adolescents draws profoundly on the skill and experience of the teacher. Teachers provide the structure and support to guide participants to connect with their own embodied experience, with curiosity and kindness and nonjudgmentally, to notice what is happening in their inner experience, and to recognize that there is a space from where they can make choices to respond, rather than react. Participants are then invited to consider whether what they have noticed and learned might be useful to them in their own lives. Guided discussion and non-intrusive inquiry can facilitate children and adolescents' exploration of these possibilities. Mindfulness becomes meaningful to children and adolescents if and when they do find it useful in life outside the mindfulness session, in relating to their inner experience, and in relating to the interactions, the challenges, and the activities in their everyday lives.

Essential Role of Teacher's Personal Mindfulness Experience

An embodiment of the attitudes and practices of mindfulness are considered the foundation for teaching mindfulness to anyone. Experienced mindfulness teachers guide the practices from their own experience of the practice, in suitable language, not from a script. In teaching mindfulness to children and adolescents, teachers need to be able to offer the same kind of nonjudgmental acceptance to the participants' experiences as they would to their own. This is very skillful and delicate work, as it calls upon the teacher's capacity for a mindful mode of responding to participants' experiences, while maintaining an awareness of their own experience, particularly noticing reactions to what children or adolescents might say in discussion and inquiry—noticing what arises for them, maybe judgments, expectations, a desire for them to "get it"—and choosing not to react in this way. If teachers cannot model an *authentic* nonjudgmental, kindly, curious acceptance of *anything* that might arise in a participant's experience, they can hardly expect children or adolescents to do so with their own experience. In many respects, the mindfulness teacher offers children and adolescents a wider field of awareness, capable of holding any of the participants' experiences with acceptance and without judgment. This is facilitated through an attuned, connected relationship between teacher and participants.

Contextual Issues

Mindfulness programs have been offered in therapeutic settings, community settings and schools. Programs evidence some variations across settings, in factors such as group size, ratio of teacher to participant, length and frequency of sessions, and home practice expectations. Although there is evidence of expanding access to mindfulness programs through self-help and online sources for adults, this direction is not apparent with children or adolescents. Across all settings there is acknowledgement of the interrelationships children and adolescents have with their family, school, and other systems. Some mindfulness programs, either therapeutic or with younger children, have included parents/caregivers in learning and practicing mindfulness in varying degrees, by offering concurrent parent and child mindfulness programs (Bögels et al., 2008; Oord et al., 2011), combined parent and child groups (Saltzman & Goldin, 2008) or including parent sessions at orientation, program completion, or during the course of the program (Kaiser-Greenland, 2010; Semple & Lee, 2011). These approaches acknowledge children's degree of reliance on parents/caregivers, and explicitly utilize parents/caregivers' value in supporting children's home practice, the reciprocal use of mindfulness in family interactions, and extending these into wider environments. Additionally, the aforementioned concurrent or combined parent–child programs explicitly acknowledge that learning and practicing mindfulness together offers potential for significant, maintainable change in the constant transactional relationships in families.

School systems offer their own unique issues for integrating mindfulness-based programs, including structural and logistical challenges outside the scope of the current focus. School-based mindfulness programs may offer parent information sessions (e.g., www.mindfulschools.org) or may not, and parental support of home practice will vary considerably. Although the mindfulness teacher supports practice and learning in sessions, practice outside sessions may become largely the child or adolescent's responsibility. Motivation for formal and informal mindfulness practice may prove a challenge, though one that is boosted when mindfulness becomes personally meaningful and useful to students. An innovative approach in an adolescent program is the use of a buddy system, in which peer-partners send a text message to their buddy, as a reminder to stop, breathe, and connect with the present, using social connections with peers to support each other's mindfulness practice (Burnett & Cullen, 2011).

Mindfulness practice invites students to take an approach that is probably very different from their regular classes: to shift from a doing to a being mode, to connect with their inner experience, to let go of judging, evaluating, or trying to get anywhere, and simply acknowledge what is present. Furthermore, teachers guide the students in sharing discussion about what they noticed in their inner experience, and how their learning may be relevant and helpful in their own lives, which could be challenging in a classroom full of peers. Again, the teacher's capacity to hold boundaries and a safe, accepting space are vital. It is suggested that allowing for students' voluntary participation in discussion, rather than compulsory, is supportive of student's empowerment here, and more generally, it confirms a central learning from mindfulness-based programs, that we have the freedom to choose our behaviors (Semple & Lee, 2011).

Levels of exposure to all experience: Pleasant, neutral, and difficult.
Mindfulness practice invites children and adolescents to notice and acknowledge their inner experience from an impartial, nonreactive perspective, and this will include contact with pleasant, neutral, and difficult thoughts, emotions, and sensations. The skill of the mindfulness teacher is to support this process, particularly when it is difficult, without attempting to minimize, negate, or fix things for the participant. This is where real, embodied learning can occur. With younger children, a sensitive, graded, and contextually appropriate approach to exposure to all ranges of experience is recommended, and bringing concrete learning supports around this process can be helpful (Saltzman & Goldin, 2008; Kaiser-Greenland, 2010). An example from a children's mindfulness program for anxious children is the "worry warts wastebasket": a child can choose to write a current worry on a piece of paper, drop it in the basket, talk about it if they choose to, retrieve it whenever they choose to, or leave it there (Semple & Lee, 2011, p. 70). The worry has not been avoided, it has been noticed, acknowledged as present, and a choice has been made whether to stay with it, or return to it, or shift the attention somewhere else, on purpose. The process supports the notion of decentering, that worries are "just" worries, neither good nor bad, and that there is freedom in choosing where one's attention is placed.

It is also acknowledged that when a child, or adolescent, becomes aware of a significant difficulty, it may be a signal to them to respond intentionally, and take considered action, such as talking to a supportive adult about what might be going on for them (Kaiser-Greenland, 2010). Again, this process can support empowerment, and confirm that choices are possible.

The support of the mindfulness teacher in assisting a child or adolescent to access their school-based support systems would be inherent in their duty of care. If a child or adolescent were to disclose any child-protection related issue in a group, there are mandatory responses automatically required of any teacher.

There have been some conditions highlighted that need careful consideration in preparing to teach mindfulness-based groups. Cautions have been raised against teaching mindfulness-based practices to young people experiencing active psychosis, suicidal ideation, or significant alcohol or substance abuse (Semple & Burke, 2012). Additionally, if a child or adolescent has experienced trauma that is unresolved, the introspective focus of mindfulness practice may bring them into contact with overwhelmingly difficult experiential reactions (Germer, Siegel, & Fulton, 2005; Goodman & Kaiser-Greenland, 2009). These issues need to be acknowledged by mindfulness teachers, and adequate preparation undertaken to ensure that students are given the level of care and support that is necessary. In a therapeutic setting, the pre-course assessment addresses and plans to manage such issues if they were to arise. Classroom program preparation suggests that it is essential to have a thorough knowledge of the students, their pastoral care records (Burnett &Cullen, 2011), and to work closely with the school-based student support structures (Kaiser-Greenland, 2010). Although the brief mindfulness practices of child and adolescent programs are unlikely to precipitate strong reactions, the teacher's training, personal mindfulness experience, experience working with children and/or adolescents, and structural supports are all integral in preparing to manage whatever may arise.

Current Practice: Mindfulness-Based Programs for Children and Adolescents

The interest in mindfulness for children and adolescents has rapidly escalated in very recent years. An Internet search of "mindfulness and children" will produce nearly 11 million hits, "mindfulness and education," over 5 million. Media and the popular press continue to publish more reports of the benefits of mindfulness for youth, often highlighting benefits of attention regulation for classroom learning. Yet, as has been highlighted, the empirical research findings are not substantial, which begs the question, why is mindfulness for children and adolescents so popular?

One explanation is that it is popular due to the growth in appeal of mindfulness generally, in the public arena, and with positive findings from adult health and psychological research stimulating increasing embracement in organizations and the workplace, the legal profession, medical training, and more and more diverse fields. Positive psychology has taken a keen interest in mindfulness of late, given its reported associations with enhanced wellbeing, and potential to promote flourishing. Another explanation for the increasing uptake in schools, despite little substantive research empirical evidence, could be that generally, youth mindfulness programs have been developed and shared by adults with a deep personal experience of the benefits of mindfulness in their own lives. This may come with an assumption that what is beneficial for adults will also be so for children and adolescents, and the high prevalence of positive anecdotal reports seems to support this notion.

However, the wellbeing-related professions of health, psychology, education, and social research are driven by empirical evidence, not assumptions or anecdotal reports. It is imperative that conscientious research work is undertaken, and a major associated factor is ensuring intervention fidelity across multiple trials. There are now a number of mindfulness-based programs for children and adolescents that have either an established or emergent empirical research base, modeled on essential features of MBSR/MBCT, which offer standardization of curriculum, teacher training, and implementation. Presented below is an overview of programs that offer training and curricula that are accessible internationally, to give a view of the current field, from where empirical research can further evolve.

Mindfulness-Based Programs for Children

Mindfulness-Based Cognitive Therapy for Children (MBCT-C) is a 12-session clinical program for anxious children, developed for children aged 9–12 years, to be delivered in a small group (6–8 children) by one or two therapists, who have a depth of experience in both child therapy and mindfulness practice. Children's home practice is expected, supported by parents, audio CDs and workbook. The treatment manual details the necessity of therapist's personal mindfulness practice, and provides the scope, sequence and teaching activities for the 12-session program (Semple & Lee, 2008). A number of empirical studies have used MBCT-C and reported significant improvements in anxiety, attention, and behavior (Semple et al., 2006, 2010).

Mindful Schools is a universal mindfulness-based classroom program for children, comprising fifteen 15-minute lessons, taught over 5–8 weeks by mindfulness teachers trained in the Mindful Schools curriculum. The Mindful Schools curriculum has been delivered to over 18,000 children in the United States, and is also taught in schools in the European Union and South East Asia. Workshop training and access to the Mindful Schools curriculum is open to teachers and professionals with an established personal mindfulness practice, developed through participation in an adult 8-week MBSR/MBCT or equivalent learning path. Mindful Schools utilizes both non-school-based teachers and classroom teachers. The Mindful Schools curriculum was used in a small RCT intervention study (Liehr & Diaz, 2010); a recent RCT of 915 students aged 5–10 years, in socially and economic disadvantaged schools, has reported preliminary results indicating significant improvements in teacher ratings of attention, self-care/participation and showing care for others. Results on child outcome measures of objective attention and mindfulness (CAMM) are currently in analysis, and a further arm of the study is ongoing, investigating the longer term sustainability of the model and its outcomes (Fernando, 2012).

Mindfulness Programs for Both Children and Adolescents

Inner Kids is a universal mindfulness-based program, delivered in classrooms or community settings, twice weekly over 8 weeks, adapted for ages 4 through to 18 years. The Inner Kids program has been taught directly to approximately 1,500 children and adolescents by the program developer, with a further 3,500 parents and professionals trained in the curriculum in workshops, in which the essential nature of personal practice is specified (S. Kaiser-Greenland, personal communication, April 9, 2012). Inner Kids curriculum manuals are currently in preparation, to be available with the professional training program. The Inner Kids program has been used in a number of empirical studies, reporting some significant differences in measures of executive function (Flook et al., 2008, 2010).

Still Quiet Place is a universal mindfulness-based program with child and adolescent versions of 8 weekly 45–90 min sessions, delivered in classroom and community settings. Still Quiet Place has also offered combined parent/child programs. Home practice is expected between sessions, supported by audio CDs and workbook. Approximately 500 children have been offered the Still Quiet Place program by the program developer, and approximately 200 professionals internationally have undertaken comprehensive training

to deliver the curriculum; a further 2,000 have had basic training (Saltzman, personal communication, April 15, 2012). Training in the curriculum has a prerequisite of an established personal mindfulness practice, and participation in an MBSR/MCBT 8-week course or similar. Training is offered in workshops and online internationally. The Still Quiet Place curriculum is available only to those who train in the curriculum. Still Quiet Place has published results of an empirical study of a combined adult and child program, with significant positive changes in both children and parents in measures of attention, self-judgment and self-compassion, and additionally, parents' mindfulness and mood symptoms reported (Saltzman & Goldin, 2008).

Mindfulness Programs for Adolescents

.b is a universal mindfulness-based classroom program for adolescents, of eight 40-min weekly sessions. .b (stop and breathe) includes expectation of home practice between sessions, supported by audio MP3 and workbook. .b curriculum materials are made available to those who undertake training, and a prerequisite for training includes participation in an 8-week MBSR/MBCT course, or equivalent learning path, and an established personal mindfulness practice. Training workshops have been delivered to U.K. and international teachers and professionals, with the ongoing training program expanding to the United States. An earlier 4-week version of .b has been studied empirically, reporting no main effects, although the level of mindfulness practice predicted improvements in wellbeing (Huppert & Johnson, 2010). A current pilot randomized trial of .b in six schools is currently in progress (www.mindfulnessinschools.org).

MBSR-T is an 8-week mindfulness-based program for adolescents adaptable for both clinical and universal settings. MBSR-T has an expectation of home practice supported by audio CDs, MP3s, and workbook. Training is offered internationally (online) and in workshops in the United States. There is an expectation that those training have an established personal mindfulness practice, and curriculum materials are available to those who train with the program developer. MBSR-T has been studied empirically in one large-scale clinical RCT with adolescents with psychiatric diagnoses, which reported significant improvements in outcomes measures of mental health, psychological symptoms, self-esteem, and general functioning, and included third-party blind clinical mental health assessments (Biegel et al., 2009).

Cool Minds is included in this review as a very recent emergent program, developed by leading teachers of the Center for Mindfulness, University of Massachusetts Medical Center, Boston, U.S.A., from where MBSR originates. Cool Minds is a universal mindfulness-based program for adolescents, of eight 2-hr sessions, and incorporates a silent retreat in the sixth session. Home practice is expected, and supported by audio CDs and workbook. As with MBSR, there is explicit requirement for teachers to have a well-established personal mindfulness practice, and have personally participated in an 8-week MBSR program. A recent uncontrolled pilot trial with a normative sample of 14- to 17-year-olds reported significant reductions in symptoms of anxiety and depression, stress, and improved healthy coping (Prince, Robert, Howland, Thomson, & Meleo-Mayer, 2012). As a new development, Cool Minds offers potential for standardized curriculum and teacher training standards that can support the development of the empirical field of research.

Future Directions: Bringing Mindfulness and Wellbeing Research Together

Wellbeing appears to be associated empirically with mindfulness both as a disposition, and as a result of enhancing mindfulness through training and practice. To date most of the research has been undertaken with adults, but there are emerging empirical associations between wellbeing and mindfulness from child and adolescent research. The research on the specific associations between wellbeing and mindfulness is limited in part by the small number of robust published studies, and also by the variety of conceptual definitions of wellbeing and associated indicators applied in research. Several suggestions are offered to enhance the developing research base.

At an empirical and theoretical level, there is further work needed to clarify the developmental trajectory of mindfulness, and environmental factors that may enhance or hinder the development of mindfulness as a capacity in youth. The theoretical basis of mindfulness training with youth could be advanced by systematic examination of the developmental nature of mindfulness, and whether the mechanisms of mindfulness that are proposed for adults operate in similar or dissimilar ways through child and adolescent developmental stages. An approach aligned with developmental psychology could provide some useful grounding in this area.

Developing the intervention research base calls for empirical rigor, with:

- large sample sizes across diverse contexts and populations;
- RCTs which include active control groups;
- standardized approaches to teacher training, curriculum, and implementation.

The study of specific associations between child and adolescent mindfulness and wellbeing could be furthered by:

- precise and comprehensive conceptual definitions of wellbeing used in research formulations;
- clearly identifying wellbeing indicators, and validated measures of these;
- further development of empirically validated measures of child and adolescent mindfulness;
- extending the range of wellbeing indicators in clinical intervention studies from symptoms-focused alone, to include positive outcome measures;
- employing appropriate outcome measures in universal intervention studies (i.e., refraining from using clinical measures, and employing measures of positive outcomes aligned with optimal wellbeing);
- inclusion of measures of processes associated with mindfulness (e.g., self-regulation, self-compassion).

Given the conjecture as to whether quantitative measures of mindfulness adequately capture the experiential qualities of mindfulness, a solely quantitative approach may not be the optimal approach to research with child and adolescent mindfulness. Formal qualitative analysis with children and adolescents has potential in advancing understanding of how the experience of mindfulness may translate into cognitive, affective, interoceptive and behavioral changes that, in turn, may enhance wellbeing. Combining qualitative and quantitative methods in assessing both mindfulness *and* wellbeing may help illuminate the associations of these two fundamentally experiential phenomena.

The brief history of child and adolescent mindfulness research reflects an intention to improve wellbeing by improving psychological and mental health through easing symptoms and associated distress, which is a highly valuable initiative with clinical or at-risk populations. With newer universal applications, it is timely to move towards research that investigates the effects of mindfulness interventions on the wellbeing of all children, and whether mindfulness training and practice has the potential to develop optimal

wellbeing. This line of investigation calls for the use of outcome measures congruent with the conceptual models of positive outcomes, rather than the earlier focus on psychological and other clinical symptoms.

Few studies of intervention effects have considered longer term follow-up assessment and analysis. This would add valuable understanding to the sustainability of any initial benefits of the intervention. It is further suggested that consideration be given to longitudinal research to ascertain if benefits of enhanced mindfulness on child and adolescent wellbeing are maintained, build or diminish over time, and how this may influence their future wellbeing, and their well-becoming. Investigation of environmental factors that facilitate the maintenance of ongoing mindfulness practice, and the maintenance of initial benefits on wellbeing would also be of value. For example, exploring the influence of shared mindfulness attitudes and practices within families, classrooms, and schools, upon children and adolescents' continued mindfulness practice, and links with future wellbeing, provides an intriguing direction of investigation. Longitudinal research offers the opportunity to not only investigate future subjective wellbeing, but also objective indicators of wellbeing, such as school achievement, physical health, behavior, and risks, and later career and social adjustment, engagement, and functioning.

Concluding Comments

There is much to be learned about how mindfulness may enhance children and adolescents' wellbeing. Mindfulness-based training and practice offers a promising approach to developing children and adolescents' attention, emotion, and behavior regulation capacities, and enhancing related aspects of psychological functioning and wellbeing. Improved ability to self-regulate together with reduced reactivity may improve children and adolescents' capacities for coping with daily life hassles and stress experiences, and positively influence their relationships with others. Analysis of the mechanisms of mindfulness suggests that, in addition to self-regulation, mindfulness may offer beneficial effects enhancing personal wellbeing, such as self-awareness, self-efficacy, autonomy, self-compassion, and greater engagement in living life more fully in the present. Our understanding of how these elements operate developmentally in youth, and how they may influence the subjective experience of personal and interpersonal functioning, is an emergent area of investigation.

As universal mindfulness applications appear to be on the rise, it is imperative that empirical research keeps up with this trend. In the general field of child and adolescent wellbeing, there is an increasing focus on positive outcomes, and optimizing wellbeing. Within school contexts, this focus is primarily on developing students' social and emotional learning skills, including self-awareness, self-management, resilience, relationships, and in enhancing students' positive emotions, engagement and sense of purpose and meaning. Mindfulness potentially taps in to many of these skill areas. Mindfulness training and practice may offer a unique contribution to development of social and emotional skills through an *embodied* approach to the teaching and learning of these skills. The interface of mindfulness with social and emotional learning programs in schools presents as particularly appropriate area for future research.

From the outset, this chapter has focused on child and adolescent mindfulness programs modeled on MBSR/MBCT foundations and practices. The continued rise in popularity of mindfulness programs, particularly in schools, may have implications for future research. If school programs integrate some, but not all elements of mindfulness into existing or incongruent theoretical approaches, it may make it difficult to isolate the effects attributable to mindfulness, rather than to any other element of the intervention. Additionally, increased demand may loosen the adherence to the expectation of personal experience and practice for those teaching mindfulness to others. As aforementioned, remaining authentic and congruent with foundational mindfulness attitudes and practices has challenges, yet it is suggested that maintaining the approaches that have been discussed thus far currently offers the optimal pathway to clarifying if and how mindfulness training and practice may bring beneficial outcomes that enhance wellbeing for children and adolescents.

With a view that mindfulness "has to be experienced to be known" (Germer et al., p. 8), it is recommended that those interested in bringing mindfulness to children and adolescents acquaint themselves first hand with the experience of mindfulness through training and regular practice. Mindfulness is not suggested as a panacea for all, and it may not suit, or fit with everyone. Mindfulness is invitational: it holds an invitation to connect with *being* in one's own life, as it is happening. Mindfulness may hold opportunities for enhancing children and adolescents' wellbeing, and potentially their well-becoming. Children and adolescents are far more likely to accept the invitation if mindfulness becomes meaningful and useful to them in their own lives, and when it is offered by adults who,

themselves, model mindfulness as a way of being in their own lives and in their relationships with others. The greater challenge may come from whether family, school and the wider societal systems can offer ongoing support for bringing mindfulness into lives as a way of being.

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5

MindMatters

Implementing Mental Health Promotion in Secondary Schools in Australia

Louise Rowling
University of Sydney, Australia
Trevor Hazell
Hunter Institute for Mental Health, Australia

Introduction

Two decades ago the Australian Health Ministers (AHM) began the process of major reform for mental health in Australia with the launch of the "First National Mental Health Plan" (Australian Health Ministers, 1992; see also Australian Health Ministers, 1998.). From this beginning a series of documents have guided a range of initiatives. The framework for action was elucidated in 2000 in the "National Action Plan for Promotion, Prevention and Early Intervention for Mental Health" (Commonwealth Department of Health and Aged Care, 2000a) with its accompanying document "Promotion, Prevention and Early Intervention for Mental Health: A Monograph" (Commonwealth Department of Health and Aged Care, 2000b). These last two documents articulated a broad understanding of mental health and wellbeing, informed by both the mental health and public health sectors. They acknowledged the need to adopt a population health approach, mental health as a positive concept and collaboration as essential to achieve the proposed outcomes. The population health orientation

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exemplifies the prevention paradox: the benefits to individuals being small but with a large effect for populations (Scanlon, 2002). The partnership orientation between mental health and public health professionals represents leading practice internationally (Rowling & Taylor, 2005). It was within this paradigmatic conceptual shift and the need to work intersectorally, that the MindMatters initiative began, with its focus on promotion and later on prevention and early intervention, within the education sector. This chapter describes three phases of MindMatters from 1997 to 2012, the initial pilot, a national dissemination, and a redevelopment phase.

Background

The mental health policy framework adopted in Australia focused not only on individuals but on the health promotion action areas of the settings of everyday life (WHO, 1986). For children and young people, the school is a key environment to prevent mental health problems and promote mental wellbeing. Within a settings approach, as well as concern for developing personal competencies, there is "a desire to act in various ways on policies, re-shape environments, build partnerships, bring about sustainable change through participation, and develop empowerment and ownership of change through the setting" (Whitelaw et al., 2001, pp. 340–341). The orientation is the school community: the people, policies, processes, and social and learning environments, rather than primarily individually focused mental health interventions. This social view of mental health changed the language and focus of action (Parham, 2007), from interventions with individuals with mental illness to a systemic "whole-school" approach to positive wellbeing in the school community. This social view of health also meant that the high suicide rate in Australia was a focus that was included and a driving force and funding source for a mental health prevention and promotion of wellbeing initiatives.

A mental health promotion initiative in secondary schools was started in 1996 with a national benchmark audit of secondary schools (Youth Research Centre and Centre for Social Health, 1996). This provided the first data about how schools viewed, taught, and resourced mental health. MindMatters was developed and trialed as a response to the audit's findings, namely a lack of confidence and comfort in teaching about mental health and sensitive issues; poor availability of classroom resources; a crowded curriculum, and stigma associated with interventions labeled "mental health" (Rowling, 2007). Based on the findings, a project (later entitled MindMatters) was

initiated in 1997. A consortium was contracted by the national government for the development of materials for a national whole-school approach to school mental health and an intervention trial of national-level resources. These were to be available within 18 months for national dissemination to help address public and political concerns about the rising youth suicide rate. The MindMatters materials provided the first comprehensive whole-school approach to the promotion of mental health globally and for young Australians (Wyn, Cahill, Holdsworth, Rowling, & Carson, 2000).

Theoretical Base of MindMatters

The mental health research literature provided a theoretical base for the content of the approach that was adopted. In the late 1990s protective factors such as school connectedness, engagement, and resilience, were being emphasized. Although much research about young people had focused on risk factors such as alienation, Resnick and colleagues (1997) focused on the capacity of schools to enhance protective factors for mental health through providing a supportive environment and through developing personal resilience skills. At the time, this reorientation from looking at risks and problems to protective factors and strengths within an ecological/holistic framework, was a key innovative aspect of MindMatters.

As well as building on the then current (1990s) research on mental health, the whole-school approach utilized the organizational and educational theories of effective school program implementation, school change, curriculum content and process, professional development, and effective dissemination. This was a unique characteristic of the development of MindMatters, drawing its theoretical and empirical base from both health and education theories and research. Additionally, from its inception it was intended that the initiative should build on programs, policies, and structures that already existed in schools. Structures and practices were already in place to promote young people's wellbeing, but were labeled as student welfare, pastoral care, or psychological services offered by school psychologists (labeled differently in different states). Given the audit's findings, strengthening the school's role in promoting mental health and wellbeing involved supporting teachers to feel confident of their own areas of professional practice and assisting them to identify the specific areas where specialized professional support from mental health professionals was needed (Wyn et al., 2000). The program developers acknowledged that the use of the term mental health with its connotation of mental illness might present a barrier to implementation

in school settings, but destigmatizing language and concepts was viewed as an important and necessary process in awareness raising among school personnel and parents.

Research regarding effective school program implementation is grounded in the understanding that the professional development of teachers is fundamental to the success of any innovation (Fullan & Steigelbauer, 1991). Additionally, the approach taken in MindMatters focuses on the importance of the organizational structures, the social environment, and the individual within this context. MindMatters can be distinguished from single-topic health education projects because it places mental health within the core educational business of schools rather than identifying it as a "health topic." This marks a significant shift away from approaches that emphasize individual deficits of young people, and individually focused behavior change models (Sheehan et al., 2002).

The whole-school approach engages schools in a process of understanding their particular strengths, gaps, and needs in three areas or domains of practice from the Health Promoting Schools framework: curriculum, teaching, and learning; school organization, ethos, and environment; and partnerships and services (WHO, 1998) and the WHO Comprehensive School Mental Health Model (Hendren, Birrell Weisen, & Orley, 1994). The Health Promoting Schools framework had become an increasingly familiar concept to Australian schools with numerous state and local projects funded prior to 1997 (NHMRC, 1996). Compelling evidence from national projects including the School Development and Health Education Project (Irwin, 1993) and the National Initiatives in Drug Education (Midford & McBride, 1999) further supported a whole-school approach.

A Comprehensive Approach to Mental Health Promotion: The Inverted Triangle

The WHO comprehensive approach to school mental health (Hendren et al., 1994) (Figure 5.1) was considered to be helpful in understanding the range of mental health activities that schools could be involved in and in positioning teaching within a mental health promotion model (Sheehan et al., 2002).

The inverted triangle describes four levels at work in a whole-school approach. The uppermost part of the triangle represents a focus on creating an environment which is "health promoting" for all students, parents, and

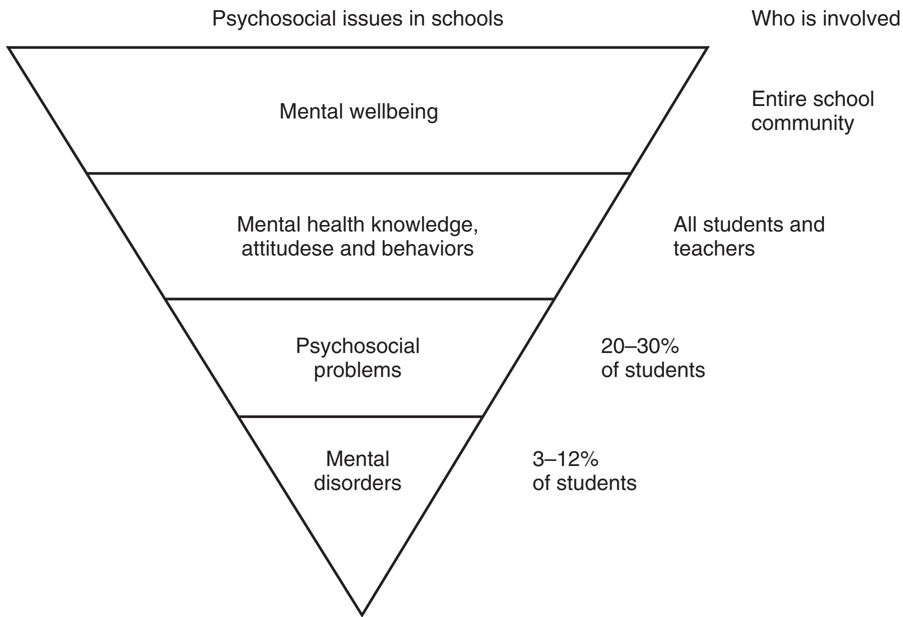

Figure 5.1. WHO Model (adapted from Hendren et al. 1994). From: Sheehan et al. (2002), p. 116.

staff. This layer involves the quality of the relationships with parents and students as well as community agencies, the school ethos and the nature of school policies. It requires the maintenance of a positive classroom climate by all teachers in all subject areas so that learning occurs in a safe and stimulating environment. MindMatters encourages schools to place a strong emphasis on this level of practice, acknowledging that action at this level promotes and protects wellbeing for all members of the school community including those with additional needs.

The second layer of the triangle depicts the provision of curriculum programs designed to teach about and promote mental health. The MindMatters curriculum units are all placed within this layer and focus on building resilience, dealing with bullying, destigmatizing mental illness and dealing with loss and grief. Other curriculum programs including literacy, substance use, transition, sexuality, communication, physical activity, and the arts also belong at this level because they can have a role in promoting mental health and providing a comprehensive curriculum.

The third layer of the triangle indicates the need for school-based structures designed to identify and provide additional support for those students dealing with particular social, emotional, learning, or mental health

problems. It involves early detection of a problem and provision of effective support. MindMatters encourages schools to review existing practices and policies along with targeted programs such as literacy support, small group anxiety, and/or anger management classes and individual counseling.

The fourth layer of the triangle represents the small percentage of students who require professional assessment or treatment for mental health problems. This level often involves referral and in some instances crisis management. The school can play a critical role in referring students and families dealing with depression, anxiety, isolation, eating disorders, self-harm, substance use problems, family break-up, or parental mental health problems (Sheehan et al., 2002). This model demonstrates how all students can be supported, regardless of their level of wellbeing. This represents the tenets of good mental health promotion, a focus on building protective factors and a population health approach.

The MindMatters initiative also drew upon the then current knowledge about exemplary practice in education, including student engagement and alienation (Cumming, 1996); strategies need to "fit" the "growth" state of a particular school (Hopkins, Harris, & Jackson, 1997); adequacy of implementation time (Huberman & Miles, 1984); variability of schools to engage in innovation (Fullan & Steigelbauer, 1991); building teacher efficacy (Ross, Bradley Cousins, & Gadalla, 1996) and the research finding that varying support strategies are needed at different stages of school change (Hopkins et al., 1997). This knowledge influenced the decisions about the curriculum, the professional development and the format of the trialing of the materials, although some decisions, such as the period of time available for trialing materials, were determined by the funding body.

Relationship between MindMatters, Mental Health Promotion, Wellbeing, Resilience, and Social and Emotional Learning

As discussed above, MindMatters was developed at a time (1997) when mental health was being reconceptualized to a broader understanding, from "mental health as illness" to a spectrum of "positive" mental health, mental health problems, and mental disorders/illnesses, and from a "deficit to a strengths perspective" (Weare, 2004). Historically and conceptually then, MindMatters was a pioneering program, being the first whole-school approach adopting mental health as a positive concept. Educational and

psychological theories and practice of the late 1990s were focusing on specific parts of "mental health" such as resilience building (most often individual-focused skills development), enhancing protective factors (sometimes identified as the opposite of risk factors), and social and emotional learning (curriculum and skills based within a whole school). Similar to the SEAL program in England, MindMatters uses an approach with promotion across the school community (Weare, 2007), as well as prevention for those with high support needs, resulting in building strengths in people and changing environments rather than a sole focus on remediating risk factors in individuals. Jané-Lopis, Barry, Hosman, and Patel (2005) identified that school mental health promotion requires a comprehensive program that targets multiple health outcomes in the context of a coordinated whole-school approach. MindMatters fulfils this criterion. Using this framework had consequences for measurement of outcomes. Mental health problems and mental illnesses were not the specific focus, it was strengths and developing skills such as help seeking, as well as enhancing support structures, policies, and practices as part of whole-school change, that needed to be monitored.

In the last few years, positive psychology, exemplified in the work of Seligman (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009), has focused on similar elements including resilience, strengths, and positive relationships and changing the whole school. Similarly, there has been exploration and development of a conceptual framework for wellbeing in school students (Soutter, Gilmore, & O'Steen, 2011). All these areas of activity have elements in common with the work in MindMatters, such as helping students develop positive relationships with others, understanding themselves and their own emotions, and responding to the emotions of others in helpful ways.

Phase 1 The MindMatters Pilot 1997

Given the sensitive nature of the area and the finding from the audit that teachers lacked confidence, teachers were provided with up-to-date knowledge about practice, in nonthreatening, confidence-building ways. A "train the trainer model" popular at the time was not adopted. Rather members of the consortium conducted the training and then acted as facilitators, each working with 3 or 4 of the pilot schools, spending 1 or 2 days with the schools 3 or 4 times in the 12 months, working with the school team on their chosen priorities and activities. In terms of the curriculum, there was a focus on four areas, including: enhancing resilience, dealing with bullying and harassment,

understanding mental illness, and loss and grief. The materials were developed to be used in a flexible way, for example, fitting into a designated health education lesson or integrated across the curriculum with strategies for drama, maths, and English lessons. They provide models of ways for schools to embed mental health across a variety of subjects and year levels. and each booklet provides strategies for school-wide action in the topic being studied (Sheehan et al., 2002). The materials were designed based on child-centered pedagogy (Darling-Hammond, 1994), the understanding that young people need to engage actively with ideas and concepts in order to learn. Another resource, SchoolMatters provided schools with guidance about organizational change to enhance and support student and teacher outcomes.

Suicide prevention guidelines developed by a consultative group were also included in the trial. The guidelines entitled "Educating for Life" were developed by a team of "suicide experts" and it was decided by the funding body that they should be linked to the MindMatters material rather than be a standalone resource. The intent of trialing the suicide prevention guidelines within the MindMatters project was to locate suicide prevention within mental health promotion. Schools found suicide prevention a challenging issue, with most schools reporting that they would not commence work on the issue of revising critical incident plans or conducting staff professional development until they had accomplished more at a whole-school level. Despite this feedback, the content of the Educating for Life booklet was presented and well received in professional development workshops as a part of the MindMatters picture since 2000.

The MindMatters initiative described above was piloted in 24 secondary schools drawn from all educational systems and each state and territory in Australia, with a contractual requirement selection criterion of 50% being rural/remote schools. Schools were provided with significant resources including a school consultant/critical friend, professional development, MindMatters materials and frameworks for whole-school change, and financial assistance. In return for this support pilot schools were required to fulfil a number of tasks. These included:

- trialing the implementation of a whole-school approach to mental health;
- participating in all project-initiated professional development;
- trialing at least one curriculum unit and providing evaluative feedback;
- establishing a core team to operate as the management team for MindMatters;

- implementing at least one community event around the theme of mental health;
- committing to a full staff professional development briefing to ensure all staff were informed about MindMatters; and
- participating in the evaluation process.

The project aimed for maximum sustainability. Consequently schools were encouraged to build their MindMatters projects around existing school priorities. The model and support provided to schools was not prescriptive and deliberately provided a suite of curriculum units to allow maximum choice and flexibility for schools (Sheehan et al., 2002). That is, MindMatters was not funded as a research project but as a trial of concepts, materials, and professional development for whole-school changes for mental health and wellbeing.

At the end of the first year, when schools had already trialed the program, an evaluation workshop was held, attended by members of teams from each of the schools. The purpose of this workshop was to provide formative evaluation data for the revision of the program. Teachers identified the support of the executive as the single most critical factor in the success of the program. Significant involvement of the school leadership personnel was required to address the schoolwide focus necessary to implement the Health Promoting Schools framework (Wyn et al., 2000). The professional development and trial curriculum materials provided by MindMatters were also identified as very important for the efficacy of the program, as was the use of a core team structure to drive and manage the project, the development of a critical mass of staff support and the guidance of a member of the consortium (Sheehan et al., 2002). Intensive reviews of the materials were offered by participants, identifying effective content and process as well as ineffective content. Changes were suggested for more engaging delivery. Those schools that were able to engage the support of community or health agencies found these links contributed significantly to their efforts. Many schools, due to their remote or rural location, were not able to build these partnerships and identified the lack of access to services as an area of concern, particularly in regard to referral of at-risk students or staff.

Strategies for engagement of students through the curriculum materials and activities was a valued part of the delivery. Frequently students were placed at the center of activities, positioning the teacher as a facilitator. Many of the sessions used experiential and interactive teaching strategies to promote learning and skill development. These activities introduced a level

of fun and vitality into the classroom and required students to cooperate and communicate in order to address the challenges inherent in the tasks. Guided discussion was used to assist students to move from an experiential to a reflective mode. Discussion and processing of an activity assists students to develop concepts and language with which to further examine and share their experience and to move to a level of conceptualization and awareness which would be difficult without a concrete or experiential base (Wyn et al., 2000).

The results of the intervention pilot of MindMatters revealed that:

- the support of the school executive was critical;
- professional development to build the capacity of teachers was a essential;
- the trial materials were relevant and easy to use and supported both classroom and whole-school activity;
- schools were able to form good links with local service providers;
- schools had difficulties implementing a whole-school approach; and
- the health-promoting schools framework matched current practices in schools (Wyn et al., 2000).

These results shaped the implementation of the National Dissemination.

Evaluation Issues in the Pilot

A challenge for the MindMatters trial evaluation was the lack of available measures that could indicate school change and mental health and wellbeing outcomes within the time frame of a year. In terms of health promotion outcomes the 1-year trial demonstrated that intermediate health promotion outcomes of improvement in health literacy, social action and influence, healthy policy, and organizational practice had been achieved (Rowling, 2007). This exemplifies one of the dilemmas for school mental health promotion (Rowling & Jeffreys, 2000). There is a lack of acceptance that intermediate mental health promotion outcomes such as capacity building, policy development, improved curriculum, better relationships, and closer partnerships are legitimate and measurable, and can be linked to more enduring mental health outcomes. Importantly, in working with the education sector, educational outcomes, including reorienting classroom practice, were also achieved. As described earlier positive outcomes were the focus, illbeing outcomes were not.

MindMatters has given pre-eminence to these evaluation dilemmas and pushed the field to conceptualize and trial new forms of "evidence" of

mental health, wellbeing, and educational outcomes. Based on a formative evaluation of the pilot, the materials were amended and prepared for dissemination nationally. One of the key recommendations from the pilot was that funding be provided for materials specifically focused on the needs of Aboriginal and Torres Strait Islander students.

Phase 2 National Dissemination on MindMatters

Implementation

A strategic action for the implementation of the pilot and the wider dissemination was a genuine attempt to involve and consult state education and health sectors and systems. For MindMatters to be successful, engagement and ownership needed to occur at different levels, individual, school, principal, and other school leaders, state and territory jurisdictions and sectors. The establishment of National Expert committees and state and territory reference groups played a major role in steering MindMatters growth nationally. Without these groups a nationally managed initiative would have little success of gaining traction in 24 diverse education sectors. Structurally, MindMatters was able to build these relationships by having national and state and territory-based officers. This ensured that positive relationships were established between the appointed officer and each system and sector.

Following the recommendation from the evaluation of the pilot (MindMatters Evaluation Consortium, 2000), a key decision to seek advice from major Aboriginal and Torres Strait Islander leaders regarding the original resource was implemented. It provided the opportunity to have indigenous people's concerns about discussing mental health addressed along with its implications for indigenous young people and their families, communities, and schools. Indigenous leaders were generous in the time they gave, along with specific advice. Terminology was adjusted, a national Aboriginal and Torres Strait Islander Committee was established, indigenous staff joined the MindMatters team, the training was extended and further funding was sought and provided by the federal government to develop a complementary booklet called *Community Matters* to add to the resource material. This process was acknowledged as making a significant contribution to the discussion about the experience for all marginalized groups in the implementation of the materials (due to disability, rural and remote locations, non-English speaking background and same-sex attraction).

Professional development was a key implementation strategy in the MindMatters dissemination which the formative feedback indicated helped in fulfilling the aim of improving teacher efficacy in understanding school mental health. Two-day training was implemented that aimed to change people's perception of mental health and wellbeing, and assist staff to grapple with new knowledge and the delivery of this in a classroom and school, a significant professional paradigm shift for subject-trained secondary teachers and leaders.

An important finding was the need for the materials to be implemented in a comprehensive way. The evaluation and the formative feedback was that schools could not just adopt one aspect and sustain it. A whole-school change process was required to support the implementation of a school's focus, such as antibullying, resilience, or loss and grief.

Early Intervention—MindMatters Plus

In 2002 the national government funded an expansion of MindMatters to include a stronger focus on early intervention entitled MindMatters Plus. Its aim was to build the capacity of secondary schools to increase their support of students with high mental health needs. There were four elements in this initiative, namely, the implementation of programs that support student mental health; the identification and embedding of strategies to support students with high mental health needs; creating processes that effectively identify students at risk; and the building of community partnerships (Anderson & Doyle, 2005a). A trial project was conducted with the assistance of 17 MindMatters Plus demonstration schools from both public and private education systems from across Australia.

One of the actions taken by the project team was to develop a specific Australian directory of early intervention programs. The resultant MindMatters Index of Programs and Resources (http://mhws.agca.com.au/) is an online database that provides comprehensive summary details about a range of programs available to support student mental health. Criteria were offered to schools on how to use the database, namely: identify the school's needs; determine the fit of the program with the ethos of the school; read the research on the program including assessing its effectiveness; identify the theoretical basis of the program; explore suggestions for selection of students for a program; consider the sustainability and cost of the program; and assess availability of evaluation tools and the potential for coordination with

other school programs (Anderson & Doyle, 2005a). The MindMatters Plus demonstration schools found the database helped their use of programs as an integral part of their whole-school approach to supporting their students with high needs in mental health.

Staff at one school commented that the most positive impact from their involvement in MindMatters Plus had been their "ability to identify students with high needs and provide them with some targeted programs prior to their involvement along with all their peers in universal programs" (Anderson & Doyle, 2005a, p. 7). Increasing staff awareness of the link between wellbeing and behavior was an important step towards increasing the support for students at risk of poor mental health outcomes (Anderson, 2005a). Staff/student relationships were identified as critical as adolescents with high levels of behavioral problems have more negative interactions with teachers (Anderson, 2005a). MindMatters Plus did not aim to skill staff to diagnose a disorder in a student, but to familiarize school staff, community helpers, and the larger school community with the early warning signs of social and emotional problems, and have an understanding of the appropriate action to support students in need (Dwyer & Osher, 2000).

A key element of building an environment that can support the wellbeing of students is to begin by addressing staff wellbeing (Anderson, 2005b). This was viewed as important for a number of reasons, including the need to model appropriate behavior to the students about how to support the wellbeing of others. It was also seen as important in terms of providing the necessary support to staff so that they were best able to help students when they experience difficulties.

An additional focus was working with schools to develop a range of systems that schools could put in place in order to improve student capacity to identify and talk about mental health issues. Experience from the MindMatters Plus initiative and the existing literature identified a number of strategies for improving student mental health literacy and help-seeking behavior. These included creating a trusting environment and having material about mental health issues readily available. The MindMatters Plus schools found that when mental health issues are discussed in a nonstigmatized and open environment, students become more inclined to share emotions and seek help if required (Anderson & Doyle, 2005b). An in-depth study with teachers in the demonstration schools focused on the understanding of staff about being connected to school, especially in relation to students with high mental health support needs (Anderson, Kerr-Roubicek, & Rowling, 2005b). The staff interviewed stressed the importance of students having a sense of

belonging, feeling cared for, participating, identifying with something or someone, and having a sense of achievement. They articulated a number of ways for students to connect to school, including the school: providing a sense of identity; being a physical place to be; as a place for personal and social relationships, to contribute, to learn and to be recognized. School teachers portrayed a vision of a positive school community: as one where there was strong leadership; that capitalized on the diversity of staff; where staff experienced positive support; where the climate and curriculum were open and responsive to the real lives and aspirations of students; with a pastoral care system making sure everyone is known and safety as the bottom line for all school community members (Anderson, 2005b). Further evaluation details on MindMatters Plus are found later in this chapter.

Evolution in the Professional Development and Resources

The original materials had been created and trialed with schools by an education and health consortium. They were passed on to the Australian Principals Associations Professional Development Council (APAPDC) (now Principals Australia Institute), for national dissemination. The choice of this organization was a key strategic action by the national government, intended to draw in the support of school leaders across Australia. This choice has proven to be significant. It has meant that the initiative has been implemented in schools by an organization which understands the complexity of school contexts and is able to offer professional learning and support in ways that build understanding of and confidence in mental health and wellbeing issues delivered in educational settings.

Building teacher efficacy for teaching about mental health and wellbeing and supporting students is a key aim of teacher professional development. Techniques that were utilized involved professional development that is participative and experiential rather than didactic, and modeling how to teach lessons and plan for school change.

There has been an evolution in the training process. National meetings of the MindMatters team developed new materials that were trialed, agreed to and distributed. This process, has enabled ongoing quality control in training and consistency in content and delivery across the country. An early need was expressed from school participants in terms of staff mental health and wellbeing. Although funding was not specifically provided for this, the development team saw it was an unmet need and developed online

materials "StaffMatters" (See http://www.mindmatters.edu.au/resources_and_downloads/staff_matters/staff_matters_landing.html) that groups and individuals could use as their own professional learning or that could become part of staff in school training days. Staff had to understand the impact of health and wellbeing on their own professional life to develop understanding, and in a few cases, empathy for the students in the modern school setting.

The revision of the materials based on the evaluation findings (see later in the chapter) occurred after about 7 years of implementation. The whole-school approach was strengthened by diagrammatically representing the way that schools were implementing the materials in an implementation model (Figure 5.2).

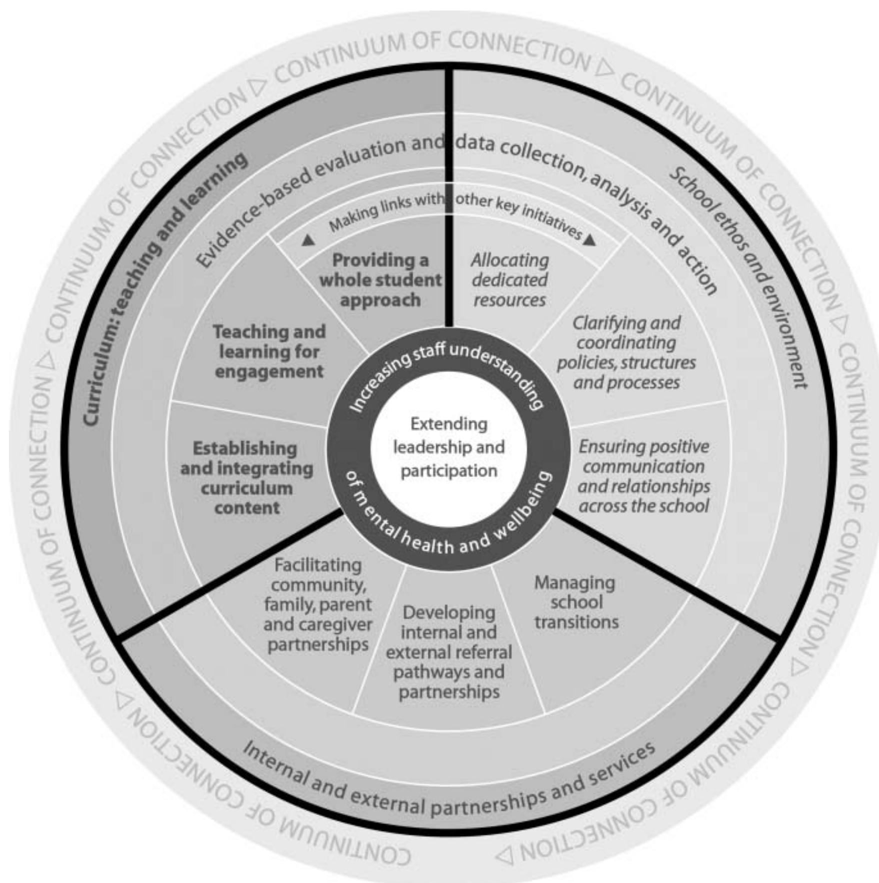

Figure 5.2. MindMatters Implementation Model 2010 for a Whole-School Approach to Mental Health and Wellbeing. MindMatters is funded by the Australian Commonwealth Department of Health and Ageing.

At the center of the model of implementation is “Extending leadership and participation,” then “Increasing staff understanding of health and wellbeing.” The three areas of the health promoting school “Curriculum teaching and learning,” “School ethos and environment,” “Internal and external partnerships” are intersected by crosscutting issues of “Evidence-based evaluation and data collection, analysis and action.” A continuum of connection encircles all these components.

An expanded resource called the whole-school approach was developed to include a focus on students with high needs, incorporating concepts and practice from the MindMatters Plus initiative. The *Community Matters* material was expanded, resequenced lesson plans that explore positive psychology were added, and references updated.

The training has also been extended with the addition of level 2 training focusing on supporting school leadership teams in skill development to plan, get and give feedback, practise, reflect, consolidate, internalize, and generalize (Weare, 2000). In training teachers who are experienced adults, Vygotsky’s perspective (1993) that individuals construct their own knowledge was acknowledged and accommodated in the construction and content of sessions. This attention to transferability of knowledge and skills from the learning environment into practice involves a number of steps:

- the extraction of potential relevant knowledge from the context(s) of its acquisition and its previous use;
- recognizing what knowledge and skills are relevant;
- transforming them to fit the new situation;
- integrating them with other knowledge and skills in order to think/act/communicate in the new situation (Eraut, 2004b, p. 92).

The need for this sophistication of professional learning reflects changed practices in schools (such as the growth of distributed leadership Fullan, 2008); as well as the limited time secondary school principals had to attend training. The content focus of other training includes: students with high needs; teaching and learning for mental health and wellbeing; using school data; and life transitions. Participants invited to this training include school psychologists/counselors, curriculum leaders, those looking at school outcomes and student induction staff. Two other key areas expanded exponentially at the same time. The *Community Matters*-based training involved an extension of the concept of authentic

school–community partnership. With indigenous trainers this proved to be highly significant. The other area of development, which, like StaffMatters, had grown out of school-based action, was a Youth Empowerment Process (http://www.mindmatters.edu.au/whole_school_approach/student_empowerment/youth_empowerment_landing_page.html). Mental health and wellbeing action and training led by young people and by community members produced a new way of introducing health and wellbeing through community and student groups.

Quality Management in Project Staff Selection

A critical component of MindMatters' success is its staff. The project has developed a deep understanding of the profile of people necessary to deliver the messages, promote mental health and wellbeing and ensure engagement of all stakeholders. MindMatters facilitators/project officers bring a range of important skills to the role of being a critical friend (Butler et al., 2011). Some of these include a positive and proactive approach; a clear presentation style that is authoritative, warm, and friendly; an active sense of humour; and highly developed social and emotional skills.

Evaluation of Efficacy and Effectiveness from Health and Education Perspectives

Prevention science has made significant advances in the fields of social and emotional wellbeing and mental health promotion and illness prevention (Rowling & Kasunic, 2006). Although they acknowledge the achievements, reports highlight a number of limitations (Arthur & Blitz, 2000; Greenberg, Domitrovich, Graczyk, & Zins, 2001), such as the compartmentalized approach to mental, social and behavioral problems (WHO, 2004, p. 53). Another limitation is implementation, or the many other words and phrases used to describe the phenomenon: research-to-practice gap; know–do gap; dissemination problems; and difficulties of taking programs to scale (Rowling, 2008). Steckler and McLeroy (2008) argue that it is the separation of efficacy and effectiveness trials that has contributed to the lack of dissemination. Conceptual and practice partitioning contributes to the implementation gap. That is, the focus in prevention science on internal validity rather than the utility and acceptability of the intervention for its intended context may partially explain why many prevention programs are not disseminated and

sustained beyond their initial funding period (Shinn, 2003). This has led researchers to question the model of efficacy research followed by effectiveness research, proposing instead a focus on "practice-based prevention science" (Hecht & Miller-Day, 2010, p. 224), where implementation is grounded in the culture of the target audience. This evidence-based practice (Peile, 2004) has emerged from different theoretical and conceptual bases, as previously described in this chapter. It has been used in a number of national projects in England and Australia (Rowling, 2008).

There were a number of challenges, constraints and debates that framed the design of the implementation evaluation of MindMatters. These included:

- the critical importance of monitoring school-based implementation in particular contexts;
- the challenge of finding and using measures that work in school systems;
- recognizing the complexity of influencing factors and the interdependency of key components;
- employing multimethod evaluation designs in naturalistic environments that can capture the complexity;
- ethical challenges in large-scale national school evaluation studies;
- the politics of national implementation in schools; and
- judging success using a range of mental health and educational outcomes (Rowling & Mason, 2005).

As indicated already in this chapter there were constraints in the trial and the national dissemination that limited the opportunity to conduct comparative studies. In particular, the political climate was such that there was a priority for and a focus on, developing products to the detriment of assessing outcomes. This precluded implementing a controlled efficacy study. The national dissemination implementation study was not funded as well-controlled summative evaluation research.

In their evaluation of MindMatters starting in 2000, Hazell, Vincent, Waring, & Levin (2002) encountered a number of difficulties relating to the whole-school context, national implementation across education jurisdictions, and the tensions that exist between the differing interests of the education and health sectors. These difficulties included:

- ethics approvals from different jurisdictions in each state and two different applications when data gathering used qualitative and quantitative techniques;

- problems with data collection which required time and effort by schools;
- active parental consent requiring consent forms and thereby encountering the perennial problem of the return to school of signed notes from parents/caregivers;
- the challenge of informing parents of the evaluation, but also meeting ethics committees requirements; and
- the special needs of particular schools requiring modification to data collection techniques. For example, evaluation in an Indigenous community school needed to accommodate a "narrative style of information-sharing" (Hazell et al., 2002, p. 26).

Evaluating school-based implementation requires strategies that might sustain the effort required by schools over a 2- or 3-year period. The evaluation process needs to be seen as a partnership in acquiring "mutually interesting data" (Hazell et al., 2002, p. 26). In the evaluation of the dissemination of MindMatters the interests of the schools were accommodated by giving them access to the baseline data (Hazell et al., 2002). For many researchers this would be seen as inappropriate action as it would influence the research outcome. But evaluative research designs can accommodate this action and in doing so not only identify a valuable strategy that influences school change but also maintain and perhaps increase the commitment of the school to evaluation processes (Rowling & Mason, 2005).

Quality health promotion practice includes acknowledging the context, the participatory process, the multistrategic action, and the dynamic cyclical process (Rowling, 2002). Additionally, within education sector research, two forms of evidence are privileged by researchers: evidence-based practice and practice-based evidence (Rowling & Jeffreys, 2006). The latter practice was particularly relevant for teachers in the MindMatters evaluation studies. Practice-based evidence denotes that professionals both generate and use evidence (Eraut, 2004a). School mental health promotion evaluation needs to accommodate all areas of practice adding to the complexity in evaluation.

Evaluation Designs

Multifaceted interventions require comprehensive evaluation processes to document the wide range of activities and capture the breadth of implementation. Consequently the MindMatters evaluation suite of the National Dissemination consisted of four separate yet interrelated evaluation studies.

The 4-year national study of MindMatters focused on a longer term and sought to link implementation with student outcomes. The demonstration project of students with high support needs within a MindMatters school environment, MindMatters Plus, assessed if pathways of care could be developed. Whereas the National Survey of Health and Wellbeing Promotion, Policies and Practices in Secondary Schools focused on assessing reach and impact. The Classroom Study of Understanding Mental Illness Curriculum was an in-depth curriculum implementation outcomes study. These studies were conducted by four different research teams who used different but complementary and connected designs and techniques. All placed their research in a specific context, providing the opportunity for unraveling elements of optimal implementation conditions. This is essential information for anchoring the work in a particular political climate and for accommodating the "readiness for change" conditions in school settings. That is, strategies for school development need to "fit" the "growth" state of a particular school (Hopkins et al., 1997).

A framework that assists evaluative research design to unravel the intervention process and operationalize the program components is program logic (Duignan 2004). It allows the sequence of actions—project inputs, process evaluation impact, and outcome evaluations—to be tracked prospectively. That is, intended outcomes are identified in the planning stage, and their "logic" links documented as the program action provide implementation data. Analytical frameworks are needed to link the process with the impact and outcomes. Careful process monitoring provides for serendipitous events to be captured. These then augment the program logic model (Rowling & Mason, 2005). Program logic was used in the study of students with high support needs for mental health.

The National Implementation Study of MindMatters (This section is based on the Evaluation Report, Hazell, 2005, used with permission)

The national implementation study conducted over 4 years by the Hunter Institute for Mental Health (Newcastle, Australia) monitored how schools undertook a whole-school approach for mental health promotion using MindMatters materials and the professional development training. Schools were selected at random from a national list of schools that had sent

staff for training. An invitation to participate was sent to the principal and if a school refused it was replaced by another on the list. For full details of the sampling see the Evaluation Report (http://www.mindmatters.edu.au/verve/_resources/pd_final.pdf). The limited funding provided from the national government determined the number of schools in the study. Qualitative methods employed for the assessment of the training included a survey of participants in professional development training; key informant interviews; and case studies of the 15 schools.

Case study schools not only utilized different approaches to planning, and to managing their planned changes, they also implemented a unique range of changes determined by their baseline conditions, the needs of their student population, their resources and structures, and their access to training.

Three types of schools were identified. Type A schools typically focused on curriculum changes, although some have restructured the school timetable to accommodate a new comprehensive MindMatters curriculum. Type B schools also focused on curriculum but implemented more structural and policy changes. Type C schools tended to focus on comprehensive structural changes, reorienting the school more towards pastoral care and student support. These schools also utilized the MindMatters curriculum resources, but, generally, this was less of a focus than in other schools.

MindMatters was acknowledged by the case study schools as having helped to facilitate the process of school change through provision of a comprehensive framework, access to training, easy-to-use curriculum resources, and the credibility for focusing on wellbeing issues in the school setting.

For the assessment of the impact of MindMatters, a quasi-experimental design was adopted, in which students at 3-year follow-up were considered the "exposed group" as they were exposed to curriculum and other changes as a result of their school's adoption of MindMatters. Their scores on questionnaires measuring positive outcomes were compared with those of students in the same year-group at baseline, who were considered the "unexposed group." For example, male students in year 9 in 2005 (exposed) were compared with males in year 9 in 2002 (unexposed). Hence the latter group acted as a within-school comparison group, as a partial control for other school-based variables that could have contributed to changes in the evaluation variables of interest. Of the 15 schools that participated in the case study, 10 completed student questionnaires at baseline and at annual follow-up for 3 years.

Discussion between the researchers and the National Evaluation Reference Group overseeing the project focused on which constructs would be reasonable to use as indicators of the impact or outcome of a school's implementation of MindMatters (Hazell et al., 2002). Resulting from these discussions, it was decided to examine indicators of "resilience." Four key subscales from the "Resilience" module of the Californian Healthy Kids Survey (Constantine, Benard, & Diaz, 1999; http://chks.wested.org/) were selected as likely indicators of changes that might be attributed to MindMatters. These are: the "School attachment" subscale; the "Autonomy experience" subscale; the "Self-esteem" subscale; and "Effective help-seeking" subscale. Within these scales students rated statements from 1 to 4, where 1 is *never true*, and 4 is *true all of the time*.

Analysis

Given the differences between schools in terms of their characteristics and demographics, and the differences in the ways MindMatters was implemented, firm conclusions about patterns of change across schools are difficult to extract and equally difficult to attribute solely to the implementation of MindMatters. As each school demonstrated a different baseline condition and unique pattern of adoption of MindMatters, these comparisons are most meaningfully interpreted at the individual school level.

School attachment.

The "School attachment" subscale comprises four statements as follows: "At my school there is a teacher or some other adult who really cares about me"; "At my school there is a teacher or some other adult who tells me when I do a good job"; "At my school there is a teacher or some other adult who listens to me when I have something to say"; "At my school there is a teacher or some other adult who believes that I will be a success (achieve my goals)."

In examining the patterns of change across all of the schools (year levels 7–11), there is a general trend for males and females in years 10 and 11 to show increased scores for "School attachment" at 3-year follow-up relative to baseline. Perhaps this is consistent with a view that older students are more likely to show the benefit of MindMatters, having been exposed to more of the program over the 3 years of the evaluation.

Combining questionnaire data across schools seems to cancel out the statistically significant differences between baseline and 3-year follow-up

detected when schools were considered individually. The exception is that "School attachment" scores for all year 11 males were statistically significantly higher at 3-year follow-up, compared to baseline, albeit that these increases were only "a little higher."

Autonomy experience.

The "Autonomy experience" subscale comprises four statements as follows: "I do things at home that make a difference (e.g., improve things)"; "I help make decisions (decide what happens) with my family"; "At school, I help decide things like class activities or rules"; "I do things at my school that make a difference (e.g., improve things)." Note that only two items relate directly to the students' experience of school.

An overall pattern of improvement in "Autonomy experience" scores emerged at the end of 3 years compared to baseline.

Five of the 15 schools showed at least one year-group where the mean score at the end of the evaluation was significantly higher than that for students of the same year-group at the beginning.

For all males in years 9 and 10, and all females in year 10 there were small but statistically significant improvements in "Autonomy experience." However, when all data were combined across schools and year-groups, the difference between baseline and follow-up did not reach statistical significance.

Self-esteem.

The "Self-esteem" subscale comprises four statements as follows: "I can work out my problems"; "I can do most things if I try"; "There are many things that I do well"; "I do things at my school that make a difference (e.g., improve things)."

No consistent pattern of responses at follow-up (relative to baseline) was found on the "Self-esteem" subscale for males or females, or across the year levels.

Effective help-seeking.

The "Effective help-seeking" subscale comprises three statements: "When I need help, I find someone to talk with"; "I know where to go for help with a problem"; "I try to work out problems by talking about them."

An overall pattern of improvement emerged in "Effective help-seeking" scores at the end of 3 years compared to baseline. In particular, three schools showed at least one year-group where the mean score at the end of the

evaluation was significantly higher than that for students of the same year-group at the beginning. Importantly, no schools reported reduced "Effective help-seeking" scores between baseline and follow-up questionnaires that were statistically significant.

When data for all schools is combined, differences for individual year levels across schools were either not statistically significant or are very small, with one exception: year 11 males are "a little higher" at 3-year follow-up compared to baseline.

Given the process and selection criteria outlined above, the case study schools can be considered reasonably representative of schools that are implementing the MindMatters program in Australia. However, there are some limits to the conclusions that can be made about the data collected. It is possible that a level of response bias might occur in the main method of sampling with participants from schools that are implementing MindMatters more likely to respond than those whose schools were not. Additionally, as the sample schools were spread across the country, limited funding precluded evaluators visiting schools to collect data on the three occasions. Schools took responsibility for this. Given the complexity of schools, positive or negative changes in the indicators cannot be attributed simply to the school's use of MindMatters. The findings that emerge from the statistical analysis of the measures used in this study (based on the Californian Healthy Kids Survey) should be interpreted with these limitations in mind.

Implementation Outcomes

In terms of implementation outcomes of the 15 case-study schools that commenced using MindMatters in 2001 or 2002, 13 were continuing to implement the initiative after 3 years. Based on information provided by surveyed participants, it is estimated that 35% of schools that attended professional development workshops and decided to use the MindMatters resources utilized a whole-school approach to implementing the initiative, developing policies, structures, procedures, and curriculum around supporting the mental health of students and staff. There was evidence to suggest that teacher responses to bullying had improved. There was some evidence that students who participated in the skills-building activities felt more confident about their ability to deal with mental health issues and were more comfortable talking about them. One of the key findings of the

audit conducted in 1996 was the low confidence level of teachers in the area of students' mental health. This benchmark has been improved. Teachers reported that the initiative gave them the confidence and skills to better support and understand the needs of students, and to identify those children who may need additional support.

The outcomes for the students were an overall pattern of improvement in school attachment, autonomy experience, and effective help seeking. There was no documented improvement or worsening in self-esteem, seven out of the ten schools generally showed patterns of improvement.

MindMatters Plus: A Study of Students with High Support Needs (HSN) within a MindMatters School Environment

MindMatters Plus builds on the universal approach of MindMatters. Seventeen schools were involved in the pilot of MindMatters Plus which aimed to identify pathways of care in school communities and focused on the capacity of secondary schools to support students with high needs in the area of mental health. The evaluation used questionnaires, interviews, and school-based data collection (such as student suspension rates). As described earlier, the evaluators adopted a program logic approach for the development of the evaluation framework. The manner in which MindMatters Plus was embedded in, or built upon a foundation of MindMatters, means that the evaluation of MindMatters Plus includes consideration of the whole school system. Trials of targeted interventions for reducing depression and anxiety have identified better outcomes when embedded in a whole-school approach (Rowling & Kasunic, 2006). Students with high support needs are part of the whole school, so it is not possible, and would not be valid, to try to isolate those aspects of the school support system that relate to students with high support needs (for full report see Lewis, Marsh, Redfern, & Bakacs, 2005). Across all the aspects of processes and structures included in the program logic map, the demonstration schools rated the contribution of the MindMatters Plus curriculum, targeted programs and personnel highly. Leadership commitment was also seen as an important contribution. However, the contribution of MindMatters Plus to the schools' relationships with external agencies and referral pathways did not rate highly.

A National Survey of Health and Wellbeing Promotion, Policies and Practices in Secondary Schools

This survey of a nationally representative sample of secondary schools conducted by the Australian Council for Educational Research in 2006 (Ainley, Withers, Underwood, & Frigo, 2006) and again in 2010 (Australian Council of Educational Research, 2010) aimed to assess the success of the initiative in:

- raising awareness of the underlying principles of MindMatters;
- encouraging schools to utilize the resources in a whole-school manner to promote positive mental health.

The results (Table 5.1) revealed that the reach of awareness of MindMatters on both occasions was widespread (95% and 98%). Although the figures for those who are using MindMatters appear to be static—66% on both occasions—deeper examination of the data revealed that 77% of the sample had begun using the materials in the last 3 years. This is consistent with the educational literature about the time it takes for adoption of an innovation (Fullan & Steigelbauer, 1991). The finding that for 68% of the respondents it was the core team who were taking action in its use is evidence of adoption of MindMatters as a key framework and high potential for its sustainability.

A Classroom Study of Understanding Mental Illness Curriculum

This in-depth study of the Understanding Mental Illness (UMI) materials to senior students aimed to: identify the key features of teaching practices in the implementation of the MindMatters curriculum materials; capture teacher and student perspectives about the module; identify links between students' knowledge, attitudes, and behavioral intentions; and assess teacher

Table 5.1. ACER National Survey Results 2006 and 2010.

Question	2006 Result	2010 Result
Awareness of MindMatters	95%	98%
Using MindMatters	66%	66% (77% in last 3 years)
MindMatters as whole-school approach	18%	36%
Implementation team	18%	68%

From Australian Council for Educational Research (2010).

efficacy in implementing the UMI module. The evaluation methods included interviews, a teacher efficacy scale, a social distance scale for students and in-depth classroom observations (see Askell-Williams, Lawson, & Murray-Harvey, 2005, for the full report). The evaluators noted quite different professional judgments were made by the teachers in the study, but that the overall effect for the majority of students was still an improvement in students' knowledge, attitudes and behavioral intentions relating to mental illness from preteaching to immediate post-teaching of the UMI module (Askell-Williams, Lawson, & Murray-Harvey, 2007). Teachers' responses indicated that they feel efficacious about their teaching abilities and have goals for teaching that are compatible with the UMI module.

Impact of Professional Development

In an International Survey of Principals Concerning Emotional and Mental Health and Wellbeing in 2008, almost all the the Australian sample of principals (94%) believed that emotional/mental health and wellbeing are "very important" for academic achievement, compared to 84% globally. The Australian sample also reported the existence of more policies for student and teacher general health and mental health than identified in the global sample (Rowling & Biewener, 2009).

Evaluation Summary

The innovative approaches utilized in the MindMatters evaluation studies were designed to capture the diversity of influences and outcomes, capitalizing on the strengths and expertise of a range of evaluators, engaging stakeholders in the process, and articulating the impact and outcome breadth and depth. Studies by other researchers using the MindMatters materials have provided further evidence of effectiveness outcomes. Higher resilience and protective factors and lower prevalence of substance use were reported from an intervention that was based on MindMatters (Hodder et al., 2011). A buddy support scheme established by an area health service assisted schools implementing MindMatters to: form partnerships and link with mental health services and organizations (Khan, Bedford, & Williams, 2011). Buddies were from the health promotion service, youth service, and the school link program. Results showed that schools receiving support were more likely to have improvement in sustainable outcomes of:

policy development, implementing a school audit, changes in the social environment, and student involvement.

In terms of evaluation, as schools came to understand MindMatters as a framework to organize and embed a whole-school approach, the word MindMatters often disappeared from the language of the site. It became a way of operating and viewing the daily work of a school. In the future this could present a challenge for evaluators in measuring adoption.

Phase 3 The Current Phase of MindMatters

Redevelopment in Professional Learning

The professional learning models good teaching practice, including the use of constructivist methodology which values and builds knowledge, skills, and experiences that people bring, thereby affirming their sense of competence, and a protective factor. The strengths-based approach which underpins MindMatters also underpins the planning process. Specific activities deconstruct current capacity via mapping exercises to capture current strengths. This becomes a starting point to determine future action which builds upon identified strengths. Initially the participants at the professional development workshops were predominantly from curriculum areas particularly health and physical education teachers.

Materials Redevelopment

From the inception of MindMatters in 2000, schools have been provided with surveys and audits they could use to ensure they were clear about strengths and gaps in their practice. This made a huge and significant difference to school learning about mental health and whole-school approaches. The original audits and surveys have been redeveloped, in conjunction with ACER, into an online, interactive format, which collects and collates data in real time for schools to measure, analyze, and monitor their progress. The student survey focuses on positive wellbeing and connectedness to school. School belonging or connectedness has been linked to mental health and wellbeing (Shochet, Smith, Furlong, & Homel, 2011). The integration of evaluation measures into the program so that schools can monitor their own systems capacity and progress, an action research type approach, provides ownership for the school. These survey forms

(http://www.mindmatters.edu.au/verve/_resources/Student_Survey_Short_version.pdf) have been accessed by people from Germany, England, Canada, and New Zealand.

As already described, there was modification in the professional learning process after 10 years of implementation as the materials were extended. The original resource was based on the health-promoting schools framework. Schools were requesting more assistance with the practical implementation of the whole-school approach. This practice-based evidence combined with the findings from the MindMatters (Hazell, 2005) and MindMatters Plus evaluations (Lewis et al., 2005) and the in-depth classroom study (Askell-Williams et al., 2007) led to the expansion of the health-promoting schools framework material into the current MindMatters implementation model (see Figure 5.2). This model has congruence with the schools and service providers' experiences and practice.

Since 2008, many more mental health resource providers have joined the field of developing materials for schools. It is paramount at this time that schools are assisted in understanding where and how all these resources and services fit together. The significant point of difference is that MindMatters offers an implementation model under which prevention and early intervention activities fit. It delineates a place where mental health services and resources fit within a school setting, enabling maximum effect for every young person's wellbeing.

Development of a Recognition Process

During 2009 it became clear that a criteria-based recognition process needed to be developed to assist schools in a step-by-step process to engage systematically in a whole-school approach. The criteria are based on the Implementation Model (see http://www.mindmatters.edu.au/whole_school_approach/mindmatters_recognition_and_overview/mindmatters_recognition_and_overview_landing.html). Using the tools available on the website the school must demonstrate improved outcomes for students as a result of a data-informed strategic plan. Since 2010, more than 35 schools have been nationally recognized as MindMatters schools (see details on website for school testimonies http://www.mindmatters.edu.au/whole_school_approach/mindmatters_recognition_and_overview/mindmatters_recognition_event_2011.html).

Conclusion

Stable national management since 2000 has allowed deep corporate knowledge and wisdom to advise redevelopment and redirection in a seamless and informed way. PAI, the managing organization, is a learning organization and has always welcomed and encouraged relationships with researchers and experts in health and education to advise current and future planning and action. MindMatters has continued to meet the changes, both organizational and curriculum in schools in a constantly shifting local, national, and global environment.

Key Positive Outcomes

- Demonstration of paradigmatic shifts re-conceptualizing mental health as a positive concept increasing the ability of schools to undertake mental health and wellbeing actions separate but linked to mental illness;
- development of a workable framework that schools can use to promote mental health and wellbeing as an integral element for current school organizational change;
- building leadership throughout the school community especially by strengthening the capacity of student leaders;
- reshaping of school partnerships with the mental health sector from being the recipient of programs developed by outsiders to approaches based on school community involvement and ownership;
- capitalizing on and enhancing the existing systemic collaboration between health and education sectors nationally.

MindMatters is a unique example of long-term implementation of school mental health and wellbeing promotion. It has broken new ground in conceptualizing mental health and wellbeing in school communities building on existing educational, health promotion and mental health theory and practice. In just over a decade, it has changed how mental health and wellbeing is addressed in secondary schools across Australia.

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6

A Systematic Review of Mental Health Promotion in the Workplace

Czesław Czabała
The Maria Grzegorzewska Academy of Special Education, Poland

Katarzyna Charzyńska
Institute of Psychiatry and Neurology, Poland

Introduction

According to the U.K. Health Education Authority, the major aims of mental health promotion include the development of emotional resilience (thinking and feeling, managing life), of citizenship (belonging, participating), and of healthy structures (cf. Lehtinen, 2008). The workplace is considered to be one of the most important settings for mental health promotion, where all these aims can be achieved. From another perspective, work stress and work-related mental health problems have a number of major socioeconomic consequences, such as absenteeism, labor turnover, loss of productivity, and disability pension costs (Palmer & Dryden, 1994). In the HERO study (Goetzel, Ozminkowski, Sederer, & Tami, 2002) depression was found to increase the annual health-care costs by as much as 70%. Challenging working conditions also produce personal costs, such as lower self-esteem, somatic diseases (e.g., cardiac conditions), and have

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a negative impact on family life (Goodspeed & DeLucia, 1990). On the other hand, the workplace is an appropriate setting for promotion of good mental health practices. At the organizational level, improvement of working conditions and changes in the organization of work may become protective factors with regard to mental health problems. At the individual level, stress management and skills training programs seem to provide the participants with resources that allow them to protect themselves against the detrimental impact of work-related problems. Thus, in mental health promotion programs the need to promote mental health in the workplace is particularly emphasized (Jané-Llopis & Barry, 2005).

Four stages based on the intervention focus can be distinguished in the history of wellbeing and health promotion in the workplace (Goldbeck, 1984, cited after Maes, Kittel, Scholten, & Verhoeven, 1992). In the first stage employees' wellbeing was only a side effect of the main goal (i.e., the product quality). For example, smoking was forbidden in the food industry in order to prevent contamination of the products. In the second stage interventions were focused directly on the employees' wellbeing, but designed exclusively for managers. During the third stage disease prevention and health risk reduction became the primary goals of the interventions. Finally, in the fourth stage the focus was shifted from disease prevention to promotion of wellbeing, with interventions offered to all employees.

A variety of programs have been designed and implemented for many years now to promote mental health in the workplace. Moreover, evaluation studies have been conducted to identify programs that effectively help to maintain mental health by improving the employees' working conditions and training them to cope with work settings detrimental to health. These efforts may be exemplified by projects such as the EMIP (Implementation of Mental Health Promotion and Prevention Policies and Strategies in EU member states and applicant countries) and ProMenPol (Promoting and Protecting Mental Health, supporting policy through integration of research, current approaches and practice), implemented in EU countries and financed by the European Commission. However, few of the programs described in these studies have been evaluated.

The aims of the review completed within the DataPrev Project (cf. Czabała, Charzyńska, & Mroziak, 2011) and presented in this chapter were to identify and document evidence-based programs that promote mental health and prevent mental and behavioral disorders in the workplace.

Methodology of the Review

The review included interventions provided in work settings that addressed a mental health outcome and targeted people in paid employment regardless of their age, hours worked, function, and type of contract—permanent or temporary (also the self-employed). The study design included a control condition. The reviewed studies were conducted in the years 1988–2009 and had to be published in English. No studies concerning pharmacological interventions and populations on long-term sick leave or returning to work from unemployment were taken into account; neither were dissertations.

Out of 4,865 studies identified in a comprehensive bibliographical data search, 315 were selected for abstract screening and 79 were included in the final review (Table 6.1, first published in Czabała et al., 2011). Unfortunately, a majority of the numerous current publications concerning mental health promotion programs either were not evaluation studies or did not meet the criteria for evaluation reports (e.g., there was no control or comparative group). Moreover, in some of the reports the methods and procedures applied were insufficiently described (e.g., the target population was not characterized or the intervention program itself was not presented in detail). All the publications included in our analysis aimed to evaluate intervention effectiveness.

However, these studies were found to vary with regard to their methodology. Therefore, the studies presented in particular publications were rated for their quality level, and accordingly divided into three categories of high, moderate, and low quality.

Methodological quality of studies included in the review was assessed on a 3-point rating scale (from 0 to 2) using two criteria, namely, whether the study controlled for the interaction between:

1. intervention (the program implementation) and time;
2. intervention and independent variables other than time (e.g., demographic variables, research settings characteristics, etc.) (covariates).

1. Intervention (the program implementation) and time.

(a) High quality: The highest score (2 points) was allotted to publications in which the intervention × time interaction was directly controlled for in the study design, that is, the experimental and control groups were compared not in terms of raw scores, but differences

Table 6.1. Summary of the 79 Studies Included in the Review.

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
1. Interventions aiming at mental health improvement							
Arnetz (1996), Sweden	CCT	Relaxation	Police officers	116	Universal	Self-developed questionnaire measuring stressors	Reduction in biological indicators of stress levels
Deahl et al. (2000), U.K.	CCT	Group psychological debriefing	Male soldiers	106	Universal	Hospital Anxiety and Depression Scale, PTSS-10, Impact of Events Scale, Symptom Checklist-90	Intervention may have a beneficial effect across a broader range of symptoms
Eriksen et al. (2002), Norway	RCT	Physical exercise, SMT, integrated health program	Post office workers	860	Universal	Cooper Job Stress Questionnaire, Subjective Health Complaint Inventory	No effects on subjective health complaints or job stress
Galinsky et al. (2000), U.S.A.	RCT	Rest break schedules	Data-entry operators	101	Universal	Questionnaires developed for this study	Discomfort in several areas of the body were significantly lower

Gardiner et al. (2004), Australia	CCT	Cognitive behavioral stress management training	GPs	110	Universal	Queensland Public Agency Staff Survey (QPASS), General Health Questionnaire	Decrease in general psychological distress
Iwi et al. (1998), U.K.	CCT	Cognitive analytic therapy counseling	Estate office staff	129	Universal	General Health Questionnaire (GHQ-12), Occupational Stress Indicator	No evidence of treatment effects on symptomatology
Peters et al. (1999), U.S.A.	RCT	Strategy for health behavior change	Maintenance staff	194	Universal	Symptoms Index, Illness Index, Performance Index, Sociability-Satisfaction Index, Happiness–Unhappiness Index	Improvement in physical, behavioral, psychological/attitudinal, emotional aspects
Polacsek et al. (2006), U.S.A.	CCT	Move & Improve, a worksite wellness program	Various worksites	Not clear	Universal	Lifestyle factors (developed survey)	Substantial improvements in lifestyle factors

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Pryce et al. (2006), Denmark	CCT	Open-rota system. The participatory approach	Psychiatric nurses	177	Universal	Copenhagen Psychosocial Questionnaire, self-rated health	Increases in work–life balance, job satisfaction, social support
Rahe et al. (2002), U.S.A.	RCT	A novel stress and coping workplace program	Manufacture workers	501	Universal	Stress and Coping Inventory, State-Trait Anxiety Inventory, Quarterly Health Report Questionnaire	Improvement on the stress, anxiety, and coping measures
Sjogren et al. (2006), Finland	RCT	The physical exercise intervention	Office workers	90	Universal	Measurements on visual rating scales	Increase in subjective physical well-being. No effect on mental stress
Slaski et al. (2003), U.K.	CCT	A developmental EI training program	Managers	120	Universal	Emotional Quotient Inventory, Emotional Intelligence Questionnaire, General Health Questionnaire (GHQ-28)	Increase in emotional intelligence, no impact on performance

Van der Klink et al. (2003), The Netherlands	RCT	3-stage model resembling stress inoculation training	Postal employees	192	Targeted	Dutch Work and Health Questionnaire, Utrecht Coping List, Four- Dimensional Symptom Questionnaire, Symptom Check List-90, Mastery Scale, duration of sickness leave	Reduction in the negative consequences of the occupational dysfunctioning
2. Interventions aiming at increasing job satisfaction							
Ayres et al. (2007), Australia	RCT	Multistep problem-solving model	Flight attendants	118	Universal	Positive and Negative Affect Schedule, Modified Facet-Free Job Satisfaction Scale, Satisfaction with Life Scale	Increase in problem-solving skills and problem-solving self-efficacy
Dupuis et al. (2007), 1, Canada	RCT	Social Motivational Training (SMT)	Working students	34	Universal	Cognitive and affective variables, Weiner's model	Increase in perceived prosocial cognitions and behavioral intentions

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Dupuis et al. (2007), 2, Canada	RCT	SMT	Working students	50	Universal	Cognitive and affective variables, Weiner's model	More perceived prosocial cognitions, affect, and behavioral intentions
Dupuis et al. (2007), 3, Canada	RCT	SMT	Working adults	42	Universal	Number of participants who took a flyer	Workers more likely to take a brochure on conflict management workshop
Dupuis et al. (2007), 4, Canada	RCT	SMT	Working students	32	Universal	Cognitive and affective variables, Weiner's model	Participants exhibited a more prosocial coworker profile in some dimensions

Hatinen et al. (2007), Finland	CCT	The traditional and participatory intervention	White collar staff	110	Targeted	Maslach Burnout Inventory, Job Diagnostic Survey	Both interventions improved workplace climate. Participatory intervention was more effective for burnout reduction
Holt et al. (2006), Australia	RCT	Educational, mailed intervention	GPs	233	Universal	General Health Questionnaire (GHQ-12)	Effective in reducing psychological morbidity
Landsbergis et al. (1995), U.S.A.	CCT	Participatory action research	Clerks, managers	108	Universal	Karasek's Job Content Questionnaire, Job Diagnostic Survey, Work Environment Scale	Limited evidence that improvements in job satisfaction crucial for better group functioning

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Melchior et al. (1996), The Netherlands	CCT	An innovation in nursing care delivery	Psychiatric nurses	326	Universal	Maslach Burnout Inventory	Primary nursing had an influence on the burnout level among psychiatric nurses
Pelletier et al. (1999), U.S.A.	RCT	Stanford Training Regarding Effective Stress Solutions	Bank employees	136	Targeted	Stanford Job Strain Survey, Brief Symptom Inventory	No change in wellness or stress level, improvement on anxiety scale
Smoot et al. (1993), U.S.A.	CCT	Interpersonal communication skills training	Psychiatric staff	158	Universal	Maslach Burnout Inventory, Ward Atmosphere Scale	Staff members felt the training improved their way of responding to patients
Waite et al. (2004), U.S.A.	RCT	Personal resilience and resilient relationships training	Governmental employees	232	Universal	Spirit Core Scale, Purpose in Life Test	Positive change in resilience, self-esteem, locus of control, interpersonal relations

Żołnierczyk (2004), Poland	RCT	Mindfulness-based cognitive intervention	Managers	150	Universal	OSI-2 Occupational Stress Indicator	A significant decrease in perceived job stressors
Żołnierczyk-Zreda (2005), Poland	CCT	Stress management workshop	Teachers	58	Universal	Psychosocial Working Conditions Questionnaire, the Maslach Burnout Inventory, the Widerszal–Bazyl Questionnaire	Decrease in emotional exhaustion, workload and somatic complaint. Increase in behavioral job control
3. Interventions aiming at increasing job effectiveness							
Bond et al. (2001), U.K.	CCT	Participative Action Research (PAR)	Administr. employees	97	Universal	Occupational Stress Indicator, Job Content Questionnaire	Improvement in mental health, and self-rated performance
Bunce et al. (1996), U.K.	CCT	Stress management and innovation promotion program	Health-care staff	202	Universal	General Health Questionnaire, Job-Induced Tension Scale, Propensity to Innovate Scale, Psychological Well-being, Session Insight, Session Evaluation Questionnaire	Traditional interventions improved general psychological strain and job satisfaction. Innovative interventions improved work-related stress

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Delvaux et al. (2004), Belgium	RCT	The psychological training program	Oncology nurses	116	Universal	Nursing Stress Scale, Semantic Differential Attitude Questionnaire, European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument, Satisfaction with the Interview Assessment Questionnaires	Stress reduction, attitudes towards oneself and patients moved towards a positive pole
Ewers et al. (2002), U.K.	RCT	Psychosocial intervention training	Forensic nurses	33	Universal	Measures developed by the first author, Maslach Burnout Inventory	Nurses more positive in their attitudes towards the clients, experience less negative stress effects

Frayne et al. (2000), U.S.A.	CCT	Self-management training	Sales people	60	Targeted	Measures developed for this study	Behavior, self-efficacy, and outcome expectancy measures improved
Logan et al. (2005), U.K.	RCT	Control intervention to alleviate job-related stress.	Trucking comp. staff	64	Universal	Somatic Complaints Scale, Job Diagnostic Survey, National Institute of Mental Health Center for Epidemiological Studies Depression Scale, overall control, supervisory support, anxiety	The intervention had no main effects on either control or stress-related outcomes
Macan (1996), U.S.A.	CCT	Time-management training	Social serv. employees	77	Universal	Time Management Behavior Scale, Job-Induced Tension Scale, Somatic Tension Scale, Job Satisfaction Scale	No increase in more frequent time-management behaviors

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Mikkelsen et al. (2000), Norway	RCT	Short-term participatory intervention	Health workers	135	Universal	Cooper's Job Stress Question, the Health Inventory, short version of the Job Content Questionnaire, Work Apgar Question, Multifactor Leadership Questionnaire	A limited effect on work-related stress, job characteristics and learning climate
Mikkelsen et al. (2003), Norway	CCT	Participatory organizational intervention	Postal workers	89	Universal	Cooper's Job Stress Question, the Subjective Health Complaints Measurement Instrument, short version of the Job Content Questionnaire, Learning Climate Questionnaire, job satisfaction and social support scales	A positive effect on the learning climate, job stress, and health complaints

Mueser et al. (2005), U.S.A.	RCT	Skills training	Services workers	35	Universal	Workplace Fundamentals Knowledge Test	No improvement on work outcomes for clients who were receiving supported employment
Park et al. (2004), U.S.A.	CCT	An employee problem-solving team "ACTion Team"	Stores employees	1891	Universal	The SF-36 Social Functioning Scale, adapted scales	Positive effects on job stress and health status
Razavi et al. (1988, 1991), Belgium	CCT	Psychological training	Medical staff	92/165	Universal	Semantic Differential Questionnaire	When the subjects are considered globally, there are no concepts changes
Razavi et al. (1993), Belgium	RCT	Psychological training program	Oncology nurses	72	Universal	Semantic Differential Questionnaire, Nursing Stress Scale	Reduced level of occupational stress related to an inadequate preparation
Rebergen et al. (2007, 2009), The Netherlands	RCT	GBC (guideline-based care) for occupational physicians	Police workers	240	Universal	Depression Anxiety Stress Scale, Hospital Anxiety Depression Scale, return to work, health-care costs	No effect of earlier return to work or productivity loss costs. Lower health-care costs

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Rose et al. (1998), U.K.	RCT	Stress management program	Direct care staff	38	Universal	Adaptive Behaviour Scale, Thoughts and Feelings Index	Reduced levels of anxiety and depression can have a positive impact on work performance
Schrijnemaekers et al. 2003, The Netherlands	RCT	Emotion oriented care	Caregivers for elderly	300	Universal	Maastricht Work Satisfaction Scale for Healthcare, Maslach Burnout Inventory	Modest positive effects on some aspects of job satisfaction and burnout
Teri et al. (2005), U.S.A.	RCT	Dementia-specific training program for direct care staff	Assisted living employees	25	Universal	The Short Sense of Competence Questionnaire, job satisfaction	Staff reported less adverse impact and reaction to residents' problems and more job satisfaction

Van Weert et al. (2005), The Netherlands	CCT	Snoezelen—new 24-hr care model	Nursing Assistants	120	Universal	Experience and Assessment of Work questionnaire, Maastricht Work Satisfaction Scale for Healthcare, NIVEL Scale for Perceived Problems in Dementia Care, NIVEL Scale for Perceived Problems with Specific Behaviors, General Health Questionnaire, Maslach Burnout Inventory	Improvement in quality of life, decrease in time pressure, fewer stress reactions and less emotional exhaustion
4. Interventions aiming at stress reduction							
Anderson et al. (1999), U.S.A.	RCT	Meditation	Teachers	91	Universal	Teacher Stress Inventory, State–Trait Anxiety Inventory for Adults, Maslach Burnout Inventory	Reduction in teachers' perception of stress, state and trait anxiety, and burnout levels

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Bittman et al. (2003), U.S.A.	RCT	Recreational music making	Community employees	125	Universal	Maslach Burnout Inventory, Profile of Mood States	Reduction in burnout and mood dimensions, as well as total mood disturbance
Bourbonnais et al. (2006), Canada	CCT	Participative intervention	Clinical care staff	613	Universal	Karasek's Job Content Questionnaire, Psychiatric Symptom Index, Copenhagen Burnout Inventory, Nottingham Health Profile	Improvement in the means of all psychosocial factors except decision latitude
Carson et al. (1999), U.K.	RCT	The social support intervention	Psychiatric nurses	53	Universal	DCL Stress Scale, General Health Questionnaire-28, Maslach Burnout Inventory, Rosenberg Self-Esteem Scale	No significant reduction in stress and burnout in mental health nurses

Cecil et al. (1990), U.S.A.	RCT	Stress inoculation training	Teachers	54	Universal	Teacher Stress Inventory, Teacher Anxiety Observation Schedule, Job Stress in the School Setting Scales	Reduction in teachers' self-reported stress and enhancement of coping skills
Cohen-Katz et al. (2004, 2005), U.S.A.	RCT	Mindfulness-based stress reduction	Nurses	27	Universal	Maslach Burnout Inventory, Emotional Exhaustion Subscale, Brief Symptom Inventory, Mindfulness Attention Awareness Scale, Evaluation Questionnaire	Reduction in burnout level
De Jong (2000), The Netherlands	RCT	Multicomponent stress management training	Various workers	155	Targeted	State-Trait Anxiety Inventory, Psychosomatic Complaints Questionnaire, General Health Questionnaire, Survey of Recent Life Experiences, Social Support Inventory,	Improvement with regard to trait anxiety, psychological distress, unassertiveness

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
						Scale of Interpersonal Behavior, Utrecht Coping List, Eysenck Personality Questionnaire, Life Event Scale, Organizational Stress Questionnaire	Improvement with regard to trait anxiety, psychological distress, unassertiveness
Eklöf et al. (2006), Sweden	RCT	Feedback intervention	VDU workers	8	Universal	Mood Adjective Checklist, self-developed questionnaire	Positive effect on social support measured as a group characteristic
Freedy et al. (1994), U.S.A.	CCT	Dual resource intervention	Acute care nurses	87	Universal	Social Support Questionnaire, Mastery Scale, CES-D depression scale, Conservation of Resources Scale, Emotional Exhaustion Scale	Enhancements in social support and mastery compared to no intervention group

Freedy et al. (1994), U.S.A.	CCT	Single resource intervention	Acute care nurses	87	Universal	Social Support Questionnaire, Mastery Scale, CES-D depression scale, Conservation of Resources Scale, Emotional Exhaustion Scale	A slight enhancement in mastery compared to the no intervention group
Gardner et al. (2005), U.K.	RCT	A cognitively based stress management training	Clinical staff	138	Universal	General Health Questionnaire (GHQ-12), Mental Health Professionals Stress Scale, Eysenck Personality Questionnaire/Revised, Short Scale, Support Questionnaire, Appraisal Questionnaire, Ways of Coping Questionnaire	Reduction in symptom ratings in those who had clinically significant GHQ scores

(continued overleaf)

Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Gerzina et al. (2000), Australia	RCT	Cognitive skills training, relaxation	Police officers	26	Targeted	State-Trait Anger Expression Inventory, Trait-Anger Scale, Anger-In and Anger-Out Scales, Anger-Situation Rating, Trait Anxiety Inventory	Reduced scores on a majority of the anger measures, decrease in general anxiety
Grime (2004), U.K.	RCT	Interactive, computerized CBT program	Health employees	48	Targeted	Hospital Anxiety and Depression Scale, Attribution Style Questionnaire, General Health Questionnaire (GHQ-12)	Lower depression and negative attributional style scores at post-test, not significant at 3 months

Heron et al. (1999), U.K.	CCT	Stress management workshop	Pharmaceutical staff	842	Universal	General Health Questionnaire-30, Occupational Stress Indicator, Life Events Questionnaire, coping skills, managing stress in staff	Better understanding of the principles of the management of stress and coping strategies
Innstrand et al. (2004), Norway	CCT	Improving working schedule and physical exercises	Health staff	112	Universal	General Burnout Questionnaire, Job Satisfaction Scale (Warr et al., 1979), stress measures	Reduction in stress and exhaustion, a strong significant rise in job satisfaction
Kawakami et al. (2006), Japan	RCT	Web-based supervisor training	Sales service staff	235	Universal	Brief Job Stress Questionnaire	No reduction in job stressors, improvement in friendliness of the worksite atmosphere
Larsson et al. (1990), Sweden	CCT	Stress control program	Teachers	89	Universal	Stress Profile, Faces Scale, Hassles and Uplifts Scale	Fewer perceived stressors, positive reappraisal, seeking social support

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Leonard et al. (1999), U.K.	CCT	Critical incident stress debriefing	Police officers	60	Universal	Coping Scale of Carver, State-Trait Anger Expression Inventory	A significant reduction in anger levels and greater use of adaptive coping strategies
Lindquist et al. (1999), U.K.	RCT	Stress management program	Taxation office staff	104	Targeted	Occupational Stress Indicator, lifestyle measures, systolic and diastolic blood pressure levels, programme and self-evaluation sheets	No improvement in stress and health indicators at post-program
Lucini et al. (2007), Italy	CCT	Stress management and sham program	White collar staff	170	Universal	Subjective Stress-Related Somatic Symptoms Questionnaire, Self-developed question, measuring stress, autonomic evaluation	Both stress-related symptoms and signs of autonomic deregulation were reduced

Maddi et al. (1998), U.S.A.	RCT	The hardiness training, The relaxation/ meditation training	Managers	54	Universal	Personal Views Survey, Hopkins Symptom Checklist	Hardiness training effectively increasing hardiness, job satisfaction, social support
Martin et al. (2003), Australia	RCT	Workplace triple P group	University staff	42	Targeted	The Strengths and Difficulties Questionnaire, Eyberg Child Behaviour Inventory, Depression-Anxiety-Stress Scale 21, PS-Parenting Scale, Problem Setting and Behavior Checklist, Social Support Scale, Work Stress Measure, Job Satisfaction Measure, Work Commitment Questionnaire, Work-related Self-efficacy	Lower levels of dysfunctional parenting practices, higher levels of self-efficacy

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Mino et al. (2006), Japan	RCT	Stress-management program	Manufacture workers	58	Targeted	Uehata Stress Questionnaire, General Health Questionnaire- 30, Effort-Reward Imbalance Questionnaire, Center for Epidemiologic Studies for Depression	Improvement in depressive symptoms was observed
Nhiwatiwa (2003), U.K.	RCT	Booklet on trauma and coping mechanisms	Nurses	40	Targeted	Impact of Events Scale, General Health Questionnaire-28	A significant difference in distress scores, with education group showing greater distress levels

Nielsen et al. (2006), Denmark	CCT	A participative approach	Canteen workers	118	Universal	Copenhagen Psychosocial Questionnaire, Cognitive Stress Reactions Scale, the SF-36 Social Functioning Scale	Improvements in working conditions and well-being in 1 experimental and 1 control group
Payne et al. (1990), Greece	CCT	Stress inoculation training	Teachers	67	Universal	Survey of Feelings about Teaching	Reduction in anxiety and stress related to teaching
Rowe (1999), U.S.A.	RCT	Stress manage-ment/adaptive coping training	Health-care employees	118	Universal	Cognitive Hardiness Scale, Ways of Coping Scale, Maslach Burnout Inventory, State-Trait Anxiety Inventory, Stress Assessment Inventory	After training less burnout experienced, no effect after 6 months
Shimazu et al. (2006), Japan	CCT	Stress management program	Engineers	296	Universal	Brief Scales for Coping Profile, Brief Job Stress Questionnaire	Better knowledge and improved coping skills. Adverse intervention effect on psychological distress.

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Table 6.1. (*Continued*)

Author (year), country	Study type	Intervention approach	Sample	Sample size	Universal vs. targeted interventions	Instruments/ indicators	Intervention outcome
Żołnierczyk-Zreda (2002), Poland	RCT	Stress management intervention	Bank workers	85	Universal	Coping Inventory for Stressful Situation, Bradburn Questionnaire	Significant increase in positive coping style levels
5. Interventions aiming at absenteeism reduction							
Kerr et al. (1993), The Netherlands	CCT	Employee fitness program	White collar staff	152	Universal	General Well-being Questionnaire	Decrease in absenteeism. No significant differences in self-confidence
Maes et al. (1992, 1998), The Netherlands	CCT	Working conditions and lifestyles changes	Manufacture Workers	264	Universal	Wellness at Work Interview, Symptom Check List-90, biomedical measure, (Employee absenteeism) EMPLOS	Positive change in health risk, absenteeism reduction, no change in stress reactions

Murphy et al. (1988), U.S.A.	CCT	Biofeedback muscle relaxation	Blue collar workers	117	Universal	Annual absenteeism, employee performance evaluations	Lower absenteeism and higher attendance ratings in those attending relaxation only
Roger et al. (1995), study 2, U.K.	CCT	Stress management	Police officers	147	Universal	Mean absenteeism figures	Effective reduction in absenteeism rates
Roger et al. (1995), study 3, U.K.	CCT	Stress management training	Constables	34	Universal	Coping Styles Questionnaire, self-report of absenteeism	Trainees equipped to manage change more effectively

RCT, randomized controlled trial; CCT, controlled clinical trial.
Adapted from Czabała et al. (2011).

between their pre- and post-scores; or multivariate analyses of variance (ANOVA/MANOVA) were used where the time variable was introduced into the model as a qualitative factor; or multivariate analyses of covariance (ANCOVA/MANCOVA) were performed, where the baseline pre-scores were assumed as covariant variables of the post-scores.

(b) Moderate quality (1 point): This was assigned to studies in which the intervention × time interaction effect was not measured directly, that is, differences between the experimental and control groups on pre- and post-scores of were assessed using simple unidimensional tests (e.g., Student's *t*-test for independent samples, univariate ANOVA, etc.).

(c) Low quality (0 points): This was assigned to studies in which the intervention × time interaction effect was not controlled, that is, not even simple tests were performed to account for the time factor.

2. Intervention and independent variables other than time.
The same scoring procedure using a 3-point rating scale (from 0 to 2) was applied to assess the degree of accounting for the interaction effect between the intervention (program implementation) and covariates other than time.

Summarizing, the aggregate rating scale for both criteria ranged from 4 points (high quality, i.e., the highest score on both criteria), through 3 (moderate quality), 2 (low quality) to 1 point (very low quality, with score 0 for the covariate criterion).

Only high- and moderate-quality studies were taken into account in the assessment of intervention effectiveness. The efficacy ratio was calculated as the proportion of significantly improved dependent variables to the total number of variables measured in a particular study.

Results of the analyses will be presented in three categories: (a) aims to be attained by the implementation of mental health promotion programs, (b) ways of attaining these aims (i.e., interventions used in the programs), and (c) their efficacy assessment.

The following five groups of aims were distinguished:

- mental health improvement (mental health improvement, maintenance, enhancement);
- increased job satisfaction (increase in job satisfaction/improvement of job attitudes/ reduction in conflict in coworker relationships);
- job effectiveness improvement;

- stress reduction (coping with stress);
- absenteeism reduction (reduction of absenteeism/reduction in sick leave and turnover rates).

The first three were categorized as mental health promotion programs and the latter two as mental disorder prevention programs.

Mental Health Promotion Programs

Interventions aimed at improvement (maintenance, enhancement) of mental health, increasing job satisfaction and improving job effectiveness can help develop capacities for better general health. Of the studies included in our review, 57% were mental health promotion programs.

Mental health improvement.
The aims of the mental health improvement were to achieve reduction in mental health complaints and improvement in wellbeing of the employees. Education, skills training, relaxation, physical exercises, and working conditions improvement were used as the techniques to achieve the aims.

- *Education*: Information about the nature of stress and its physical and psychological impact, as well as about wellness was provided in various forms. Assessment of participants' wellness was conducted individually or via mail feedback (Rahe et al., 2002). In one intervention study information about stress, stressors, causes, and circumstances of losing control was given (Van der Klink, Blonk, Schene, & van Dijk, 2003). Presenting facts about and methods of the behavioral management and prevention of stress, cigarette smoking, alcohol abuse, lack of exercise, insomnia, unsafe working practices, poor dietary habits, and uncontrolled hypertension, was the focus of another intervention (Peters & Carlson, 1999). It should be noted that information was provided and the participants were contacted using a variety of methods, from the traditional ones such as lectures and talks to the most recent means of communication, including the Internet and email messages. In addition, written materials were used, such as books or brochures. In one intervention, information on health and mental health promotion issues was popularized with the help of mass media: a local newspaper and the web. Participants could get acquainted with health promotion materials on the intervention website, and a weekly newsletter was circulated online. They could also join one

of several available fitness groups in the local mall (Polacsek, O'Brien, Lagasse, & Hammar, 2006).

- *Skills training* included techniques used to regulate emotions, recognize other people's feelings, and understand the impact of one's behavior on the emotions of others (Slaski & Cartwright, 2003). There were also other approaches: training in problem-solving strategies (Van der Klink et al., 2003); practicing behavioral coping skills (e.g., time management, problem solving, goal planning, healthy lifestyle); cognitive therapy techniques (e.g., identification of negative automatic thoughts, positive self-talk) (Gardiner, Lovell, & Williamson, 2004).
- *Working conditions improvement* represented another approach to boosting the quality of mental health. Specific interventions included the introduction of more numerous and longer rest breaks to be spent beyond the workplace (Galinsky, Swanson, Sauter, Hurrell, & Schleifery, 2000). An entirely different type of intervention was the use of a steering committee formed from a group of employees to explore the needs and expectations of the staff. A "new work schedule" adjusted to the employees' needs was developed during group sessions, workshops, and discussions, and subsequently implemented (Pryce, Albertsen, & Nielsen, 2006).
- Another attempt at increasing the participants' psychosocial wellbeing consisted in various forms of *relaxation*: progressive relaxation (Benson), applied relaxation (Ost), and tai-chi with progressive relaxation (Arnetz, 1996). Presentation of their theoretical rationales was followed by practical training.
- Theoretical knowledge was also presented (and supplemented by its application in practice) in another program categorized as *physical exercises* (Sjogren et al., 2006). Detailed information on the principles of exercises and training was provided to the participants by physiotherapists at group sessions. Subsequently, the participants were offered an opportunity to perform these exercises during rest breaks at their workplace, under supervision of a physiotherapist. They were also asked to take notes of the exercises they had performed, thus self-monitoring their physical activity.

Outcomes. Eight out of 13 studies on mental health improvement programs fulfilled the criteria for high or moderate quality, whereas the quality of three studies was very low. Interventions aimed at mental health improvement had a rather limited positive impact. Physiological measures have improved

only partially as a result of the intervention implementation, but more marked positive effects were achieved in subjective mental health measures: work satisfaction, perceived mental workload, control over one's work and working conditions, conflicts between work and family demands and priorities (Arnetz, 1996).

In another study subjective physical wellbeing has improved significantly, but no changes in psychosocial functioning were observed (Sjogren et al., 2006). Moreover, statistically significant changes were noted with regard to taking better care of one's health, measured in terms of such variables as visiting health-care facilities more often, intention to make changes, altered health behaviors and health self-efficacy, changes in curiosity and depression (Peters & Carlson, 1999). Further outcomes were that a majority of the employees at the worksite were interested in program participation, it was very favorably evaluated on project completion, and would be recommended to other workers.

Increasing job satisfaction.

Another general type of goals set in the implementation of mental health promotion programs was to increase job satisfaction. The most important expectations were to provide the participants with information about stress and personal resources such as self-confidence or resilience, and to develop their interpersonal and occupational skills on the grounds of cognitive and social learning theories. Thus, the expectations were similar to those for coping with stress in the workplace. However, much more emphasis was laid here on job skills improvement.

The provision and popularization of knowledge included, among others, the issues of potential work-related stressors specificity, work schedule modification, job description, and job requirements such as the employees' competences. Moreover, the participants' attention was drawn to health and physical fitness as burnout-reducing factors; they were also encouraged to pursue healthy lifestyles, with the importance of physical exercise emphasized. Knowledge provision was supplemented by training sessions on burnout prevention by means of, for example, better planning of work performance, time management, collaboration with coworkers, development of interpersonal skills, or more constructive coping with emotions (Żołnierczyk, 2004; Żołnierczyk-Zreda, 2005). Role-playing and case study techniques (Smoot & Gonzales, 1993) were used to develop occupational qualifications. To increase their job satisfaction the employees were encouraged to establish committees that would analyze potential sources of workplace

stress and propose how to cope with it, in collaboration with the managers (Landsbergis & Vivona-Vaughan, 1995). Establishment of such committees is an example of workplace skills development by the employees themselves: they learn to identify the causes of problems and seek appropriate ways of coping.

The aim of enhancing peer support and reducing conflict among participants was fulfilled by group discussions, lectures, and completing workbooks. Participants were taught to identify their spontaneous attributions; moreover, they discussed what impact such attributions might have on their future evaluation of a particular person, event, or source of trouble. The intervention was expected to increase the participants' awareness of the effect of spontaneous attributions on their cognition, emotions and behavior. Moreover, they should realize that their attributions can often be erroneous, as they may fail to take into account various factors and in consequence draw false conclusions, possibly harmful to other people (Dupuis & Struthers, 2007).

It seems important that some interventions were preceded by a questionnaire survey providing grounds for further action. The program participants' wellbeing had been assessed using the General Health Questionnaire (GHQ-12), among other instruments, then they were given feedback concerning the questionnaire results, together with information about mental health maintenance and enhancement (Holt & Mar, 2006). In another study the participants were contacted by phone and asked to give an example of a goal they wanted to achieve, as well as proposed means to the goal attainment. Moreover, they responded to a questionnaire concerning difficulties in taking action. Finally, they were offered problem-solving training (Ayres & Malouff, 2007). It should be noted that a part of the intervention was conducted by phone, which greatly reduced the preventive action costs. Some interventions included training in specific interpersonal skills such as listening, responding, and making requests with respect and empathy for the patient (Smoot & Gonzales, 2007); or assertiveness, negotiating, and strategies of coping with stress (time management, goal setting, peer support) (Żołnierczyk-Zreda, 2005).

In an intervention aimed at coping skills development (Pelletier et al., 1999) phone calls and email messages were mostly utilized. The program participants were mailed educational materials on coping with stress, which was followed by a number of phone consultations with a health promoter who could answer their possible questions pertaining to the educational materials they had received.

One of the programs proposed establishment of an employee problem-solving committee to identify and prioritize work-related stressors, develop proposals and action plans to reduce stressors, in cooperation with the management (Landsbergis & Vivona-Vaughan, 1995).

An analysis of the 14 programs aimed at increasing job satisfaction suggests that various educational and training techniques are used to develop both interpersonal and occupational skills of the participants. In addition to the traditional methods, such as workshops or handouts, modern communication forms including the Internet, e-learning and phone calls were also used.

Outcomes. Over a half of the studies on interventions aimed to increase job satisfaction fulfilled the criteria of high or moderate quality. Statistically significant intervention effects were found in 45% of the job satisfaction-related dependent variables investigated in the moderate-to-high quality studies. Significant effects of the interventions were observed as regards positive affect (Ayres & Malouff, 2007), as well as somatic symptoms severity or complaint reduction (Żołnierczyk-Zreda, 2005).

Significant changes were observed in job satisfaction and life satisfaction (Hatinen, Kinnunen, Pekkonen, & Kalimo, 2007). Regrettably, some of the implemented programs had no impact on group processes and social relationships such as setting group goals, open group process, organizational involvement, and supervisor–subordinate relationships (Landsbergis & Vivona-Vaughan, 1995). No significant changes were observed in perceived job conditions (i.e., time pressures at work) (Hatinen et al., 2007).

Increasing job effectiveness.
Job effectiveness improvement was assumed to be a source of job satisfaction. Interventions aimed at this realm were expected not only to enhance the employees' control over the quality of their job performance, but also to lead to rewards from their employers. A majority of these interventions were implemented in health-care settings. The most commonly used interventions included improvement of occupational qualifications, working conditions improvement and skills training.

Improvement of occupational qualifications was the most popular intervention category, used in 10 interventions with the aim of increasing job effectiveness. The presented interventions were addressed to very narrow target groups, mostly of health professionals and social workers. These participants were taught and trained in skills required in their respective

occupations, thus increasing their professional competences (e.g., work organization and scheduling) (Ewers, Bradshaw, McGovern, & Ewers, 2002; Macan, 1996; Rebergen, Bruinvels, Bezemer, Van Der Beek, & Van Mechelen, 2009; Rebergen, Bruinvels, Van Der Beek, & Van Mechelen, 2007). To increase job effectiveness a variety of instruments were used, including scales for the assessment of the staff members' stress and functioning levels, as well as tools to assess their patients' psychosocial functioning and physical health.

Real-life examples of the participants' professional practice were analyzed and their ways of coping in the presented situations were discussed. The situations were related mainly to problems experienced by health-care professionals in their work with patients suffering from various conditions. In one study information was provided and case discussion was conducted on psychological management of the terminally ill, reactions of the family, and health professionals' attitudes (Razavi, Delvaux, Farvacques, & Robaye, 1988, 1991). Training aimed at providing the staff with practical skills to reduce distress and improve the functioning of people with schizophrenia was the focus of another intervention study (Ewers et al., 2002). A comprehensive training program was delivered to direct care staff working with assisted living residents with dementia. In another training program the emphasis was on teaching the staff members the activators, behaviors, and consequences of behavioral distress, in order to alter the sequence of events that initiate or maintain the resident–carer problems (Teri, Huda, Gibbons, Young, & Van Leynseele, 2005). Teaching basic communication components in oncology ward settings, psychosocial dimensions associated with cancer and its treatment were the content of an intervention conducted among oncology nurses (Delvaux et al., 2004).

Samples of the participants' job performance were videotaped and then assessed. The participants played scenes they had experienced in their own practice or role-played in exemplary situations presented by the trainers.

At later stages of the intervention participants implemented the acquired knowledge and skills in the daily work with their patients/charges. The participants received not only specific knowledge concerning their patients, but also detailed techniques and strategies of care provision and communication with patients who represented various levels of specific disorders/disability (Ewers et al., 2002; Razavi et al., 1988, 1991, 1993; Rose, Jones, & Fletcher, 1998; Schrijnemaekers et al., 2003; Teri et al., 2005; Van Weert et al., 2005).

Interventions aimed at *working conditions improvement* consisted mostly in engaging employees to identify the key factors that make their workplace more comfortable and user-friendly, as well as in introducing changes to increase worksite comfort that would eventually lead to an increased job effectiveness (Bond & Bunce, 2001; Mikkelsen, Saksvik, & Landsbergis, 2000). A variety of methods were used to achieve this aim, such as establishment of a steering committee to propose and introduce general and unique work reorganization strategies, or implementation of a new patient care model. The employees named and discussed key factors for a good work environment, and prepared suggestions and an intervention action plan to make their worksite more friendly (Mikkelsen & Gundersen, 2003; Mikkelsen, et al., 2000). Using an email questionnaire form, the employees collected data concerning the needs and expectations of the staff, and then as an "employee steering committee" or "action team" discussed the best implementation solutions and produced reorganization action plans during group sessions or conferences.

Skill training interventions included the assessment and training of self-management principles, behavior self-assessment, establishment of self-set goals, self-monitoring of the target behavior, self-evaluation strategies, writing behavioral contracts, and maintenance strategies for relapse prevention (Frayne & Geringer, 2000). Employees were acquainted with basic knowledge about stress and its effect on health, coping, mental health protection, and maintenance, relationships between work and the employee's personal life and health (Mueser et al., 2005). Moreover, opportunities were offered to develop some necessary workplace skills related to the individual's ability of appropriate self-evaluation concerning his or her capacities, behavior, and coping strategies. These skills were trained using examples from the participants' past and their occupational experience, either individually under supervision of a counselor, or at group sessions. In addition to the practical training, the intervention participants also had some home assignments.

Outcomes. Most of the 18 studies on job effectiveness improvement fulfilled the criteria for high or moderate quality; and four of these were categorized as high quality. Statistically significant improvement was found in about half of the dependent variables investigated in the high-to-moderate quality studies. The results of the intervention effectiveness analyses are inconsistent as regards job effectiveness: the same variables modified by the intervention according to one group of studies show no intervention effect in other

programs reported in the literature. For example, job satisfaction was found to increase as a result of intervention (Logan & Ganster, 2005; Mikkelsen & Gundersen, 2003), remain at the same level (Bond & Bunce, 2001; Macan, 1996), or improve on some dimensions, with no change on others (Schrijnemaekers et al., 2003). The same phenomenon can be seen regarding sense of control.

Looking specifically at the *promotion of wellbeing*, 14 interventions predominantly focused on improvement in this area were identified. Most of the interventions were provided at the individual level and included different forms of physical exercise or relaxation, sometimes supported by education on healthy lifestyle principles. Interventions conducted at the organizational level adopted the participatory approach. An impressive example was the Brabantia Project (Maes, Verhoeven, Kittel, & Scholten, 1998), a 3-year wellness–health intervention, which included lifestyle counseling sessions and work analyses as well as considerable organizational changes implemented with the workers' participation. A significant stable enhancement of the workers' autonomy and control feelings was accompanied by a significant reduction in absenteeism (which seems to be a valid indirect measure of good mental health). It is worth noticing that only one intervention was specifically targeted at blue-collar workers: in three other programs blue-collar workers were offered training along with white-collar employees. Almost a half of the interventions (6) were conducted in the United States, whereas in Europe the most popular region for promotion initiatives to enhance wellbeing were the Scandinavian countries (4), followed by the United Kingdom (2) and the Netherlands (2). A majority of the interventions implemented in the United States focused on modification of employees' behavior, whereas in Europe organizational programs were introduced almost as frequently as those focused on individuals.

Programs for Preventing Mental Disorders

Two types of intervention were aimed at preventing mental disorders: stress reduction and absenteeism reduction. Stress is considered as a health risk, and stress reduction at the workplace as a key component in the prevention of symptoms of mental disorders.

Stress reduction.

Stress reduction or improvement of coping with stress were the two most frequent aims pursued in the mental health promotion programs at the

workplace (37% of all the publications analysed in this review). The following approaches served to reduce stress and/or improve coping skills: (a) limiting the number of workplace stressors (i.e., situations that might evoke a stressful response), (b) relieving the stressful reaction, and (c) developing effective ways of coping with stressful situations. These aims were attained using various interventions, such as skills training, combining different ways of solving the problem, teaching and practicing relaxation, and finally, improving working conditions.

Skills training (Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2004, Cohen-Katz, Wiley, Capuano, Baker, Kimmel, & Shapiro, 2005; Cohen-Katz, Wiley, Capuano, Baker, Deitrick, & Shapiro, 2005; Gerzina & Drummond, 2000; Grime, 2004; Martin & Sanders, 2003; Żołnierczyk-Zreda, 2002) included imparting the knowledge about stress through lectures, discussions, and reading courses. The participants were given an opportunity to practice relevant skills through rehearsals, role-playing situations and training. Some of the interventions in this category were supposed to raise the awareness of the stress phenomenon, its influence on health and workplace effectiveness, as well as possible ways of coping. In a number of interventions it was emphasized that stress was a topic people can talk about. Talking about stress helps to get appropriate assistance and support, and removes a "taboo label" from the issue of stress. Moreover, numerous interventions were aimed, on the one hand, at diagnosing unproductive or health-detrimental coping styles and strategies, and on the other, at training in task-oriented coping, including anger control and impatience or hostility reduction. Other interventions consisted in exploration of maladaptive cognitions, such as automatic thoughts and thinking errors. Intervention participants, using various techniques, developed and practiced alternative ways of thinking. Management strategies were taught to promote competence, as another way to reduce stress. The skills of planning and scheduling activities enabled participants to better control their private and working life, which translates into stress reduction.

Stress reduction at the workplace included a number of *multicomponent interventions* combining different methods and techniques (Bittman, Bruhn, Stevens, Westengard, & Umbach, 2003; Cecil & Forman, 1990; De Jong & Emmelkamp, 2000; Gardner, Rose, Mason, Tyler, & Cushway, 2005; Innstrand, Espnes, & Mykletun, 2004; Larsson, Setterlind, & Starrin, 1990; Lucini, Riva, Pizzinelli, & Pagani, 2007; Maddi, Kahn, & Maddi, 1998). Many interventions began with lectures on stress, time management,

communication, and/or relaxation, providing a background for and basic knowledge about a particular topic. This was followed by a practical part consisting either in training of particular skills or activities, such as seeking support, establishing discussion groups, attending relaxation sessions, or offering a broader perspective and better understanding of stressors. Participants of some interventions used various techniques to generate possibly many ways to reduce the number or intensity of stressors. In many courses people worked on their own personal problems and stressors, trying to find solutions by means of techniques developed during the intervention. If the solutions turned out to be unsuccessful, they could be modified after feedback. During some interventions special sessions were devoted to the acquired practical skills and behaviors implementation in everyday life. Among the interventions reviewed there was also one aimed at stress reduction through expressing emotions by playing music. Expressing feelings through music was followed by a feedback on nonverbal musical responses (Bittman et al., 2003).

Relaxation was another important type of intervention (Anderson, Levinson, Barker, & Kiewra, 1999). This intervention category was focused mostly on alleviating stressful reactions. Participants were trained in various meditation techniques or breathing practice. They not only exercised on site, but above all were taught how to practice at home on a daily basis, and were acquainted with the benefits of regular relaxation exercises.

Working conditions improvement was implemented by discussing how ergonomic factors can cause stress, and by giving feedback on the situation both individually, and in larger groups (Eklöf & Hagberg, 2006). Conclusions were drawn about changes that can be made to reduce the environmental stressors. The proposed changes were then submitted for the management's consideration.

Outcomes. More than a half of the studies on interventions aimed at coping improvement did not meet the high or moderate quality criteria. However, only 14% of the studies were rated as having a very low quality. In the 29 analyzed studies a total of over 100 outcome variables were measured, and significant intervention effects were found in 31 of the variables including client- and work-related burnout (Bourbonnais et al., 2006), depersonalization, and emotional exhaustion (Rowe, 1999), coping strategies—problem-focused and social diversion (Żołnierczyk-Zreda, 2002), psychological distress and social support (Kawakami, Takao, Kobayashi, & Tsutsumi, 2006).

Absenteeism reduction.
Only few studies on interventions aimed at absenteeism reduction were found. They were focused mostly on dealing with mental health problems, alcohol and/or drug use, and sleep disturbances. Interventions aimed at absenteeism reduction were expected to decrease inappropriate use of sick leave by employees. Attainment of this outcome would be beneficial both for the employees, who would gain better health, and for the employers, who could reduce the costs of sick leave and replacement workers.

The aim of absenteeism reduction was fulfilled by providing physical exercise, workouts, as well as lectures on health, psychosomatic symptoms of stress, maladaptive habits, proper behavioral patterns, and relaxation techniques (Kerr & Vos, 1993; Maes et al., 1998). *Relaxation* was focused mainly on teaching how to control negative emotions by means of relaxation techniques to be implemented in the participants' everyday routine. Programs in this category were also aimed at increasing the participants' awareness of psychosomatic ailments (such as back pain or headaches), and detrimental habits (such as inappropriate nutrition, smoking, and drug use) (Maes et al., 1998). Relaxation techniques ranged from muscle tension relief to progressive and brief relaxation exercises (Roger & Hudson, 1995).

In other interventions different means were used to reduce absenteeism among participants who were not only encouraged to take part in physical training and lectures on health and psychosomatic symptoms of stress, but also could join working groups focused on particular problems, such as headaches or smoking. The groups gathered to discuss the problems and ways of problem solving (Murphy & Sorenson, 1988).

The last intervention category was identified as *physical exercise* and training included swimming, jogging, and floor exercises, according to participants' needs (Kerr & Vos, 1993).

Outcomes. All the available studies fulfilled the criteria for high or moderate quality. A majority of dependent variables investigated in high- and moderate-quality studies showed statistically significant effects. It can be concluded that an intervention-related reduction in absenteeism was attained in over 70% of measures. Significant changes were noted in the following variables: absence frequency, Monday–Friday absences, attendance rating (Murphy & Sorenson, 1988; Roger & Hudson, 1995), health risk, psychological demands, control, ergonomic conditions (Maes et al., 1998), and coping capacities (Roger & Hudson, 1995).

Summary of the Review of Interventions

An overview of studies included in this chapter shows considerable difficulties in comparability of interventions. First, many different intervention approaches were implemented to achieve the same goal (e.g., stress reduction was the aim of 22 various interventions). Only, a few programs were implemented and evaluated in two or more studies. Second, in 79 studies included in the DataPrev review, 99 different outcome variables were investigated using 169 measures, although only 19 were used in more than one study. Only 17 of the measures/instruments were used in more than one study. Among the most popular ones were the mean absenteeism figures (used in 10 studies), the Maslach Burnout Inventory (7), the General Health Questionnaire (7), and the State-Trait Anxiety Inventory (STAI) (5). A majority of the variables were measured with many different methods (i.e., rating scales, life data, and physiologic measures), mostly without psychometric standardization.

Methodological limitations of the studies are another source of difficulty in comparing interventions. The number of participants varied significantly across studies, ranging from as few as 20 to 2,207 participants. In approximately 20% of the reviewed studies, the samples were small (up to 50 participants). In cases where the reported differences only approached the significance level, this lack of statistical significance might be due to a small sample size. Similarly, the duration of particular interventions was diverse, with workshops taking less than a day, and multicomponent trainings scheduled from 3 to over 12 months. Finally, in almost a half of the studies (32) either the follow-up period was very short (less than 12 weeks) or only a single postintervention assessment was made.

Moving to the key conclusions from the review, categorization of the interventions shows that stress reduction was the most popular goal (37% of the interventions). This finding is in accordance with the findings of other reviews that highlight the fact that a majority of the interventions at the workplace are focused on reducing risk factors and preventing disorders rather than promoting wellbeing (Ivancevich, Matteson, Freedman, & Phillips, 1990; Pollet, 2007).

A majority of the interventions were conducted at the individual level. This finding is also reported in other reviews (Harden, Peersman, Oliver, Mauthner, & Oakley, 1989). However, Europe and the United States differ with regard to the distribution of intervention levels: in Europe 43% of the

interventions were provided at the organizational level, whereas the rate was only 11% in the United States. Maes et al. (1998) argue that a majority of the U.S. programs are focused on changing the individual's behavior, whereas in Europe it is important to include contextual and environmental factors. Hence organizational changes are more frequently a part of health promotion initiatives.

Mental health professionals and health-care staff were the most popular target populations of the interventions (27). It is worth noticing that only one intervention was specifically designed for blue-collar workers. This conclusion is in line with the opinion of other researchers who emphasize that a majority of intervention programs are targeted at the managerial level, whereas more interventions should be provided at lower levels of the organizational hierarchy (Sparks, Faragher, & Cooper, 2001). Specifically, blue-collar workers are in great need of such programs, as this type of work is associated with lower income, which in turn is a risk factor for mental disorders development (Weich & Lewis, 1998).

The findings of this review highlight the importance of contextual factors for intervention success. Target group characteristics (e.g., socioeconomic status or a minority group membership) should be carefully analyzed and intervention activities tailored to the participants' needs and possibilities. Regardless of the intervention level (individual or organizational) the role of the organization and its structure as a primary source of stress was emphasized by most authors. However, it turned out to be difficult to influence working conditions: organizational changes were seldom the intervention goal.

Even most perfectly targeted and tailored mental health promotion interventions will not prove their effectiveness unless companies are interested in their implementation. It is essential to encourage employers to introduce such initiatives in their organizations. Some studies show that higher management members need to be convinced to implement health promotion interventions. For example, a study conducted among health professionals in Japan revealed that 81% of the respondents, feeling there was a need for health promotion interventions in their organizations, attempted to encourage the employers to introduce such initiatives (Muto, Tomita, Kikuchi, & Watanabe, 1997). This aim could be achieved by providing the employers with evidence-based information on the benefits arising from effective interventions. According to the report compiled by the NICE group (NICE, 2006), worksite interventions that promote wellbeing have positive effects in terms of productivity payback. More

cost analyses of mental disorders as well as cost-effectiveness analyses of interventions aimed at wellbeing promotion are necessary.

Is Workplace Mental Health Promotion Feasible?

Why is a Healthy Work Environment so Crucial?

Work is one of the important domains of human life. Preparing to perform occupational tasks takes many years in the early life stage. In adulthood work is a source of income and the field where one of the developmental tasks (i.e., occupational development and professional career) should be fulfilled. Employees expect their job to provide them with financial resources sufficient to fulfil their material needs and to earn a comfortable living for themselves and their family. Moreover, their job is expected to bring satisfaction that results from well-performed occupational tasks, occupational skills improvement, from feeling they can influence the type and quality of the job they perform, and finally, from earnings adequate to the amount of effort invested in their work and to its productivity. Employers expects their employees to perform their occupational tasks so as to attain the desired results, to strive for better methods of getting such results, to improve their occupational skills along with their work techniques so as to keep up with the complexity of their job demands. An employee's and employer's satisfaction levels are good indicators of well-performed occupational tasks. An employee's good mental and physical health are necessary and pivotal for good job performance. Poor working conditions are detrimental not only to the employees' health, but also to the effects of their work.

In the Ottawa Charter published by the World Health Organization (WHO, 1986) the great impact of work on employees' health is recognized, and it is recommended that the workplace should be organized in such a way as to help to create a healthy society. This aim can be achieved by means of health promotion. Thus, the workplace is considered to be a natural environment for interventions aiming at improvement of wellbeing. Work is at the very core of contemporary life for most people, providing financial security, personal identity, and an opportunity to make a meaningful contribution to community life (National Alliance for the Mentally Ill, 1999).

Lehtinen (2008) states that "regular and satisfying work is one of the cornerstones of good mental health of the adult population" (p. 22). According to the author, satisfying work should be based on enhancement of

communication and personnel involvement, implementation of anti-discrimination provisions, providing management skills, and adjusting between working and family life.

The WHO *Mental Health and Work* report (WHO, 2000) emphasizes that "Notions of mental health at work tend to focus on the individual rather than the organization. A comprehensive policy of mental health at work includes, however, an assessment of the mental health of the organization itself. The gain to both individuals and the organization from promoting good mental health at work is reflected in increased presence, wellbeing and production" (p.16). Mental health promotion is particularly needed at the time when work is characterized by greater pace, more complexity, constant innovation, more competition, increased isolation, less support, and reduced certainty and these challenges can be best counterbalanced by connected performance, engaged people, excellent leadership, transformed skills, and a healthy environment (Litchfield, 2011).

Call for Wellbeing Promotion in the Workplace

Workplace programs implemented in various countries were reviewed by many authors (e.g., Edwards & Burnard, 2003; Ruotsalainen, Serra, & Verbeek, 2006; Van der Klink, Blonk, Schene, & van Dijk, 2001). A majority of reviews are focused either on a specific intervention type (stress management being the most popular) or on interventions designed for a specific occupational group (e.g., mental health professionals). A similar picture emerges from our review of research studies. Stress reduction and mental disorders prevention seem to still predominate among goals of workplace mental health promotion programs, addressed most often to those working in particularly stressful conditions or at risk for the occupational burnout syndrome (i.e., the health-care workers, rescue and emergency services, or military services). Thus, mental health promotion programs are most often based on training of coping skills, prevention of burning out, and on teaching how to solve interpersonal conflicts in the workplace. Interventions aimed at boosting the employees' wellbeing through their increased job satisfaction or positive modification of working conditions are not that frequent. Our review of research studies shows that interventions targeted at working conditions improvement were used in six programs only, whereas interventions aimed at occupational competencies improvement were used in 13 programs. However, exerting influence on working conditions turned

out to be difficult: organizational changes were seldom the intervention goal and a positive outcome was seldom reported.

In the WHO report (2000) Finland is exemplified as a country where the emphasis is on the mental health promotion approach, including such aspects as improvement of the work environment (e.g., enhancing occupational safety and ergonomics, communication, clear goals, independence at work); providing opportunities for further training and learning (e.g., improving occupational skills and teamwork, or promoting independent learning); and health promotion (e.g., promoting physical activities, healthy lifestyle, offering rehabilitation, and preventing substance abuse). However, there is hardly any data concerning Finland in the review of studies on health promotion programs. It is not known whether the above-listed aims of mental health promotion have been implemented there, and if so, what was the effectiveness of this approach. Besides, in the WHO report itself the main focus was on the need for reintegration of the mentally ill and providing them with employment.

Working conditions seem to determine the types of intervention aimed at mental health promotion. Interventions aimed at stress prevention, reduction of stress levels, and training in effective coping strategies are necessary in particularly stressful jobs, such as in health-care facilities (especially in mental health care), in rescue and emergency services, in migrant workers isolated from their families, or manual laborers whose work is associated with physical and mental overload. In such circumstances the main sources of satisfaction are the feelings of self-efficacy, of overcoming difficulties and limitations, as well as one's resourcefulness and ability to control the situation. A very important factor affecting job satisfaction is the sense of support from and cooperation with coworkers, although in our review there were no empirical results to confirm the efficacy of interventions aimed at increasing the employees' sense of received support. There seems to be a need for seeking new ways to create conditions for cooperation and to develop a sense of coping in cooperation with others.

Occupational work is more and more often perceived as a key element of personal growth. Adjusting the type of job to personal resources both at the stage of education and in the later occupational career has become one of the major tasks of vocational education. Coaching programs offer a variety of strategies for occupational career development. They usually propose to clearly specify both short- and long-term occupational goals, to seek personal resources and to identify limitations in order to develop the former and to reduce the latter; to increase the individual's ability of

influencing others. This creates new conditions for development of novel occupational skills training programs aimed at the attainment of planned goals and in consequence, gaining high job satisfaction. Moreover, training programs focused on skills useful in the occupational tasks performance have been designed, including effective interpersonal communication skills training, personal resource management strategies, skills of influencing people, and/or cooperation skills. The immediate goal of such programs is to achieve career success, which is expected to bring job satisfaction. There are relatively few studies that identify the types of such interventions and describe their efficacy.

The extant mental health promotion programs are characterized by a great variation. Many reviews of research studies indicate that a majority of programs, or at least their effectiveness evaluations, have not been replicated. Less than half the interventions reviewed (36) were theory-driven. In the articles included in our review only four types of intervention were investigated more than once. It is not known whether the remaining ones have been implemented more often, as, for example, stress inoculation training, or conducted only in a single study for evaluation purposes, which seems to be the case in most of the evaluated programs. No information was available concerning their propagation. As a result of all these reasons, interventions aimed at mental health promotion have never been adequately confirmed by empirical studies and their effectiveness is unequivocal. However, it seems that many interventions aimed at stress reduction can be considered as useful, resulting in coping skills improvement. As regards programs aimed at modification of working conditions and work organization, they significantly decrease the risk of exposing the employees' to a high stress load. There are relatively few evaluated programs aiming at the development of skills expected to increase job satisfaction. The most popular aim of such programs was to improve occupational qualifications.

Conclusions

There are many arguments in favor of the usefulness of mental health promotion programs at the workplace. However, evidence is lacking on the effectiveness of the programs submitted to evaluation. This may be due to the inadequate quality of these programs, sporadic evaluation studies, and methodological shortcomings of the research. It seems that changes are

needed in the extant ways of designing such programs and evaluating their effectiveness:

- It is important to extend the range of variables that describe wellbeing in the workplace. The traditional dimensions (e.g., stress reduction) should be supplemented with positive indicators of mental health, such as balanced mood, life satisfaction, optimism, positive expectations about life, a strong sense of self-efficacy, resilience, work engagement, ability to receive social support.
- The variables that describe working conditions important for satisfactory performance of occupational tasks should be determined (e.g., work organization, working hours, adequate earnings, management–employees relations, antidiscrimination practices, possibilities to influence working conditions).
- Seeking better ways of designing interventions seems important. Interventions could be better adjusted to their planned goals; changes both at the individual and organizational levels should be taken into account. Employees' participation in the planning and preparation of mental health-related changes in the organization of work also seems to be an important factor.
- Psychometric properties of instruments used to measure the variables under study should secure an adequate validity and reliability of the measurement. It is difficult to draw reliable conclusions from research findings, if 99 variables are measured using 169 measurement methods, and fewer than 20 measures have been used in more than one study.
- Finally, the way of evaluating mental health promotion programs efficacy should be modified. There seems to be a need for establishing research teams that would select the most popular and already evaluated programs. Such teams should find possibilities for these programs implementation and then launch multicenter evaluation studies based on shared methodological assumptions.

The DataPrev project has shown the necessity, feasibility, and usefulness of multicenter cooperation between researchers striving for shared goals and using the same methodology of data analysis. A continuation of this project might involve evaluation of selected and partly evaluated programs' effectiveness, or development of new programs to be evaluated.

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7

Wellbeing Begins with "We"

The Physical and Mental Health Benefits of Interventions that Increase Social Closeness

Bethany E. Kok and Barbara L. Fredrickson
University of North Carolina at Chapel Hill, U.S.A.

Social closeness is an important contributor to psychological and physical wellbeing. Whether conceptualized as a fundamental psychological need (Baumeister & Leary, 1995; Deci & Ryan 2000), a bodily nutrient (Beckes & Coan, 2011), or a critical element in stress and coping (Lakey & Orehek, 2011), there is a general scientific consensus that humans function better when they feel close to others.

We define social closeness as a belief or perception about a person's degree of embeddedness in a social network or networks. In this formulation, social closeness may or may not be related to actual behaviors from relationship partners: what matters is the individual's perception of their relationships with others. In addition, social closeness is not limited to close relationships. Any interaction that reminds someone that they belong can increase social closeness.

Without social closeness, human beings seem to break down, with both mental and physical systems showing accumulating deficits over time. Adults with low levels of social closeness are more likely to become depressed (Glass, de Leon, Bassuk, & Berkman, 2006) and to suffer from inadequate nutrition (Locher et al., 2005) and a number of physical health issues. In a 3-year longitudinal sample of older adults ranging

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in age from 60 to 92, fewer interactions with family and friends predicted an increased likelihood of developing hypertension, cancer, heart disease, and emphysema, even after controlling for the negative effect of illness on frequency of social interactions (Tomaka, Thompson, & Palacios, 2006).

Loneliness, the perception that one is lacking in social closeness, is an independent predictor of negative mental and physical health outcomes in adults above and beyond actual frequency of social contacts (Routasalo, Tilvis, Kautiainen, & Pitkala, 2009). Lonely adults are at a greater risk for cardiovascular disease (Arthur, 2006), high blood pressure (Hawkley, Thisted, Masi, & Cacioppo, 2010), fatigue and inefficient sleep (Cacioppo et al., 2002; Hawkley, Preacher, & Cacioppo, 2010), decreased physical activity over time (Hawkley, Thisted, & Cacioppo, 2009) and decreased cognitive function over time (Seeman, Lusignolo, Albert, & Berkman, 2001).

The Need for Social Closeness Interventions

The need for interventions to increase social closeness is particularly urgent as more and more adults in the United States and elsewhere are reporting social closeness deficits. From 1975 to 2004, the number of people who reported that they had no one with whom to discuss important matters has nearly tripled, while the average social network decreased in size by one third (data from the General Social Survey of non-institutionalized American adults; McPherson, Smith-Lovin, & Brashears, 2006). This decrease reflects a drop in both kin and non-kin social ties, and appears to be occurring across the age range (McPherson et al., 2006). Over the same period, Americans became 10% less likely to report that others around them were trustworthy, fair, or helpful and declined in general social capital, which includes time spent associating with others (Paxton, 1999). This trend is unlikely to reverse on its own. The United States is growing both more racially and ethnically diverse and more mobile over time (U.S. Census Bureau, 2000). Because increases in racial and ethnic diversity result in short-term isolationism and lesser trust (Goff, Steele, & Davies, 2008; Putnam, 2001) and geographic mobility strains social bonds (Oishi et al., 2007), there is a great need for interventions to maintain or increase social closeness.

Types of Social Closeness Interventions

Interventions to increase social closeness run the gamut from nurturing existing feelings of social closeness to attempts to teach social skills in order to form new relationships, depending on the needs of the population under study. Interventions that nurture existing feelings of social closeness focus on enhancing the quality of existing relationships and interactions, by directing attention toward the potential for closeness in each social interaction and increasing positive social emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Kok & Fredrickson, 2013; Kok et al., 2013). In contrast, interventions that target social isolation typically address barriers to forming social relationships, such as (a) improving social skills, (b) enhancing social support, (c) increasing opportunities for social interaction, and (d) addressing maladaptive social cognitions (Masi, Chen, Hawkley, & Cacioppo, 2011). Because interventions to alleviate social isolation in distressed populations have been reviewed in detail elsewhere (Masi et al., 2011), we will address them only briefly here, before moving on to interventions that aim to increase existing social closeness in nondistressed populations.

Interventions to Decrease Loneliness

The powerful negative consequences of loneliness and social isolation may explain why interventions that reduce social isolation are much more common than interventions that nurture existing social closeness. Over 30 years of research, however, efforts to prevent and alleviate social isolation and loneliness have not been consistently successful. A review of loneliness interventions in older adults from 1970 to 2002 found that, of the 30 studies with quantitative outcomes assessment, only 10 were successful in alleviating loneliness (Cattan, White, Bond, & Learmouth, 2005). Another review of the loneliness intervention literature found similarly mixed results and suggested that this might be due, in part, to the need to carefully match intervention type to the needs of the target population (Hogan, Linden, & Najarian, 2002).

Recent work on the psychological processes underlying loneliness suggests that a person's beliefs about the nature of their social environment are the most important factor in predicting whether or not a person will perceive herself as socially isolated (Cacioppo & Hawkley, 2009). Cacioppo and

Hawkley's loneliness model describes loneliness as a process driven by hypervigilance to social threats, which increases physiological stress and impairs self-regulatory ability (Cacioppo & Hawkley, 2009). Over time, hypervigilance to social threats can actually create the negative social environment that the lonely person fears. A longitudinal study of older adults found that the belief that others are unfriendly or threatening can create a self-fulfilling prophecy in which the lonely individual's behaviors discourage social interactions with others, leading to greater loneliness (Newall et al., 2009).

If beliefs about the social environment are the active ingredient in creating or guarding against loneliness, then interventions that target maladaptive social cognitions about the social environment should be most effective in relieving loneliness. A recent meta-analysis of loneliness interventions compared the effectiveness of interventions that targeted maladaptive social cognitions to interventions that attempted to directly alter a person's social behavior or social environment. The authors found that interventions to improve social skills, enhance social support, or increase opportunities for social interaction led to improvements in loneliness that were statistically significant but, with an average effect size of −.198, were insufficient to return individuals to normal functioning. In contrast, interventions that targeted maladaptive social cognitions had an average effect size of −.598, suggesting clinically significant improvement in loneliness (Lipsey & Wilson, 2001).

Although intervention protocols for changing maladaptive social cognitions vary widely, most employ cognitive behavioral therapy (CBT) administered by a clinician with the goal of helping participants identify, evaluate and modify maladaptive social cognitions. Maladaptive social cognitions might include the belief that there is nothing the person can do about their loneliness, or that the person is not interesting enough to appeal to others (Masi et al., 2011). Through CBT, the participant and therapist would discuss these thoughts and reframe them. For example, someone who believes their loneliness is out of their control attributes their situation to external and stable factors. A therapist might suggest that the participant instead view loneliness as a state that is partially under her own control and, thus, something she can take steps to change. Similarly, someone who avoids social interactions because he doubts he would be interesting to others might learn to reframe social interactions as opportunities to learn about other people.

According to the loneliness model, maladaptive social cognitions can create a self-fulfilling prophecy of increasingly negative interactions with others (Hawkley & Cacioppo, 2010). As a result, CBT may leave participants with

a more realistic understanding of their loneliness but little knowledge of how to remedy their isolation. To address this, maladaptive social cognition interventions also include elements of the other intervention types. For example, one CBT-based intervention also gave participants a manual that included community resources, advice on self-care, and communication tips (Hartke & King, 2003), while another explicitly integrated social skills training alongside CBT (Hopps, Pepin, & Boisvert, 2003). In fact, all of the interventions identified by Masi et al. (2011) as addressing maladaptive social cognitions also involved elements of social skills training, enhancing social support, and creating opportunities for social interactions. Group therapy sessions with other lonely individuals, where participants discuss their concerns and support one another, are particularly common (Rodway, 1992).

Based on both loneliness theory and empirical research, it appears that the most effective interventions for treating loneliness address the excessively negative beliefs and expectations that lonely people hold about their social environments. As these negative beliefs are reframed or replaced, participants also receive social support from others in treatment, social skills training from facilitators, and resources to increase opportunities for future social connections. By using a combined approach, the interventions address both internal barriers, such as negative expectations that prevent participants from reaching out to others, and external barriers, such as lack of social skills or access to other people, that may prevent outreach attempts from being successful.

Interventions to Increase Social Closeness

Non-lonely individuals are those who report that their level of social closeness is adequate, that is, equal to what they expect or desire (Cacioppo & Hawkley, 2009). Attempts to increase social closeness in non-lonely individuals are driven by the positive psychological belief that wellbeing is more than the absence of illbeing (Gable & Haidt, 2005; Ryff & Singer 1998). Thus, social closeness may be more than the mere absence of loneliness, and cultivating social closeness in non-lonely individuals may lead to further increases in wellbeing. A meta-analysis of the effects of social relationships on mortality found that there is no identified "threshold" for an adequate amount of social connection (Holt-Lunstad & Smith, 2012), suggesting that interventions that increase social closeness can lead to benefits even in individuals who already report adequate levels of social closeness.

Non-lonely individuals by definition possess adequate social support and opportunities for social interactions; they are also more likely to possess appropriate social skills. As a result, social closeness interventions have focused modifying social cognitions in order to enrich the quality of already-existing social relationships and interactions. Similar to the interventions that address maladaptive social cognitions in lonely individuals, interventions to increase social closeness attempt to redirect participants' cognitions to focus on the positive elements of their social interactions or to self-generate positive social emotions such as gratitude.

Positive Social Attention

Attention to social cues is one technique through which individuals intuitively attempt to create social closeness (Jones, Hobbs, & Hockenbury, 1982). Individuals high in the need to belong are better at identifying emotions in the face and voice of others and show superior empathetic accuracy, behaviors which require careful attention to social cues (Pickett, Gardner, & Knowles, 2004). Perceived responsiveness, a measure of the extent to which a person in a relationship is perceived as understanding and satisfying their partner's needs (Reis, Clark, & Holmes, 2004), is also related to social attention, and predicts relationship satisfaction and social closeness. Responsive individuals are better able to provide wanted support and to capitalize on their relationship partner's good fortune (Gable, Reis, Impett, & Asher, 2004; Maisel, Gable, & Strachman, 2008). As a result, perceived partner responsiveness is related to higher perceived social support in relationship partners and higher relationship satisfaction for both partners in the future (Algoe & Haidt, 2009). To the extent that paying attention to social cues helps a person to correctly identify another's needs and respond to them in a responsive and satisfying way, it should increase closeness in the relationship.

To directly test whether positive social attention can lead to greater wellbeing, a randomized, controlled double-blind study used priming to increase the salience of positive social interactions and observed the effects over 8 weeks. Positive social interactions were primed through daily emails to working adult participants that either asked them to evaluate how "close" and "in tune" with others they felt during their three longest social interactions that day, items drawn from the UCLA loneliness scale (Russell, 1996). In the control condition, participants were asked to evaluate how "important" and "useful" their three longest daily tasks had been. Over

time, participants in the social salience condition increased in attention to social stimuli as measured by a dot-probe task assessing response time to briefly shown social and non-social images, whereas participants in the control condition did not change. In addition, participants who had been primed with positive social interactions increased in daily positive emotions and vagal tone, both of which have been linked to social closeness (Kok & Fredrickson, 2013).

As an intervention, priming positive social interactions is relatively straightforward and can easily be administered via email, where it takes approximately 2 min a day to complete. This intervention may be most useful in the short term, as the effect on wellbeing was small and participants showed signs of habituation by 6 weeks (Kok & Fredrickson, 2013). As a result, increasing the salience of positive social interactions via email may be most useful for individuals with limited time and resources who are unable or unwilling to commit more time to an intervention. In addition, the intervention should stop or be changed after approximately 6 weeks, in order to avoid habituation.

Meditation

Another potential route to social closeness is through meditation training that focuses on emotions. Emotions are elicited through appraisals of self-relevant information in the environment (Lazarus, 1991; Siemer, Mauss, & Gross, 2007). For example, appraising a raised hand as threatening might elicit either fear or anger, whereas appraising that same gesture as celebratory might elicit joy. In turn, emotions influence cognition and behavior by increasing the salience of appraisal-relevant schemas, heuristics, and behavioral response (Lerner & Keltner, 2000). A frightened person might pay more attention to threats, interpret ambiguous information as threatening, and be ready to flee, whereas a joyful person would be more likely to attend to positive elements of the situation, interpret ambiguous information positively, and be open and flexible in response to the situation (Fredrickson, 2003). Positive social emotions such as elevation and gratitude, for example, facilitate social closeness by promoting prosocial behavior toward nearby others and reinforcing ongoing relationships (Algoe & Haidt, 2009). Even non-social positive emotions might increase social closeness by broadening the scope of attention, for social and non-social information alike (Cohn & Fredrickson, 2006). By teaching individuals how to self-generate positive emotions, meditation training could lead to increased

social closeness by increasing participants' perceptions of their closeness to others. Emotion training might also lead participants to change their behavior and engage in more positive social behaviors toward others, resulting in actual improvements in their relationships and increases in closeness.

Loving-kindness meditation (LKM) is an emotion-training practice drawn from the Buddhist tradition. LKM is a technique used to increase feelings of warmth and caring for self and others by directing one's emotions toward warm and tender feelings in an open-hearted way. (Salzberg, 1995). Like other meditation practices, LKM involves quiet contemplation in a seated posture, often with eyes closed and an initial focus on the breath. What distinguishes LKM from other meditative practices is training in directing one's emotions toward warm and tender feelings in an open-hearted way. Individuals are first asked to focus on their heart region and contemplate a person for whom they already feel warm and tender feelings (e.g., their child, a close loved one). They are then asked to extend these warm feelings first to themselves and then to an ever-widening circle of others. Examples of this training, in the form of guided meditation, are available in the books *Force of Kindness* and *Real Happiness*, both written by leading LKM teacher Sharon Salzberg (Salzberg, 2010, 2011).

Loving-kindness meditation appears to be an effective way of increasing social closeness. A longitudinal study collected daily data for 9 weeks on the lives of participants assigned to learn LKM or to a monitoring wait-list control condition. All participants completed a 1-week baseline recording period before being assigned to conditions. During this time, participants used the web once a day to complete an emotion questionnaire and a measure of social closeness. For the next 7 weeks, participants assigned to learn LKM attended weekly hour-long group meditation workshops led by a practitioner experienced in teaching LKM. They also received a guided meditation CD and encouragement to practice independently throughout the week. All participants, including those in the control condition, continued to complete the daily online questionnaires. After meditation training ended, data collection continued for an additional week. Participants in the wait-list condition were offered the chance to receiving training in LKM after the study had ended (Kok et al., 2013).

Participants in the meditation condition showed significant increases in both positive emotions and self-reported social closeness over the 9 weeks of the study. Using structural equation modeling, the authors found that changes in positive emotions mediated the relationship between LKM practice and social closeness. Participants who learned LKM experienced

more positive emotions on a daily basis, and these increases in positive emotions drove increases in feelings of social closeness, suggesting that positive emotions may play a critical role in perceptions of relationship closeness (Kok et al., 2013). Critically, participants did not appear to habituate to the meditation; in fact, meditation may become more effective as practitioners become more experienced. A previous longitudinal study of the effects of LKM on daily emotions found that, over time, meditators experienced an increased "boost" in the positive emotions gained from each minute they reported meditating that day (Fredrickson, et al., 2008). In other words, the meditation appeared to yield more positive emotions as the study went on.

Although meditation can be a time-intensive endeavor, even one brief session of LKM may be enough to affect feelings of closeness. In a study of the effects of short-term LKM practice on feelings of closeness toward a stranger, participants engaged in a 7-min guided LKM imagery session where they visualized receiving loving feelings from two loved ones standing nearby, then directed those feelings toward a photograph of a neutral stranger. Participants in the control condition also engaged in guided visualization: These participants visualized the features of neutral acquaintances, and then examined the features in the photograph of the neutral stranger. Relative to their ratings at the beginning of the study, meditators increased in feelings of closeness toward stranger measured both implicitly, through an affective priming task, and explicitly, whereas participants in the control condition showed a smaller increase in explicitly reported closeness but no change in implicit ratings (Hutcherson, Seppala, & Gross, 2008).

As an intervention, LKM is promising for many reasons. The changes in social closeness induced by LKM appear to be consequential for mental and physical health. Compared to participants in a monitoring, wait-list control group, participants randomly assigned to learn LKM over a 7-week workshop showed steady increases in daily positive emotions, which in turn predicted growth in range of resources, including mindfulness, positive social relations, environmental mastery, and self-reported physical health. These gains in resources were consequential for participants, in that they accounted for improved life satisfaction and reduced depressive symptoms (Fredrickson et al., 2008). Amount of time participants devoted to meditation practice also predicted an increase in the positive emotions they reported during social interactions on an ordinary workday some weeks after the meditation workshops ended. In another longitudinal study, participants in a 7-week LKM workshop showed increases in positive emotions, self-reported social

closeness and vagal tone. Further modeling revealed that LKM drove changes in positive emotions, which led to changes in social closeness, which in turn led to higher vagal tone (Kok et al., 2013).

Pilot evidence suggests that LKM may also effectively treat the negative symptoms of schizophrenia, which include anhedonia, amotivation, and asociality (Johnson et al., 2011). Eighteen individuals diagnosed with schizophrenia-spectrum disorders met once a week for 6 weeks as a group with a therapist experienced in teaching LKM; they were also given guided meditation CDs and encouraged to practice outside of the group sessions. Participants continued to receive treatment as usual while in the study. Compliance was high, with participants attending an average of 84% of the training sessions; the majority of participants reported enjoying the meditation. After 6 weeks, pre–post analyses of positive emotions, negative symptoms, and satisfaction with life, environmental mastery and self-acceptance found significant improvements in all measures. These improvements were maintained at a 3-month follow-up. Although the absence of a control group makes it impossible to determine what drove the positive effects experienced by participants, the high rates of compliance and promising results of this pilot suggest that further investigation into LKM as a treatment for negative symptoms of schizophrenia is warranted.

An additional benefit of LKM is that it is potentially resistant to habituation, and may even improve in effectiveness over time. This feature, which is shared by other forms of meditation, can be attributed to the adaptive nature of meditative practice (Fredrickson et al., 2008). Because meditation is a purely mental activity, it changes to become more difficult as individuals increase in skill, maintaining a steady level of challenge. The balance of skill and challenge is a critical component of flow, a psychological state of deep absorption and joyful engagement in a task that leads to high-quality performance and the desire to continue engaging in the activity (Csikszentmihalyi, 2008). The rewards of matching challenge to skill were reflected in participants' continued compliance and increases in positive emotions gained per minute spent meditating over the course of a 7-week meditation training workshop (Fredrickson et al., 2008).

An additional meditative approach linked to social closeness is shamatha meditation, which trains adherents in focused attention and compassion (Wallace, 2006). Shamatha shares many features in common with LKM, though it includes additional attention training and focuses on fostering feelings of compassion for those who are suffering, an alternative way to build social closeness (Goetz, Keltner, & Simon-Thomas, 2010).

Shamatha meditation is associated with increases in a wide range of psychological wellbeing indicators. A recent study assessed changes in wellbeing for participants randomly assigned to an intensive 3-month shamatha meditation retreat relative to those in a wait-list control condition (Sahdra et al., 2011) Wellbeing was measured as a composite of mindfulness, attachment, depression, basic personality, empathy, anxiety, ego-resiliency, difficulties in emotion regulation, and psychological wellbeing, which were combined using factor analysis into an "adaptive functioning" latent variable. Meditators showed increases in adaptive functioning across the study, whereas participants in the wait-list control condition showed no change. The changes in adaptive functioning were maintained at 5-month follow-up.

Shamatha meditation is also associated with physiological changes linked to health, such as telomerase activity. Telomerase is an enzyme that maintains the protective "end caps" on DNA that promote genomic stability and prevent mutation, with higher telomerase activity indicating greater stability and thus, better health. Participants who had participated in the 3-month shamatha meditation retreat showed increased telomerase activity at the end of the study, relative both to themselves at the start of the study and to wait-list control participants matched on age, sex, and body mass index (BMI). Increases in perceived control mediated the relationship between retreat attendance and telomere length (Jacobs et al., 2011).

Mindfulness meditation fosters present-focused awareness and nonjudgmental acceptance and is associated with a wide variety of positive health outcomes within both individuals (Brown, Ryan, & Creswell, 2007) and couples (Gambrel & Keeling, 2010). Mindfulness is also associated with relationship-relevant capabilities, including empathy (Greason & Cashwell, 2009), emotion regulation (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003) and sustained attention (Tickle-Degman & Rosenthal, 1990). A handful of studies have linked mindfulness to measures of social closeness such as secure attachment (Shaver, Lavy, Saron, & Mikulincer, 2007) and feelings of belonging (Brown & Kasser, 2005; Brown & Ryan, 2003, 2004), though we are unaware of any work investigating whether changes in social closeness might mediate the positive health effects of mindfulness meditation. Further research in this area is needed (Brown et al., 2007).

Meditation, whether LKM, shamatha, mindfulness, or another type of practice, can be a potent source of psychological and physiological change. However, these practices are complex and involve many different potential mechanisms of action, making it difficult to determine whether the benefits

derived from meditation are driven by changes in social closeness or other psychological processes. To our knowledge, no published work to date has explicitly tested whether changes in compassion-driven social closeness contributed to the psychological and physical benefits of shamatha meditation. Similarly, although it is known that LKM increases social closeness (Hutcherson et al., 2008; Kok et al., 2013), we know of only one published study that has empirically tested whether social closeness mediates the relationship between LKM and changes in health (Kok et al., 2013).

Gratitude

Gratitude interventions have the potential to combine the potency of meditation training with the straightforwardness and ease of administration of a positive social attention intervention. Gratitude, a positive social emotion, has been theorized to foster social closeness in three ways: Feelings of gratitude help individuals to "find" helpful or kind others and "reminds" them of existing positive relationships. Expressions of gratitude also help to "bind" a benefactor and a recipient together (Algoe, 2012). In a study of the developing relationships between new inductees into a sorority and their older sorority mentors, gratitude felt by an inductee toward her mentor predicted how much the inductee and mentor liked one another 1 month later. In addition, inductees who felt more gratitude reported feeling more integrated into the sorority at the 1-month follow-up (Algoe, Haidt, & Gable, 2008). Similar effects were observed in two longitudinal observational studies of married couples, where past feelings of gratitude predicted future relationship satisfaction (Algoe, Gable, & Maisel, 2010; Gordon, Arnette, & Smith, 2011). By creating and reinforcing links between benefactor and recipient, gratitude serves as a powerful social closeness induction.

Studies that experimentally manipulated gratitude in the laboratory confirm that gratitude increases social closeness, both to strangers and within existing relationships. Participants who felt grateful to a confederate who helped fix an ostensibly broken computer were more likely to choose to work with that confederate again and to help the confederate in a competitive game, even at cost to themselves (Bartlett, Condon, Cruz, Baumann, & Desteno, 2012). In a longitudinal study comparing the effects of expressions of gratitude, thoughts of gratitude, positive thoughts, or an active neutral control, participants asked to express gratitude toward a friend twice a week for 3 weeks were more willing to disclose concerns about the relationship

to their friend, an effect mediated by increases in positive perceptions of the friend (Lambert & Fincham, 2011). By expressing gratitude toward their friend, participants began to think more positively of the friend, which made them more willing to talk to their friend about any concerns they had with the relationship. The authors describe disclosing concerns as "relationship maintenance," suggesting that expressions of gratitude may have increased the participants' feelings of closeness to the friend and desire to keep the relationship strong.

Gratitude appears to promote prosocial behavior toward people in general, as well as toward a benefactor. Across four studies, participants who were briefly thanked for completing a task were more likely to help others in unrelated tasks, such as calling alumni for a university fundraiser, relative to those in a neutral control condition. The effect of gratitude on prosocial behavior toward others was mediated by participants' reports that they felt valued, trusted, or close to the benefactor, again suggesting that gratitude works by increasing social closeness (Grant & Gino, 2010).

There are a wide variety of gratitude interventions. In the "gratitude visit" intervention, participants are asked to write and deliver a letter expressing gratitude for something the recipient has done for them (Seligman, Steen, Park, & Peterson, 2005). In the "count your blessings" intervention, participants keep a "gratitude journal" and record three things they are grateful for each day (Seligman et al., 2005). Relative to participants in an active control group or a "write about your best self" group, those in the gratitude letter condition showed significant increases in happiness over 1 month but returned to baseline within 3 months, whereas participants in the "gratitude journal" condition increased in happiness and decreased in depression throughout the 6-month monitoring period. Strikingly, participants in the "gratitude journal" condition also reported that they continued to use their gratitude journal after the study had ended.

Gratitude interventions are relatively easy to administer and appear to have lasting positive effects. They are vulnerable to habituation, and seem to be most effective when practiced at intervals rather than every day (Sheldon & Lyubomirsky, 2006). In a review of the potential of gratitude interventions for use in counseling psychology, Nelson (2009) cited the potential of gratitude as an intervention but called for further research comparing gratitude interventions to one another, exploring individual differences that might contribute to the success or failure of gratitude interventions, and urged researchers to explore the role of gratitude in child development.

Family and Group Therapies

Although many interventions target the individual, others work at the level of dyads and groups, including couples, families, and work groups. There are a wide variety of couples and family therapies, which can be roughly divided into emotional, behavioral, and insight-based forms (Carr, 2009). Emotion-based couples therapy addresses attachment needs, behavioral couples therapy teaches communication and negotiation skills, and insight-based therapy focuses on understanding the effect of previous relationships and family behavioral patterns on behaviors in the present (Carr, 2009).

The three varieties of couples therapy appear to be effective across a wide range of disorders. In a recent review of the literature, couples therapy was an effective treatment for anxiety, depression, borderline personality disorder, alcoholism, substance abuse, and posttraumatic stress disorder (PTSD), among other disorders (Lebow, Chambers, Christensen, & Johnson, 2012). In a separate review, family therapy, in concert with medication, was more effective than medication alone in treating anxiety, depression, bipolar disorder, and schizophrenia, as well as chronic illnesses such as arthritis, stroke, and heart disease (Carr, 2009). Unfortunately, research on the mechanisms of change in couples and family therapy has not yet explored the potential role of social closeness (Sexton, Robbins, Hollimon, Mease, & Mayorga, 2003).

Although most couples therapies focus on alleviating distress, mindfulness-based relationship enhancement (MBRE) therapy targets healthy couples, with the aim of increasing relationship satisfaction by building stress coping skills in both members of a couple (Carson, Carson, Gil, & Baucom, 2004). MBRE is a modification of mindfulness-based stress reduction (MBSR), a well-known therapeutic program targeted to individuals (Kabat-Zinn, 1990), and combines elements of emotional, behavioral, and insight-based therapies. Like MBSR, MBRE trains participants in a combination of mindfulness, loving kindness, yoga, body awareness or body scan and other stress-reduction techniques, but these techniques have been adapted to work with couples. MBRE training takes place through eight weekly training sessions of 2.5 hr each, ending with a day-long retreat (Carson et al., 2004).

An initial test of MBRE found that, relative to those in a wait-list control condition, couples who received MBRE training reported increased relationship happiness and ability to cope with stress, as well as decreased relationship stress and overall stress (Carson et al., 2004). Practicing mindfulness the

day of reporting was associated with improvements in relationship and stress variables that day and for 2 days afterward (Carson et al., 2004), encouraging evidence that the intervention effects were not due solely to expectation on the part of the participants. Subsequent analyses revealed that the positive effects of MBRE were partially mediated by increases in couples' acceptance of one anothers' difficult characteristics (Carson et al., 2004). Based in part on the success of MBRE, two recent reviews have proposed integrating mindfulness into marriage and family therapy (Gambrel & Keeling, 2010) and parent–child therapy (Duncan, Coatsworth, & Greenberg, 2009).

Team building is another form of group-based social closeness intervention common to work environments; it is typically used to improve performance or efficiency within the team. Unlike team training, which focuses on teaching new work-related skills, team-building interventions aim to clarify social roles within the team, improve social relations and resolve interpersonal conflicts that may interfere with the function of the team (Klein et al., 2009). A meta-analysis of the effectiveness of team building found that team building led to improvements in interpersonal relationships, role clarity, goal setting and problem solving and resulted in improved work performance. Changes in interpersonal relationships partially mediated the relationship between team building and performance (Klein et al., 2009), suggesting that team building is a group-based social closeness intervention that uses social closeness to improve work performance.

Summary

Interventions that focus specifically on increasing social closeness in nonlonely populations are few, but the findings suggest that increasing social closeness can be beneficial, even for people who report adequate social connections. The existing interventions target positive social attention, various positive emotions, compassion, or distress within existing relationships, with the aim of opening participants up to new relationship opportunities, enriching existing relationships, and changing maladaptive relationship behaviors. Initial studies have been promising, with positive effects on measures of mental and physical wellbeing and relationship satisfaction. Many of these studies hail from social psychology, which has a strong experimental tradition of closely matched control groups, random assignment to conditions, and double-blind or dual-blind designs but seldom focuses on assessing the clinical significance or practical utility of interventions. As a result, the studies described provide a conceptually and empirically strong starting

point for future translational research on social closeness interventions for non-lonely populations by researchers in intervention-focused fields such as complementary and alternative medicine, clinical psychology or counseling.

The Role of Social Media and Electronically Mediated Communication

Age and illness can make it difficult to travel to group or one-on-one therapy sessions; this is unfortunate, as individuals with mental or physical disabilities and older people are at particular risk for loneliness (Hawkley & Cacioppo, 2007; Pavri & Luftig, 2000). As a result, there is a great deal of interest in loneliness interventions that can be administered either online or through the phone. A meta-analysis of loneliness treatments compared in-person and electronically mediated interventions and found no difference in effectiveness (Masi et al., 2011). The electronically mediated interventions reviewed included CBT offered through inter-relay-chat (IRC, a text-based online program that allows both one-on-one and group-level conversations in real time; Hopps et al., 2003); an online peer-led support group using a message board system and email (Hill, Weinert, & Cudney, 2006); psychoeducational group therapy via weekly telephone conference calls with two to five other participants plus two facilitators (Hartke & King, 2003; Heckman & Barcikowski, 2006); weekly one-on-one phone calls from study staff offering social support (Coleman et al., 2005; Heller, Thompson, Trueba, Hogg, & Vlachos-Weber, 1991); and in-person training in computer use and the Internet together with access to web-enabled computers (Shapira, Barak, & Gal, 2007; White et al., 2002). The growing presence of Skype and other real-time video-and-audio communication techniques suggests that future loneliness interventions may integrate text-and-voice-based electronic training with face-to-face conversations via webcam.

In non-lonely populations, findings regarding the efficacy of electronically mediated social interactions are mixed, and research focuses largely on the effects of Internet use. In one early and influential study, researchers collected data on households in their first 2 years of Internet use and found that greater use of the Internet was associated with decreases in family communication, smaller social circles, and increased depression and loneliness over time (Kraut et al., 1998). On the other hand, use of the Internet by college students is associated with establishing new relationships and maintaining

existing ties to geographically distant others (Ellison, Steinfield, & Lampe, 2007), an effect that may be particularly strong for people who find in-person interactions stressful or threatening (Ellison et al., 2007; Steinfield, Ellison, & Lampe, 2008). Generally, larger online friendship networks are associated with higher life satisfaction and perceived social support (Manago, Taylor, & Greenfield, 2012), though this relationship may not hold, or may even become negative, for individuals with a particularly large number of online friends (Kim & Lee, 2011). When it occurs, loneliness in online environments may be attributable to the absence of social cues, which is associated with decreases in psychological wellbeing and perceived social support (Kang, 2007), or to Internet addiction, which has been linked to social isolation and depression (Chou, Condron, & Belland, 2005). Other researchers have suggested that loneliness causes increased use of the Internet (Chou et al., 2005).

One concern regarding time spent online is that it may lead to decreased community engagement (Putnam, 2001). This may not be the case: in a national sample of 3,377 American adults who responded to the 1999 DDB Needham Life Styles Survey, time spent online was positively associated with volunteerism and attendance at public events (Shah, Schmierbach, Hawkins, Espino, & Donavan, 2002). Among college students, greater use of Facebook positively predicted social trust, political participation, and civic engagement (Valenzuela, Park, & Kee, 2009).

The study of electronically mediated communication is still in its infancy, and the technologies that enable electronically mediated communication are changing at an ever-increasing rate. Perhaps some forms of electronically mediated communication, such as video chat, may prove more effective in increasing social closeness than other forms, such as message boards. Use of electronically mediated communication may be helpful to those who are socially isolated, as it gives them opportunities to form social connections in a less threatening environment; for people with robust social networks offline, electronically mediated communication may act as an isolating force that reduces opportunities for in-person communication.

The Role of Personal Traits

An intervention need not be effective for everyone in order to be useful; conversely, not all people respond in a similar way to a particular intervention. Because many factors contribute to the presence or absence of

social closeness, differences in gender, health, personal beliefs, and cultural background, among others factors, should be considered when evaluating and choosing an appropriate intervention.

Responses to gratitude interventions may vary by gender. Across three studies, women reported feeling more comfortable with the emotion of gratitude and more likely to report experiencing gratitude in response to an experimental manipulation (Kashdan, Mishra, Breen, & Froh, 2009). Women's gratitude was also more likely to result in increased social closeness over a 3-month period. These effects were partially mediated by willingness to openly express emotions.

Some interventions are more demanding of participants' time and resources than others. In one study of LKM (Kok et al., 2013), responses were moderated by participants' starting level of vagal tone, a physiological index of self-regulatory capacity (Segerstrom & Nes, 2007). Participants with higher starting vagal tone showed a faster rate of increase in positive emotions in response to the meditation. Since almost all meditative practices require participants to regulate and control their attention, participants with impaired self-regulatory ability may have found it difficult to comply with the meditation instructions, thus decreasing the benefit they derived from the practice.

Emotion-focused approaches such as meditation may be viewed as overly simplistic or frivolous, which can reduce compliance with the intervention and may also decrease the benefits of meditative practice. Participants willing to participate in a meditation study are likely to be different from the average population in that they are more likely to have tried at least one type of meditative practice before enrolling in the study, and more likely to be White, female, well educated, and of higher socioeconomic status (Bair et al., 2002; Ni, Simile, & Hardy, 2002). In addition, participants are likely to come into the study already believing in the benefits of meditation. At present, it is difficult to know whether the beneficial effects of various meditative practices would also occur for individuals who are skeptical of the idea of meditative practice. These selection effects intensify in studies that require more intensive meditation (daily meditation, attending a week-or-months-long meditation retreat, etc.).

Research on social closeness interventions has largely been carried out with Western populations, even when, as in the case of meditation, the intervention itself is non-Western in origin. Cultural differences in the way that individuals from Western and Eastern cultures conceptualize identity may moderate the effectiveness of social closeness interventions. One

frequently studied characteristic particular to Western culture is the focus on individualism—the idea that the self exists independent of a person's relationships with others. In contrast, individuals from cultures outside of the West are more likely to conceptualize the self as integrated within a web of social relationships, expectations, and obligations that shape a person's identity and beliefs (Triandis, 2001). This view, known as collectivism, may lead to significantly different responses to social closeness interventions than have been observed in Western samples.

For example, individuals with a more collective sense of self may be more responsive to the social closeness interventions that explicitly evoke connections between persons, such as meditation or gratitude inductions. Those with an individualist identity may respond more strongly to interventions that target personal behaviors or perspectives, such as loneliness interventions that address maladaptive cognitions, or the positive social attention intervention, which focuses on the individual's feelings about social interactions (Sin & Lyubomirsky, 2009). Because collectivism and individualism are individual traits that exist on a unidimensional continuum, individuals within the same culture may vary in the extent to which they think of their self as distinct from, or shaped by, their relationships with others. As a result, even when social closeness interventions are applied within one culture rather than cross-culturally, it would still be useful to take this trait into account when choosing the appropriate intervention for an individual.

Social Closeness in the Community

Loneliness may be contagious. In a longitudinal study of the social networks of 12,067 participants drawn from the multigenerational Framingham Heart Study, people who interacted with someone who was feeling lonely reported feeling lonelier themselves, and that loneliness was then spread to their interaction partners (Cacioppo, Fowler, & Christakis, 2009). This implies that loneliness can become a community-wide problem. Individuals in the sample who were not lonely did not appear to transmit their "non-loneliness" to others, though "non-loneliness" was measured simply as low scores on the loneliness scale, and social closeness was not measured.

Research on the contagious effects of social closeness is scant. But in the same Framingham sample, a similar network study of the spread of happiness, an emotion strongly associated with social closeness (Fredrickson et al., 2008), found that happiness was more contagious than unhappiness (Fowler & Christakis, 2008); perhaps, then, interventions such as LKM

might work to counter the contagion of loneliness through a potent combination of positive emotions and social closeness.

Individuals who are “flourishing” experience optimal levels of psychological, emotional, and social wellbeing (Keyes, 2007). They both “feel good” and “do good”: among other things, they report feeling closer to friends and family than non-flourishing individuals. According to Keyes (2007), flourishers are good for society because they miss less work, are sick less often, use less health care, have fewer chronic conditions and are less likely to experience mental illness than others, all factors that reduce their societal cost. Individuals who experience greater social closeness on a regular basis are also less likely to fall ill; as a result, they also miss less work, use fewer health-care resources and are diagnosed with fewer chronic illnesses or mental illnesses. Society as a whole benefits from social closeness.

Conclusion

Social closeness is a fundamental human need; the socially close flourish, while the socially isolated suffer. The most effective social closeness interventions appear to target cognitions and emotions, either by reducing maladaptive social cognitions, redirecting attention toward social information, or fostering positive social emotions. At present, it is not known whether the interventions result in changes in behavior, or simply changes in perception that drive gains in wellbeing. Future work should include behavioral measures or event-sampling techniques such as the electronically activated recorder (EAR; Mehl, Pennebaker, Crow, Dabbs, & Price, 2001) or the day reconstruction method (DRM; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) in order to determine whether the interventions affect participants’ behavior toward others, and if so, in what way.

The majority of the interventions reviewed here did not follow up with their participants after the initial study was complete. When follow-ups were done, the results were mixed; the benefits gained from LKM appeared to persist as long as 15 months after the study, even for participants who stopped meditating (Cohn & Fredrickson, 2010). In contrast, the positive effects of writing and delivering a gratitude letter lasted only 1 month (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). An understanding of the duration of an intervention’s effects is critical: some interventions may be most useful to create long-term change, whereas others may buffer against short-term adversity.

It appears that it is possible to increase social closeness even in individuals who do not report feeling socially isolated. Increasing social closeness leads to improvements in psychological wellbeing, indices of physical health, and relationship investment and satisfaction. These effects are moderated by individual differences in gender, self-regulatory capacity, existing social closeness, belief in the efficacy of the intervention, and cultural background. Future research will doubtless identify more factors that will help match a person with an effective intervention.

Social closeness has powerful positive effects on mental and physical health, with policy implications for any field concerned with human health and functioning. The following recommendations are based on the ideas of Umberson and Montez (2010): Social policies can work to increase awareness of the importance and benefits of social ties, both for policy makers and the average person. This may include social–emotional awareness or social skills training in order to decrease vulnerability to social isolation later in life. Policy makers can guard against actions that might harm or strain existing social ties, such as separating families or placing excessive burden on caregivers. Health-related policies can benefit from explicitly targeting and treating social isolation and abusive relationships, as being socially isolated or abused is a significant risk factor for many forms of physical and mental illness. Many existing policies, particularly those that make it easier for families to stay together or support older family members, already foster social closeness in a nonsystematic way. Groups with such policies can be encouraged to continue promoting social closeness and to share their methods with others. Finally, some individuals, such as those with chronic illnesses, mentally ill people, and elderly people, are particularly vulnerable to social isolation and should be a particular target of policy attention. By utilizing the current scientific knowledge of the impact of social closeness and how it can be manipulated through interventions, policy makers can more effectively safeguard health and wellbeing and decrease illness-related costs.

The literature on interventions that alleviate loneliness is extensive, with published work dating back to the 1930s (Rook, 1984). In contrast, social closeness interventions for non-lonely individuals have only begun to be studied, corresponding to the rise of the positive psychology movement (Gable & Haidt, 2005). It is our hope that the studies described here will serve as an inspiration to further work, in order to determine how best to harness the power of social closeness to maximize health and wellbeing.

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8

The Experience Corps®

Intergenerational Interventions to Enhance Wellbeing Among Retired People

George W. Rebok, Michelle C. Carlson, Kevin D. Frick and Katherine D. Giuriceo
Johns Hopkins University, U.S.A.

Tara L. Gruenewald
University of Southern California, U.S.A.

Sylvia McGill
Retired, Greater Homewood Community Corporation, U.S.A.

Jeanine M. Parisi
Johns Hopkins University, U.S.A.

William A. Romani
AARP Experience Corps, U.S.A.

Teresa E. Seeman
UCLA, U.S.A.

Elizabeth K. Tanner
Johns Hopkins University, U.S.A.

Linda P. Fried
Columbia University, U.S.A.

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Introduction

With a rapidly aging population, current estimates suggest that a greater number of men and women are spending approximately one third of their lives post retirement (Freedman, 1999). For instance, the median age of retirement for male workers in the United States has decreased from age 66 in 1960 to age 63 in 2008 (Munnell & Sass, 2008). During the same time period, life expectancy increased; U.S. men in 2008 could expect to live 5 additional years compared to men in 1960 (Munnell & Sass, 2008). From a public health perspective, there is mounting interest in providing meaningful roles and opportunities for older adults to spend their years in retirement (Fried, Freedman, Endres, & Wasik, 1997). As emphasized by Riley, Kahn, and Foner (1994), there currently exists a "structural lag" in society, as evidenced by the failure of "the role structures of society to keep pace with the changes in the way people grow up and grow old" (p. 2).

The designation of retirement status has been labeled ambiguous because there are multiple, overlapping criteria by which one might be called retired (Schultz & Wang, 2011). Increasingly, retirement is being viewed not as the end of one's working life but rather as a time of opportunity to continue one's work life in an alternative form or venue (Wang, Adams, Beehr, & Schultz, 2009). The cohort in the United States born between 1946 and 1964, commonly referred to as the "baby boomers," have higher expectations about retirement than previous generations and generally view retirement as an opportunity to pursue volunteering, civic engagement, and life-long learning (Freedman, 1999; Martinson & Minkler, 2006; Rix, 2006). Interest in volunteerism and life-long learning has grown internationally as a result of the global aging of the population, the greater emphasis on knowledge and information, and the increasing levels of formal and informal education (Freedman, 1999; Pruchno, 2012). Both activities can help promote positive health and wellbeing of older individuals by providing opportunities to maintain and improve their cognitive, physical, social, and psychological functioning and by availing them of meaningful and valued social roles. For example, volunteering in later life is associated with better health and fewer depressive symptoms (Hong & Morrow-Howell, 2010; Kim & Pai, 2010), delayed mortality (Harris & Thoresen, 2005), and slower declines in physical and mental health (Hao, 2009; Jung, Gruenewald, Seeman, & Sarkisian, 2010).

In this chapter, we describe an innovative, community-based model intentionally designed to promote health and wellbeing among older adults by offering them the opportunity to participate in meaningful and impactful roles as school volunteers to improve the academic performance and behavior of young children. Known as the AARP Experience Corps® program, this program utilizes the time, experience, and wisdom of older adults to improve the academic and behavioral outcomes of kindergarten through third-grade children in public elementary schools. Designed by public health scientists and experts in early childhood education (Freedman & Fried, 1999; Fried et al., 2004), this program was created to be a high-impact model of win–wins for children, older adults, and society through social empowerment of older adults. Preliminary studies from a pilot trial of the Experience Corps program in Baltimore, Maryland showed evidence of sustained increases in physical activity and the potential for preservation of cognitive function among the older adult volunteers, as well as improved standardized reading achievement scores and reduced number of disciplinary referrals for the children (Carlson et al., 2008; Fried et al., 2004; Rebok et al., 2004; Tan, Xue, Li, Carlson, & Fried, 2006).

We begin the chapter by describing the concept of wellbeing as it applies to older adults. We will then describe the major tenets of the Experience Corps conceptual model, the results of the pilot trial of the Experience Corps program, and the design of a recent randomized controlled trial (RCT) in Baltimore. We will conclude the chapter by discussing the policy implications of creating intergenerational opportunities for retired older adults seeking to optimize and transform their retirement years.

Wellbeing in Later Adulthood

The question of what constitutes subjective wellbeing (SWB) in older adulthood, and how SWB changes with advancing age, has long captured the attention of gerontological and developmental theorists (S. T. Charles & Carstensen, 2010; George, 2010; Huppert & So, 2013; Larson, 1978; Lawton, Kleban, & Dicarlo, 1984; Neugarten, Havighurst, & Tobin, 1961; Ranzijn & Luszcz, 2000; Ryan & Deci, 2001; Shmotkin & Hadari, 1996). A simple conceptualization is that SWB can be defined as how people *think* and *feel* about their lives (Diener, Suh, Lucas, & Smith, 1999). Despite

hypotheses that *affective* or *hedonic wellbeing* (high positive/low negative affect) might decline in older adulthood as a consequence of social/role losses and physical impairments often associated with increasing age, research generally suggests that hedonic wellbeing is maintained across adulthood with decline only at very advanced ages (S. T. Charles, Reynolds, & Gatz, 2001; George, 2010; Gerstorf et al., 2010, Mroczek & Kolarz, 1998; Mroczek & Spiro, 2005). On the other hand, levels of some forms of evaluative wellbeing, especially forms of *eudaimonic wellbeing*, including a sense of purpose in life, experiencing personal growth, and feeling generative, are more variable across the life course and more vulnerable to late-life decline (McAdams, Aubin, & Logan, 1993; Ryff, 1989; Ryff & Keyes, 1995; Ryff, Keyes, & Hughes, 2003, 2004).

Although eudaimonic wellbeing appears to diminish somewhat in later life, it does not appear that older adults lose the desire to maintain or enhance this form of wellbeing. Desires to be useful, contribute to others, and engage in meaningful and purposeful activity are now recognized as motivations for social, productive, and voluntary activity in older adulthood (Carlson, Seeman, & Fried, 2000; Fisher, 1995; Fried et al., 2004; Glass et al., 2004; Hainsworth & Barlow, 2001; Kleiber & Nimrod, 2008; Morrow-Howell, 2010; Narushima, 2005; Okun, 1994; Reichstadt, Sengupta, Depp, Palinkas, & Jeste, 2010). These dimensions of wellbeing are also cited as important indicators of successful aging in both lay and theoretical conceptualizations. However, it does appear that the opportunities, roles, and resources which promote the enhancement of these forms of wellbeing diminish with increasing age in older adulthood (Keyes, Shmotkin, & Ryff, 2002; Lie, Baines, & Wheelock, 2009; Morrow-Howell, 2010; Riley et al., 1994; Ryff et al., 2003; Tang, 2006) with a significant structural gap between needs and goals of older adults and roles that are available to meet them. Thus, efforts to promote psychological wellbeing in older adulthood may be well served by interventions that facilitate opportunities for productive social and intellectual engagement.

The motivations for promoting eudaimonic wellbeing in later life go beyond wanting to ensure that older adults experience favorable subjective wellbeing, as eudaimonic wellbeing may also shape other forms of mental and physical health in older adulthood. Although empirically and conceptually distinct, indicators of eudaimonic wellbeing typically show positive associations with indicators of hedonic wellbeing. For example, older adults with greater perceptions of being generative, being useful to others, and who have a greater sense of purpose in life also show more

positive profiles of affective wellbeing, including higher levels of positive affect and life satisfaction and lower levels of negative affect, depression, and anxiety (Gruenewald, Karlamangla, Greendale, Singer, & Seeman, 2007, 2009; McAdams, Aubin, & Logan, 1993). A growing body of evidence also suggests that levels of eudaimonic wellbeing may predict trajectories of physical functioning and health in later life. Older adults with high feelings of social usefulness and generativity, and those who maintain such feelings over time, are less likely to experience increased difficulty in physical functioning and the onset of disability and institutionalization, less likely to die, and live longer, as compared to those with low feelings of usefulness and generativity (Grand, Grosclaude, Bocquet, Pous, & Albarede, 1988, 1990; Gruenewald et al., 2007, 2009; Newton, Kiecolt-Glaser, Glaser, & Malarkey, 1995; Okamoto & Tanaka, 2004; Pitkala, Laakkonen, Strandberg, & Tilvis, 2004). A greater sense of purpose in life also has been linked with better health trajectories in older adulthood, including more positive indicators of physiological functioning (Ryff, Singer, & Dienberg Love, 2004), lower ADL disability (Keyes, 2002), lower risk of Alzheimer's disease development (Boyle, Buchman, Barnes, & Bennett, 2010), and lower mortality risk (Boyle, Barnes, Buchman, & Bennett, 2009; Krause, 2009). Thus, efforts to maintain and even enhance these forms of wellbeing in later life may promote more favorable trajectories of functioning and health in our aging population.

Research on physical and emotional wellbeing and retirement has found that the physical health of male retirees improves in retirement; whereas for women there is no significant health impact (Bound & Waidmann, 2007). In addition, retirees have been found to have improved emotional wellbeing in retirement relative to when they were working (Bender & Jivan, 2005; K. K. Charles, 1999). Older retirees, generally those who have been retired longer, are often found to be happier in retirement than younger, more recent retirees (Bender & Jivan, 2005). In contrast, Szinovacz and Davey (2004), found no support for the idea that length of retirement impacts emotional wellbeing. Rather they found that it was the specific context surrounding the retirement (i.e., work status of spouse, enjoyment of joint activities with spouse) that influenced emotional wellbeing in retirement. Among retirees who return to work, those who need to return to generate income are the least satisfied, as opposed to individuals who may choose to return to work in order to feel productive or to engage in volunteer activities (Cox, Parks, Hammonds, & Sekhon, 2001). Research on the role of activity in retirement has found that individuals who remain active, either by employment

or through volunteering, are more satisfied with their retirement than other older adults (Cox et al., 2001) and report higher levels of wellbeing (Greenfield & Marks, 2004; Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Van Willigen, 2000).

Overview of the AARP Experience Corps Program

The AARP Experience Corps® program is an innovative, community-based model designed to create a win–win situation for an aging society, simultaneously serving as a health promotion intervention for older adults, and a mentoring intervention to improve the academic success of children. The intervention at both the older adult and child level creates impactful social capital leading to improvements for both generations (Freedman & Fried, 1999; Fried et al., 2004, 2013; Rebok et al., 2011). New, generative roles were designed and created for adults aged 55 and older, incorporating the time, experience, and wisdom that evolve with age, to improve academic and behavioral outcomes of children in kindergarten through third grade in public elementary schools. Concomitantly, the Experience Corps program was designed to serve as a powerful health promotion model, potentially improving the cognitive, physical, social, and psychological function of older adults and preventing disability and dependency associated with aging, as well to provide a cost-effective, high-impact literacy support and social capital intervention for young children (Fried et al., 2004, 2013; Fried, Frick, Carlson, & Rebok, 2006). The Experience Corps program offers many opportunities for older adults to perform meaningful and impactful roles designed to improve academic and behavioral performance of children while enhancing the health and wellbeing of the volunteers.

Several features make the Experience Corps model a unique opportunity for sustained engagement in adulthood and enhance the likelihood that the beneficial effects will impact children and the school system. Specifically, Experience Corps: Baltimore is characterized by the following core components: training, team-based approach, meaningful roles, program flexibility, time commitment, incentives, and infrastructure support (Table 8.1). Prior to being placed in the schools, older adult volunteers first participate in an intensive, week-long training program (approximately 30 hr) consisting of lectures, discussion, and exercises designed to prepare the volunteer for working in the school environment. During these training sessions, volunteers are provided with an overview of the roles and responsibilities of

Table 8.1. Core Features of the Experience Corps Program.

1. Productive roles	Experience Corps program explicitly works with each school to identify important, unmet needs related to improving children's academic/behavioral performance and to develop meaningful Experience Corps volunteer roles to help address those needs (most frequently cited to be literacy support and conflict resolution)
2. Training	Participants go through a 1-week (5-day) training program explicitly designed to provide them with skills needed to function effectively in the roles they will assume in the schools
3. Critical mass, teams	A team of 12–20 volunteers is placed in schools; the team structure embeds seniors in a network of similar volunteers, fostering social contacts/support, problem solving and results in greater satisfaction and retention in the program. In collaboration with each school principal, the number of volunteers is determined to provide a critical mass of Experience Corps adults to support children's academic outcomes and have sufficient impact to shift outcomes for whole grades
4. Time commitment	Required commitment of 15 hr/week ensures that schools receive adequate, ongoing Experience Corps input, allowing for consistency and development of relationships with children and school staff, and that older adults get an adequate "dose" of exposure to the physical, cognitive, and social activities designed to promote health and wellbeing
5. Incentive reimbursement	Experience Corps volunteers receive a monthly stipend (about $250) to offset volunteer expenses (e.g., transportation, meals). This reimbursement also serves to differentiate Experience Corps from traditional volunteering and acknowledge (in a small way) the value of their activities
6. Infrastructure support	Field and site coordinators provide ongoing support and supervision. They assist with initial team integration into the schools and organized weekly team meetings for problem solving throughout the school year and in-service training in new and ongoing Experience Corps roles
7. Program flexibility	Multiple different roles may become available to volunteers as their interests and skills evolve, allowing for ongoing development of new skills

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an Experience Corps volunteer and learn basic skills needed for working with elementary school children. Training also builds a sense of common purpose and focuses on promoting a sense of community among volunteers by training them to work in teams. This team-based approach extends across the entire program, and the placement of a critical mass (consisting of approximately 15–20 volunteers) in each participating school is essential for fostering social engagement, cohesion, and social support among volunteers. This critical mass is also essential in order to maximize the aggregate impact on academic achievement by entire grades. Team service ensures that the older adult volunteers have partners who help in providing assistance to children and who can serve as additional resources for mutual problem solving, modeling, feedback, and support when needed. Within each school, a team leader (who is generally a former, more experienced volunteer) supervises the volunteers at that school and is responsible for organizing and holding weekly team meetings.

On average, volunteers serve for at least 15 hr per week (generally over 3–4 days per week) throughout the full academic year (September through June). During their service, volunteers participate in meaningful and generative roles designed to meet the school's greatest unmet needs for increasing the success of their students. Most often these activities include literacy (reading to children and listening to children read, and basic literacy skills) and math tutoring and support; assisting in school libraries, including helping children select books on their level and interest and library organization and management; and behavior management and conflict resolution skills. Volunteers receive a small stipend (about U.S.$250 per month) provided to offset personal expenses associated with volunteering (e.g., transportation, lunches while volunteering in the schools, necessary clothing for the academic setting). The stipend enables diversity of participation, including those from low-income populations who might otherwise not be able to afford to volunteer.

The Conceptual Model

The Experience Corps program was designed to increase volunteers' physical, social, and cognitive activity and psychological wellbeing, thus leading to numerous health benefits for older adults (Freedman & Fried, 1999; Fried et al., 2004, 2013) (see Figure 8.1). As a result of the design elements, and through sustained engagement, we expect that volunteers (relative

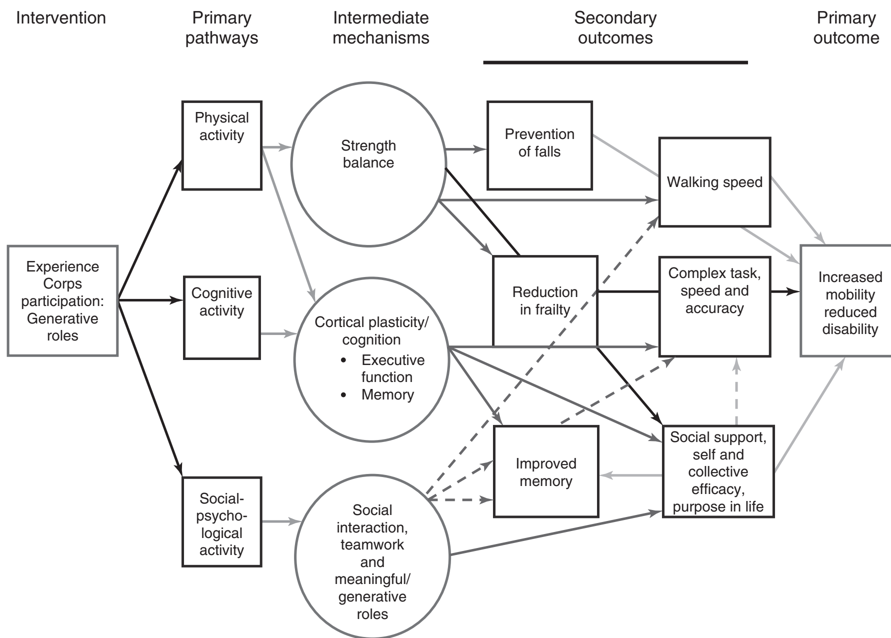

Figure 8.1. Hypothesized Causal Pathway of the Experience Corps: Baltimore Program Effects on Physical, Cognitive, and Social Health in Older Adults. From Fried et al. (2004). With kind permission from Springer Science+Business Media.

to non-Experience Corps peers) will demonstrate improved physical (e.g., greater strength and balance, reduced number of falls, faster walking speed, and decreased frailty leading to improved mobility/instrumental activities of daily living functioning), cognitive (e.g., memory, executive function, speed of processing), social (e.g., increased social interaction/integration, decrease in loneliness), and psychological (e.g., increased feelings of generativity and usefulness, enhanced personal and collective efficacy, a greater sense of purpose in life and personal growth, more positive views and expectations of aging, greater perceived quality of life, and lower levels of depression) benefits from participation in the Experience Corps program (Fried et al., 2004, 2013). At the same time we designed the program to bring the social capital of older adults to serve in impactful roles to improve children's school success.

We expected benefits to accrue to the children and schools participating in the Experience Corps program (Figure 8.2). Specifically, we hypothesized that (a) older volunteers serving in this specific model of senior

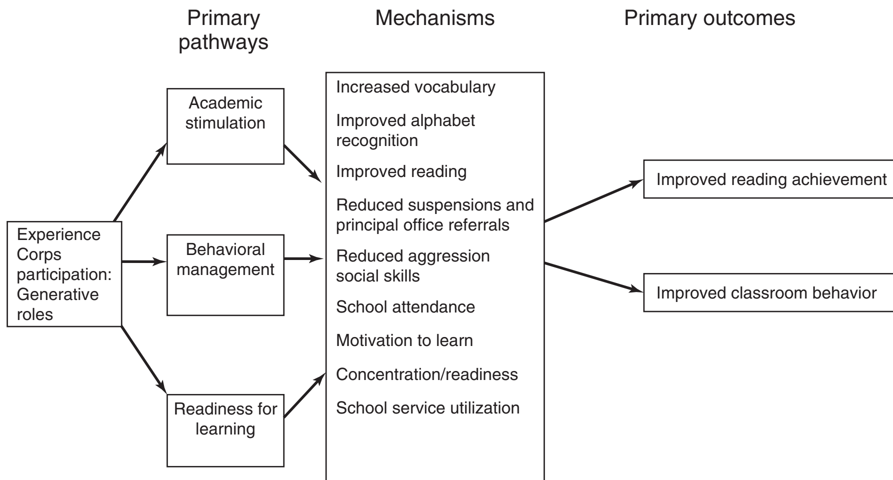

Figure 8.2. Hypothesized Causal Pathway of the Experience Corps: Baltimore Program Effects on Reading Achievement and Classroom Behavior in Children. From Rebok et al. (2004). With kind permission from Springer Science+Business Media.

volunteering (i.e., engaged in a high-intensity service program which trains volunteers in roles designed to impact children's academic success and places them in a critical mass in public elementary schools) could have significant impact on academic success of children in kindergarten through third grade (Freedman & Fried, 1999; Fried et al., 2004, 2013; Glass et al., 2004; Rebok et al., 2004); (b) schools receiving Experience Corps would demonstrate significant and meaningful improvements in children's reading/academic achievement measured by standardized achievement tests, as well as improvements in classroom behavior, compared to control schools. Secondarily, we hypothesized that (c) a critical mass of volunteers serving with a high-intensity time commitment would positively affect school climate, teacher retention, and teacher absenteeism.

National Demonstrations of the Experience Corps Model

In 1996–1998, the Experience Corps model was implemented in a national demonstration by the National Senior Service Program (NSSP) of the Corporation for National Service, evaluating feasibility and roles for older adults in five U.S. cities (two schools per city). The theorized, previously described

model was deemed highly successful by schools, teachers, volunteers, and the funder (Freedman & Fried, 1999; Fried et al., 1997). Specific observations included the following: (a) Older adults could be recruited to this high intensity model, with retention rates through the year of 70%. (b) The idea of "critical mass" was seen as important to impacting outcomes and affecting school climate for whole grades and entire schools and in changing the culture of the schools. (c) To be able to recruit volunteers for this high-intensity commitment it was essential to offer an incentive stipend of approximately $150–200 per month; this stipend provided reimbursement for the expenses of volunteering, critical to many older adults living on fixed incomes, and offered a metric of high valuation of their roles as volunteers. (d) Principals and teachers reported substantial changes in their attitudes toward older volunteers, and became positive about the volunteers' roles in the school.

A second U.S. demonstration was funded from 1998 to 2001, expanding into nine cities, and focusing on refining the literacy support program within the Experience Corps. The Experience Corps was operating in 19 cities across the United States in 2012. Hong and Morrow-Howell (2010) recently reported results from a quasi-experimental study of multiple sites around the country in which Experience Corps volunteers and a matched comparison group from the Health and Retirement Study (Fonda & Herzog, 2004) were compared. The results showed that after 2 years of participation in the Experience Corps program, participants had significantly reduced depressive symptoms and functional limitations. There was also a trend toward less decline in self-rated health among Experience Corps participants.

Findings from the Experience Corps Pilot Trial

After completing the Experience Corps design, our team conducted a successful pilot study involving six public elementary schools in Baltimore, Maryland to further demonstrate the feasibility of conducting an RCT, providing preliminary evidence of benefit for children and schools, as well as older adults (see Carlson et al., 2008; Frick et al., 2004; Fried et al., 2004, 2013; Glass et al., 2004; Rebok et al., 2004). During this pilot trial, 148 men and women, aged 60 years and older, were recruited and randomly assigned to serve in Experience Corps (or to a wait-list/no-contact control group). After randomization, 70 volunteers were trained and placed in teams of about 15–20 individuals (critical mass) in each school into

the Baltimore City public schools, randomly selected from six volunteering schools. On average, volunteers committed 22 hr per week engaged in activities designed to meet the needs of the school (Fried et al., 2004). For the older adults, follow-up evaluations were conducted approximately 4–8 months after randomization to examine the short-term impact on cognitive, physical, social, and psychological outcomes. Fried and colleagues (2004) found changes in the activity in targeted risk factors for those engaged in the Experience Corps program, relative to wait-list controls. For example, those in the program decreased their hours of TV watching, whereas the controls increased this activity ($p = .02$). Further, volunteers reported that they were more physically active and demonstrated less decline in walking speed and reported greater strength and a greater decrease in falls and cane use rates in the intervention group compared to controls, although these differences were not statistically significant. The intervention group also reported significant increases in the number of people to whom they could turn to for help (compared to a decline among controls).

In another small, randomized pilot study on which this project is based (Carlson et al., 2009), eight Experience Corps volunteers were matched to nine controls, and were assessed with functional magnetic resonance imaging (fMRI) and executive functioning measures of attentional control and inhibition at the beginning and at the end of the school year. Results showed positive changes in neural activation patterns that paralleled changes in improvements in executive inhibitory ability. These pilot results provide important data supporting neural plasticity and the potential of activity-based interventions to improve health and function and to increase plasticity in regions of the brain supporting executive functioning (Carlson et al., 2009).

With regard to child and school outcomes, preliminary findings in the pilot trial also suggested an impact on academic and behavioral performance (see Rebok et al., 2004). For example, third-grade children exposed to the Experience Corps program demonstrated higher standardized reading achievement scores as compared to children in the control schools. There were also notable differences between children exposed and those not exposed to the Experience Corps program on behavioral indices of school performance. Within Experience Corps schools, Rebok and colleagues (2004) found a substantial reduction in the number of referrals to the principal's office for behavioral issues; whereas similar reductions in office referrals were not reported by the principals of the three control schools. Further, there is preliminary support for the role of Experience Corps

volunteers in improving retention of teachers in public schools (Martinez, Frick, Kim, & Fried, 2010).

Together, these preliminary findings suggest the potential for the Experience Corps program to improve the health and wellbeing of an aging population and offer initial evidence of benefits to the academic and behavioral improvements for children in public elementary schools.

Experience Corps Randomized Trial

Building on encouraging findings from the pilot trial, we conducted a 5-year (2006–2011) randomized, controlled effectiveness trial of the Experience Corps program in Baltimore City. Older adults ($n = 702$) were recruited and enrolled in the Experience Corps trial, based on interest and eligibility requirements, including age (60 years and older); commitment to volunteer in a school 15 or more hours per week for a full academic year; demonstration of functionally literacy at or above sixth-grade level (by Wide Range Achievement Test, fourth edition; Wilkinson & Robertson, 2006) and cognitive function adequate to assist teachers and children effectively (based on Mini-Mental State Exam cutoff score of $\geq$ 24; Folstein, Folstein, & McHugh, 1975). If eligible, volunteers completed baseline evaluations and were subsequently randomized to either the Experience Corps program or to a control arm, which offered referral to the Baltimore City Commission on Aging and Retirement Education which organizes lower intensity volunteering opportunities for older adults. Individuals in the control arm were also placed on a wait-list for later participation in the Experience Corps program (i.e., after the RCT ended). Both the intervention and control groups were evaluated at baseline and at 4, 8, 12, 16, 20, and 24 months post enrollment.

Currently, intention-to-treat analyses are being conducted to test the effects of the Experience Corps program intervention on physical, cognitive, social, and psychological outcomes; academic and behavioral outcomes of children, impact on schools; and exploring the policy implications using Experience Corps as an intergenerational model for community-based intervention. Hypothesized benefits for the older adults, children, and schools are presented in Table 8.2. Policy implications for improving wellbeing, increasing post-retirement productivity, and as a model to promote human capital development through role performance and lifelong learning also will be examined.

Table 8.2. Hypothesized Benefits of Experience Corps Program Participation for Older Volunteers, Children, and Schools.

	Domain	Hypothesized benefits
Older volunteers	Cognitive	↑Memory, executive functioning, and speed of processing
	Social	↑Social interaction and integration
		↑Provision and receipt of social support
		↓Loneliness
	Physical	↑Mobility/IADL functioning
		↑Strength and balance
		↑Walking speed
		↓Number of falls
		↓Frailty
	Psychological	↑Feelings of generativity and usefulness
		↑Personal and collective efficacy
		↑Sense of purpose in life and personal growth
		↑Positive views and expectations of aging
		↑Perceived quality of life
		↓Levels of depression
Children	Academic	↑Standardized reading and math achievement
		↑School attendance
		↑Readiness for learning
		↓Retention in grade
	Behavior	↓Principal office referrals
		↓Suspensions and expulsions
Schools	Environment	↑Favorable school climate
		↑Teacher retention
		↓Teacher absenteeism

How the Experience Corps Program Addresses Improved Wellbeing

Experience Corps volunteer service provides several opportunities for productive engagement in the retirement years. The intent and design seeks to offer opportunities for older adults aligned with Erik Erikson's notion of generativity, defined as the expansion of care beyond oneself, toward others, and transferring knowledge and wisdom to younger generations (Erikson,

1982; McAdams & de St. Aubin, 1992). In fact, volunteers reported that fulfillment of generative desire (e.g., to "make a difference" for children) was one of the top reasons they decided to commit to the Experience Corps program (Tan et al., 2010). In turn, remaining actively engaged may enhance a sense of purpose in life, personal growth, mastery, and belongingness, which, as previously reviewed, may promote better mental, physical, social, and cognitive wellbeing (McNamara & Gonzalez, 2011).

Policy Implications

Policy makers faced with increasing calls for smaller government and competing demands for limited resources need to justify to their constituencies funding a program like Experience Corps. Several points facilitate this justification: (a) the program's immediately usable, turnkey nature now that it is supported by AARP, (b) the intergenerational benefits, (c) more efficient use of public dollars in public schools to improve academic achievement, (d) potential benefits to strengthen the school climate and teacher retention, and (e) the lifelong benefits for the older adult volunteers. AARP Experience Corps has evolved with a clear plan for integrating older adults into the classroom and broader school setting; the program is essentially ready to implement and can be adopted by districts with some initial investment and commitment to some continued funding to recruit, manage, and support volunteers but without a need to bear the costs of developing roles that have been created during the program's evolution. Another likely resource requirement for Experience Corps is a degree of partnership between school districts and local nonprofit organizations to improve the efficiency and reach of the program's benefits. This is essential to sustain the program, as many school districts are not staffed or funded to recruit, manage, and support a large number of volunteers. The local partner will need to recruit and manage the critical mass of volunteers who, when placed in each school, will make their presence felt and change each school's academic and social environment (Tan et al., 2010).

Historically, program adoption has not required each program to be budget neutral or cost saving. Funds for the program may come from schools, districts, local foundations, national organizations like AARP, or the federal government. Not every level of government or organization will see a return on the "bottom line," but broader payoffs should be considered. The immediate benefits of AARP Experience Corps for both children and

older adults help to justify the program despite a delay in accruing the large, long-term financial benefits of better educational attainment for children in adulthood that could accrue from higher earnings and greater contributions to society (Frick et al., 2004, 2012). However, the potential delay in long-term benefits for both groups is not inconsistent with the general purpose of public education: invest now to educate the next generation. The many layers and facets of benefits from Experience Corps suggest the program will be easier to make part of a budget neutral package or that the investment of new resources will be considered worthwhile.

The benefits of the program may result in a more efficient use of public resources as older adults in the classroom can increase the productivity of teachers by allowing them to concentrate more on their teaching and less on discipline and the need to redirect inattentive students (Martinez et al., 2010). However, not every combination of older adults and teachers will work together well, and in these cases additional training may be required. However, with appropriate coordination and management, the program can lead to an improved sense of efficacy for teachers, real increases in learning in the classroom, and reduced absenteeism and turnover (Fried et al., 2013). The program can also improve the overall climate of the school and provide a more orderly and conducive atmosphere for learning and improved behavior (Rebok et al., 2004).

Finally, the older adults maintain and even further develop human capital as a result of their participation. They generally make an initial, annual commitment to volunteering in the schools. However, volunteers often seek to remain for multiple years. Based on our preliminary results, this incremental human capital improvement from participating in AARP Experience Corps should help to keep them healthier longer and should help them conduct other tasks more efficiently. Thus, the combination of the relatively easy, low-cost program initiation, the diversity of benefits that will be attractive to multiple stakeholders, the increased efficiency of public dollars being spent, and the long-term human capital development for older adults makes the case for this type of program as clear as possible.

Conclusions and Future Directions

There is growing interest in the potential of intergenerational intervention programs for improving the health and wellbeing of individuals across the life course. The current interest in intergenerational initiatives can be seen in

the Experience Corps having recently joined forces with AARP, the nation's largest organization for Americans aged 50 years and older. As part of the AARP, Experience Corps is expected to have new potential to extend the program to new cohorts of older adults and reach larger numbers of children in public schools nationwide.

To be effective, intergenerational programs for volunteering by older adults will require a substantial investment in the infrastructure required for training, volunteer support, human resources administration, and ongoing sustainability. To make volunteer programs financially viable for all retired older adults, substantial community and government support in the forms of stipends and financial incentives also will be required. Intergenerational volunteer programs like Experience Corps represent an important intervention in the effort to increase the physical, cognitive, social, and psychological wellbeing of older adults. AARP Experience Corps represents a viable and innovative model for retirement that supports a more active and engaged lifestyle for older adults that also benefits children, schools, and the broader community.

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9

Enhancing Mental Health and Mental Wellbeing in Older People

Important Concepts and Effective Psychosocial Interventions

Anna K. Forsman
National Institute for Health and Welfare (THL), Finland and Nordic School of Public Health NHV, Sweden

Eija Stengård
Pirkanmaa Hospital District and Tampere University Hospital, Finland and National Institute for Health and Welfare (THL), Finland

Kristian Wahlbeck
National Institute for Health and Welfare (THL), Finland

Introduction

Worldwide, around 10% of the population is above 60 years of age, and by 2050 this proportion is expected to have doubled (UN Department of Economic and Social Affairs, 2002). Europe is an illustrative example of this trend of a progressively aging population: 17.4% of the total population (around 87 million people) was aged 65 or over in the European Union in

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2010, which is an increase of nearly 50% in 25 years (Eurostat, 2011a). In addition, the age group of 80 and over is increasing most rapidly in Europe (Eurostat, 2011b).

The change in the dependency ratio is due to a constant increase in life expectancy across the European countries during the last century, at the same time as the fertility rates have decreased during the last decades. These two factors impact upon the steady process of demographic aging, where the absolute number and the relative importance of the older population continue to grow.

The demographic changes will lead to significant advantages as well as challenges on all levels of society: on individual level, and on collective level (communities and society as a whole). For the individual, the increased longevity and the increased number of healthy years in old age will result in both advantages and challenges that are related to an extended retirement period or working career, as well as to prolonged intergenerational interaction and relationships. On the other hand, the changes also impact on society level, with the aging of the population having important implications for public policies and budgets. The demographic changes will impact, for instance, on labor and product markets, with a decreasing number of working age people, as well as a need to adjust the working life to an aging labor force (i.e., prolonged working careers). It is also important to notice the increased strains on the social security and pension systems, not to mention the likely need for increased numbers of and higher demands on trained health-care professionals and health-care services.

Mental Health in Older People

Many of the definitions used for describing mental health and mental wellbeing emphasize positive functioning (i.e., physical, emotional, social and psychological function; see, for example, Keyes, 2003, 2005; Lahtinen, Lehtinen, Riikonen, & Ahonen, 1999). The functional model of mental health (Lahtinen et al., 1999) describes mental health as a foundation for experienced mental wellbeing and effective functioning in individuals. Further, mental wellbeing is viewed as part of a process, where positive functioning and social interaction in various social contexts are emphasized for their important impact on mental health and wellbeing in all ages. According to the functional model, mental health and wellbeing are defined as a balanced interaction between the individuals and their environment.

The model also stresses that mental health is influenced by numerous factors on both individual and societal level (e.g., functional level of the individual, social networks and support, and political strategies and cultural values in society).

The definitions of mental health and mental wellbeing can be applied across the life span, but some factors are pointed out as being especially relevant to older people's mental health. For example, mental health of older adults is associated with a positive and active aging, where older adults can remain in control over the health determinants and make their own lifestyle choices (Cattan & Tilford, 2006). On the other hand, evident risk factors for mental ill-health among older people are the loss of social roles (e.g., retirement), changes in lifestyle, and physiological and cognitive decline related to the aging process (Cattan & Tilford, 2006). This chapter focuses on the mental health of older people aged 65 years or older, who are either community-dwelling or living in an institutional setting. Moreover, it uses a theoretical framework which represents the holistic viewpoint; where the psychosocial predictors of mental health are taken into account; and where the importance of positive social and psychological functioning is emphasized.

Older people themselves have identified several key factors that promote mental health and wellbeing in later life. For many older people family is the most important factor in promoting positive mental health (NHS Health Scotland, 2004). Having positive attitudes such as a sense of value, being open and tolerant of new ways of doing things, and being willing to learn can contribute to wellbeing. Preserved physical, mental, and social activity and interaction with others are seen as essential to maintaining mental health. In addition, retaining independence and choice in retirement and accommodation are important for promoting wellbeing (NHS Health Scotland, 2004).

The Concepts of Promotion and Prevention in Mental Health

Maintained good health and wellbeing among the older population is increasingly important, enabling people to live a full life and to participate in society for longer (Jané-Llopis & Gabilondo, 2008). The promotion of mental health and mental wellbeing, as well as mental disorder prevention in older adults need to be prioritized at all levels of society; given the evidenced benefits on the individual level related to healthy aging and increased experienced wellbeing (Cattan, 2009); as well as the benefits on the society

level in terms of decreased burden of disability and related costs (Smit, Ederveen, Cuijpers, Deeg, & Beekman, 2006). This chapter is meant to add to the limited knowledge base on the large potentials of nonpharmacological initiatives aiming to enhance mental health and wellbeing in later life.

Mental health promotion has an important role in ensuring healthy aging, enabling older people to remain active and independent (Cattan, 2009). The overall objective of mental health promotion is to strengthen and maintain the environmental, social, and individual factors that determine mental health, reaching the target group on macro (societal), meso (community), and micro (individual) levels of society (Lahtinen et al., 1999).

Social participation and action to strengthen people's capabilities are important principles of mental health promotion. Mental health promotion interventions focus on mental health resources and aim to enable optimal health and development among older adults (Cattan & Tilford, 2006; Jané-Llopis, Katschnig, McDaid, & Wahlbeck, 2007). Mental health promotion is a universal approach that requires broad participation and involvement. It consists of actions to address the wide range of determinants of health (WHO, 1998). The interventions can be applied at population, subpopulation, and individual levels, and across settings (Cattan & Tilford, 2006). Interventions with the focus on mental health promotion are theoretically intended to enable optimal mental health by recruiting and enhancing existing mental health resources of the older adults.

In contrast, interventions with a mental disorder prevention approach aim at reducing incidence, prevalence, and reoccurrence of mental disorders (WHO, 2004). These types of interventions thus take into consideration the risk factors for mental ill-health that are commonly experienced in old age. Interventions with a universal prevention approach are designed aiming to avoid evidenced risk factors of the incidence of mental disorders (Jané-Llopis et al., 2007; WHO, 2004). These universal interventions target a larger population that has not been identified as being at greater risk for the occurrence of mental disorders. Selective prevention is usually applied if the interventions are targeting certain evidenced risk groups not yet showing clinical symptoms for a mental disorder. Indicated prevention encompasses intervention approaches that target a population showing minimal but detectable symptoms or a predisposition for a mental disorder, but not meeting the diagnostic criteria.

The terms *promotion* and *prevention* are understood as synonymous concepts by some people, with both terms stressing the improvement and maintenance of health, whereas others see them as contrasting concepts as

outlined above, representing different perspectives of public health work (Jané-Llopis et al., 2007; WHO, 2005). Similarly, the interdisciplinary concept of mental health promotion can be viewed from different perspectives (Barry & Jenkins, 2007; Cattan & Tilford, 2006). On one hand, it can be exclusively regarded as the promotion of positive mental health, aiming to achieve positive mental health by improving the social, physical, and economic environments that determine mental health. On the other hand, mental health promotion can be seen as primary, secondary, or tertiary prevention of mental ill-health with the main focus to decrease the occurrence, prevalence, and reoccurrence of mental disorders (WHO, 2004). In this case, it primarily targets risk and protective factors for mental ill-health. These contradicting and in some cases overlapping definitions of the promotion and prevention concepts may be related to the variety of concepts and definitions used for mental health and wellbeing.

Nevertheless, the mental health promotion concept can be defined as encompassing both positive mental health promotion and disorder prevention (Barry & Jenkins, 2007; Jané-Llopis et al., 2007). This latter definition is used as the theoretical framework of this chapter, looking at mental health promotion and mental ill-health prevention as two separate theoretical concepts, yet in practice closely entwined in the mental health promotion work.

The Concept of Healthy Aging

The concept of *healthy aging* or *active aging* has been frequently used in the debates on how to tackle the challenges of an increasing proportion of older people in society. In line with the complex definitions of health and wellbeing, the multidimensional concept of healthy aging encompasses components such as physical health with low risk of disease and disability, mental health and wellbeing, as well as social aspects and active engagement in life.

Active aging is defined by the World Health Organization (WHO) as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age." This definition includes extending the activity of older persons, both within the labor force through delaying retirement, and within society through social participation (Eurostat, 2011a).

Healthy aging or successful aging has further been defined as the development and maintenance of optimal mental, social, and physical wellbeing and capacity in older people (Bowling & Iliffe, 2011; Hansen-Kyle, 2005). This

is enabled by promoting a healthy lifestyle (Hansen-Kyle, 2005; Sarkisian, Hays, & Mangione, 2002). Maintaining active roles, engagement, and control over one's life can also be related to the principles of the activity theory (Burbank, 1986; Lemon, Bengtson, & Peterson, 1972), although the concept of healthy aging is broader, encompassing other aspects than the psychosocial roles and functions.

The psychological aspects of healthy aging, however, have not received as much attention as the physical aspects in previous research (Bowling & Iliffe, 2011; Depp & Jeste, 2006). Important psychological aspects related to healthy aging include mastery, self-efficacy, and resilience (Bowling & Iliffe, 2011; Lamond et al., 2008). The connection between consistent social networks and other social aspects and healthy aging has also been identified (Montross et al., 2006).

According to the model of healthy aging, it is necessary for older people to have an active role in maintaining physical and mental health and optimizing their capacity as much as possible until the end of life (Sarkisian et al., 2002). Depressive symptoms have a significant negative impact on various aspects included in the term healthy aging, such as physical and emotional functioning, optimism, attitudes towards aging, sense of mastery, and self-efficacy (Vahia et al., 2010).

The European Roadmap for Ageing Research (Futurage) was launched in late 2011, pointing out priority themes for the future aging research. This document highlights healthy aging as one of the core themes that needs to be addressed and aimed for in research in order to increase the healthy life expectancy among older people: "Healthy ageing for more life in years" (Futurage, 2011). These statements reflect a research and policy shift from the aim of decreased mortality to the aim of active and healthy aging. The roadmap also emphasizes several important principles that are connected both to the healthy aging concept and to maintained social roles and engagement in society, such as increased user involvement in research and its implementation (Futurage, 2011). In line with these principles, 2012 was designated as the European Year for Active Ageing and Solidarity between Generations (European Commission 2012; Eurostat, 2011a). This initiative reflected the idea of active aging, promoting that older adults have the right to fully participate in the activities of their community and in society and to obtain support for independent living. It also highlighted the importance of cooperation and interaction between people of different ages.

Within this context, it is important to look beyond basic measures of demographic change, such as the increased proportion of older people

within the total population or the increased life expectancy. Instead, it is essential to supplement this perspective with a focus on determinants that measure how older people are enabled to participate in society and to lead an active retirement characterized with experienced mental wellbeing.

Mental Health and Mental Wellbeing Among Older People: Social Determinants

Overview: The Concept and Theories of Social Capital

The term social capital is often used as an umbrella term, the key components of the concept being social networks, social participation, reciprocity, and trust (Almedom, 2005; Baron, Field, & Schuller, 2000). The concept of social capital is comprehensive, encompassing several directions, levels, and aspects. For example, social capital is often divided into two main aspects: structural social capital referring to behavioral aspects of social networks, and cognitive social capital referring to perceptual aspects (Islam, Merlo, Kawachi, Lindström, & Gerdtham, 2006; van Deth, 2008). Social support, sense of belonging, and trust are often considered as the most important components of the cognitive social capital, whereas the main structural components are social networks and social participation (e.g., voluntary association activities). The social capital concept can also be defined according to the direction of the social ties (bonding, bridging, and linking social capital) or according to the level at which the social capital is operationalized (individual, community, or society level; Putnam, 2000).

Although the origin of the social capital term dates back to the nineteenth century, the concept was made popular a century later through the work of Pierre Bourdieu, James Coleman, and Robert Putnam. Social capital as a theoretical concept was introduced into sociology (Bourdieu, 1986; Coleman, 1988, 1990) and political science (Putnam, 1993) in the 1980s and early 1990s. Since then, the theoretical framework of social capital has become widespread and progressively applied in research studying the psychosocial aspects of health and wellbeing among general populations or specific age groups (Kawachi, Subramanian, & Kim, 2008; Nyqvist, 2009).

Putnam (1993) defines social capital as networks, norms, and trust that facilitate cooperation for mutual benefits within social organizations or communities. According to this view, social capital is developed, used, and given value by the interaction between individuals (Putnam, 2000). In line

with Putnam's perspective, social capital can be divided into bonding (informal close ties among groups with homogenous characteristics, e.g., close friends) and bridging social capital (formal connections among heterogeneous groups, e.g., association organizations). Woolcock (2001) adds to this by defining linking social capital (i.e., connections between groups with dissimilar status). According to Putnam's framework, social capital is viewed mainly as a collective concept, often measured by social networks and participation, trust and social cohesion in a neighborhood or community (Putnam, 2000). Putnam's theoretical framework of social capital has frequently been cited within public health research (Kawachi, Subramanian, & Kim, 2008).

The Evidenced Connection Between Mental Health and Social Capital Among Older Adults

Important aspects of the structural social capital concept such as social networks (Forte, 2009; Litwin, 2001) and social participation (i.e., in social activities and voluntary organizations at the community level (Forte, 2009; Li & Ferraro, 2006) are key mental health resources among older people. Likewise, previous studies have recognized the positive impact of cognitive aspects of both individual-level and collective-level social capital on mental health in general populations (Almedom, 2005; De Silva, McKenzie, Harpham, & Huttly, 2005). For example, Nyqvist, Finnäs Jakobsson, and Koskinen (2008) have found positive correlations between experienced interpersonal trust and sense of security and mental health in a general population in a Nordic context. Among older adults specifically, recent studies have looked at the association between depression and psychological distress and social capital at the individual level and collective level. Forsman and colleagues found a significant association in old age with both cognitive aspects (Forsman, Nyqvist, Schierenbeck, Gustafson, & Wahlbeck, 2012; Forsman, Nyqvist, & Wahlbeck, 2011) and structural aspects (Forsman et al., 2012). These research findings imply that both the quantity (i.e., the frequency of contact) and quality (i.e., how the contact is perceived) of interpersonal relationships are significantly related to mental health in older people.

Hence, both individual and collective aspects of social capital and their correlations with mental health and ill-health have been measured in previous research across ages (Almedom 2005; De Silva et al., 2005; McKenzie & Harpham, 2006). Nonetheless, within this growing body of research identifying a positive association between social capital and mental health there is a

lack of prospective observational studies looking at social capital and mental health among older adults explicitly (Almedom 2005; De Silva et al., 2005). For example, in a literature review on the connection between mental health and individual-level and collective-level social capital (Almedom, 2005) only one single study was included that targeted older adults (Cotterill & Taylor, 2001). Moreover, another literature review analysing studies on the connection between mental ill-health (e.g., depressive disorders) and social capital (De Silva et al., 2005) did not include any studies that focused on older adults explicitly. Thus, these reviews clearly demonstrate the limited research on the connection between mental health and social capital among older adults.

Psychosocial Interventions: Enhancing Mental Health in Later Life

Literature Review and Evaluation of Intervention Effects

Methods.

A systematic review and meta-analysis was conducted to evaluate psychosocial interventions for mental health promotion and primary prevention of depressive disorders among older adults aged 65 years or over (Forsman, Nordmyr, & Wahlbeck, 2011). Psychosocial interventions were defined as any intervention that emphasizes psychological or social factors rather than biological factors (Ruddy & House, 2005). This definition included various forms of psychological therapies and health education, as well as interventions with a focus on social aspects, such as social support and networking. Interventions with a physical exercise content was also included in the review, as long as the focus lay on the connection between improved physiological condition and increased mental health among the intervention participants. Additionally, several of the physical exercise interventions evaluated contained social elements as they were group-based and thus contributed to the evidence base of psychosocial interventions. Nevertheless, it is important to note that the broad definition led to the inclusion of many different interventions that were grouped together for the meta-analysis. However, the heterogeneity level (I^2) in all intervention versus no intervention comparisons was on an acceptable level, enabling an adequate meta-analysis. In parallel with performing an overall meta-analysis, the effectiveness of six different types of psychosocial interventions was also analyzed separately.

Eleven electronic databases (AgeLine, ASSIA, CENTRAL, CINAHL, Embase, Medline, OpenSIGLE, Sociological Abstracts, Social Services Abstracts, PsycINFO, and Web of Science) were searched for eligible studies up until September 2010, using a wide range of relevant search terms. This selection of databases was chosen to make this an interdisciplinary approach (e.g., medical, sociological, and psychological disciplines).

Only prospective controlled studies were considered for the systematic review. The trials had to be replicable and to encompass a control condition—either care as usual, waiting list, or no intervention—to be eligible for the review. The evaluated psychosocial interventions targeted the general older adult population aged 65 years and over, as well as older people at risk for mental ill-health, but did not include those who, at the time for enrollment, fulfilled the diagnostic criteria for a mental disorder (such as a depressive disorder according to ICD-10 or DSM-IV or according to rating scales if ICD or DSM criteria not used). Hence, all trials of secondary and tertiary preventive interventions, relapse prevention, and pharmacological interventions were excluded from the review.

The inclusion criteria of the review study contributed to a review applying a wide search approach in order to find as many studies as possible from the body of literature. In the manual study screening and selection phase, effort was made to make sure that the main focus lay on mental health promotion or primary prevention of depressive symptoms and disorders among older adults. The inclusion criteria and the procedure of data selection and the calculation of effect sizes for the meta-analysis have been described in detail elsewhere (Forsman, Nordmyr, & Wahlbeck, 2011).

Measured outcomes.

The outcome measures considered in the review were as follows.

1. Functional level: e.g., various Activities of Daily Living measures and Barthel Index (Mahoney & Barthel, 1965).
2. Quality of life: e.g., Short Form-36 Health Survey (Hays, Sherbourne, & Mazel, 1993).
3. Life satisfaction: e.g., Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), Life Satisfaction Index-A (Neugarten, Havighurst, & Tobin, 1961).
4. Cost-effectiveness of the interventions: e.g., financial cost comparisons.
5. Acceptability of intervention: total attrition rates or attrition due to adverse effects.

6. Mental health determinants: Positive mental health; e.g., the Philadelphia Geriatric Morale Scale (Lawton, 1975), self-esteem, e.g., Rosenberg Self Esteem Scale (Rosenberg, 1965), and self-efficacy, measured by the General Self-efficacy Scale (Schwarzer & Jerusalem, 1995); and social capital: social network, e.g., UCLA Loneliness Scale (Russell, 1996) and social support, e.g., Social Support Questionnaire (Sarason, Levine, Basham, & Sarason, 1983).
7. The occurrence of depressive symptoms, as measured by depression rating scales, such as the Geriatric Depression Scale (Brink et al., 1982) and Zung Self-Rating Depression Scale (Zung, 1965).
8. Incidence of major depression as defined by DSM-IV or ICD-10, or diagnostic cut-off points on depression rating scales.

The outcomes were recorded immediately after the intervention or at end of follow-up.

The Overall Effects of Psychosocial Interventions

The searches yielded 5,023 hits (including duplicates from different databases). The final number of included studies was narrowed to 69 through the screening and selection process. Forty-four trials contributed with data to efficacy estimates in the meta-analysis, which is described in detail elsewhere (Forsman, Nordmyr, & Wahlbeck, 2011).

The mean age of the pooled trial participants was 78 years. The majority of participants were women in studies reporting gender proportions. The participants of 15 trials lived in nursing homes or other institutions and 32 trials included older adults who lived independently, in senior communities or who received home health services. Twenty-two of the studies did not clearly state the living situation of the participants. Out of the 69 included studies, 13 were nonrandomized controlled studies, whereas the other 56 studies had a randomized controlled design. Seventeen of the trials were implemented in Europe and the 52 remaining trials were non-European, the majority being studies from the United States.

Three types of intervention approaches (WHO, 2004) were distinguished among the trials: mental health promotion or universal prevention (e.g., general health education) targeting healthy older adults and aiming to enhance mental health and active aging (34 trials); selective prevention, targeting older people in high-risk groups not suffering from depression

or other mental disorders (32 trials) and indicated prevention directed at people with subclinical symptoms of depression (3 trials).

Compared with no-intervention controls, an overall small statistically significant improvement was found for quality of life, measured by, for example, the Short Form-36 Health Survey [14 trials, standardized mean difference (SMD): −0.19, 95% confidence interval (CI) (−0.34, −0.05)]. Positive mental health also showed a small statistically significant improvement [nine trials, −0.24, 95% CI (−0.47, 0.00)], measured by for example the Philadelphia Geriatric Morale Scale. Moreover, the evaluated psychosocial interventions had a statistically significant pooled effect on depressive symptoms [17 trials, SMD: −0.17, 95% CI (−0.31, −0.03)] compared to no-intervention controls. However, looking at the pooled results for the other measured outcomes, no statistically significant effects could be found.

Intervention Categories

The interventions evaluated in the review were categorized into one of the following six groups.

Physical exercise.

The group of physical exercise interventions involved individual or group physical exercise of various kinds (e.g., aerobic, yoga, or tai chi classes targeting general older populations, as well as specific physical activity training programs targeting frail older adults). Twenty-one of the trials were categorized into this group and nine out of these were included in the meta-analysis measuring the effect size of physical exercise compared with no-intervention controls. Six exercise interventions were compared with another intervention.

When analyzing types of interventions separately, physical exercise interventions showed no statistically significant pooled effects on the depression outcome, quality of life, or functional level. The achieved power in the positive mental health outcome analysis was inadequate for effect analysis. Further, no eligible data was available for life satisfaction, costs, and dichotomous depression outcomes. In a single trial, a statistically significant social capital benefit (i.e., improved individual social support) was reported. The intervention in this trial (Lee, Lee, & Woo, 2009) consisted of a 26-week tai chi program with 1-hr sessions three times a week. There could be several explanations as to why no significant mental health effects were found for physical exercise. For example, many of the evaluated studies were small,

which resulted in a lack of power in the effectiveness estimate calculations. In addition, the high mean age of the study participants should also be noted in the interpretation of the results, keeping in mind that the older age groups contain individuals who generally suffer from more physical limitations than younger older adults and therefore might benefit less from physical exercise interventions.

Skill training interventions.

The skill training category contained various interventions with educational components or with the aim of developing cognitive skills or everyday life management strategies. For example, a few memory training programs were included, as well as mindfulness training and training in the use of Internet. This category consisted of 12 trials, out of which 10 were included in the meta-analysis, all comparing skill training with no intervention control conditions. A statistically significant effect could be found on the positive mental health outcome [two trials, SMD: −0.55, 95% CI (−1.07, −0.04)]. One of these trials (Goldstein et al., 1997) consisted of playing video games, 5 or more hours per week for 5 weeks. Another trial (Winocur et al., 2007) reported improved locus of control in a 14-week cognitive rehabilitation program involving memory skills training, goal management training, psychosocial training, and individual discussions.

However, skill training interventions had no statistically significant effect on quality of life or depressive symptoms. Two trials within this intervention category reported incidence of depressive disorders. No statistically significant effect could be evidenced. No usable data were available for social capital, functional level, costs, or life satisfaction outcomes.

The aim with the skill training intervention category was to evaluate separately the effect of psychosocial programs that specifically regarded cognitive skills as a mental health resource among older adults. It should be underlined, however, that the wide spectra of intervention contents within this intervention category may have complicated the efficacy measurements due to the heterogeneity of the measured intervention type. Further, the studies included were generally small and thus lacked power for adequate effect estimates.

Reminiscence.

Eight trials contained various forms of life reviewing and recalling past events and were classified as reminiscence interventions. Seven trials were

included in the meta-analysis, all of which featured intervention versus no-intervention control category. These interventions showed no statistically significant pooled effect for any of the studied outcomes. Further, the power in the quality of life and functional level analyses was insufficient for effect analysis and no usable data for the outcomes of occurrence of depressive disorder, social capital, or costs was available.

Group support provided to people experiencing loneliness.
Social support in groups was considered within the group support category and only one trial was included in this category (Andersson, 1984). This trial compared the social support intervention to a no-intervention control group but no eligible data was available for the meta-analysis. This intervention consisted of social support groups for older adults living alone and experiencing loneliness. Loneliness was assessed with multiple measurements (e.g., UCLA Loneliness Scale, short version). According to the published report of that study, social support groups designed to strengthen social networks among older people will help to increase social contacts and social activities and they will also decrease feelings of loneliness among older adults at risk for social isolation.

Social activities.
Different types of social activities providing the participants with an active role were allocated to the group of social activity interventions. Out of six trials, four were included in the meta-analysis, all comparing social activities to no intervention. Compared with no intervention, social activities significantly reduced depressive symptoms among the participants [two trials, SMD: −0.41, 95% CI (−0.72, −0.10)]. One study in a nursing home setting (Nijs, de Graaf, Kok, & van Staveren, 2006), where the intervention consisted of arranging family style mealtimes (e.g., mealtimes begin when everyone is seated, residents serve themselves) and the control group received the usual preplated service, resulted in a large improvement in quality of life outcome for the intervention group. The quality of life was measured with a little-used scale, the Dutch Quality of Life of Somatic Nursing Home Residents Questionnaire, and the finding was statistically significant [mean difference: −6.40, 95% CI (−10.38, −2.42)]. One small trial (Yuen, Huang, Burik, & Smith, 2008) reporting life satisfaction showed a large statistically significant improvement in the Life Satisfaction Index-A among participants with a role as voluntary language training mentors [mean difference: −5.30,

95% CI (−10.34, −0.26)]. The participants in this intervention tutored conversational skills to students with English as a second language.

In addition, statistically significant positive mental health benefits [mean difference: −1.02, 95% CI (−2.02, −0.02)] were reported based on the Philadelphia Geriatric Morale Scale score in a single social activity trial (Cohen et al., 2006). This intervention consisted of weekly singing rehearsals and several public performances in a choir with a professional leader during the 30-week intervention period. Another important ingredient in this particular intervention may have been visibility; the participants got to display the creative product of the intervention via public performances. In addition, the social activity intervention of Yuen et al. (2008) considered in the meta-analysis gave the participants in the intervention group a social role and an important task through volunteer activities that reportedly made them feel useful and needed. These social elements might have an important impact on the mental health outcomes evaluated.

Multicomponent interventions.

Twenty-one of the trials contained components from several intervention categories and these were classified as multicomponent interventions. Ten of these studies were included in the meta-analysis for multicomponent interventions versus no-intervention comparisons. One multicomponent intervention reported a significant increase in life satisfaction for the intervention group [mean difference: −1.40, 95% CI (−1.65, −1.15)]. This intervention (Peri et al., 2008) consisted of a multistaged individualized activity intervention based on activities of daily living among nursing home residents over a 6-month period. The participants reported self-chosen goals (e.g., walking to the local shopping center or attending social events) that required increased functional ability in daily life and that they were encouraged to achieve through an individualized activity training program. Another trial within this intervention category evaluating a stepped care intervention program to prevent the onset and prevalence of depressive symptoms and disorders (van't Veer-Tazelaar et al., 2009) reported incidence of depressive disorders (dichotomous data) and showed a statistically significant effect [odds ratio (OR): 0.34, 95% CI (0.13, 0.94)]. This single trial also provided eligible data on cost-effectiveness [mean difference: Euro 532.00, 95% CI (−0.53, 1064.53)]. No statistically significant effect on positive mental health, on quality of life, on functional level, nor on depressive symptoms could be evidenced for this intervention category.

Concluding Remarks

From a public health perspective, the overall effect of psychosocial interventions in the promotion of mental health found in the systematic review is small but promising. Psychosocial interventions are beneficial in mental health promotion and mental ill-health prevention, but further evidence of effectiveness and cost-effectiveness is needed before large-scale implementation.

Our research findings point out that social activities are effective in preventing depression and enhancing mental wellbeing in later life. Based on the findings, meaningful social activities tailored to the older individual's abilities, preferences, and needs should be considered when aiming to promote mental health among older people. Duration of interventions should also be considered in practice, because longer interventions, lasting for longer than 3 months, exhibited positive effects on mental wellbeing and depressive symptoms. These findings should be taken into account and applied in the design and replication of interventions with evidenced positive effects. The heterogeneity within the older population should not only be considered in intervention planning and implementation, but also in the description of the study sample in research reports.

Previous systematic reviews (Cattan, White, Bond, & Learmouth, 2005) and a meta-analysis (Masi, Chen, Hawkley, & Cacioppo, 2010) of psychosocial interventions aiming to increase social contacts and reduce loneliness have evidenced reduced levels of loneliness and improved mental health among intervention participants. The social activity interventions evaluated in the meta-analysis significantly enhanced the four aspects of mental health and wellbeing studied: positive mental health (Cohen et al., 2006), quality of life (Nijs et al., 2006), and life satisfaction (Yuen et al., 2008) were all significantly improved. At the same time, depressive symptoms were reduced (Cohen et al., 2006; Yuen et al., 2008). However, these promising findings are based on few trials and thus need replication. In addition to the trials in this category, several of the studies in other intervention groups contained different forms of social contact and support that could have contributed to the results. For instance, the displayed improvement of life satisfaction in the multicomponent trial group could be partly due to interventions encompassing social components.

A major limitation of the review is the lack of comprehensive reporting of trials, which often lacked information essential for the meta-analysis. Owing

to lack of detailed descriptions of study design and procedures, there were also difficulties in assessing methodological quality and risk of bias. Another limitation is the heterogeneity of trials and the wide range of outcome measurement scales in the trials included in the review. The trials were very different from each other in regard to intervention content, leading to challenges in categorizing the interventions based on their content. The reported heterogeneity levels were, however, acceptable, ranging from 25 to 40% on statistically significant outcomes in the analyses of any psychosocial intervention versus no intervention. Furthermore, to avoid losing sight of the effectiveness of a specific type of intervention by performing an overall meta-analysis only, the effectiveness for each type of psychosocial intervention was analyzed separately.

Nevertheless, the research highlights the potential for effective actions to promote mental health and prevent depression in older people, but it also accentuates the sparseness of high-quality research evidence. Investing in evaluation of measures to promote mental health and prevent depression is a necessity, taking into consideration the magnitude of the problem and the potential benefits to be reached by effective interventions. At this stage, development and evaluation of psychosocial interventions to support the mental health of older people needs to be a research priority. Policy makers need to be aware of the limitations of the current evidence base, and any large-scale implemented program should be carefully evaluated to enrich our common knowledge base on good practice for promotion of mental health and mental ill-health prevention among older people.

To add to the findings from the systematic review described above, a Finnish study based on qualitative data has looked at the mechanisms through which social capital exerts its effects on experienced mental wellbeing in old age. This study aimed to explain why various social activities seem to be effective in promoting mental health (Forsman, Herberts, Nyqvist, Wahlbeck, & Schierenbeck, 2013). According to the findings from this study, collective-level social activities (e.g., membership and/or voluntary activities in formal organizations such as retirement associations) are important for the experienced mental wellbeing in later life because of the sense of belonging that membership of a social group with common aims provides. Furthermore, it is highlighted in this study how important it is to try to maintain the daily life routines and the social network when encountering life-changing events, such as retiring from working life or moving into a nursing home. This can be supported through regular participation in self-chosen social activities. According to the research findings, the social

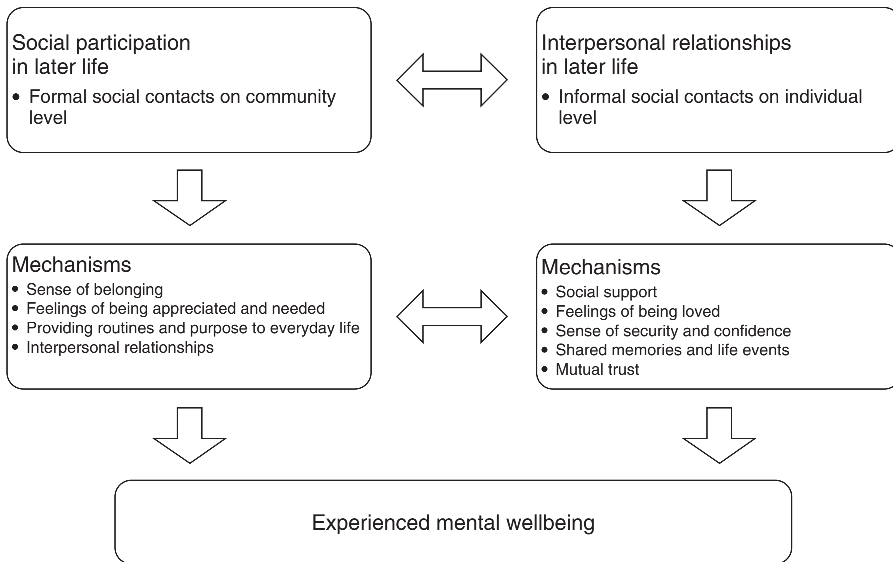

Figure 9.1. The Mechanisms Between Two Levels and Components of Social Capital and the Experienced Mental Wellbeing of Older Adults (Forsman, 2012).

activities also provided something to plan for and look forward to and, therefore, they brought joy and life satisfaction and gave purpose to everyday life and feelings of hope for the future. Additionally, the connection between experienced mental wellbeing and interpersonal relationships and related informal social activities among friends can be explained by the social support, sense of security and confidence, as well as the shared memories and life events that the social interaction provides. These are examples of identified mechanisms that could explain why social activities are important mental health resources among older people (Forsman et al., 2013), as demonstrated in Figure 9.1.

In line with this research highlighting the benefits of social activities and volunteering, previous research has emphasized the potential and broad appeal of health promotion interventions encompassing elements of social participation and civic engagement. Volunteering has been associated with positive health outcomes such as decreased disability and improved self-assessed health (Lum & Lightfoot, 2005; Musick & Wilson, 2003). It has been argued that this could be a result of the psychosocial benefits associated with meaningful social roles past retirement (Pitkälä, Laakkonen, Strandberg, & Tilvis, 2004). In contrast to receiving support, volunteering

and giving may be explained by the fact that providing help as a volunteer is a self-validating experience, and in addition giving help and support to other people fosters a belief in being able to make a difference (Musick & Wilson, 2003). Indeed, the social activities evaluated in the systematic review and meta-analysis involved some form of giving (e.g., language mentorship; choral public performances), which might explain the evidenced effectiveness on the participants' mental health.

Consequently, the importance of social capital—an umbrella term for both social engagement and participation on the collective level, as well as individual-level interpersonal relationships—for the individual's maintained mental health and wellbeing should be highlighted and taken into consideration in the planning and implementation of mental health promotion initiatives targeting the aging population. By making efforts to support the social contacts and relationships already established by the older individual, as well as aiming to enhance the development of new relevant social contacts when possible, important prerequisites for mental health and experienced mental wellbeing in late life are created and secured.

Additionally, it is of importance to make sure to involve the older adults themselves in the planning of initiatives aiming to enhance mental health and wellbeing, especially since personal needs, preferences, and abilities vary to a great extent on the individual level. The effectiveness of psychosocial interventions is connected to the perceived relevance and meaningfulness for the receivers. Therefore it is desirable to involve the target group of the interventions already in the planning stage. Related to this, it is also important to remember that the older generations of today are first of all not a homogenous group, but a population encompassing a wide range of individual varieties. Second, they will differ from the next older generations. For instance, older people of today probably have different needs and expectations of service and care, than what the next older generations will have in the future. These are facts that are especially important to keep in mind in the planning of interventions, requiring that the older adults themselves are given the opportunity to be involved in the planning stage of interventions, community services, and national policies (Cattan, 2009; Futurage, 2011).

To conclude, mental health is strongly correlated with various aspects of social capital in later life. Therefore, we argue that interventions supporting individual-level social capital are promising as measures to promote mental health and wellbeing among older adults. Further, these psychosocial interventions (i.e., non-pharmacological with emphasis on psychological and

social aspects) with the aim of promoting mental health among the general population are cost-effective for society. The cost-effectiveness stems from the maintained positive function that will reduce the burden of disease and related costs in the growing older population (Smit et al., 2006), for example by implementing psychosocial interventions such as befriending initiatives among socially isolated older individuals or other groups at high risk for mental ill-health (Knapp, McDaid, & Parsonage, 2011).

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Part 2

Interventions to Create Positive Organizations and Communities

10

Wellbeing as a Business Priority

Experience from the Corporate World

Catherine Kilfedder and Paul Litchfield

BT, U.K.

A dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society.

McDaid (2011)

Introduction

There is a growing appreciation that wellbeing is an important element in gauging the success of societies and that a singular focus on economic measures (such as gross domestic product) can provide a misleading indicator of progress. Similarly, companies are increasingly judged not just on their financial performance but also on their behavior as corporate citizens. For the past 20 years a great deal of interest has been focussed on the ethical aspects of what companies do in terms of the treatment of those in their supply chain, the sourcing of raw materials and the carbon footprint of their activities. More recently attention has shifted also to their management of

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their human capital, the people they employ and whose efforts ultimately determine whether a business will be successful on a sustainable basis. There is a growing body of evidence to show that organizations whose employees have high levels of wellbeing can sustain higher degrees of engagement and performance. The pursuit of wellbeing in the workplace has therefore moved on from a philanthropic aspiration to a means of securing business success.

Background

Work has long been recognized as having both positive and negative influences on health and wellbeing. In ancient Greece, Galen wrote that employment is "nature's physician, essential to human happiness" while in sixteenth-century central Europe Paracelsus first described the damaging effects of silicosis in miners. There is now general acceptance that the nature of work and the way that it is organized dictates whether it is likely to benefit or to harm the health and wellbeing of workers (Lundberg & Cooper, 2011). Arguably, work in the twenty-first century occupies an even more central role in our lives as we spend more of our time at it and less of our time in social/leisure pursuits. Paradoxically, satisfaction with our work has decreased over the decades as evidenced by the European Working Conditions Survey (European Foundation for the Improvement of Living and Working Conditions, 2010) and productivity rate increase has slowed (Keller & Price, 2011). In the European Union, almost two thirds of the adult population are in employment, making the workplace an important setting for health activities not only for the benefit of the workforce and organizations but also for the wider population.

Mental health disorders are the most important cause of disability in all World Health Organization (WHO) regions, accounting for around one third of years lost to disability (YLD) among adults aged 15 years and over (WHO, 2004). Furthermore, unlike most chronic illnesses, the age distribution is relatively constant with adults of working age being as likely to suffer as those who are older. The economic cost to society is substantial with depression alone estimated as absorbing 1% of Europe's GDP (Sobocki, Jonsson, Angst, & Rehnberg, 2006), more than €130 billion per annum at 2007 prices, the majority of which is linked to productivity losses. For individual companies, mental health is now often the commonest cause of sickness absence in developed countries, accounting for up to 40% of time lost (Cooper & Dewe, 2008) with presenteeism, where individuals are at

work but underperforming for health reasons, adding at least 1.5 times to the cost of absenteeism (Sainsbury Centre for Mental Health, 2007b, 2008). It has been estimated that U.S. workers lose an average of 1 hr per week as a result of depression-related absenteeism but as much as 4 hr per week due to depression-related presenteeism (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003). On average, employees with severe mental health problems are absent from work more than twice as often as those without mental health problems, and their absence tends to be of longer duration. The Organisation for Economic Co-operation and Development (OECD, 2011) published a report in 2011 entitled *Sick on the job? Myths and realities about mental health and work*, which indicated that people with severe mental ill-health are away for 7.3 days on average, compared with an average of 4.8 days for employees who may be absent from work for reasons not related to mental health. It is the duration of sickness absence that is the pathway into longer term disability-related benefits and potential worklessness. Severe mental ill-health influences sickness absence more than any other of a range of work-related variables, including job satisfaction, shift working, work intensity, quality of management, and the nature of the benefits system. Many people with common mental health problems do not experience sickness absence and their absence behavior is closer to that of those without a mental health problem than those with severe or even moderate mental health problems. They may still, however, be underperforming in their jobs. People with common mental health problems report productivity losses almost as often as those with more severe mental health problems (i.e., 4 in 5 reporting reduced productivity at work in the past 4 weeks), which is three times as likely as those without any such problems; for those without a common mental health problem the figure is 1 in 4.

The two problems of absenteeism and presenteeism are not unrelated, as the latter is a risk factor for the former in the future. The average cost per employee attributable to mental health problems in the United Kingdom has been estimated to be of the order of £1,035 per annum (Sainsbury Centre for Mental Health, 2007a), and it has been estimated that in the next two decades there will be a 9% increase in cases of mental ill-health in the working age population (Vaughan-Jones & Barham, 2009).

The cost to individuals is also substantial, with impaired mental health associated with greater levels of exclusion from the workforce, and that exclusion then contributing to impaired mental health. The economic downturn of recent years has had a general adverse impact on wellbeing but has disproportionately affected workers at either end of the age spectrum and the

disabled, all of whom have experienced higher levels of involuntary unemployment. In such an economic crisis unemployment rates increase, average incomes are depressed and job insecurity rises. Data from the European Working Conditions Survey (European Foundation for the Improvement of Living and Working Conditions, 2010) showed that feelings of job insecurity have been increasing for all types of employment, from high-skilled clerical to low-skilled manual. Such feelings are likely to have an adverse impact on the mental health of the population generally and on those with mental ill-health particularly. Although the real impacts are probably not going to be seen until later, there are already some indications that effects are evident. For example, in 2009 the United Kingdom's National Health Service experienced the biggest yearly rise in the use of antidepressant prescriptions on record, with 39.1 million issued, up from 35.9 million in the previous year (MIND, 2010). Job loss is known to be detrimental to mental health, but the anticipation of job loss can be just as significant, increasing the risk of common mental health problems by about a third (Stansfeld & Candy, 2006). Organizations typically react to economic pressures by restructuring and/or downsizing. Between 2007 and 2010, 20–50% of people surveyed as part of the European Working Conditions Survey indicated that they had experienced substantial restructuring or reorganization in their workplaces. Such large-scale programs often result in changes to job routines and tasks and can impact adversely on mental health and wellbeing. Restructuring can also increase job demands and workload, which increases the chances of burnout and poor mental health.

The United Kingdom's National Institute for Health and Clinical Excellence (NICE, 2009) in their publication *Promoting mental wellbeing at work: Business case* suggested that employers should take a strategic and coordinated approach to workplace wellbeing. There is growing evidence that simple, cost-effective measures in the workplace can improve wellbeing and militate against the risks of impaired mental health (Knapp, McDaid, & Parsonage, 2011), to the benefit of employers, individual workers, and society.

The Corporate Journey

The paths by which companies have arrived at their position of focusing on wellbeing differ. Some have taken an organizational design approach, some have evolved through flexible working, and others have followed an

occupational health and safety pathway. Whatever the original driver, most organizations are developing the links between these strands and are seeking to construct a framework that supports sustainable performance.

Work Design

Some work tasks are inherently unpleasant, physically dangerous, or emotionally challenging, but these characteristics need not compromise worker wellbeing if the activity is structured properly. Work design is critical in determining the psychological reaction people have towards what they are doing and, hence, the satisfaction they derive, their motivation, and their performance. But the health benefits of being in employment depend on the quality of the job. Research shows that moving from unemployment into a high-quality job leads to improved mental health, whereas moving from unemployment into a poor-quality job is actually detrimental to mental health, more so than remaining unemployed (Butterworth et al., 2011). One influential framework for addressing the issue of work design is the job characteristics model developed by Hackman and Oldham (1976) which identifies five core job characteristics, as follows.

- Skill variety. Making use of an appropriate variety of skills and talents for a given individual worker—neither too many as to be overwhelming nor too few leading to boredom.
- Task identity. Being able to identify a recognizable outcome from the task undertaken, either as an individual or part of a group, so that the worker can feel a sense of achievement and pride in what has been done.
- Task significance. Seeing that the task has a beneficial impact on others, over and above the worker himself, either within or outside the organization.
- Autonomy. Allowing the worker to exercise a degree of freedom, independence, and discretion in the way work is scheduled and the process by which it is carried out.
- Feedback. Providing information on how effective the worker has been in converting effort into performance (so that mistakes can be learned from) and connecting the worker emotionally with the end user of his or her output.

This approach has been used successfully in many countries to improve organizational performance, quality, and profitability through paying attention to the feelings, motivation, and job satisfaction of workers. Less

sophisticated approaches that focus solely on outcome measures, such as production levels or profit margins while neglecting the wellbeing of the people employed, tend to produce unhappy workplaces where individuals burn out and success cannot be sustained.

Some of the most compelling recent findings have come from the highly competitive retail sector, where low wages, variable part-time working, and limited opportunities for advancement have been characteristic. Ton (2012) cites a range of retailers who have shifted their attitudes from seeing staff as a cost driver to one where they are perceived as a sales driver. These companies have applied different elements of the Hackman and Oldham model to good effect. Trader Joe's pays employees premium rates and reports sales per square foot of more than three times those of an average U.S. supermarket. Mercadona trains workers in a variety of tasks so that they can vary what they do with changes in customer traffic and achieves sales per employee 18% higher than those of other Spanish supermarkets. Costco provides advancement opportunities and promotes some 98% of managers from within; sales per square foot are almost double those of their main competitor. However, the pattern of employment generally continues to change with more service-oriented and lower skilled jobs, that is, the types of jobs typically related to stress, and the growth of temporary and short-term contracts leading to a more dynamic and less secure labor market.

A number of initiatives, supported by forward-thinking organizations, have more recently attempted to make explicit the role of good work in employee wellbeing, such as the Business in the Community (BiTC) Workwell model and the Good Work Good Health Good Practice Guidelines (Good Work Good Health, 2010). Developed by business for business, the evidence-based Workwell model utilizes the New Economic Foundation's (Aked, Marks, Cordon, & Thompson, 2008) five ways to wellbeing to highlight the need for employees to take responsibility for their own health and wellbeing, while also covering the actions employers need to take to create the culture, environment, and supporting infrastructure to enable those healthy choices to be made. One of the four areas for action, Better Work, highlights the role of employers in creating better work and better jobs. The Workwell model draws on the Work Foundation's definition of "good work" as being secure and interesting, with a degree of choice, flexibility, and control built in, with an opportunity to have a say in decisions and having a balance between effort put in and reward received. The model also makes clear that for employers good work must also be productive and efficient, encouraging employees to contribute to the

success of the business. The Good Work Good Health project was funded by the European Commission, DG Employment, Social Affairs and Equal Opportunities and was undertaken by ETNO and UNI Europa ICTS to better address the mental wellbeing of employees in the telecommunications sector. The Good Practice Guidelines were launched in October 2010 and they provide telecommunications companies and their employees with concrete examples of good practice that can also be applied within other industry sectors. They are voluntary for the telecommunication operators throughout Europe and are available in 12 language versions, through a dedicated website. The Guidelines recommend a range of areas for organizations to pay attention to in order to ensure work is constructed, planned and implemented in such a way as to be health promoting rather than detrimental to employees' wellbeing. These activities include making sure work demands are reasonable, giving individuals as much control as possible over the way tasks are carried out, being flexible in resourcing, constructing roles with clear reporting lines and responsibilities, creating an environment that promotes open discussion and mutual support, and applying a structured methodology to change management.

Flexible Working

The global drift of populations to cities, the increasing proportion of women in the workforce and the emergence of a 24/7 culture has disrupted traditional stability in work–life balance and social support mechanisms. The technological revolution has transformed not only what many people do for a living but also the way that they work. Technology can be used and viewed as a liberating force, enabling workers to juggle increasingly complex demands, or as an oppressive influence that removes discretion and denies the workers any respite from their labors. The ways that work is organized and the uses made of technology are therefore critical to the wellbeing of both individuals and societies.

Providing flexibility in the way people work has been shown to have a positive impact on wellbeing, so long as the individual has discretion over how the flexibility is applied to improve their work–life balance. Flexibility may relate to hours of work, both duration and timing, or location. In some environments, such as production lines, it may still be necessary to operate rigid shift systems but in most service industries shift patterns can be much more flexible, provided that overall sufficient numbers of people are available to deal with customers. Rapid advances in

information communications technology have ended the requirement for many workers to be tied to a specific location and they can now often fulfill their roles effectively from an alternative workplace, at home, or while on the move. The resultant benefits to wellbeing for the worker, not least as a result of reduced commuting, are matched by opportunities for the employer to improve efficiency and to rationalize property requirements.

BT has been one of the pioneers of flexible working and its "BT Workstyle" program is one of the largest in Europe, involving some 70,000 workers, of whom 11.5% are home based. BT classifies workers as being mobile, home based, or office based; categories overlap considerably and an approach based on balancing business need and personal preference in each case has been found to work best. Case studies (BT Global Services, 2010) claim that the program increased productivity by some 20% as well as reducing office space requirements, delivering €750 million per annum in property savings.

Practices such as set working hours and a job for life that became commonplace in many countries during the second half of the twentieth century, are now less often found and, arguably, are inappropriate for modern society. Part-time working, temporary contracts, and regular career changes are becoming the norm in many countries, but the uncertainty that accompanies such arrangements can be a significant threat to the wellbeing of the individuals concerned. Attempts have been made to simultaneously strengthen flexibility and security for the benefit of both parties in an employment relationship by finding a balance between the rights and responsibilities of employers, workers and jobseekers, and the authorities. The concept of "flexicurity" (Council of the European Union, 2008) has been developed, embodying four components:

- flexible and reliable contractual arrangements;
- comprehensive lifelong learning strategies;
- effective active labor market policies; and
- modern social security systems.

Surveys of citizens' perception of their own wellbeing consistently show that levels are highest in countries, such as those of northern Europe, where flexicurity is an accepted part of the socioeconomic system (European Commission, 2011) and the principles have been adopted by the European Union as part of its employment strategy.

Occupational Health and Safety

Employers owe a duty of care to their workers and the standard approach to discharging that duty is through risk management. Hazards are identified, risks are assessed, and controls are put in place to mitigate the risk so far as is reasonably practicable. This methodology has been applied to physical safety hazards for many years and also to a broad range of workplace health hazards. Policies, procedures, and processes are an essential component of this approach and although occupational health and safety measures based on risk assessment are a necessary element of any wellbeing at work strategy, the focus risks being too narrow. Increasingly, it is also recognized that employee behaviors play a critical part. Physical hazards continue to exist in the modern world of work but psychosocial hazards are more prevalent. The construct of work itself can be a hazard and the harm that may arise is psychological rather than physical.

Changes in population lifestyles have resulted in an epidemic of noncommunicable diseases (NCD). Cardiovascular disease, cancer, diabetes, and respiratory diseases have been estimated to result in costs to employers and society over the next 20 years of US$30 trillion globally (Bloom et al., 2011). This trend is compounded by the aging of societies and the aging of workforces as younger talent becomes scarcer and retirement pensions become unaffordable. By 2050, most G7 countries and all BRICS (Brazil, Russia, India, China, and South Africa) except India will be as aged as Japan: currently the world's most aged society (World Economic Forum, 2012). The labor market challenges brought about in the longer term by population aging makes it even more crucial that people with ill-health are kept in or returned to employment. Employers are therefore increasingly driven to consider how to reduce this cost burden and extending the scope of behavioral intervention in the workplace from safety to health is seen as a worthwhile intervention. Most NCD are strongly associated and causally linked with four particular behaviors: tobacco use, physical inactivity, unhealthy diet, and the harmful use of alcohol (WHO, 2011). This means that they are preventable and the workplace is recognized as being an effective medium through which to deliver programs, as reflected in the resolution of the 66th session of the UN General Assembly in 2011. In addition to improving health and productivity within the context of an aging workforce that is over-proportionally impacted by NCD, workplace wellness initiatives can be measures to attract and retain talent. A study conducted with almost 30,000 employees in 15 countries showed that 64%

of employees who perceive the organization for which they work as an active promoter of health and wellness intend to stay at least 5 years with their companies (World Economic Forum, 2012).

Another driver for wellbeing initiatives in the workplace is the increasing prevalence of mental health problems in society so that they have now become the dominant health problem in the working age population (World Economic Forum, 2012). Most mental health problems, around three quarters, are “common” mental health problems (i.e., not those considered severe and enduring). They are the main cause of sickness absence in many organizations and there is a concern that work itself may be contributing to such conditions. The rise in litigation associated with “work stress” in countries such as the United Kingdom that operate a legal system based on tort has prompted many employers to put in place mechanisms to reduce the risk of harm to their employees, and hence of personal injury claims. The levels of disability due to mental ill-health has increased in almost all OECD countries in the past two decades as the large increases in the proportion of benefit claims caused by mental disorders demonstrate. The average duration a claimant stays in the system is also getting longer.

More than ever before in the Western world individuals are experiencing fragmented social networks. Research shows that having access to social capital through an effective social network not only enhances psychological wellbeing and prevents the development of common mental health problems, but it also facilitates recovery from mental ill-health. This fact is reflected in models such as the Workwell model developed by the BiTC, which includes Better Relationships as one of the four areas for employer actions. The model aims to support employers to facilitate good relationships within and without work, and promote social health generally. The model utilizes the Towers Watson definition of social health as covering work relationships, work–life balance, and social connectedness (Crossland, 2010). Examples of recommended actions include having family friendly policies, promotion of team working, supporting employee volunteering, and developing managers as coaches/mentors.

Common Factors

Regardless of the path organizations have taken on this particularly journey, there are some elements of the work experience that have been shown to have a significant impact on the wellbeing of people at work. These include

the quality of people management, the effectiveness of change management, and the management of mental health issues in the workplace.

People Management

The quality of leadership and people management in an organization is often one of the key determinants of the employee experience at work and thereby their health and wellbeing (Health and Safety Executive, 2009). The influential role of the manager has been reinforced by bodies such as NICE who recommended that line managers should promote and support wellbeing among their employees. The vision and direction provided by senior leaders and the nature of the relationship between people managers and employees are crucial. Good leadership and appropriate management styles have been recognized as one of the most critical factors in promoting a good working environment (Kelloway & Barling, 2010) and employees with a good manager take on average 3.34 fewer days of absence in a year as reported by the OECD. Low levels of social support from supervisors has even been shown to be associated with higher disability benefit awards in Finland (Sinokki et al., 2010).

Of all the working conditions examined by the OECD, the manager's attitude towards the employee was the single most important factor impacting on employees' mental health regardless of occupation. This was even the case in situations where other known detrimental work factors were present (e.g., high job demands and low job control). A "positive" manager attitude reduced the probability of having a moderate or a severe mental disorder by 6% and 2%, respectively. People managers are the conduit through which all the elements of work design impact an employee. They clarify roles and responsibilities, they provide the freedom and flexibility to do the job, they are the main sources of feedback and recognition, and they facilitate necessary skills training. It is a sad reality that, generally, people are not selected for management roles on the basis of good people skills but rather for their technical expertise. They are then given little or no training in the nuances of people management, let alone the specifics of wellbeing, mental health, and resilience. The findings from the Good Work Good Health research suggest that employers should employ managers who have both business skills and people skills; that they should train managers to identify poor mental health within their teams; and that they should give professional support to managers when dealing with team members with poor mental wellbeing.

The U.K.'s Health and Safety Executive (HSE), the Chartered Institute of Personnel and Development (CIPD), and Investors in People (IIP), developed a set of management competencies effective at preventing or reducing stress at work. These consist of behaving respectfully and responsibly towards employees while managing your own emotions; proactively managing workload, solving problems promptly, and involving/empowering the team; and managing the individual within the team in a sociable, personally accessible fashion. A number of studies have shown that the manager also has a crucial role in the success or otherwise of return to work after sickness absence with lower levels of support and poor quality management being associated with longer absence durations. Competency training, including regular supportive communication focusing on wellbeing, close involvement in a graded return-to-work program, encouraging appropriate team communication, and having an open and sensitive approach have been proposed by others (British Occupational Health Research Foundation; BOHRF, 2010).

Within BT, the stress management competencies have been incorporated into the Becoming a Better People Manager program. This is a one-stop intranet site that sets out what is expected from people managers and provides them with everything they will need to manage well, to work out how they are doing, and to help them to improve their people management skills. In terms of mental health specific training, BT has developed a one-day course in the style of the Mental Health First Aid (MHFA) training developed in Australia and now delivered in many countries, including the United Kingdom. In a review of evaluation studies for MHFA training (Kitchener & Jorm, 2006) all trials found statistically significant benefits 5–6 months post training in terms of improved agreement with health professionals about treatments, improved helping behavior, greater confidence in providing help to others and decreased social distance from people with mental disorders. The paper concluded that although MHFA training has been found to change knowledge, attitudes, and helping behaviors, and even benefit the mental health of participants, there has not yet been an evaluation of the effects on those who are the recipients of the first aid.

The aims of the BT course are to increase awareness and understanding of common mental health problems, to build the confidence of people managers in dealing with such problems, and to improve their skills and signposting to other sources of support. The company has now seen almost 5,000 people managers go through this training and the feedback has been overwhelmingly positive. Many managers report that it has been the most useful piece of training they have ever received and they have become strong

advocates for the course within the company. In follow-up surveys, over a third of managers say they have had cause to apply the learning in the course of their job within 6 months of attending and two thirds say that the content has been helpful in their life outside of work. Managers in BT are also able to avail themselves of a consultancy service delivered by trained and experienced counselors who support them through difficult people situations.

The challenges faced by today's leaders are arguably more complex and require more innovative adaptations to a changing reality than ever before. Mindlessness, relying on unthinking rote ways of reacting, has the potential to undermine organizational and personal health and resilience. Leaders are seeking new ways to improve their effectiveness by enhancing their emotional and cognitive skill set. One of the tools of increasing interest to leaders and workplaces is that of mindfulness. Mindfulness is about paying attention on purpose in the present moment nonjudgmentally to cultivate awareness (Kabat-Zinn, 2006). Mindfulness can be learned and as well as being an effective intervention for a variety of clinical conditions (Brown & Ryan, 2003), it is now increasingly being demonstrated to be effective in nonclinical populations to enhance wellbeing (Chiesa & Serretti, 2009). Studies have shown that brief mindfulness-based interventions in work settings can have significant effects on perceived stress (Klatt, Buckworth, & Malarkey, 2008). A small-scale trial of an online mindfulness-based tool in BT demonstrated a 26% reduction in perceived stress at 1-month follow-up for those who completed the course. The evidence base for the effects of mindfulness training on leadership behavior is still being developed, but early signs suggest it has something significant to offer (Hunter & Chaskalson, 2012). There would appear to be strong overlaps between the skills taught on mindfulness courses and at least two of the five elements of the centered leadership model (i.e., framing and energizing) (Keller & Price, 2011). Positive framing results in negative situations being viewed as temporary, specific, and externally caused, whereas energizing covers systematically investing in one's own physical, mental, and emotional energy. Both appear to resonate strongly with a mindfulness approach. The presence of centered leadership competencies has been shown to make change programs more than three times more likely to succeed (Keller & Price, 2011).

Management of Change

Seventy percent of organizational change initiatives fail and more than 70% of these failures are accounted for by organizational health-related factors such

as employee resistance and unsupportive management behaviors. Rarely do organizational change plans include the consideration of individual employee wellbeing up front. Keller and Price's 2010 survey of companies undergoing change identified that those that focused on both business performance and organizational health were 2–3 times more successful than those that focused on either health or performance alone, as evidenced by a range of financial performance indicators. And just like personal health, organizational health is made up of factors that can be influenced, unlike many external factors such as the competition and the economic climate. Effective change management needs an explicit methodology and a structured process such as that provided by the organizational health model, which is made up of nine elements, many of which impact upon personal health and wellbeing. Concepts such as having a clear and meaningful direction which engages employees, having inspirational leaders, and being clear about what is expected of employees are all reminiscent of good work and good jobs.

In times of change and restructuring, it is even more crucial that organizational processes and procedures are fair and without bias, and are seen to be so by their employees. A lack of perceived organizational justice has been found to be linked to poor wellbeing and depression (Greenberg, 1987). The concept of perceived justice indicates that it is the perception of the individual worker rather than any objective reality that determines whether organizational/managerial action will be deemed to be of harm or of benefit to wellbeing.

There are three levels of perceived justice described in the literature:

- distributive—associated with the distribution of resources and the outcomes of decisions;
- procedural—accurate, consistent, and unbiased processes; and
- interactional—timely, honest, and sensitive communications.

The Good Work Good Health Good Practice Guidelines recommend that organizations should have clear and transparent recruitment and promotion processes agreed by all stakeholders; that talent management programs should be used to improve retention and development of employees; and that appraisal processes should be clear and allow training needs to be identified and goals to be set for the individual employee with an opportunity for appeal. Furthermore, job descriptions and job families should be used to allow role clarity; consultation should take place with employees to evaluate decision making and that routes should be available to bring any

complaints such as local human resources; employees should be treated with respect and fairness; there should be a communications strategy in place which includes both electronic and paper mediums; that a top-down approach for communications comes down to every employee; and that mediation is used where it is perceived that wrong decisions have been made.

Management of Mental Health

Common mental health problems such as anxiety and depression are the main health issues of working age people. In the European Union as a whole almost two thirds of the adult population are in employment, but rates of employment for people with all types of mental illness are much lower. However, around 60–70% of people with a *common* mental health problem are in employment which is only about 15% lower than people without a common mental health problem. The rates of employment for those with a more severe and enduring mental health disorder is lower again. Rates for people with schizophrenia are between 10 and 30% in the European Union, lower than the rate for all other disabilities.

Research by the Shaw Trust (2006) indicated that, despite the high prevalence rates, almost half of employers think that between 0 and 5% of their employees will ever experience a mental health problem during their working lives. Sadly it remains the case that only about one quarter of people experiencing such mental health problems will be in receipt of any intervention, the majority of which will be the prescription of psychotropic medication. However, the level of their symptoms would be of sufficient clinical severity as to warrant active psychological treatment. Interestingly, employees with reduced work-related productivity due to a mental health problem appear to have higher treatment rates (around 40%) than those with sickness absences (around 20%) or those neither absent from work nor at work with reduced productivity as reported by OECD. These treatment rates have increased between 2005 and 2010 in many European countries with the exception of the United Kingdom, where they remained stable. The time to first accessing treatment, however, still has some way to go and the provision of adequate minimal treatment needs to be improved. The U.K.'s Improving Access to Psychological Therapies program was set up in 2008 to address these issues of under treatment and inadequate care. Although most common mental health problems are not *caused* by work (Health and Safety Executive, 2007) the workplace is an

important setting for the early identification of non-work-related mental health problems. In addition, activities undertaken within the workplace to either maintain people at work or return them to work as soon as possible is a significant factor in an individual's overall management and recovery. Some estimates suggest that effective management of mental health in a U.K. organization with 100 employees could save £250,000 per year.

The evidence for effective interventions that help to prevent common mental health problems in the working age population, or that help people with these problems to remain in or return to work was reviewed by BOHRF in 2005 and updated in 2010. The published research showed that there were few evidence-based interventions carried out in or by workplaces to address common mental health problems among employees, despite the fact that health promotion activities aimed at physical health issues were commonplace.

The findings indicated that although there was moderate evidence for the beneficial impact of a range of stress management interventions, especially those using more than one technique or method, it was not clear whether such measures prevented common mental health problems. It was likely that interventions focused on the individual were more effective in relation to stress management than those directed at the organization.

Where an existing risk to an individual's mental health was identified, the evidence strongly suggested that multiple approaches involving social and coping skills training and personal support had beneficial and long-lasting effects in relation to retaining people at work. As far as rehabilitation for people already experiencing common mental health problems, brief individual psychological therapy, especially cognitive behavioral therapy, was effective in promoting recovery and helping people make a successful return to work. Interestingly, such techniques had more of an effect for employees who were in jobs where they were able to exert a higher degree of control.

Evidence-based psychological therapies in isolation do not improve the chances of a successful return to work in the absence of additional occupational focused interventions (Fleten & Johnson, 2006). Line managers have a crucial role to play in supporting employees with common mental health problems to remain in or return to work and they need effective skills development and training to enable them to do so. Not least, managers need to understand and accept that a lack of early efforts to encourage a return to work are counterproductive. Evidence shows that

the longer a person is off sick from work with a mental health-related problem, the less the chances of a successful return to work (Health, Work, Wellbeing, 2009). Line managers must also be supported to make a mindset shift to accept that people need not be symptom-free in order to begin to make a return to work. Clinical goals do not necessarily have to be achieved before occupational goals. Indeed Fleten and Johnson (2006) concluded that focusing on how to stay in work with common mental health problems was seen as more effective for employees than managing health problems to be fit to return to work. That is not to say that work functioning does not improve alongside symptoms functioning, just that the latter is not a prerequisite for commencing a graded return to the workplace.

The evidence base for the effectiveness of such manager-targeted interventions was lacking at the time of the 2005 BOHRF review. In the update in 2010, BOHRF reviewed the Sainsbury Centre for Mental Health's line managers' intervention entitled "Impact on Depression" (Sainsbury Centre for Mental Health, 2008) (based on the Australian *beyondblue* program and now retitled "Workplace Training"). Although throughput was still small at this stage, it appeared that the training resulted in an increase in knowledge of the prevalence rates for mental health problems and a positive attitudinal shift, as well as enhancements in confidence levels in terms of providing support and taking action. Further evaluation has shown that the posttraining improvements in knowledge, attitudes, and confidence to help were all sustained at an 8-month follow-up. More than 40% of participants had used the skills they learnt in training in a real-life situation in that time, with many having been able to notice that a colleague was in distress.

In the spirit of the OECD's recommendations to intervene in mental health issues in the right way at the right time with a coordinated approach, BT's approach to mental health in the workplace aims to shift activity upstream to prevention and away from restitution once problems have already begun to develop. That means driving a culture of self-help among the workforce and managers with support available from "experts" when needed but primarily provided online through comprehensive and easy-to-use materials. BT uses the management information created through data collection from a variety of sources to target areas for attention. In this way BT aims to target resources to where they are likely to achieve the greatest impact for the business and deliver services in a cost effective manner. A mental health "toolkit" was developed to support the mental health

framework, which comprises a range of resources of escalating sophistication. Mental health has attained an even higher profile since the start of the economic downturn.

With the relaunch of the BT attendance policy and process, managers are encouraged to undertake systematic monitoring of absence behavior to detect the potential for longer term or repeated absences as early as possible and manage those by providing immediate retention support. They are guided initially to actively promote the health and wellbeing of their people and identify risk indicators at an early stage to prevent deterioration and a potential absence from work.

Health and Wellbeing at BT

BT is one of the world's leading providers of communications solutions and services, operating in 61 countries. Its principal activities include the provision of networked IT services; fixed telecommunications services; broadband and Internet products and services; and converged fixed/mobile products and services. BT has four customer-facing divisions (BT Global Services, Openreach, BT Retail, and BT Wholesale), supported by an internal service unit (BT Technology, Service and Operations) and a group headquarters element: the term applied to each is "line of business." The company employs around 90,000 people, of whom more than 80% are located in the United Kingdom. In the year ending March 31, 2011, BT Group had revenues of £20.1 billion.

BT's wellbeing activities are based on a well-developed strategic vision and robust metrics analysis. The overall aim is to create an "interdependence" mindset among its people whereby they take personal responsibility for their wellbeing and that of those around them. This is supported by a portfolio of activities at both the organizational and individual levels which seeks to support employees at their different stages of need as well as helping managers deal with health issues. Engagement with this strategic approach is fostered throughout the organization via a number of forums and a community of health, safety, and wellbeing champions and business leads. Each line of business has a tailored action plan, aligned with the overall strategic approach, making best use of existing resources and incorporating new evidence-based initiatives as they come on stream. Ownership of the plans is vested in each line of business leadership team and these are developed in close association with the

group wellbeing adviser, a clinical psychologist. The strategy has three elements:

- primary prevention: promoting wellbeing and preventing ill-health;
- secondary intervention: early identification of deterioration in health and early intervention;
- tertiary rehabilitation: timely resolution of health issues using a matched care suite of proportionate interventions.

The framework of key products and services is listed in Table 10.1 and subsequently described in more detail.

Table 10.1. Framework of Key Products and Services in the BT Wellbeing Strategy.

	Primary prevention	**Secondary intervention**	**Tertiary rehabilitation**
Education and training	Managing pressure	STRIDE	Health and wellbeing training including stress management
	Work Fit health promotion campaigns	Mental Health for People Managers workshop	Open Minds: Head First
	Becoming a Better People Manager	Dealing with Distress resource pack	Disability factsheets
		A Guide to Making Reasonable Adjustments	
Assessment	CARE Agile	STREAM	Occupational health service
		Mental health Dashboard	Enable/Remploy
Practical support	Achieving the Balance	Health and Wellbeing Passport	Self-help
		Employee Assistance Management	Employee assistance program
			Relate recession counseling service
			Mental health (CBT) service
			Physiotherapy service

Managing pressure.
An online resource has been designed to help people understand, manage, and cope more effectively with stressful situations. It covers the distinction between pressure and stress, coping techniques, and sources of support.

Work Fit.
Organizations that actively promote the wellbeing of their employees are those that demonstrate enhanced profitability. Work Fit is BT's innovative vehicle for health promotion. Conceived in 2004 as a joint initiative with the BT unions, the CWU, and Prospect, it aims to promote small behavioral changes which, if sustained, will have a long-term impact on wellbeing. By making use of BT's own products and services it has used multiple communication channels to educate and inform BT people about health issues and to promote and support lifestyle changes that are known to be beneficial to wellbeing. Each campaign focuses on a specific health issue and adopts a modular approach so that messages are "drip fed" to the workforce. Partners from the third sector are engaged to help create the resource material and to provide support for those who want it. This model is both cost effective for BT and provides tangible benefits to the charities concerned. The consistent theme is that small changes, if sustained, can have a big impact but that individuals have got to want to make those changes and the company cannot do it for them: the philosophy is encapsulated in the strap line "helping you to help yourself." Campaigns to date have focused on cardiovascular health, smoking cessation, mental health, cancer, diabetes, and physical activity.

Becoming a Better People Manager.
This is an intranet site that sets out what is expected from people managers and provides them with everything they will need to manage well, to work out how they are doing and to help them to improve their people management skills.

CARE Agile.
BT's company-wide engagement survey is sent quarterly to a representative sample of the workforce. This has been analyzed to show a quantifiable link between wellbeing and engagement.

Achieving the Balance.
This is an online tool that provides practical guidance on flexible working and the balancing of personal responsibilities with work.

STRIDE.
This is mandatory online training for people managers on the fundamentals of stress and how to deal with it in members of their team.

Mental Health for People Managers.
This is a one-day workshop based on the Mental Health First Aid movement from Australia that focuses on increasing the awareness and understanding of common mental health problems, enhancing confidence in dealing with such problems in the workplace, as well as improving skills and signposting to appropriate sources of support.

Dealing with Distress.
This is a resource pack outlining the key issues for managers to be aware of when dealing with people in distress. The information emphasizes acting on early warning signs, particularly where there is a perceived risk of self-harm, with appropriate support.

A Guide to Making Reasonable Adjustments.
To help managers understand what their responsibilities are, what actions they should take and what support is available to them, BT have developed a comprehensive guide with advice on what constitutes reasonable adjustments and how to implement them in the course of the employee working life.

STREAM.
BT's stress risk assessment and management tool based on the HSE stress management standards to help identify those with stress-related issues and the work factors that may be contributing to these. There is then a requirement on line managers to draw up an action plan for remediation with the employee.

Mental Health Dashboard.
This is a monthly synthesis of data drawn from a number of sources to identify current status and trends in mental health-related problems in all of BT's lines of business.

Health and Wellbeing Passport.
This is part of a wider suite of passports that can be completed by individuals with potentially long-term or recurring health issues and agreed with their manager to facilitate management of the individual at work. This can then be carried forward into other roles with a new manager with the consent of the individual concerned.

Employee Assistance Management.
This is consultancy for managers dealing with difficult people situations provided by a dedicated team of trained counselors. They are available during office hours and there is also an out-of-hours emergency contact.

Health and wellbeing training including stress management.
BT provides a suite of online and face-to-face courses for individuals and managers to improve awareness and management of health and wellbeing, including stress-related issues.

Open Minds: Head First.
This is a purpose-designed downloadable guide on the continuum of mental health issues for both employees and managers with practical advice and direction to appropriate resources. The guide covers the continuum of mental health issues from the early signs of distress to severe and enduring mental ill-health.

Disability factsheets.
A number of factsheets have been produced featuring BT people talking about their experiences of living and working with some of the most common disabilities.

Occupational health service.
Guidance from qualified occupational health professionals is provided to managers on prognosis and adjustments to maintain people at work or facilitate an effective and sustainable return to work after ill-health.

Enable/Remploy.
Enable is a specialist service for BT people. It identifies and implements work-place adjustments to assist BT people who have a disability or impairment. Through the Enable service, BT people can get access to advice and support

from disability experts Remploy—the UK's leading provider of employment services for people with a disability or long-term health problem—to help understand what barriers might be in place, and to remove them to allow BT people to be their best at work.

Self-help.
Signposting is available to a range of evidence-based external sources of information and guidance on a wide range of health-related issues.

Employee assistance program.
This is a self-referral service consisting of both counseling and advice lines, akin to the Citizens Advice Bureau, which is available 24/7.

Relate recession counseling.
This is an online chat counseling service funded by the U.K. Government and delivered by the charity Relate, to support people with the impact of financial concerns on their relationships.

Mental health (CBT) service.
The evidence indicates that delivering psychological therapies without some form of employment-focused case management will not produce as positive a work outcome for working-age adults with common mental health problems. BT's mental health service for people with common mental health problems comprises triage by telephone and advice by a case manager within 48 hr of the referral; an information pack about the mental health condition sent to the individual; and, where clinically indicated, referral for guided self-help with telephone support, computer-based cognitive behavioral therapy (CBT), skills-based training and CBT coaching or telephone/face-to-face CBT through a network of local therapists. The case manager liaises with the line manager with the individual's consent to advise on progress and any workplace adjustments.

Physiotherapy service.
This is a service for people with musculoskeletal problems, including conditions such as low back pain, neck and shoulder pain, frozen shoulder, tendonitis, hip and knee pain, sprains, tennis elbow, wrist and hand aches, pains, and strains. BT people can self-refer to the service and managers can also contact the service for advice on helping their people with musculoskeletal disorders that are affecting their capability for their normal

work. The service comprises telephone assessment and advice by a chartered physiotherapist within 48 hr, and an information pack about the condition, covering the right things to do to help the problem get better. Additionally, where clinically indicated, telephone advice can be supplemented by referral for face-to-face physiotherapy treatment through a network of therapists. In some instances, employees with longstanding problems will be offered an intensive rehabilitation program to help restore their capability for their work and everyday tasks.

Impact of Wellbeing Programs

The return on investment of wellbeing programs can be hard to quantify, but has been reported in the United States as an average of US$ 3.27 for every dollar spent (Baicker, Cutler, & Song, 2010). PriceWaterhouseCoopers (2008) found that workplace programs had a major positive impact on reducing sickness absence, staff turnover, accidents, and injuries, and even productivity, with a benefit to cost ratio ranging from 1 to 34. The World Economic Forum (2012) reported that U.S. companies could save an average of $700 per year and per employee on health-care costs and productivity gained if they address inactivity, stress, and harmful use of alcohol over 5 years and a spend of $8 per employee per month could yield an overall return on investment (ROI) of 390–755%.

But evidence of quantifiable ROI is only one part of the picture. Wellbeing increases employee engagement but engagement without wellbeing leads to burnout and poor talent retention (Robertson & Cooper, 2011). In surveys of employee attitudes, performance, and working conditions across industries and countries looking at the relationship between wellness and business effectiveness reported by McDaid (2011), significant percentages of employees report that where health and wellbeing were perceived to be well managed, organizational performance was more than 2.5 times greater than in those organizations where health and wellbeing were perceived to be poorly managed. Nearly three quarters of those who rated their organization highly for actively promoting health and wellbeing also rated it highly for encouraging creativity and innovation. Companies where health and wellbeing were poorly managed were also four times less likely to retain staff talent within a 12-month period compared to companies with a good approach to health and wellbeing. Reputational impact can also be felt externally, with high levels of absenteeism being interpreted as indicative

of a company that does not place a high enough priority on the wellbeing of its workforce. This may influence the ability to win new business and retain customers. The responsible and sustainable investment community are increasingly turning their attention to the wellbeing agenda. They have begun to seek out information on the health of organizations and, in seeking long-term returns, have driven movements for public reporting on health and wellbeing such as the framework set out by Business in the Community (BiTC, 2010) in the United Kingdom.

BT's approach to wellbeing has served the company well in recent years and the various metrics used to track progress have showed a gradual improvement against a previously rising trend. Specifically, it has seen reductions in lost time injury rate and work-related ill-health, a downward trend in sickness absence, and maintenance of employee engagement levels. The Work Fit health promotion program has demonstrated success over the years in terms of participation rates and behavior change. In the first campaign on cardiovascular health just over 16,000 BT people registered for the program and the average weight loss recorded was 2 kg with 54% of people saying they had made lifestyle changes as a result. About 1,000 people signed up for the smoking cessation campaign and a third reported having stopped smoking. In the course of the first mental health campaign 68% of participants said they had learned new ways to look after their mental health, 56% had implemented recommendations and were continuing them at the 3-month follow-up, and 51% reported improvements in their mental wellbeing. As a result of the cancer campaign knowledge levels improved by up to 12% and 61% of those involved stated they planned to increase either their physical activity levels, improve their diet, or reduce their weight. Up to a 25% improvement in knowledge was reported during the diabetes campaign, with two thirds of participants taking action to reduce their risk. At the height of the most recent campaign to increase the number of daily steps taken by BT people, just under 5,000 people had registered, with 25% of those being outside the United Kingdom. Sixty-six percent of those who responded to the follow-up survey said they had increased their physical activity levels as a result of the campaign. Not only that, but 81% "agreed" or "strongly agreed" that the opportunity to participate in the campaign made them feel that BT cared about their health, 58% that it made them feel valued as an employee, and 64% that it made them feel proud to work for BT. Feedback post training on the mental health course for managers found that between 91% and 97% of delegates agreed that the course had increased their awareness and understanding of mental health, increased

their confidence in dealing with such problems and provided them with additional skills. More than a third of managers had cause to use the training in the 6 months after they had attended the course and 66% said they had applied the learning in their life outside of work.

However there is no room for complacency and there is always more to do. Organizations need to further embed wellbeing in the organizational culture as “business as usual.” There is a need to continue to improve organizational resilience with an increased focus on operational management to build competence in people management, wellbeing, and personal resilience building. Organizations need to be more aware of the role of social support in wellbeing and do what they can to improve access to a denser network of social capital. For those who require them, access to specialist support services should be simple, timely, and well integrated. Individuals should be regularly provided with opportunities to build their personal physical and psychological resilience.

The enhancement of wellbeing and the reduction in mental health problems increasingly relies on better coordination between health- and social-care systems and cooperation with employers. Greater emphasis needs to be placed on the prevention of ill-health and the fostering of resilience, with an acknowledgment that employment can be good for wellbeing and an important factor in the treatment of those with existing mental health problems. The European Pact for Mental Health and Wellbeing (European Commission, 2008) provides an EU framework enabling exchange and cooperation between stakeholders in different sectors, including health, employment, and education, on the challenges and opportunities in promoting better mental health.

A sustainable approach to wellbeing at work that can have benefits for both employers and employees will need to address not only psychological health but also other issues, including promoting a healthy workplace environment and employee lifestyles, as well as enhancing employee engagement. The overlap between work life and home life has become increasingly blurred, with the rapid development of new technologies and new ways of working. Employers cannot afford to restrict their promotion and prevention activities purely to workplace factors. Individuals are also increasingly being expected to take responsibility for managing their own health and wellbeing and being a responsible citizen by paying attention to the health and wellbeing of those around them. But there is an even greater prize to be had as employees with high levels of wellbeing and resilience have a positive effect on their families, creating an environment where children can thrive and also on the

wider community (Health, Work and Wellbeing, 2009). Wellbeing in the corporate world is so much more than a business priority.

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11

The Power of Philanthropy and Volunteering

Sara Konrath
University of Michigan and University of Rochester Medical Center, U.S.A.

He who cannot give anything away cannot feel anything either.
Friedrich Nietzsche, The will to power, *Volume 2*

This chapter reviews research on the relationship between giving time (i.e., volunteering) and money (i.e., philanthropy) and givers' psychological wellbeing. Most of this literature defines psychological wellbeing hedonically, as happiness and other positive emotions, positive evaluations (e.g., life satisfaction), and the absence of negative emotions (Deci & Ryan, 2008; Ryan, Huta, & Deci, 2008). However, on the rare occasions when wellbeing is defined more eudaimonically, as having a deeper sense of meaning, purpose, and fulfillment in life, this is noted. This chapter aims to contextualize the literature on giving and wellbeing within a theoretical framework that can help to specify under which conditions giving can increase givers' psychological wellbeing, and under which conditions it may be less beneficial.

Both time and money are limited resources and the typical view of such resources within traditional economic models is that they exist in order to take care of one's own needs. It is obvious, however, that these resources may also be used to take care of the needs of others. For example, parenting involves an immense commitment of time and financial resources, and these resources are sometimes given to offspring at the expense of the parents'

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own needs. Economic models rooted in self-interest would argue that this type of behavior is still self-interested because parents ultimately benefit if their offspring survive and pass on their genes (Hamilton, 1964). Resources are often given to non-kin as well, with research demonstrating an increasing likelihood of giving both money and time as the social distance between the giver and recipient decreases, for example, when recipients can be identified or have direct social interactions with the donor or volunteer (Bekkers, 2004; Bohnet & Frey, 1999; Hoffman, McCabe, & Smith, 1996). However, even in such cases of giving to non-kin, the potential for reciprocal giving exists (Trivers, 1971), again supporting a more self-interested model of resource sharing.

But what about giving more broadly? There are many instances in which people give to those who are unrelated to themselves and who cannot reciprocate. In fact, 62.8 million Americans devoted almost 8.1 billion hours to unpaid volunteer work in 2010, which was valued at an estimated US$173 billion (Corporation for National & Community Service, 2012). Moreover, they donated $291 billion to charitable organizations in 2010 (Giving USA Foundation, 2011). Taken together, these two behaviors are striking in light of economic models suggesting that giving only exists when either one's own genes benefit (Hamilton, 1964) or when the giving will be reciprocated (Trivers, 1971). Both of these outcomes are unlikely when donating time or money to charitable organizations, yet there may be some unexpected psychological benefits associated with this type of giving. The fact that these unexpected benefits exist does not necessarily mean that all giving is therefore self-interested. This chapter will directly discuss the role of motives for giving, suggesting that psychological benefits of giving are likely to decrease to the extent that people give in order to receive some sort of benefit.

I take a basic "Five W's" approach when summarizing this literature. Organizing the chapter this way allows for an understanding of the current state of the field and what is missing in order to best harness the potential power of philanthropy and volunteering. Thus, this chapter is organized around the following five questions:

1. *What* are the effects of giving time or money on givers' psychological wellbeing?
2. *Where* do these effects exist? Do these effects exist across cultures?
3. *When*, or in which circumstances, do these effects exist?
4. *Who* benefits most from giving, and when giving *to whom?*
5. *Why* should giving time or money have any psychological benefits at all?

This chapter ends with a section called "What next?" which discusses the implications of the review for developing giving-based interventions to increase psychological wellbeing, and for helping organizations to more effectively recruit volunteers and solicit donations.

Question 1: What Are the Effects of Giving Time and Money on Givers' Psychological Wellbeing?

The most fundamental question with respect to money and happiness is the basic one: does having money make people happy? Many of us believe that it does, and based on this belief, we expend a lot of effort to obtain it. However, although there is indeed an association between income and happiness, it is much smaller than one might expect (Aknin, Norton, & Dunn, 2009). After people have their basic needs met, there is not much of an additive effect of increasing levels of income (Diener & Biswas-Diener, 2002; Halpern, 2010). In fact, happiness has remained relatively stable over time in the United States even as average income has steadily increased (Diener & Biswas-Diener, 2002).

So why have studies failed to document a clear relationship between money and happiness? One possibility is that happiness derives from other sources, beyond our intuitive sense that it feels good to receive money. In other words, having money does not necessarily mean that people know how to most effectively use it to increase their wellbeing. In fact, social relationships seem to be more central to people's wellbeing than money or other economic factors (Halpern, 2010). Some researchers have speculated that it is the giving of money (prosocial spending) that leads to happiness (Dunn, Aknin, & Norton, 2008), and this is generally consistent with what is known about studies of happiness. A key predictor of happiness is healthy social relationships (Diener & Seligman, 2002), which are likely to be characterized as much by prosocial behavior as they are by receiving help and support from others. Ironically, however, money itself may also serve to undermine happiness and relationships. For example, one well-designed experiment found that when participants were randomly assigned to see reminders of money (e.g., via screensavers with dollar bills on them), they became more focused on themselves and behaved in less prosocial ways (Vohs, Mead, & Goode, 2006).

Correlational Studies on Giving Money

Most studies examining the relationship between giving money and happiness compare relative effects of personal spending to prosocial spending. *Personal spending* includes money spent on bills and expenses and also on gifts for the self, while *prosocial spending* includes money spent on gifts for others and donations to charity. A number of studies find that there is a correlation between prosocial spending and psychological wellbeing.

For example, in a nationally representative sample of Americans, researchers found that there was no association between *personal spending* and happiness, but a positive association between *prosocial spending* and happiness, even when controlling for income (Dunn et al., 2008). Other research has found that the positive relationship between prosocial spending and happiness seems to persist even when participants are aware that there could be psychological benefits associated with this type of giving (Anik, Aknin, Norton, & Dunn, 2009). Attempts to extend these findings to economic behavior, as opposed to self-reported donations, have generally been supportive. At least two studies, for example, have found that participants who give away money to other participants as part of an experimental economics game feel happier and less ashamed compared to those who choose to keep all of their money (Dunn, Ashton-James, Hanson, & Aknin, 2010; Konow & Earley, 2008). Moreover, this is explained by the fact that people who have higher initial psychological wellbeing are more likely to give in these circumstances (Konow & Earley, 2008). Interestingly, this giving behavior ultimately leads to lower cortisol (stress hormone) responses as a consequence of reduced feelings of shame (Dunn et al., 2010). Giving money to others literally gets under our skin, with implications for longer term health.

It is important to note that the majority of correlational research on giving money and psychological wellbeing has been coming from a single research laboratory. There are, however, three known independent tests of this relationship. Two find small associations between donating money and happiness (Konow & Earley, 2008; Priller & Schupp, 2011), while the other finds no such relationship in a large sample (N = 29,200) of Americans (Borgonovi, 2008). Taken together, these results point to the need for additional research to investigate contradictory findings. Another limitation of this area of research is that it focuses exclusively on happiness or wellbeing, and I am not aware of any studies that examine mental

health outcomes more broadly (e.g., depression, anxiety). It will be important to know how deep these effects run before designing mental health interventions.

Correlational Studies on Giving Time

Those who tend to give money to charities are often the same people who volunteer their time to charities (Amato, 1985; Apinunmahakul & Devlin, 2008; Bryant, Jeon-Slaughter, Kang, & Tax, 2003; Duncan, 1999; Farmer & Fedor, 2001; Feldman, 2010; Matsunaga, 2007; Reed & Selbee, 2001; Schervish & Havens, 1997). In other words, there is a positive correlation between giving time and money to charitable organizations.

What is the relationship between giving one's *time* (i.e., volunteering) and psychological health? Similar principles seem to apply to giving one's time to others compared to giving one's money. Like money, time is a resource, and having time itself does not necessarily imply happiness. After all, one may have abundant time because one is unemployed or unable to work, and this could translate to less happiness. As with money, how *time is used* seems more important than the amount of available time in terms of predicting psychological wellbeing.

The relationship between volunteering for nonprofit organizations and mental health is much more established than the one between giving money and happiness, with studies going back as far as the early 1970s demonstrating this link (Cutler, 1973). One early study found that compared to nonvolunteers, older adults who volunteered had higher life satisfaction and lower depression and anxiety, even when controlling for physical health. There were no demographic differences between volunteers and nonvolunteers, thus ruling out demographic factors as potential explanations for the finding (Hunter & Linn, 1980). Since then, a number of studies have confirmed this correlational finding among older adult populations (Greenfield & Marks, 2004; Sarid, Melzer, Kurz, Shahar, & Ruch, 2010; Wheeler, Gorey, & Greenblatt, 1998).

This positive relationship between volunteering and psychological wellbeing also exists among middle-age adults, suggesting that the benefits are not limited to older adults (Borgonovi, 2008; Campbell et al., 2009; Meier & Stutzer, 2008). Moreover, these effects persist despite controlling for a number of potential confounds (e.g., gender, age, employment status, income, general social connectedness; Campbell et al., 2009; Meier & Stutzer, 2008).

Interpretations of Correlational Results

Although potential third variables, such as those mentioned above, have been ruled out, issues with respect to direction of causality are still important to consider when interpreting correlational studies. It is possible that giving time and money to others causes people to feel happier and less depressed, but it is also possible that those who are currently experiencing greater psychological wellbeing are simply more likely to give.

Indeed, there are a number of classic studies supporting exactly this latter claim. When participants are induced to be in a positive mood via a variety of experimental techniques (e.g., experiencing a success versus a failure, finding a dime, being directly induced into positive or negative mood states), many studies find that they are more likely to later exhibit prosocial behavior (Aderman, 1972; Berkowitz & Connor, 1966; Isen, 1970; Isen & Levin, 1972). This "happiness leads to giving" effect has also been demonstrated in children as young as 7 years old (Isen, Horn, & Rosenhan, 1973; Moore, Underwood, & Rosenhan, 1973; Rosenhan, Underwood, & Moore, 1974). Moreover, this effect also extends to naturally occurring positive mood states (Konow & Earley, 2008; Wang & Graddy, 2008) and also outside of research laboratories into employment settings (Forgas, Dunn, & Granland, 2008; George, 1991; Williams & Shiaw, 1999).

So, experimental studies make it clear that happy people are more likely to give time and money to others. But this does not exclude the possibility that the relationship between giving and happiness is bidirectional. What evidence is there that giving one's time and money actually *causes* increased happiness?

Longitudinal Studies on Giving Money and Time

With longitudinal studies the direction of causality is clearer. For example, if a researcher measures giving and happiness at time 1, and then again measures happiness at a later time point, she can examine the effect of giving at time 1 on happiness at time 2, controlling for participants' initial feelings of happiness. Note that studies do not typically examine effects of continuous giving over long periods of time, but simply examine effects of giving at one time point on health and wellbeing at a later time point.

One small study ($N = 16$) found that respondents who chose to spend more of their money (an employment bonus) on others felt happier 2 months

later compared to those who spent more of their bonus on themselves (Dunn et al., 2008). This effect persisted when controlling for their initial levels of happiness, the total amount of the bonus, and their incomes, ruling out these three variables as potential explanations for the finding. A larger study from an independent research lab tracked over 900 older adults over a period of 9 years and found that the more money respondents donated at the beginning of the study, the higher their psychological wellbeing was 9 years later, even when controlling for baseline wellbeing, physical health, income, education, religiosity, and general social integration (Choi & Kim, 2011). Taken together, these two studies suggest that giving money to others can have long-lasting effects on people's happiness and psychological wellbeing that persist up to 9 years later. With longitudinal studies it is always possible that the results may be explained by some unknown third variable (e.g., eudaimonic wellbeing, or dispositional kindness), however, the studies reported above do attempt to rule out some obvious potential third variables.

Longitudinal studies are more common in the volunteering literature. Typically studies compare long-term outcomes of volunteers to nonvolunteers to see if volunteering at one time point has a psychological benefit a few years later, controlling for a number of potential other explanations. Indeed all known studies find that regular volunteers experience increased life satisfaction, happiness, self-esteem, and psychological wellbeing, and fewer depressive symptoms a few years later, compared to those who do not volunteer (Lum & Lightfoot, 2005; Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Musick & Wilson, 2003; Piliavin & Siegl, 2007; Thoits & Hewitt, 2001; Van Willigen, 2000; Warren, 1993). These studies are most commonly conducted among older adult populations, but there are also psychological benefits to volunteering among younger adults, although slightly attenuated (Musick & Wilson, 2003; Van Willigen, 2000), and among those who have current mental health problems (Warren, 1993).

Interestingly, there is evidence that psychological wellbeing seems to promote more volunteering, which further promotes increases in psychological wellbeing (Thoits & Hewitt, 2001). This parallels the above experimental findings that happy people are more likely to give time and money to others, but goes beyond these studies by directly providing evidence for a positive feedback loop. Whether one jumps onto the loop through being happy (and giving more) or through giving time (and feeling more happy), there seems to be an upward spiral of giving and happier living.

One obvious question that comes to mind is which is a larger predictor of psychological wellbeing, giving money or giving time? It is rare for studies to assess both simultaneously, but one study that did find that there was a larger effect of giving any amount of money compared to giving time (Choi & Kim, 2011), although there were positive effects of both. This study could not specifically compare the effect of giving time versus money to the *same or similar* organizations though, so it is unclear what would happen when the two are directly pitted against each other. Moreover, this study found that there were no additional benefits of volunteering more than 10 hours per week. Future studies should include measures of both types of giving to clarify this question.

Experimental Studies on Giving Money

In order to really understand the causal effect of giving money or time on psychological wellbeing, well-designed experimental studies are needed. Since it is difficult to randomly assign people to philanthropic or volunteering behavior, these types of studies are rare. However, a few such studies do exist, and the results are promising.

For example, one such study examined the effect of giving money to others on participants' psychological wellbeing later that same day (Dunn et al., 2008). The researchers measured happiness in the morning, then gave half of the participants $5 and the other half $20. Next, the researchers asked half of the participants to spend the money that day on *themselves* and the other half to spend the money on *another person*. Happiness was again measured in the evening. The researchers found that participants who were assigned to spend their money on others were happier at the end of the day, even when controlling for their baseline levels of happiness. Interestingly, the amount of money did not seem to make a difference: participants received an equal boost to their happiness whether they spent $5 or $20. Although this study differs from more everyday giving situations, because the giving was nonvoluntary and noncostly (since the money was given to the participants), this study provides compelling evidence that spending money on others causes increased happiness, at least in the short term. It is unclear how long this effect lasts though. Would the prosocial spenders wake up happier the next day, or would the effects dissipate quickly? In any case, this is one of the strongest available experimental studies on the psychological effects of giving money to others because it relies on actual giving behaviors.

Other available experimental research relies on guided recall tasks. For example, one study asked participants to recall a time when they spent money on themselves versus on others, and then measured their happiness (Aknin et al., 2013). The researchers found that those who were asked to recall spending money on others reported higher happiness than those who recalled spending money on themselves. This was true even when controlling for various alternative explanations (e.g., whether the purchase was needed versus wanted, whether the giving was obligatory or volitional, and whether the purchase was an experience versus a product). Another such study asked participants to recall a time that they spent a certain amount of money (US$20 versus $100) on themselves or on someone else (Aknin, Dunn, & Norton, 2012). The researchers again found that recalling an instance of prosocial giving led to increased levels of happiness relative to thinking about personal spending. Again, this effect seemed to exist regardless of the amount that participants recalled giving.

Interestingly, this study also examined the consequences of such happiness for later prosocial giving. At the end of the study participants could choose to spend money ($5 or $20) given to them by researchers on either themselves or others. Those who were initially asked to think about giving to others experienced more happiness, and this higher happiness predicted more prosocial giving. In other words, there was modest evidence for a positive feedback loop such that giving led to happiness which led to more giving. However, one alternative explanation is that this additional prosocial giving is explained by simple priming; it is possible that thinking about spending money on others primed participants to subsequently spend more money on others.

Moreover, the psychological consequences of giving to others seem to depend on the relationship between the giver and the recipient (Aknin, Sandstrom, Dunn, & Norton, 2011). In a guided recall experiment, participants were asked to report a time when they spent $20 on a close other (close friend, partner) or a less close other (acquaintance, classmate). The researchers found that participants who recalled spending on a close other felt more positive affect compared to those who recalled spending the money on a weaker emotional tie. Without a control group it is impossible to know if spending money on acquaintances would be better than spending money on oneself. In addition, the study did not assess whether the spending was voluntary or obligatory, and this remains an important confound to be addressed in future research. Still, the implication of this research is that

spending money on one's close ties seems to have more beneficial effects for wellbeing than spending it on less close others.

Overall, the experimental studies on giving money provide very strong evidence that giving money to others, or spending money on others, makes people happier. But are people intuitively aware that if they give their money away they will feel happier? In one interesting experimental study, researchers found that when participants were asked to imagine spending money on someone else versus spending it on themselves, participants guessed that spending it on *themselves* would make them happier (Dunn et al., 2008). In other words, they were dead wrong about the actual consequences of giving to others.

Experimental Studies on Giving Time

Experimental studies examining the effects of volunteering on wellbeing are extremely rare, which is not surprising considering that by definition volunteering is voluntary. However, there have been a few promising studies that have partially addressed this issue in creative ways. For example, one study found that older adults who participated in Experience Corps, an intensive volunteering program, had lower depression over a 2-year period compared to a demographically matched control group over the same time period (Hong & Morrow-Howell, 2010). Although this study is not a true experiment, it does offer some evidence that intensive volunteering may be good for wellbeing. A true experiment in which participants were randomly assigned to a volunteering or control (waiting period) group did not assess psychological wellbeing, per se, but did find improvements in physical, cognitive, and social variables that may help to explain some of the psychological benefits (Fried et al., 2004).

Another study used a pre–post quasi-experimental design to examine the effects of unexpectedly losing one's volunteer position on later wellbeing (Meier & Stutzer, 2008). Using data from the German Socio-Economic Panel, researchers compared the wellbeing of people in East Germany who had lost the opportunity to volunteer (because of the collapse of organizations during the reunification of Germany) to those who retained volunteering. They found that life satisfaction decreased less over time for those who were still able to volunteer after the reunification, compared to those who had lost their volunteering position. This effect remained when including covariates, and was not explained by a loss of employment status, since respondents did not lose their jobs.

A small experimental literature examines the effects of everyday acts of helping on mood. Although this is not the same as long-term volunteering behavior, it does provide clues to potential benefits experienced from regularly helping others. These studies find that participants who are randomly assigned to help others experience immediate short-term bursts in their happiness (Harris, 1977; Williamson & Clark, 1989). Another study experimentally examines longer term effects of such behaviors, and thus better approximates the true experience of regularly volunteering (Tkach, 2005). In this study, students were randomly assigned to perform small acts of kindness per week over a 6-week period (compared to control group), and then were followed up one month later to examine longer term effects of the intervention. The frequency (low versus high) and variety (low versus high) of the kind acts was also varied in the study. The researcher found that there was an increase in wellbeing over time (e.g., higher levels of self-acceptance, happiness, and subjective wellbeing, and less self-reported stress and negative affect) for those who performed small acts of kindness, but only under certain conditions. In order to experience these psychological benefits, participants needed to vary their acts of kindness (i.e., different acts to different people) throughout the study time period, and perform more (i.e., nine) rather than fewer (i.e., three) weekly acts of kindness. Giving in a wide variety of ways likely allows each act of giving to remain fresh and enjoyable, rather than becoming routine. Another important finding of this study was that individuals who scored low in dispositional empathy, the tendency to readily experience and care about others' feelings, were most positively impacted by the intervention. This suggests that attempts to increase psychological wellbeing via giving interventions should either: (1) target those who are less likely to give in the first place (i.e., those lower in empathy), or (2) focus on building empathy as a mechanism to increasing wellbeing via giving. Participants in the control group exhibited a decrease in wellbeing over the period of the study.

One study actually randomly assigned people to either volunteer or not and then measured their wellbeing over time (Switzer, Simmons, Dew, Regalski, & Wang, 1995). In this study, seventh-grade students were randomly assigned by homeroom to a volunteer group ($N = 85$) and a demographically matched control group ($N = 86$). Students in the volunteer group were required to volunteer in some capacity for the full school year (about 1 hr per week), and their volunteer service was verified and monitored. They also attended a weekly seminar to discuss their

voluntary activities and kept a weekly journal. The researchers found no differences between the two groups on pre-intervention measures. Nor were there any main effects of the volunteering intervention. However, there was an interaction with gender such that boys in the volunteering group had higher self-esteem, less depressive affect, more school involvement, and fewer problem behaviors after the intervention. There was no effect of volunteering on girls. This study again suggests that giving interventions will likely be most effective at increasing psychological wellbeing on groups (like males) that typically score lower on empathy (Eisenberg & Lennon, 1983). However, it is unclear whether the volunteering itself helped the boys or whether there was some benefit of the weekly group seminars in themselves. Future studies need to carefully address such potential confounds.

Other-Focused Traits

Several studies find that those who score high on other-focused traits, such as compassion, altruism, or empathy, experience benefits to their wellbeing. For example, in several studies examining different populations (e.g., high school students, college students, people with chronic illnesses), researchers have found associations between these traits and low levels of anxiety, hopelessness, and depression (Au, Wong, Lai, & Chan, 2011; Ironson et al., 2002; Steffen & Masters, 2005). This relationship persists even when confounds such as coping styles and social support are taken into account (Au et al., 2011). Moreover, even in high-stress occupations like health care, which are susceptible to compassion fatigue, people with other-focused traits experience high job satisfaction and low stress and burnout (Burtson & Stichler, 2010; Dyrbye et al., 2010).

Longitudinal evidence provides some support that the direction of causality goes from other-focused traits to improved wellbeing: a longitudinal study found that adolescents with altruistic personalities reported better mental health 60 years later, even when considering their baseline health and social class (Wink & Dillon, 2002). Since other-oriented people tend to seek out opportunities to help others (Davis, 1983; Smith, 1992; Steffen & Masters, 2005) and also are comfortable in accepting others' help (Cosley, McCoy, Saslow, & Epel, 2010; Steffen & Masters, 2005), it is likely that these effects exist in part because of strong social support networks. Since dispositional empathy is declining over time in the United

States (Konrath, O'Brien, & Hsing, 2011) while anxiety and neuroticism are simultaneously rising (Twenge, 2000), the issue of how empathic traits are related to wellbeing will likely become more important in the future.

Corporate Philanthropy

The majority of the literature on giving and wellbeing has focused on individual-level volunteering, but there is an emerging scholarly interest in skills-based, or corporate, volunteering. Most Fortune 500 companies (90%) sponsor volunteering activities through their companies, donating employees' time and skills to charitable and community causes (Boccalandro, 2009; Grant, 2012). In addition, corporate philanthropy in the form of financial donations or sponsorship is quite commonplace. Employees express deeper connection and commitment to companies that have active corporate volunteering programs (Grant, Dutton, & Rosso, 2008). In anecdotes and case studies, work-based volunteering programs seem to fulfil individuals' deeper needs for meaning and purpose in their lives (Grant et al., 2008), but no known study has directly assessed the possible effect of such programs on wellbeing. One study randomly assigned employees to receive either a "prosocial bonus"—a sum of money to donate to a charity of their choice—or a control condition (Norton, Anik, Aknin, & Dunn, 2012). The researchers found that employees who donated the money felt happier and expressed higher job satisfaction compared to controls, but only for relatively large sums of money (equivalent to $100, and not $50). A second study in the same paper found that prosocial spending led to better team performance compared to spending on oneself. Overall, there has been limited research on the association between corporate-based giving and employee wellbeing, and this is an important area for future research.

Summarizing Effects of Giving Money and Time

Taken together, this research literature provides pretty strong evidence that feeling happy causes people to give and help more, and that giving and helping cause increases in happiness and subjective wellbeing, and decreases in negative affect. In fact, there seems to be a positive feedback loop such that happiness begets giving and giving begets happiness and so on. The next section examines whether there is evidence that these results extend across cultures.

Question 2: Where Do these Effects Exist? Do these Effects Exist Across Cultures?

The vast majority of the literature cited above unfortunately restricts the examination of the effects of giving money and time to a single culture, and often only Western, educated, industrialized, rich, and democratic populations (Henrich, Heine, & Norenzayan, 2010). What evidence is there that these effects extend across human societies? Are these results simply a reflection of religious or cultural values that encourage a particular form of moral behavior?

The best known cross-cultural study on the association between giving *time* and wellbeing examined this question in a sample of 23 European cultures using data from the Wellbeing Module in the European Social Survey (Plagnol & Huppert, 2010). Importantly, this study examined two different conceptualizations of wellbeing, both more *hedonic*, or focused on pleasant feelings (e.g., happiness, life satisfaction, positive emotions, and the absence of negative emotions), and more *eudaimonic*, or focused on fulfillment and personal meaning. It also examined two different conceptualizations of volunteering, both more *formal* (i.e., for an organization) and more *informal* (i.e., everyday acts of helping toward non-relatives). Given that it was cross-sectional, it also importantly controlled for demographics, health, psychological resources, social integration, and cultural values. The researchers found that formal volunteering was generally associated with higher wellbeing (both hedonic and eudaimonic), and that this was especially true in cultures that had relatively lower rates of volunteering. Informal volunteering seemed to be especially beneficial in cultures with middle-level frequencies of volunteering. Although both types of volunteering were associated with positive indicators of wellbeing, neither type of volunteering was associated with lower negative affect.

Another study finds that the psychological benefits associated with giving *money* to others exist in an even larger group of cultures worldwide (Aknin et al., 2013). Over 230,000 respondents who were taken from nationally representative samples in 136 countries were asked about whether they had donated money to a charity in the past month and were also asked to report their subjective wellbeing. The researchers found that giving money to charities was positively associated with subjective wellbeing in 122 of 136 countries (90%) and that the correlation reached significance in 81 (60%) of them. Even though a greater proportion of individuals from richer countries

reported charitable donations as compared to those from poorer countries, the relationship between donating money and subjective wellbeing was similar *regardless of the average income* of a country, and the effect remained even when controlling for individual demographic information (e.g., age, gender, individual income, whether respondents had trouble paying for food in the last year). Importantly, when the same researchers examined these questions experimentally across cultures, they found that participants from both Canada and Uganda who were randomly assigned to recall a time of prosocial giving experienced more happiness compared to those who were asked to recall an instance of personal spending (Aknin et al., 2013).

From this study it can be concluded that prosocial spending is associated with increased wellbeing even in poor countries, but future studies would need to explore relative levels of giving. Are there limits in the percentage of giving that is associated with happiness in higher poverty countries? Also, although the correlations were in the expected direction in 90% of the countries worldwide, what about the 10% of countries in which this relationship was not found?

There is strong cross-cultural evidence that giving time and money is related to psychological wellbeing, but this does not seem to be a universal human trait. It would be very interesting to try to understand more about the cultures in which giving is *not* related to wellbeing, in order to better understand why such an effect should exist at all.

Question 3: When, or in Which Circumstances, Do these Effects Exist?

In order to design effective interventions it is important to understand whether and how other factors might influence the relationship between giving and psychological wellbeing. The review below focuses on motives for helping others, the helper's available resources, and features of the giving situation.

The Role of Motives

There are many reasons why people give their time and money to others. Many people give time and money for *other-oriented* reasons, for example, because they are genuinely concerned about others in need, or because

their loved ones value a particular charitable cause (Clary & Snyder, 1999). However, people may also have more *self-oriented* reasons for giving, for example, wanting to look good to others (Harbaugh, 1998), or to feel good about oneself (Clary & Snyder, 1999). Other self-oriented reasons for volunteering one's time might be to escape one's troubles and problems, to learn new skills, or to promote one's career (Clary & Snyder, 1999).

There are not many studies examining the role of motives for giving and helping on psychological wellbeing. One study found that college students who volunteered for altruistic reasons (i.e., because of compassion for needy people) were more likely to have secure attachment styles and also experienced less loneliness (Gillath et al., 2005). However, those who volunteered for a different other-oriented reason, because loved ones cared about a cause, actually had less secure attachment styles. Finally, students who volunteered to receive some sort of personal benefit also had less secure attachment styles. The correlational nature of the study does not allow us to determine whether the motives for volunteering led to these outcomes, or whether people with particular psychological profiles are more likely to volunteer for specific reasons. Moreover, I know of no studies that track people's changes in motives across time and situations. Another important point is that people can hold several types of motives at the same time, so studies should control for different types of motives to examine specific effects of each one.

Another correlational study found that volunteers and staff who reported more self-oriented reasons for working with elderly clients experienced higher levels of caregiver stress (Ferrari, Luhrs, & Lyman, 2007). On the other hand, those who worked with these clients for more other-oriented reasons experienced greater satisfaction with their positions. Again, this study is correlational, but it does allow for the possibility that the psychological benefits of giving and helping may only be experienced when people give for more altruistic reasons.

Finally, another correlational study found that people with more extrinsic goals in life (i.e., those who value money and career over family and friends) benefit less from volunteering (Meier & Stutzer, 2008). This may be taken as indirect evidence that motives for volunteering affect wellbeing, but it is also possible that more extrinsic individuals are simply choosing different volunteer placements (e.g., political organizations) compared to more intrinsic individuals (e.g., nursing home).

Some of our own research is applicable to this question, but examines physical health outcomes (i.e., mortality) rather than psychological wellbeing

(Konrath, Fuhrel-Forbis, Lou, & Brown, 2012). In a longitudinal study of older adult volunteers, we found that individuals who volunteered for more other-oriented reasons had a lower risk of mortality 4 years later, whereas those who volunteered for more self-oriented reasons experienced no such benefit, and instead actually experienced a slight increase in mortality risk. Since individuals can simultaneously hold both self and other-oriented motives, we entered both types of motives into statistical models to examine independent effects of self-oriented versus other-oriented motives in a single study. Importantly, the longitudinal nature of the design allowed us to establish the direction of causality (i.e., that motives led to later mortality risk), and we also ruled out a number of potential third variables (e.g., demographic variables, health, wellbeing, personality traits), thus strengthening the potential that these motives directly cause positive health outcomes.

In an unpublished study, the author of this chapter randomly assigned participants to either think about *how others benefited* from (or would benefit from) their volunteering efforts, or *how they personally benefited* (or would benefit) from them (Konrath, 2012). Individuals who were assigned to focus on how others might benefit from volunteering experienced immediate boosts to their happiness compared to those who focused on how they might personally benefit. This effect was only significant for those participants who were currently regular volunteers. Moreover, the effect was especially pronounced for those who were low in dispositional empathy. Taken together, this study provides the only known evidence that other-oriented motives for volunteering actually cause increased psychological wellbeing, whereas self-oriented motives cause decreased psychological wellbeing.

More research is needed to better tease apart the potential short-term and long-term psychological consequences of different motives for giving time and money to others. This is an essential step that is needed before interventions can be tested, because interventions that do not account for people's self-oriented desire to *feel good by doing good* have the potential to backfire and ultimately decrease wellbeing.

The Role of Resources

One issue that needs to be more carefully addressed in the literature is whether giving time and money to others is still beneficial when people give beyond their capacity. Everyone has limited time, energy, and money,

and it is possible that there may be critical thresholds after which giving will no longer be beneficial. Moreover, people with less time or money should find it more costly to give and this might perhaps attenuate potential psychological benefits of giving. People who are exhausted, depressed, or otherwise emotionally depleted should also be less likely to benefit if they give beyond their capacity. These hypotheses are theoretical and speculative at this point, but important to consider (S. Brown, Brown, & Preston, 2012).

There is not much research evidence to draw on for these hypotheses. In one study of charitable donations, there was no cutoff point after which the benefits of giving declined: giving any amount of money had linear effects on later psychological wellbeing (Choi & Kim, 2011). In addition, prosocial giving of money had psychological benefits even in poor countries (Aknin et al., 2013). However, both of these studies relied on absolute monetary values, rather than relative values (e.g., percentage of disposable income). It would be important to see if benefits were reduced at specific relative levels of giving.

In terms of giving one's time to others, there do seem to be cutoff points after which there are no additional benefits, or there are even sometimes costs, associated with giving. For example, although not designed to examine psychological wellbeing specifically, one study found that there are physical health benefits of volunteering up to 40 hr per year; however, volunteering more than 40 hr per year does not add any additional health benefits (Musick, Herzog, & House, 1999). Another study found a curvilinear relationship between hours spent volunteering and psychological wellbeing (Windsor, Anstey, & Rodgers, 2008). Respondents who volunteered between 100 and 800 hr per year (2–15 hr per week) experienced the highest psychological wellbeing. Those who volunteered less or more than this had low psychological wellbeing.

Taken together, these studies confirm the benefit of moderate levels of volunteering, and future research is needed to examine whether and how available time and money influence the potential benefits associated with giving to others. In particular researchers should attend to both objective indicators (e.g., income, employment status) *and* subjective perceptions (e.g., feelings of being too busy or burdened) of available resources. It is likely that both of these would predict whether people would experience benefits of giving time and money to others. In addition, studies would have to simultaneously compare the relative effects of giving time versus giving money, since they are positively related (Amato, 1985; Apinunmahakul & Devlin, 2008; Bryant et al., 2003; Duncan, 1999; Farmer &

Fedor, 2001; Feldman, 2010; Matsunaga, 2007; Reed & Selbee, 2001; Schervish & Havens, 1997). In addition, researchers should examine the *fit* between the giver's resources and the type of giving. It is possible that people who have a lot of money, but less time, will benefit more from giving money compared to volunteering. On the other hand, those who do not have much money, but have more available time, might benefit more from giving their time, since time is a more abundant resource for them. There is indeed evidence for the latter hypothesis (Morrow-Howell, Hong, & Tang, 2009), but more research is needed to better understand how available time and money impact the benefits associated with giving.

Features of the Giving Situation

Another factor that may influence the potential benefits of giving to others is the giving situation. There would likely be different outcomes associated with different modes of giving time and money. For example, volunteers who directly interact with recipients should be more likely to experience benefits compared to those who do not directly interact with recipients. This is because such personal interactions may trigger biological mechanisms (e.g., the olfactory system; see Question 5) related to evolved caregiving systems. Indeed, a meta-analysis of 37 correlational studies of volunteering and wellbeing found a substantially larger relationship (double the effect size) between volunteering and wellbeing for those whose positions involved directly helping others compared to those who had more indirect helping roles (Wheeler et al., 1998). I know of no similar study in the literature on giving money, but would posit that there would be a more pronounced psychological benefit associated with donating money in person as compared to mailing a check or making an online contribution. This should especially be true in cases where there is no existing close relationship between the giver and the recipient. Based on this, it is likely that prosocial interventions may be enhanced if they are also designed to bring givers and recipients in proximity to one another. However, researchers should consider cultural and individual differences in this. For example, some religions view anonymous giving as a higher form of charitable activity because recipients cannot receive praise for their actions (e.g., Judaism, Christianity). In addition, some people might find it stressful or embarrassing to directly interact with recipients of their generosity.

Question 4: Who Benefits Most from Giving, and When Giving to Whom?

This section is an extension of the previous one except that instead of exploring which situations or contexts are most beneficial, it explores intrapersonal and interpersonal factors that may be associated with the most benefits from giving to others. It is important to be cognizant of whether there are boundary conditions of the positive effects of giving time and money to others.

The Role of Individual Differences

Age and life stage.
We have already established that people from various cultures around the world experience psychological benefits when giving to others. What about people of various age groups? The literature is predominantly focused on older and middle-aged adults, leaving open an important gap in the literature. When the effects of volunteering on younger versus older adults are directly compared, researchers typically find greater effects for older adults (Musick & Wilson, 2003; Van Willigen, 2000). However, volunteering is still associated with benefits for younger people, even if the benefits are smaller. For example, other work finds that the relationship between volunteering and psychological wellbeing also exists among adolescents (Schwartz, Keyl, Marcum, & Bode, 2009; Switzer et al., 1995). What remains to be seen is whether there are psychological benefits associated with giving in very young children, or whether these benefits only accrue after several years of cultural socialization on the importance of giving and sharing. These are important questions for future research.

One's stage of life may influence whether people volunteer, how often, and why. Studies find, for example, that people with full-time jobs and preschool-age children are less likely to volunteer (Oesterle, Johnson, & Mortimer, 2004). Parents of older children more commonly volunteer, but often for their children's organizations (Sundeen, 1990), and it is unclear whether this family-motivated type of volunteering has similar effects on wellbeing as volunteering for other reasons. Younger adults tend to volunteer to make new friends or to help their career, whereas older adults report volunteering to strengthen existing relationships or to help and serve others (Okun & Schultz, 2003; Omoto, Snyder, & Martino, 2000).

Gender.

There seem to be different effects of giving for males versus females, however, overall patterns would become more apparent with a more thorough review or meta-analysis. For example, recent studies have found that the adverse *physiological* consequences of being self-centered were worse for men compared to women (Edelstein, Yim, & Quas, 2010; Reinhard, Konrath, Lopez, & Cameron, 2012). Men who scored high in the personality trait narcissism had higher baseline cortisol concentrations than women who scored high in the same trait. This was especially true for more interpersonally relevant aspects of narcissism (e.g., manipulating others) compared to more intrapersonal aspects of it (e.g., vanity or extreme self-sufficiency). This makes the results of another study less surprising. Boys who were assigned to a long-term volunteering intervention experienced improvements to their wellbeing over time, whereas there was no effect of the intervention on girls (Switzer et al., 1995). Giving and caring are to some extent stereotypically gendered activities, so it is possible that for females, these expectations and norms increase the obligation or external motivation to help, thus reducing potential benefits.

Other studies find that helping behavior is associated with increased wellbeing for both males and females, but that it depends on the type of helping (Schwartz et al., 2009). For example, males seem to benefit most from helping family members, whereas females benefit most from more general helping behaviors. In much of the literature, gender is included as a covariate rather than a moderator, and future studies should consider examining the patterns between giving and psychological wellbeing among males and females separately.

Social connectedness.

The literature on various types of social embeddedness suggest that giving to others is most beneficial to those who are less socially connected. For example, those who scored low on dispositional empathy were found to benefit most in terms of their happiness after a kindness intervention (Tkach, 2005) and after they were induced to focus on other-oriented, rather than self-oriented, reasons for volunteering (Konrath, 2012). In both studies, high empathy participants had higher levels of happiness regardless of their experimental conditions, so there was not much higher to go. Low empathy participants “caught up” to the happiness levels of their higher empathy counterparts only under conditions of other-oriented behaviors or thoughts.

This is likely because giving and focusing on others is more common among people higher in empathy, so they may be continually reaping the benefits in terms of psychological wellbeing.

Other research confirms the general principle that people who are lower in social connectedness experience more benefits from giving to others. For example, one study found that older adults who had suffered from a loss of role identity benefited more from volunteering in terms of their psychological wellbeing (Greenfield & Marks, 2004). Another study found that the relationship between volunteering and psychological wellbeing was moderated by levels of social integration, such that those who had lower integration benefited the most from volunteering (Piliavin & Siegl, 2007). Taken together, these results suggest that volunteering has potential to be a powerful intervention for wellbeing for those who may need it the most.

Religion.

Most religions strongly encourage caring for the poor and needy as part of religious devotion. Indeed, people who are religious tend to volunteer more and make more charitable donations (Monsma, 2007; Morgan, 1983; Regnerus, Smith, & Sikkink, 1998; Wilson & Janoski, 1995). At the same time, meta-analyses have found that religion is associated with improved wellbeing (Hackney & Sanders, 2003; Witter, Stock, Okun, & Haring, 1985). This association between religion and wellbeing is present in many different cultures worldwide (Inglehart, 2010; Ruiter & De Graaf, 2006), although the specific routes from religiosity to wellbeing are unclear. It would be interesting to directly compare the effects of participation in religious volunteering or charitable activities compared to secular ones, however, I am not aware of any studies that do so. One study finds that membership in religious organizations has a larger effect on wellbeing compared to membership in other nonreligious organizations (e.g., professional societies, political clubs, hobby clubs; Cutler, 1976). It is possible that religious givers receive an extra boost to their wellbeing after giving, perhaps because there are added social or psychological rewards that come with fulfilling one's religious worldviews. However, it is possible that giving time and money could be seen as required and obligatory, and thus, there may be reduced benefits associated with giving for religious people. It is also possible that religious people might benefit more from volunteering in religious organizations compared to secular ones. Future research should more carefully unpack specific effects of different types of giving on different types of people.

Does the Target of Giving Matter?

One question that is often ignored in the literature is whether there are stronger effects for giving to certain people (or organizations) rather than others. There is some evidence that the relationship between the giver and recipient may matter in terms of predicting outcomes. For example, one study found that giving money to closer others had a more powerful effect on wellbeing than giving to less close others (Aknin et al., 2011), however, future research needs to examine the role of obligatory versus voluntary giving in such relationships. We similarly find that older adults only experience the *physical health* benefits of giving social support to others when the recipients of such support are their own children, as compared to less emotionally close others (M. Liu & Konrath, 2013). Taken together, these studies suggest that although there are documented benefits to giving time and money to strangers (e.g., in the Experience Corps studies), it is possible that the closer the relationship, the stronger those benefits will be. It is rare for studies to directly compare the effects of giving to different types of recipients, so this hypothesis remains preliminary. Moreover, with volunteering it is possible for relationships to develop through repeated interactions with the same recipients (e.g., tutoring the same child over a long period of time), so it would be interesting to explore whether benefits of giving become stronger as relationships become closer.

Question 5: Why Should Giving Time or Money Have any Psychological Benefits at All?

The question of *why* giving money and time should affect wellbeing is an important one. There are a number of theories that have been posited in the literature, ranging from more social and psychological pathways to more biological ones. I first discuss some potential social and psychological pathways that have been presented in prior research. Our recent work examines more biological pathways (S. Brown et al., 2012; S. Brown, Konrath, Seng, & Smith, 2011), and thus I will next review a conceptual model that integrates a number of the findings presented above.

Social and Psychological Pathways

Past research has posited several social and psychological reasons why giving time and money should benefit givers psychologically. These psychological factors may work with, or independent of, biological systems designed for parenting (see next section). For example, it is hypothesized that giving one's time is associated with increased psychological wellbeing within older adults because volunteering helps to maintain important social identities and roles at a time in life when other roles are becoming less salient (Krause, Herzog, & Baker, 1992). Related to this, *response shift theory* suggests that giving to others can help to change people's views of themselves over time, and can increase their confidence, self-esteem, and self-awareness, and reduce their depressive symptoms (Schwartz & Sendor, 1999). These changed views of the self are particularly adaptive when people experience challenging life circumstances such as chronic physical illnesses.

Other work suggests that giving to others can help people to realize their existential needs for meaning, purpose, and fulfillment in life, each of which are needed to experience optimal psychological health (i.e., eudaimonic wellbeing; Krause et al., 1992; Morrow-Howell et al., 2009; Musick & Wilson, 2003; Thoits & Hewitt, 2001). In addition, one practical way that giving to others might ultimately lead to improved wellbeing is that it can increase one's social network, and thus one's access to informal social support (Greenfield & Marks, 2004; Krause et al., 1992; Li, 2007; Li & Ferraro, 2005; Musick & Wilson, 2003; Wilson & Musick, 1997).

Biological Pathways

Although not models of psychological wellbeing per se, animal models of parenting (Numan, 2006) provide some insight into how giving time and money may be related to improved stress regulation, faster recovery from depressive symptoms, reduced symptoms of inflammation, and better physical health. These models seem especially important in light of longitudinal studies that find giving (but not receiving) instrumental and emotional support to others predicts reduced mortality risk (S. Brown, Nesse, Vinokur, & Smith, 2003), even among caregivers who are presumably stressed or strained by their giving experience (S. Brown, Smith et al., 2009). An independent study conducted with older adults demonstrated a similar pattern in which giving, but not receiving, predicted better health outcomes (W. M. Brown, Consedine, & Magai, 2005).

Attempts to understand the mechanism for these beneficial health associations suggest a stress-buffering feature of giving behaviors. For example, giving behavior predicts accelerated recovery from depressive symptoms that accompany spousal loss, especially among those who are having trouble coping with their loss (S. Brown, Brown, House, & Smith, 2008). In a direct test of the stress-buffering hypothesis, giving behavior was only associated with reduced mortality risk among those who had been exposed to a stressful life event (Poulin, Brown, Dillard, & Smith, 2013). Among those who had not experienced a stressful life event, there was no association of giving and mortality risk. Importantly, all of the studies reviewed above routinely controlled for a variety of factors that could influence the giving/stress/health relationship, including preexisting health, personality, health behaviors, and social variables such as social integration, reciprocity, or social contact.

Attempts to describe the underlying neural circuitry that links giving and stress regulation were recently advanced (Eisenberger, 2013; S. Brown et al., 2012; Preston, 2013). These reviews integrate what is known about neural circuitry that motivates parenting behavior in animals with human studies of parental responses and social psychological approaches to prosocial behavior. The net result locates the motivational basis for some forms of giving within the medial preoptic area of the hypothalamus (MPOA). The general argument is that the neural circuits which evolved to motivate parenting behavior are recruited even in non-parenting circumstances to motivate *many forms of giving behavior*, especially those characterized by "other-focused" motivation.

Figure 11.1 presents a theoretical model inspired by these reviews, with the majority of evidence being drawn from studies of parenting, caregiving, and giving social support, however, in our lab we are examining whether

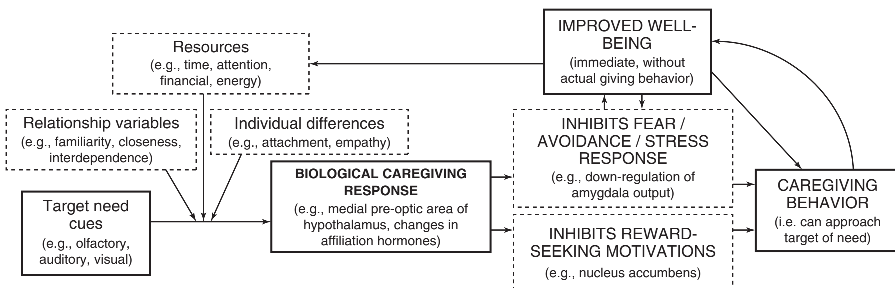

Figure 11.1. A Biological Model of Caregiving Motivation, Stress Regulation, and Psychological Wellbeing.

this model generalizes beyond these types of situations and into many types of giving behavior. We have found preliminary evidence that those who are randomly assigned to give help to others in a laboratory setting experience physiological benefits (e.g., a rise in oxytocin and progesterone) that are consistent with this model (S. Brown et al., 2011). We believe that these hypothesized processes are also at play during philanthropic behavior such as giving money and volunteering one's time.

Similar to the animal model of parenting, we predict that whether giving occurs is a product of conflict between avoidance motivation, reward-seeking drives, and other-focused motivation. Whether the MPOA is strong enough to trigger motor programs for helping is theorized to depend on personality factors such as attachment style that indicate whether there are sufficient resources to invest, situational factors such as a preexisting social bond or interdependence that assures a low risk of exploitation (S. Brown & Brown, 2006), and genuine signals or cues for need, possibly mediated by the amygdala, the subgenual area of the anterior cingulate cortex (sgACC), and the medial orbital frontal cortex (mOFC). These factors are suggested to increase the signal strength of the MPOA either by releasing oxytocin or by the transmission of olfactory cues.

In this model, there are numerous ways that activation of the parenting neural circuitry could lead to improved psychological wellbeing (see Figure 11.1). For example, in order for the MPOA to trigger motor programs for helping it must interfere with avoidance motivation, which is effectively the stress response involving projections from the amygdala to the periaqueductal gray (PAG). In addition to regulating stress, MPOA-directed helping must also disinhibit the ventral pallidum by triggering dopamine release in the nucleus accumbens, a brain region that mediates hoarding, chemical addiction, gambling, sexual and food preferences, and other reward-seeking drives.

Most interesting for the purposes of discussing psychological wellbeing is that at least one study shows that the action of dopamine in the nucleus accumbens in this circuit is inhibitory, so giving that is under the control of the MPOA may effectively arise from upstream inhibition of reward-seeking motives. Moreover, a heightened sense of wellbeing in the case of helping could derive from its activation of the ventral pallidum, known to have receptors for opioids (Mitrovic & Napier, 1995).

Finally, at the neuroendocrine level, hormones such as oxytocin and progesterone, which are both known for their stress-relieving properties, appear to play an important role in giving (S. Brown & Brown, 2006;

S. Brown, Fredrickson, et al., 2009). For example, one recent study compared the donation behavior of participants who were given an oxytocin infusion to those who were given a placebo. The oxytocin infusion had no effect on whether or not people donated, however, it was associated with a 48% rise in donation amount in those who chose to give (Barraza, McCullough, Ahmadi, & Zak, 2011).

Question 6: What Next?

This chapter reviewed research on the psychological benefits of giving to others, and presented a neurobiological model of caregiving motivation that can help to account for why and under which circumstances these effects should exist. I now turn to potential implications of such research, both for givers themselves and for charitable organizations.

One exciting implication of this work based on other recent research is that giving should have effects on wellbeing that extend beyond individual givers. Recent work has found that happiness is "contagious," and can spread up to three degrees of social connection (i.e., to a friend of a friend of a friend; Fowler & Christakis, 2008; Hill, Rand, Nowak, & Christakis, 2010). In other words, giving time and money can reap psychological benefits to the recipients, givers, and to broader social networks connected to them. Considering the positive feedback loop between giving and happiness makes this an even more powerful potential intervention (Aknin et al., 2012; Thoits & Hewitt, 2001). Giving makes people happier, and happy people give more, with rippling effects on other people's happiness extending beyond their own small circles.

Another implication of this work is that besides increasing psychological wellbeing, there is a large body of literature finding that giving to others is associated with a number of *physical health* benefits for givers, including stronger immune systems, a reduced risk of serious illnesses, and a lower mortality risk (Konrath & Brown, 2012). Although it is unclear whether these physical health effects exist because happier people have stronger immune systems (Dillon, Minchoff, & Baker, 1985), better cardiovascular health (Fredrickson & Levenson, 1998), and live longer (Chida & Steptoe, 2008; Danner, Snowdon, & Friesen, 2001; Ostir, Markides, Black, & Goodwin, 2000), the fact that there are physical health benefits associated with giving makes giving to others an even more exciting potential intervention.

A third implication that is that one does not have to have a preexisting trait of giving or generosity in order to receive psychological benefits. Experimental studies demonstrate the potential teachability of giving money and time to others, and therefore its strong potential as an easy-to-implement low-cost intervention (e.g., Dunn et al., 2008; Harris, 1977; Switzer et al., 1995; Tkach, 2005; Williamson & Clark, 1989). Although this review helps to clarify under which circumstances giving is likely to have the most benefits, it is clear that giving time or money can increase people's happiness and psychological wellbeing: even in people who may not normally practice such acts of giving. Future work should clarify the effects of giving on "skilled" or "practiced" givers compared to more "novice" givers.

Practical Advice to Givers

Based on the ideas presented in this review, here is some advice to givers on when they are likely to experience benefits:

- You do not have to give much to enjoy the benefits of giving. Even giving a small amount of money can increase the happiness of givers (Aknin et al., 2012; Dunn et al., 2008). As for time, there is some evidence that giving too little or too much of one's time as a volunteer can both be problematic (Windsor et al., 2008). It is also possible that giving too much money could attenuate potential benefits to wellbeing, but future research will help to clarify this.
- It is (literally) the thought that counts (Aknin et al., 2012, 2013; Williamson & Clark, 1989). Although no studies have directly compared effects of thinking about giving to actual giving, studies do find that one does not need to actually give money or time to others to experience psychological benefits. It is sufficient to simply recall a recent time that one gave (Aknin et al., 2012, 2013), or to agree to help without actually helping (Williamson & Clark, 1989). It is likely that the simple act of shifting one's thoughts to focus on others makes people happier. Our pilot data on other-oriented motives for volunteering support this possibility (Konrath, 2012). Giving money and time can help us to shift our thoughts in an other-directed way, but many other behaviors can do the same thing (e.g., loving kindness meditation; Hutcherson, Seppala, & Gross, 2008).
- The effects of giving on happiness seem to be *immediate* (based on experimental studies of giving money), but it is unclear how long-lasting

they are. One study finds that practicing small acts of kindness for a period of 6 weeks has effects that last up to one month later (Tkach, 2005), and another finds that it has effects on happiness 6–8 weeks later (Dunn et al., 2008). Longer term follow-up studies should be undertaken in future research.

- Although the effects of giving money and time will likely be larger when such giving is voluntary, there is evidence that even when people are asked to do it (e.g., in a laboratory or classroom setting), they still experience some increases in wellbeing (Dunn et al., 2008; Switzer et al., 1995; Tkach, 2005).
- The social aspects of giving time and money seem to matter. Giving to *closer others* seems to have more powerful effects on wellbeing than giving to less close others (Aknin et al., 2011), and there is a larger relationship between volunteering and wellbeing for those who are *directly helping others* compared to those who have more indirect helping roles (Wheeler et al., 1998). Moreover, helping for *other-oriented reasons* is associated with more positive effects than helping for self-oriented reasons (Ferrari et al., 2007; Gillath et al., 2005; Konrath & Fuhrel-Forbis, 2011).
- Is all lost because you have read this chapter and now *know* about how good it is to give? No! Giving may be beneficial even when one is aware that giving is beneficial (Anik et al., 2009). However, it is unlikely to be beneficial when one gives *in order to receive* the benefits. In other words, givers can still become happier after giving if they know this can happen, but not if they give in order to receive a "warm glow" (Andreoni, 1989, 1990).

Practical Advice to Nonprofit Organizations

The entire focus of this chapter has been on psychological benefits of giving time and money to others. What has not been discussed thus far is the obvious difficulties that nonprofit organizations face in recruiting reliable and long-term volunteers and raising money for their cause. If giving time and money is so beneficial to individuals, then why do people regularly fail to do so when given the opportunity (Andreoni, Rao, & Trachtman, 2011; Dana, Cain, & Dawes, 2006)?

One reason may be that individuals do not realize that giving time and money to others has such beneficial effects when compared to spending time and money on oneself. They may indeed realize that there *can sometimes be*

a warm glow associated with giving (Andreoni, 1989, 1990), but may not realize that this is the norm rather than the exception. One study directly addresses this issue. When participants were asked to directly compare which is likely to make them happiest, they incorrectly guessed that spending money on themselves would make them happier than spending it on others (Dunn et al., 2008).

We recommend that organizations share the good news that there are positive benefits associated with giving. In fact, there is evidence that telling potential donors that giving will make them happy actually increases their donations (Benson & Catt, 1978). A similar rise in donations occurs when charities give small gifts to potential donors (Falk, 2007). However, organizations must remember that the benefits that givers experience from giving may dissipate if the motives to give become focused on these personal benefits. Recruitment efforts should be strategically designed to address these issues. Without maintaining this other-oriented focus on giving, volunteers and donors may become more easily depleted, and thus in the long run, they may give less. Organizations should also remember that happier people are likely to give and help more (see Question 1 for a review). Thus, recruitment efforts should attempt to elicit positive emotions in potential givers in the hopes that these positive moods will translate into willing helpers with open checkbooks.

Another thing to consider is that time and money have different automatic meanings to people. Thinking about giving time activates more emotional mindsets in individuals while thinking about money activates more utilitarian and individualistic mindsets (W. Liu & Aacker, 2008; Vohs et al., 2006). One way to increase voluntary donations of both time and money is to use careful wording of volunteer and charitable donation requests. Studies have found that if people are first asked how much time they would be willing to give, and then later asked about possible donations, they give both more time *and* more money (W. Liu & Aacker, 2008). Asking for the money first can backfire and lead to less of both.

Finally, organizations should be aware that giving both time and money increases when participants communicate with or empathize with recipients (Andreoni & Rao, 2011; Xiao & Houser, 2005). Nonprofit organizations might focus on creating such bonds between givers and recipients both because they seem to be associated with greater psychological wellbeing in givers, as we reviewed in the current chapter, but also because givers will likely give more when they feel a personal connection to recipients of their help.

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12

Community Change

The Complex Nature of Interventions to Promote Positive Connections

Sue Roffey
University of Western Sydney, Australia

Jacqueline Barnes
Birkbeck, University of London, U.K.

Introduction: The Balance Between the Individual and the Community—a Symbiotic Relationship

How well we flourish as individuals is fundamentally embedded in our interactions with others who share our world and the way this world is construed. Positive psychology has much to say about individual happiness, but we know from a wealth of research that sustainable wellbeing needs to be based in more than individual hedonism. One of the fundamental aspects of authentic wellbeing is the quality of relationships within communities, whether these are within families, schools, clubs, or neighborhoods (Roffey, 2012).

This association between the individual and the community is not new. Over a hundred years ago the sociologist Emile Durkheim (1951/1898) made a case for the links between social expectations, norms and rates of suicide. Although cultures differ, there is strong evidence, summarized by Wilkinson and Pickett (2010), that societies which strive for greater equality and the "common good" have better levels of mental health, less violence

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and criminality and better social and health outcomes. Money does increase our wellbeing up to a point, but above a certain level it does not make much sustainable difference unless other aspects of wellbeing are in place (Huppert & So, 2009). What does matter is our relationships with others: both our connections and our comparisons (Marmot, 2004). These relationships affect how we feel about ourselves, our circumstances, and our identity. Reis and Gable (2003) summarize some of the negative impacts on both physical and mental health when relationships are broken, conflicted, or absent. Putnam (2000) refers to the decline in social trust in the United States over successive generations as one of the factors leading to less social and community participation. There is evidence, however, that when individuals engage in "doing good" for others they also protect their own wellbeing (Piliavin, 2003).

Western society has given much credence to individualism, and it is a basic tenet of capitalist ideology and meritocracy that competition is valuable and that everyone can "make it" to be materially successful if they work hard enough. Stanley, Richardson, and Prior (2005) are highly critical of this ideology in relation to the wellbeing of children and comment that the "current climate in Australia has leaned too far towards one in which individual rights and success are encouraged to the detriment of the kind of community involvement and activities that are so powerfully protective for children, and which enhance their development and wellbeing" (p. 164).

It is evident that not everyone can be a winner, a grade A student, or first in line for accolades and awards. Although celebration of individual success can promote excellence, an overemphasis on individual success can leave others positioned as losers, underdogs, and failures, potentially scorned rather than seen as valued members of society, described in terms such as the "underclass" (W. J. Wilson, 1987) or the "socially excluded" (Levitas, 1998). Fierce competition and individualism can undermine team spirit, the seeking of shared goals, and the development of positive social capital. This can lead to a disconnect and incongruence between policies and practices. For example, schools are urged to raise educational standards that are measured in individual competitive test scores while also being encouraged to develop values and skills that promote collaboration and prosocial behavior (James & Pedder, 2006; Roffey, 2011b). This tension between individual success and community wellbeing has the potential to exclude those who do not conform to narrow expectations. It is not surprising that schools sometimes maintain "standards" and league table positions by high levels of exclusion and a belief they cannot meet diverse needs.

There is, however, increasing evidence that developing inclusive communities focused on relational quality and wellbeing—the common good—enhances positive outcomes, including academic attainments, for everyone (Noble, McGrath, Roffey, & Rowling, 2008; OECD & Statistics Canada, 2000; Wellbeing Australia, 2012). This is more effective than promoting individual outcomes and hoping that the "success" of the elite will "trickle down."

Ecological Thinking about the Wellbeing of Children and Families

The role of neighborhood for young people's wellbeing has attracted a substantial amount of interest from social scientists. In Bronfenbrenner's influential ecological systems theory (1979) children's development is based in bidirectional nested systems: what happens at the microsystem, the interaction of the child with his or her immediate environment, is influenced by multiple complex factors, including the resources available in the local community, the organizational structures of the workplace, and the sociopolitical environment. Thus the extent to which the community functions well will have an important impact on the child and family.

Community-level interventions are aimed at changing the community itself rather than helping specific vulnerable individuals or families. This is based on the belief that social problems, especially those created by disadvantage, are best dealt with by "capacity building" so that the community itself can better address social ills, rather than by identifying individuals with problems and providing services to them. Underlying this strategy it is assumed that people living in a "healthy" or "cohesive" community are more likely to be healthy themselves, and therefore less likely to need welfare support. There is considerable research evidence to support this belief in relation to both parents (Barnes, Belsky, Frost, & Melhuish, 2011) and children (Curtis, Dooley, & Phipps, 2004; Leventhal & Brooks-Gunn, 2000; McCulloch & Joshi, 2001; Vinson, 2004). The clustering of families in high-poverty neighborhoods can lead to social and economic isolation, which compromises children's wellbeing.

Families and peers represent two of Bronfenbrenner's "microsystems," both of which may mediate neighborhood effects (Beyers, Bates, Pettit, & Dodge, 2003). Much attention has been paid to the significant relationship between community features, especially poverty, and abusive parenting

(Barry & Garbarino, 1997; Coulton Korbin, & Su, 1999; Garbarino Kostelny, & Barry, 1998; Sabol, Coulton, & Polousky, 2004). Poverty, danger and inadequate public resources are said to undermine positive parenting practices (Pinderhughes, Nix, Foster, Jones, & the Conduct Problems Prevention Research Group, 2001). In a U.S. study, Coulton, Korbin, and Su (1996) identified community factors that explained the differences between census tracts in rates of child abuse rates. The first and largest factor was community "impoverishment," defined by the proportion of families living at or below the poverty line, the unemployment rate, the amount of vacant housing, population loss, and the proportion of female-headed families. The second factor, "child-care burden," included the ratio of children to adults in the community, the ratio of females to males, and the percentage of the population that was elderly, all of which will have an impact on the community's capacity to provide "social capital."

Interestingly, ethnographic interviews and observations (Korbin & Coulton, 1997) suggested that the real impact of the community's child-care burden was reflected in neighbors' concerns that they could not manage the behavior of other people's children, otherwise known as "informal social control." This supports Sampson's suggestion (1997) that community disorganization is of primary importance to parents because of the role it plays in facilitating or inhibiting the creation of social capital, the absence of which is typical of socially disorganized communities. He proposes that closure or connectedness of social networks among families and children in a community provide children with the norms about appropriate behavior and sanctions that could not be brought about by a single adult. Sampson, Raudenbush, and Earls (1997) elaborated upon these ideas with the concept of "collective efficacy," which reflects social cohesion among neighbors and their willingness to act in the common good, particularly in response to controlling neighborhood children.

Peer relationships are important in adolescents' development and indirect neighborhood effects may be transmitted through peers', particularly antisocial, activities (Leventhal & Brooks-Gunn, 2000). Antisocial friends and acquaintances in the local neighborhood can easily undermine parental efforts to promote wellbeing, particularly during adolescence, and antisocial or bullying behavior on a virtual community website can have serious negative consequences for mental health (Hinduja & Patchin, 2010; Ybarra, 2004). However, mixing with other children in the community can be important in a positive way for children's social and identity development. Matthews (2003) suggests that any decline in the use of "the street" reduces

children's opportunities for identity construction, as the street is often a site where children can "separate or engage in the processes of separation" away from the adult gaze. He suggests that it is through encounters with adults and other children in the community that children explore and come to understand their own social relations.

Although ecological theory (Bronfenbrenner, 1979) provides an important structure with which to understand how the community may impact on child wellbeing, it is important to keep in mind that his model also incorporates the complexities of the interactions between children, parents, families, and communities (mesosystems); interactions that are likely to change over the course of children's development. We now also need to take into account the impact of the newer types of virtual community of interest, which may have a more immediate impact on children's wellbeing than the nature of the community in which they live.

Prilleltensky and Prilleltensky (2006) endorse ecological theory in their assertion that many of the impediments to individual wellbeing have their roots not only in personal issues but also in organizational and community dysfunction. Social disorganization theory proposes that "unhealthy" or dysfunctional communities are typified by lack of informal social control and shared norms, a high level of social incivilities such as fights or arguments between neighbors, public drinking, dropping litter and noise pollution, and lack of an institutional structure to maintain the fabric of the neighborhood (Sampson, 1988). Disorganized communities have been linked in particular with higher levels of violence, delinquency, and crime (Sampson, Raudenbush, & Earls, 1997, 1998).

Healthy communities develop where certain values are promoted and flourish. Summarizing the literature, the Prilletenskys identify these values as self-determination, freedom, personal growth, health, caring and compassion, accountability, transparency, responsiveness to the common good, collaboration, democratic participation, respect for human diversity, support for community structures, and social justice (p. 235).

They summarize the impact such values have on community wellbeing in terms of individual lives, such as reduced addictions and physical health; on family functioning, such as strong parent–child bonding; and on organizational priorities, such as a concern for the rights and wellbeing of children.

According to a major study for the World Bank (Narayan, Chambers, Shah, & Petesch, 2000), community wellbeing is demonstrated by adequate

material conditions, a sense of security, educational opportunities and freedom from economic exploitation. The psychological signs of community wellbeing include: respect and tolerance for diversity, democratic participation, a sense of community and solidarity, social support, freedom of choice and action and capacity for action. These are the conditions that enable people to live with dignity.

Focusing on issues at a singular level is therefore less likely to be successful than involving multiple levels of intervention.

The Value of Community Social Capital

Social capital is increasingly cited as having a role to play in addressing educational and social issues. There is evidence that neighborhoods and educational communities with high levels of social capital are more likely to achieve their goals (Fukuyama, 1995; Pretty & Ward, 2001).

Physical capital comprises hardware resources such as buildings and equipment; human capital comprises knowledge and skills; and social capital refers to the networks and relationships within an organization or community. There are three main proponents of this concept, all of whom have developed their theories over time in ways that have both similarities and differences. According to Bourdieu (1993), membership of formal and informal groups gives access to opportunities and resources. As such, he sees social capital as a vehicle for the reproduction of privilege. Coleman (1988) has a more positive view although he also acknowledges the dangers. He proposes that social capital has three forms: level of trust, as evidenced by obligations and expectations; information and communication channels; and norms and sanctions that promote the common good over self-interest. Putnam (2000) has added to the concept by identifying within-group connections, such as between teachers, as "bonding social capital" and across-group connections, such as between staff and the parent community as "bridging social capital." Bridging social capital is seen as particularly useful in building resources and opportunities. This can be mirrored in the difference between "inclusive" belonging that reaches out to others and "exclusive" belonging, which can be superior and self-protecting (Roffey, 2011a).

In communities with high levels of social trust, individuals are more likely to openly exchange information and be caring towards each other. There is also more confidence that others will be reliable and competent (Uslaner, 2002). Putnam links increasing inequality over the last 50 years in the United

States with the erosion of social trust. This was powerfully demonstrated at the macro level in the aftermath of Hurricane Katrina when troops were seen focusing on looters rather than bringing necessary supplies.

The usefulness of developing social capital in interventions to enhance community wellbeing would appear to be manifest. Strong relationships and interconnections are clearly valuable. The process of developing joint goals, dealing with conflict and maintaining focus would seem, however, to require both a high level of relational skill from all participants together with a belief in our shared humanity.

A Sense of Belonging: Social Inclusion

Human beings are social animals and from the earliest days of infancy we all seek ways to connect with others. When connectedness and inclusion is actively promoted within communities it is likely to discourage the development of connection to more negative groups such as gangs. Positive relationships and inclusive groups inhibit aggression and violence (D. Wilson, 2004; Wolfe, Wekerle, & Scott, 1999).

The research on resilience has also identified both personal and environmental factors that enable individuals to bounce back from multiple adversities to a positive sense of self (Werner, 2004). The environmental factors associated with resilience include having someone in your life who thinks you are worthwhile, and opportunities to participate and contribute to your community, thereby enhancing a sense of belonging.

Belonging is considered by psychologists to be a primary psychological need and motivator. In a review, Baumeister and Leary (1995) defined two aspects of belonging critical to human wellbeing. One is pleasant interactions with others. In order to feel we belong to a group, others must act in certain ways towards us. This includes being positively welcoming, attending to what we have to say, treating us as an ally, and so on. They should not fail to notice us, discount our opinion, or be emotionally distant in their responses to us, indifferent to whether we are there or not. The second is knowing that we can rely on others to consider our welfare beyond the current situation, akin to the concept of social capital, which infers reciprocity of "favors" or other support. We are unlikely to experience a deep sense of belonging when people are pleasant but have no intention of putting themselves out for us. Catalano, Haggerty, Oesterle, Fleming, and Hawkins (2004) make a similar assertion when they identify school connectedness as two interrelated

components: the first is affective, supportive relationships, and the second is commitment. Students need to perceive themselves as doing well in school and have an investment in being there. A safe, caring, and supportive learning environment is essential for belonging, but schools also need to be places where student strengths are identified and each individual sees themselves as progressing, achieving, and contributing.

Harre's research (2011) found that the greatest source of problematic conflict in social action groups was not with their opponents, whose views they neither shared nor respected, but with their own fellow activists. "If we don't feel that the group values us and that we can rely on others, we will not feel as if we belong, and without that we will be driven, or wither, away." This has serious implications for the success of community development.

Exclusive belonging is present when groups seek to maintain their sense of superiority by demonizing those who do not "fit." This is problematic not only for those excluded but also the development of healthy communities. Exclusive belonging is not only at the root of racism but also implicated in more nuanced social impacts. Chessor (2008) reflects on the subtle and insidious form of "queen bee" relational aggression that damages relationships within peer groups either by isolating girls from the group or by damaging their reputation. The outcome of relational aggression can be loss of self-esteem, school avoidance, or more serious psychological damage, leading to mental illness (Owens, Shute, & Slee, 2000; Rigby, 2005). On an even more somber note there is evidence that in the incidents of multiple killings in U.S. schools since 1999, there had been high levels of social stratification where some students were seen as stars and others rejected as "losers" (Wike & Fraser, 2009).

Working Together for Community Change

Children will benefit most when schools, families, and communities work together to strengthen each other's efforts rather than working independently to implement programs that attempt to compensate for perceived deficits in others (Weissberg, 2000).

Community action is about social change, trying to make the world in which people live just that bit better or joining forces to resist others making it worse. Prilleltensky and Prilleltensky (2006) talk about community interventions in two dimensions, those that alleviate suffering in some way and those that aim to transform communities. Despite the goodwill often

inherent in such activities, the implementation of social action is rife with both structural and relational difficulties (Harre, 2011).

The literature is full of exhortations to "work together." It is not enough to explore personal insight and action but to look further at what is effective in promoting collective responsibility and action to improve wellbeing. The process of change is as important as the outcome. When we focus on the "what" without giving as much attention to the "how" we risk the effectiveness of implementation. Imposition of "solutions" by an external body undermines collaboration with others on collective problems. Authentic responsibility requires ownership by the community as well as partnership with external bodies. Without participatory responsibility community change cannot be sustainable. When the external body leaves, there is a risk that the community will go back to whatever happened before.

What is a Community?

The terms "community" and "neighborhood" are often used interchangeably, but there are real differences in meanings; community can encompass neighborhood but not vice versa (Barnes, Katz, Korbin, & O'Brien 2006) and it is important to clarify their usage when thinking about evaluation in particular. A review completed many years ago (Hillery, 1955), identified almost a hundred definitions of community but concluded that they could actually be roughly organized into two groups: territorially based conceptions, coinciding with the idea of a neighborhood, and those based on social networks and relationships, the community of interest. This dichotomy was noted by others (e.g., Gusfield, 1975; Willmott, 1989) who similarly asserted that the relational type of community is generally concerned with the quality of character of human relationships, without reference to location, whereas the term community is also frequently used to describe individuals or families who share a location, often bounded by recognized administrative boundaries. Thus the term "community" is the more general of the two. It may refer either to a place, or to a class of people having something in common, whereas "neighborhood" is always geographically defined.

Chaskin's extensive review (1997) nicely distinguishes the two, concluding that "community" implies connection, some combination of shared beliefs, circumstances, priorities, relationships, or concerns, which may or may not be rooted in place. Local place-based communities are not simply

geographically bounded. Rather they require some form of communal connection among individuals linked with group identity and the likelihood of collective action. "Neighborhood," on the other hand, is clearly a spatial construction denoting a geographical unit in which residents share proximity and the circumstances that come with it, but do not necessarily hold the same beliefs and values.

The size of a community or neighborhood and its boundaries may be defined by administrative criteria (e.g., local authority divisions), political expediency (e.g., census tracts) or historical accident, usually related to some geographical marker such as a river or mountains. A territorial community can vary widely in scale: from a few streets to an area as large as a nation, or even a nation group (e.g., the European Community, now known as the European Union).

It has been suggested (Garbarino et al., 1998) that most spatially defined communities also have some sense of history represented by the evolution of residential patterns and "psyche," a sense of shared identity among residents, indicated for example by a common usage of the same name for the neighborhood. They propose that, in addition to location, a community has social, cognitive, and affective components, which would imply that a neighborhood is necessarily also a community, though a community does not have to be a neighborhood. Their affective dimension is similar to "psychological sense of community," which includes mutual help, support, and attachment to a residential location (McMillan, 1976; McMillan & Chavis, 1986).

A community defined by shared beliefs or a shared purpose need not have boundaries, especially in the context of the current usage of electronic and instant methods of communication (e.g., Facebook, Twitter). However, even before these were imagined, the concept of a "community without propinquity" was discussed (Webber, 1963) in the context of maintaining distant friendships, professional groupings, and other organizations with a shared focus (e.g., on preventing the spread of nuclear weapons or protecting the environment). The strongest communities may therefore take place with no relationship to location (Wellman, 2001). They can be strengthened through the development of clear rules about membership, boundaries, group symbols, and the exchange of support and emotional connectedness (Baym, 1995; Greer, 2000; Preece, 1999). If there is both virtual and an actual connection, such as being residents of the same neighborhood, then a virtual community might increase involvement within the territorial space by increasing democratic participation or other community activism

(Bakardjieva & Feenberg, 2002; Blanchard & Horan, 1998; Wellman, Haase, Witte, & Hampton, 2001).

Communities of shared interest, whatever the means of communication, are sometimes formed as a means of collective empowerment, in the context of being ignored or treated negatively by society (Gilchrist, 2004). In these circumstances the sense of belonging will be powerful and likely to lead to a high level of connectedness.

In the context of interventions, it may be more clear-cut to intervene with a territorially defined community, but communities of interest are likely to be more disposed to receiving messages about change, particularly if this relates clearly to shared concerns (e.g., linked to a particular cultural group).

Complexities of Evaluating Community Interventions

Evaluation issues can be related to a number of factors: the way in which the target of the community has been defined (Barnes, Katz, et al., 2006); the complexity that is generally typical of community interventions involving a broad range of outcomes (Kubisch, Weiss, Schoor, & Connell, 1995); and the likelihood that the design will not conform to the scientific ideal of a randomized controlled trial (Eisenstadt, 2011; Meadows, 2007).

Although much of the theorizing about community has elaborated on nongeographical communities, the majority of interventions have been directed to geographically or physically defined communities. However, the geographical space can pose as many, if not more methodological problems, compared to a community defined exclusively by its members. In such circumstances surveys, interviews, and other strategies eliciting information will be limited only if the sample of respondents is not an adequate representation of the community. For instance, it would not be sensible to only interview or gain feedback from community activists or leaders. They might be invested in a particular outcome of an intervention; they may have been opposed to it from the outset, or alternatively been involved in its creation. Neither would lead to unbiased opinions and a random sample would be more useful. What would not necessarily be in question would be the nature of the community. If they are members of Gingerbread they would self-identify as single parents; if they are members of the British Medical Association then their qualifications as physicians would define them.

There is not such clarity about geographically defined communities. Although the group delivering the intervention may have a clear idea about the target, in reality local individuals may not perceive their local area in similar terms. Administrative units are defined for different purposes than research, creating a number of problems (Barnes, 2007b; Barnes, Cheng, Howden, & Frost, 2006). First, they will not correspond with each other. A school district may or may not correspond to a geographic unit such as a census tract (a U.S. term similar to an electoral ward in the United Kingdom) or "block group" (a group of streets). An electoral ward will not correspond with police beat areas, and neither will correspond to school catchment areas or to the local health trust. The school may indeed be at the core of a "community" of parents, teachers, and students, but may not correspond to the neighborhood in which at least the parents and students live. The main difficulty faced when different administrative boundaries are overlapping in the area receiving an intervention is that accurate administrative data will not be available. To counter this, the evaluation will require costly methods, rather than relying on extracting relatively "cheap" existing data. For example, to evaluate the U.K. Sure Start Local Programmes intervention it was necessary to request aggregated postcode-level data from authorities such as the police, social services, and the Department of Work and Pensions in order to accurately characterize each local (and locally defined) area (Barnes, 2007b; Barnes et al., 2005; Frost & Harper, 2007).

Second, administratively defined neighborhoods and communities may not overlap with resident perceptions of their neighborhood boundaries or communities of interest. Coulton, Korbin, Chan, and Su (2001) addressed the question of whether census-defined neighborhoods in one U.S. city differed from resident-defined neighborhoods by comparing resident-drawn maps of their neighborhoods with census-defined block groups and census tracts. Coulton et al. had decided to use block groups (generally 5–10 city blocks) in their study of neighborhood impact on child maltreatment rather than census tracts, because they assumed that block groups, being smaller, would more closely resemble the face-to-face contact often associated with neighborhoods. The systematic examination of resident-drawn maps, however, yielded a different story. Residents drew maps of their neighborhoods that were four times larger than their respective block groups.

Third, residents may vary in the geographic area that they define as their neighborhood (Coulton et al., 2001). For instance, in a study in parents living in three disadvantaged neighborhoods in England (Barnes, 2007a), it was found that some identified personal neighborhoods that encompassed

little more than their own home, whereas others identified fairly large areas, usually bounded by major streets or parks, although the tendency was for more people to have smaller neighborhoods, and for only a few to identify large or very large areas. Parents and children from the same families will have different ideas about the nature of the local community including its size, safety and local relationships (Burton, Price-Spratlen, & Spencer, 1997; Spilsbury, 2005; Spilsbury & Korbin, 2004). Finally there may be intraindividual variability in addition to interindividual variability. Each resident has a personal sense of boundaries that are meaningful, but this may, in fact, include several different definitions of their territorial space, depending on the context and on their role, as parent, employee, local politician, or victim of crime for example (Galster, 1986).

The methodological aspect of this complexity and variability of definitions will be most pertinent when multiple methods are used for an evaluation. Questionnaires to community members will be influenced by the respondents' internal working models of the concept of their "community," whereas administrative or other data describing the nature of the community will be collated according to official definitions. However, there is some good news in that a Canadian study (Ross, Tremblay, & Graham, 2004) analyzed health data based on natural and census tract definitions of neighborhood and concluded that census tracts (containing approximately 4,000 residents) were good proxies for natural neighborhood boundaries. Researchers in Scotland have concluded that in order to understand the impact that the neighborhood may have on health, the distinction between the structural or compositional aspects of an area (usually assessed with administrative data) and the contextual or social elements, may be an apparent rather than real distinction (Macintyre, Ellaway, & Cummins, 2002).

Complexity of Outcomes

Community interventions often attempt to work across a range of sectors (Kubisch et al., 1995) and usually involve some kind of systems or process change. Aggregate statistical measures of neighborhood conditions can be powerful measures of structural conditions in neighborhood in their large sample size. They also employ data that is (possibly) readily available, making replication feasible. On the other hand, statistical analyses at the level of the census tract or electoral ward cannot elaborate the processes involved as neighborhood residents negotiate their living circumstances.

This requires methods that deal with interactions between community members and perceptions of change. It is also important to understand how neighborhood residents and community members perceive and experience the neighborhoods in which they live and the communities to which they belong. Furstenberg (1993), for example, illustrated with the use of detailed interviews how parental perceptions of their neighborhood surroundings can have a dramatic effect on parenting strategies.

A number of questionnaires have been developed to measure local residents' perceptions of the quality of their community (Barnes, 1997), mainly focusing on aspects such as danger and disorder, or overall neighborhood quality for families (Barnes-McGuire, 1997; Barnes-McGuire, Sampson, Kindlon, & Reiss, 1997; Barnes & Shay, 1996; Coulton et al., 1996; Earls, McGuire, & Shay, 1994; Sampson et al., 1997; Simcha-Fagan & Schwartz, 1986). Taking one element of social disorganization, Coulton and colleagues in the United States (Coulton et al., 1996) focused on community informal social control, the extent to which adults in the neighborhoods will intervene if they see a young child misbehaving, breaking the law, or being placed in a vulnerable situation, and this has been successfully used in the United Kingdom (Barnes, 2006).

Some measures have more recently been designed to assess the less clear-cut construct of community social capital. Relational aspects of the community such as social capital (Pretty & Ward, 2001; Putnam, 2000) are more of a challenge to assess, particularly if the aim is to measure it at the community rather than at the individual level. Furstenberg and Hughes (1995) assessed "social capital in the community" by asking parents of African American teenage mothers about their involvement in schools, church, and other community activities. They were also asked about four hypothetical situations and whether any community members would be available to offer support and, generally, whether they thought the neighborhood a good place for children to grow up. A similar approach was taken in analyzing the U.S. Panel Study of Income Dynamics (Boisjoly, Duncan, & Hofferth, 1995).

There has also been a substantial amount of work on measures of community process. A recent review identified more than 200 articles from 2004 to 2008, with mention of 46 different instruments (Sandoval et al., 2011). The most commonly measured aspect of the community was group dynamics (e.g., decision making, collective reflection, resource sharing), but although many measures were identified, many lacked adequate psychometric properties. This area requires further development.

Research Design

The most obvious difficulty with evaluations of community interventions is that communities are infrequently randomized into those receiving and not receiving the provision. In general, given the complexities of community participation, "buy in" has to be negotiated and once agreement is gained there is a sense that the willing community will not be then told that they are not actually going to receive the intervention. In the "Better Beginnings, Better Futures" intervention in Ontario, Canada, the intervention sites were selected primarily on deprivation but also to represent particular populations or styles of working while the control group for the longitudinal comparisons was composed of children in similar communities not receiving the intervention (Peters et al., 2010; Peters, Petrunka, & Arnold, 2003). This is a common pattern for community intervention evaluations, one notable exception being the evaluation of Communities that Care (CTC) (Brown, Hawkins, Arthur, Briney, & Fagan, 2011; Hawkins et al., 2007, 2012), which is considered to be of the highest standard since it was possible to randomly allocate communities to receive the intervention or act as controls. The same intervention was evaluated using a quasi-experimental design (Feinberg, Greenberg, Osgood, Sartorius, & Bontempo, 2007; Feinberg, Jones, Greenberg, Osgood, & Bontempo, 2010). Children were randomly selected to complete surveys, some of whom were in CTC areas and some of whom were not. The authors of the study argue that the previous randomized evaluation was small (12 communities), whereas they were able to study the impact in a larger number of areas, with a "real world" view. This is an important stage in any evaluation, to show that small-scale experimental studies can be replicated in a wider context (Barnes, 2010). However, there are other cases where interventions move to large scale without any such early experimental phase. The most notable in recent years has been the National Evaluation of Sure Start in England (Belsky, Barnes, & Melhuish, 2007; Eisenstadt, 2011). This is discussed in more detail later in this chapter. It represents a powerful culture clash between politicians who have a concept of an intervention—one that involved large sums of money being invested in services—but are not willing to face possible community anger at not being able to receive the support. The government placed restrictions on the bids for the evaluation, specifically excluding a randomized controlled trial (RCT) design (Eisenstadt, 2011). This decision was strongly criticized by leading scientists both at the time and subsequently (Rutter, 2006, 2007) and had

an impact on a range of aspects of the subsequent evaluation methods and findings (Belsky, Melhuish, Barnes, Leyland, Romaniuk, & the NESS Research Team, 2006; Melhuish, Belsky, Leyland, Barnes, & the NESS Research Team, 2008; National Evaluation of Sure Start Team, 2012).

Community Interventions

Community interventions to promote wellbeing are far from straightforward. The processes are clearly as critical as the content in maximizing the chance of positive and sustainable impact. This is illustrated by the following examples of both larger and smaller scale community initiatives.

Communities that Care

Communities that Care (CTC) aspires to help communities mobilize to promote the wellbeing of children and young people aged 13–19 and prevent adolescents from becoming involved in activities such as drugs, violence, and teenage pregnancy. It was developed by Catalano and Hawkins (1996) in the United States, based on their Social Development Model (SDM), which aims to strengthen the protective factors that promote positive youth development. It informs and empowers community stakeholders to work collaboratively in using evidence-based interventions congruent with the needs of their specific context. The SDM says that young people need to be in environments where they have strong bonds with caring individuals who consistently communicate and model standards for values and behavior. These connections are fostered when the young people have opportunities to be involved in meaningful activities where they are able to develop skills to be successful and receive recognition for their efforts, achievements, and contributions.

CTC has five phases of implementation.

1. *Getting started* explores the issues presenting in a particular community and identifies leverage to enable an intervention to take hold.
2. *Getting organized* is aimed at engaging community leaders, developing a vision and educating people on issues.
3. *Developing a community profile* is the process of gathering data to identify risk and protective factors, including what community resources exist and where the gaps are.

4. The *action plan* defines clear, measurable outcomes and identifies evidence-based strategies to meet community priorities.
5. *Implementation* including putting strategies into place, evaluating these and refining/modifying where appropriate.

A major evaluation of the CTC model took place via the Community Youth Development Study initiated in 2003. This was a large-scale controlled experimental study over 4 years that assigned 12 pairs of matched communities randomly into an experiential or control group. The focus of evaluation was both on faithfulness of implementation and outcomes for young people. At the beginning of the program there was no discernible difference between the risk behaviors identified in all communities but over time there was a discernible though not dramatic decrease for young people in the communities following the program. Sixty-two percent of 10th-graders from CTC communities had engaged in delinquent behavior compared with 70% from control communities; 67% vs. 75% had initiated alcohol use; and 44% vs. 52% had smoked cigarettes. The researchers conclude that it takes from 2 to 5 years to observe community-level effects on risk factors, and 5 or more years to observe effects on adolescent delinquency or substance use (Hawkins, Catalano, & Kuklinski, 2011).

In the United Kingdom the CTC model was trialed in three areas. The evaluation focused on implementation and intermediate outcomes. Implementation of CTC was deemed to have not met with success in two of the three areas (Crow, France, & Hacking, 2006). Recommendations for the implementation of sociodevelopmental approaches to crime prevention in local communities include the following:

- Appropriate measures of "community readiness": In this case partnership working, geography, and community involvement differed across the three areas at baseline and this influenced progress over the 5 years. The successful community was already engaged in partnership activity when the CTC process began.
- Coordination and management structures in place from the start: The engagement and involvement of all necessary partners (for early intervention the involvement of primary schools in both assessment and implementation is crucial).
- Communication and consultation: This needs to occur regularly across partnerships and vertically within agencies as staff at all levels are crucial to success.

- Sustained funding: This is crucial to success.
- Management of staff turnover: Key project coordinators all changed during the 5 years. The successful area had the best process in place to manage this hence the least disruption occurred there.

Overall, the authors concluded that CTC did show some overall promise in the area in which it was successfully implemented, but this study highlights the important role of implementation evaluation.

Healthy Communities: Healthy Youth and the Developmental Assets Framework

Nakkula, Foster, Mannes, & Bolstrom (2010) developed a developmental assets framework which they applied to the unique needs and resources for youth in eight different communities in Canada as part of a Healthy Communities: Healthy Youth (HC:HY) initiative. The assets are divided into external and internal. External assets consist of support, empowerment, boundaries and expectations, and constructive use of time. The internal categories are commitment to learning, positive values, social competencies, and positive identity. Each community is given detailed information about each of these assets but interprets the model for their particular context: there are no prescribed actions although there is guidance in getting initial work off the ground. It is recommended that at least three community sectors collaborate and focus on not more than three assets on which to build.

The evaluation of the HC:HY initiative explored the processes and meanings of the intervention as it evolved within particular communities rather than measuring standardized and global outcomes. Some approaches used in communities were common to all, others were unique. An overarching analysis found that, in order to effectively promote healthy youth development, there needed to be transformative changes in community life and functioning. There were both hopeful stories of transformative action but also concerns expressed about how far a community needs to move to achieve its aims. The participants were, however, frequently confirmed in their beliefs about what was essential for healthy youth development. Their stories of affirmation often centered on efforts to turn these convictions into shared actions by progressively larger sections of the community. The third major finding was one the researchers called "blended models" (i.e., efforts to connect the developmental assets framework with existing prevention and

intervention models and how they use, adapt, or customize this model with initiatives that are already taking place).

The Aboriginal Girls Circle (AGC)

The AGC intervention is a pilot program in regional Australia initiated by one of the authors and has now been independently evaluated (Dobia et al., 2013). It has aspects of both the CTC and the developmental assets approaches, but unlike these began with a small, contained intervention and has grown organically to embrace wider community engagement.

Based on what is known to inhibit risk factors for young children, the National Association for the Prevention of Child Abuse and Neglect (NAPCAN) began by liaising with community agencies and Aboriginal Elders. Girls from three high schools comprising one secondary college were invited to participate in four separate residential camp. The girls, who were aged 12–16, were encouraged to develop a sense of positive connection with each other by participating in a series of activities focused on relationship and resilience building. By the end of each residential the three AGCs had chosen the following community projects to work on:

- exploring their own backgrounds and cultural identity, culminating in Powerpoint presentations about their families;
- addressing what hurts and heals racism, with a book based on interviews with individuals in their communities;
- developing a play and dance presentation on friendship and fighting.

These projects provided a "hook" for developing positive peer and community connections, a sense of agency and conversations around important life issues. A champion in one school (the deputy principal), and the employment of a part-time AGC support officer, enabled the girls to work on their projects in school on a weekly basis. The project is based in a framework for interaction known as Circle Solutions (CS) (Roffey, 2014). This is both a pedagogy and a set of principles for healthy relationships. Everyone involved in the intervention has been trained in this philosophy. The principles are:

- Democracy: Each person has the right to a voice and equal opportunities to participate.
- Inclusion: Our most vulnerable young people are those most quickly marginalized and excluded so inclusion and belonging are emphasized

- Respect: When one person is speaking, everyone listens and there are no put-downs, only personal positives.
- Safety and choice: No-one has to speak unless they choose to, and issues, not incidents, are discussed.
- Positivity: Conversations and actions are strengths and solutions focused (what we want rather than what we want to get rid of). Positive emotions, including laughter, are actively generated.
- Agency: Each person has the right and the responsibility for decisions that concern them and their projects.
- High expectations.

The above principles are at the heart of all interactions for all involved.

Participants in the circle are mixed up to interact with those outside their usual social groups. Facilitators are also participants, engage in all activities and model what is expected. This helps break down barriers between adults and young people. Many discussions take place in pairs, where participants seek what they have in common. Small groups take part in structured activities, often presented as games. One example is the "Suitcase and Waste Bin" game, in which groups decide what aspects of their community they would like to carry forward into their future and which are harmful and they would like to leave behind.

Feedback from the girls, the teachers, and others in the community indicates a marked improvement in confidence, aspirations for the future and positive engagement in school for some, if not all of the participants.

> The workshops we participated in helped us girls feel great about ourselves. We got to open up more to the group and talk about the different options in life. We realized everyone is important and has different things to share with the group. We now know that young people can have a chance to speak up and have a say within their community.
>
> (part of unsolicited written feedback following one residential workshop)

Teachers are also commenting on their changing relationships with students. Very few of the girls have dropped out in the ensuing months although some have moved from the area. There have been a number of challenges that include relational conflict, staff continuity, confidence, and overwhelming stressors for families in the community. These difficulties mirror the findings of the HC:HY initiative, the CTC U.K. trial, and Harre's findings on social activism. However, all three groups are in the process of finalizing

their initial projects and have presented these in various community forums. The CS philosophy is now being embraced by all three high schools as part of their positive behavior policy and several girls are planning to run circles for younger students as they transition into high school. Others are planning fun activities to raise funds for elders with disabilities. There are now five champions in the three schools, increasing the chance of sustainability. CS has been used in addressing an incident of racism between groups, and found to have a positive impact. There is interest in developing a similar project with boys.

Something is working to some extent, which appears to be the hallmark of many such community interventions. The evaluation has indicated that a sense of positive connection, increased confidence, and participating in enjoyable, meaningful activities have raised resilience, reduced negative behaviors, and promoted leadership skills. The girls are perceiving alternatives for their futures. Two process issues, however, appear to be critical:

- the existence of one or more enthusiastic "champions" for the intervention who have credibility with others in their community, resilience and flexibility when things do not go to plan and good communication skills;
- the relationship between community members and the external agents to be regular and respectful, not "experts" who fly in, deliver, and disappear. This is not the cheapest option in the short term but takes into account sustainable effectiveness.

The Sure Start Evaluation (2000)

Sure Start Local Programmes (SSLPs) were introduced by the Labour Government in the United Kingdom in 1998 as part of their efforts to enhance life chances for children. Their ultimate goal was to enhance the wellbeing of young children growing up in disadvantaged neighborhoods, who are at risk of doing poorly at school, having trouble with peers and agents of authority (i.e., parents, teachers), and ultimately experiencing compromised life chances (e.g., early school leaving, unemployment, limited longevity). This has profound consequences not just for the children but for their families, communities, and for society at large. Thus, SSLPs not only aimed to enhance health and wellbeing during the early years, but to increase the chances that children would enter school ready to learn, be academically successful in school, socially successful in their communities,

and occupationally successful when adult. Indeed, by improving—early in life—the developmental trajectories of children at risk of compromised development, SSLPs aimed to break the intergenerational transmission of poverty, school failure, and social exclusion. These programs were meant to bring "joined-up" services of health, childcare and play, early education, and parental support for families with a child under 4 years of age. By focusing on areas rather than individuals or families it was hoped that they would not be seen as stigmatizing. In addition, the civil servant primarily responsible, Norman Glass, was a strong believer in a community development approach for the early years (Melhuish & Hall, 2007). SSLPs did not have a prescribed "curriculum" or set of services, especially not ones delineated in a "manualized" form to promote fidelity of treatment to a prescribed model. Instead, each SSLP had extensive local autonomy over how it fulfilled its mission to improve and create services as needed, without specifying how services were to be changed.

The National Evaluation of Sure Start (Belsky et al., 2007; National Evaluation of Sure Start Research Team, 2004) provided a salutary lesson both for the design of community interventions aiming to enhance child wellbeing and for the possibility of evaluating complex initiatives. SSLPs were by definition area-based interventions, with the services provided intended to be of direct benefit to service recipients, but also to have an indirect impact on other members of the wider community within the area. This feature is common to other area-based initiatives such as Health Action Zones (Bonner, 2003), New Deal for Communities, and On Track (Hine, 2005). In the case of SSLPs, one of the central issues was location. Within each SSLP area all the children who met the age criteria and their families were eligible to receive services. This was a core feature of the design of the program, intended to address the issue of stigma in services targeted at disadvantaged individuals.

The SSLP areas were defined locally by each program's partnership board. They were conceptualized in terms of "pram pushing distances" (Eisenstadt, 2011), and partnership boards were encouraged to think of local need, to avoid preexisting boundaries such as electoral wards or school catchment areas, when they decided on the area boundaries. Once the neighborhood had been defined, there needed to be a detailed picture of each selected area so that it would be possible to describe the "average" neighborhood but also the extent to which there was variability between them. The very way that the boundaries had been defined created a major challenge for the evaluation, since none of the existing administrative data would be specific to

these areas. However, one of the aims of the evaluation—the local context analysis—was to describe the areas accurately, and then chart any changes over time at the area level (Barnes, 2007b, 2007c). The basis for all the data collection was the digitization of the boundaries of the SSLP areas, so that the postcodes within each area could be identified (Harper & Frost, 2007). Once that had been achieved organizations such as police and social services, and data sources such as NHS Hospital Episode Statistics could be contacted and asked to provide aggregate data for sets of postcodes.

The initial descriptions of the areas confirmed the extent of deprivation (Barnes et al., 2003). A much greater proportion of young children in these areas were living in poverty with 45% of under 4s in workless households (England rate 23%) and about a third of working age adults were receiving income support (rising as high as 79%). Although this was not unexpected, given the way that the communities had been selected, it was an important step in the evaluation due to the unique way that the local program areas had been defined. It was expected that they would be defined based on local knowledge that, even within a disadvantaged local authority, these were the very most vulnerable neighborhoods. In addition to economic deprivation it was shown that the areas experienced high rates of crimes such as burglary, criminal damage, and violence against persons (Barnes, 2007c).

Although it was important to know that, on average, these were areas that would include substantial proportions of young children likely to have adverse outcomes (e.g., poor health, low academic achievement, and later more delinquency) the evaluation also revealed the complexity and diversity of deprived neighborhoods. Some were much more deprived than others, some had higher concentrations of minority ethnic groups, and some were more mixed, with some affluent residents (Barnes et al., 2005). Thus analyses designed to detect both community-level change and change in children and parents needed to incorporate a wide range of differences between local neighborhoods.

From that point on, the local context analysis (LCA) of the evaluation was focused on whether change could be identified at the level of the community. The evaluation team expected that this would be of interest to the policy makers given the strong focus on Sure Start being area-based (Glass, 1999). However, before there was time to fully document area level change (3 successive years of data collection, ideally more) the Central Government focus moved towards the children's center model with a stronger focus on providing child care (to encourage parental employment) and away from services being offered only to families in the carefully defined local program

areas (see Eisenstadt, 2011 for a detailed description of all stages of the policy changes).

Two other factors proved major stumbling blocks for the evaluation. First, it was not possible to collect full and complete information from social service departments about child abuse rates, or from local police departments about crime. For both these services the use of geographically coded (i.e., including postcode) data was variable across England, and (especially for social service departments) even the use of electronic systems to record cases was variable. Contacts made one year to gently extract the necessary data were found to have left their post by the following year. Thus by the end of 5 years many areas did not have good year-by-year data. If the initiatives had been 10 years later, this work would have been much easier. Most organizations have taken on board the importance of using geographical information systems methods and now a range of data can be obtained online at the small area level (from the output area upwards) in the United Kingdom, through the Government's Neighbourhood Statistics website (www.neighbourhood.statistics.gov.uk), meaning that composite data about uniquely defined neighborhoods is much more easily obtained.

The second major problem was the movable nature of the constructs being collated. For example, levels of local academic achievement were documented in part by Key Stage 1 test scores, based on 7-year-old children taking part in nationally standardized tests. Part-way through the evaluation this system was replaced by teacher evaluations, so any change may have been due to this change of assessment method rather than to Sure Start. Even the definitions of postcodes are subject to review, so the postcode lists supplied to local agencies or to national databases such as the NHS Hospital Episode Statistics were subject to annual change (Harper & Frost, 2007). Since areas were locally defined these were sometimes amended by partnership boards, so boundary definitions had to be frozen for the evaluation. Thus in some cases the areas being defined were not the same as the eventual SSLP area. Despite all these issues it was possible to collect useful information about the communities receiving the original SSLPs. A smaller proportion of young children were living in poverty by the end of the area evaluation (40% down from 45%), burglary had dropped to a greater extent than across England, and based on the number of exclusions there was less disorder in primary schools. Child health, based on hospitalizations for respiratory infections and severe injury decreased significantly, while showing no change on average across the country. There had been a countrywide focus on providing more child care, but this was significantly greater in SSLP areas. Some trends were

encouraging and indicative of improved child wellbeing through less illness, though there was no evidence of any change in school achievement for young children (age 7). Interestingly, there was greater improvement in the achievement of older children (age 11 and age 16) in SSLP areas compared to England. It is likely that this latter effect is related to a concentration of other area-based initiatives (such as Education Action Zones) since it was found that change was more likely in SSLP areas with several other initiatives (Barnes et al., 2007).

Overall, there were some improvements in the SSLP areas, though not all could be linked in a straightforward way to SSLP activity rather than to national trends. This could lead to the conclusion that a whole-community approach to intervention can lead to enhanced child wellbeing at the community level. By looking at change in relation to different types of SSLP area it was also possible to identify some additional aspects of the impact on communities. For example, improvements in infant health were evident most notably in SSLP neighborhoods with more Indian subcontinent residents, the only type of area also to show a significant reduction in the rate of children referred to social services. It was suggested that the whole-community approach, which included a substantial amount of outreach, may have helped these families to gain better access to health services which they may not have previously been aware of.

The LCA aspect of the Sure Start evaluation was finished in 2006, when the policy changed to be Sure Start Children's Centre. However, there has been continued government interest in change at the individual level, for parents (mainly mothers) and for children. When the initial cohort of 9-month-olds randomly selected from those living in SSLP areas were followed up to age 3 years it appeared that enhanced wellbeing for both could be linked with residence in an SSLP area. The children had better social behavior, better peer relations, more independence and self-regulation, and were better at planning their activities. Parents provided more educationally stimulating home environments, used less harsh discipline, and their homes were less chaotic (Melhuish et al., 2008). By age 5, fewer positive impacts for the children were found apart from a lower body mass index (BMI) on average, with fewer children overweight. However there was more impact for mothers, who reported greater life satisfaction in addition to a continued impact on the home environment (more stimulating, less chaotic) and less harsh discipline (National Evaluation of Sure Start Team, 2012). Nevertheless, there were two negative findings, in that mothers from SSLP areas, compared to those living in areas that never received

Sure Start, reported more depression. Possibly the weakening of the whole-community approach, moving to the children's center model that was not area specific, was perceived as a weakening of political will to support the most disadvantaged families? Or early hopes that their communities would be transformed by becoming an SSLP were found to be crushed?

By the time the children were 7 there were no identifiable impacts on their social emotional behavior or their academic achievement (National Evaluation of Sure Start Team, 2012). However the other significant impacts were positive, suggesting greater family wellbeing on average in that some results focused on parenting. Specifically, mothers from the original SSLP areas reported using less harsh discipline and providing a more cognitively stimulating home environment for their children, both improving more over time than the comparison group families. Additionally, mothers of boys in SSLP areas reported a less chaotic home environment and lone or workless parents reported having better life satisfaction than counterparts not living in SSLP areas.

Many reports are available indicating the differences that the local Sure Start program made for families, and how local social capital may be developing. They can be found in the local evaluation reports that each program was required to conduct (http://www.ness.bbk.ac.uk/support/AnnualReports). Some typical quotes are:

> Before, I didn't know many people locally. I had no-one to talk to about being a parent. I was frightened that I wasn't a good mother. But meeting other parents has given me the confidence that I am a good mother.
>
> Newham Little Ilford Evaluation Report, p. 28 (http://www.ness.bbk.ac.uk/support/AnnualReports/documents/32.pdf)

> I remember I attended the Well Women's day and there were lots of people all talking to each other. People are more willing even on the street to stop, talk and listen too, which didn't happen before Sure Start.
>
> Newham Little Ilford Evaluation Report, p. 29 (http://www.ness.bbk.ac.uk/support/AnnualReports/documents/32.pdf)

The focus of the original SSLPs was not specifically child-oriented, services were more often designed to gain the involvement of local parents, to provide them with support and encourage them in activities such as educational or vocational training. Early advantages of children in SSLP areas (age 3) were thought to be achieved via improved parenting (Melhuish et al., 2008). It is possible that subsequent enhancement of national early years provision such

as a free half-day nursery place for 3- and 4-year-olds may have washed out any gains that were made for the SSLP children when they were 3 years old.

Nevertheless, and despite many methodological challenges, the National Evaluation of Sure Start research has demonstrated that an intervention, even one without a specific curriculum or specific program of services, can improve the wellbeing of the entire community context and also of its residents. A more focused approach, with better guidelines about what services to offer and to whom might have achieved even more.

Summary

Positive psychology has focused primarily on individual and subjective wellbeing and now needs to take a more active role in building strong communities. There is a burgeoning concern about the poor quality of community life in our competitive self-absorbed world and the social exclusion that besets many. This is expensive on the public purse as well as on the lives of individuals and families.

Most people need to feel they belong somewhere, that they matter, that they can be active participants in their world, whether this is local or within a wider network. If this is to happen we need to find both processes and programs that communities themselves will take forward. As this chapter has indicated this is a far from easy task but ultimately worth the effort. It holds a promise to help to break the cycle of disadvantage and inequality that inhibits wellbeing for so many. The following summarizes what this chapter has indicated needs to be taken into account in this endeavor.

Complexity

Communities are complex, with embedded cultural norms, dominant discourses and multiple stressors. Familiarity, however negative, is often the easiest option and people need both motivation and energy as well as resources to make changes. External agents of change will only have limited impact if there is no “buy in” from the community and sustainability may depend on whether or not that community can find resources from within itself to maintain and build on what works.

Although there are references in the literature to maintaining the integrity of programs, communities are not static entities and flexibility would appear

to have benefits in ensuring that what is offered remains contextually appropriate as circumstances change.

Time Factors

Systemic change takes time. Things do not happen overnight and there are no quick fixes. Many funders however, particularly governments, want to see results for their investment soon if not immediately. This can lead to promising interventions being prematurely curtailed, which constitutes a waste of valuable resources.

Relationships

The quality of the relationship between the community participants themselves and between the community and the providers is critical. Partnership is a word often used indiscriminately, especially by those who hold position and power (Roffey, 2004). Many participants in community interventions hold neither. Unless serious consideration is given to the construct of what is involved in partnership there will be no community "buy in," and therefore less chance of sustainability. The What Works program for indigenous communities (http://www.whatworks.edu.au) states that there cannot be a partnership without a relationship and that there cannot be a relationship without a conversation. The quality and content of conversations impact on what happens next.

Training

Training needs to take into account processes as well as programs. It is not just what is delivered but how it is delivered that requires knowledge and skills.

Sustainability

Interventions need to be multilayered with a "critical mass" to make for sustainable change over time (Gladwell, 2000; Roffey, 2008). Although passionate individuals are important there is a danger with "hero innovators." When they leave, the project leaves with them. Alongside continued funding over the longer term, changes in personnel are one of the major difficulties facing community intervention.

Evaluation Processes

A positivist research framework where outcomes are measured gives valuable information to both service providers and funders. Many of the factors that make an intervention successful or not, however, are lost if studies do not explore vital implementation and process factors.

What Constitutes Success?

Benchmarks for success need to be realistic and flexible. In an ecological framework the sociopolitical climate impacts on what happens throughout a community, down to the interactions between individuals. However good a community intervention is, it may not be able to counter overarching circumstances such as a rise in unemployment. Success may only be seen in some participants the first time around. Sometimes it is only in the next generation that significant positive outcomes may become embedded: How many politicians are prepared to wait a generation? We need sustainable, longer term interventions, based on the evidence of what works, with a focus on process as well as content, specific to communities, that address how stakeholders interact and are not prey to the whims of political change.

Consider the efforts that have been made to counter smoking. Some individuals do still smoke but it is less acceptable than it was, at least in the West, and the risks are well known. The fatalism "what can you do—things will never change" is not supported by such evidence. People, beliefs, and communities do change. We risk communities changing for the worse unless we actively foster change that enhances wellbeing.

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13

The Health and Wellbeing Effects of Active Labor Market Programs

Adam P. Coutts
University of Cambridge, U.K.

David Stuckler
University of Oxford, U.K.

David J. Cann
University of Cambridge, U.K.

Introduction

Does losing your job make you ill? Can government policies protect and promote the wellbeing of unemployed people during difficult economic times? How can we understand the relationships between work, participation in labor market programs, and health? To address these questions, employment status and working conditions can be expressed in terms of their psychosocial, as well as material, characteristics to help elucidate why labor market shocks, such as unemployment, pose risks to health. Understanding work and worklessness in these terms enables researchers to relate the effects of labor market experiences to health and wellbeing. A recent example of such an approach was *Fair Society, Healthy Lives* (Marmot, 2010), which examined a large range of evidence to argue that unemployment and employment are linked to health deficits in various ways. It is generally

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accepted by researchers and policy makers that employment provides a range of psychosocial benefits leading to greater wellbeing. However, less well known are the health effects of government social interventions known as active labor market programs (ALMPs).

In the United Kingdom, for example, evidence on the effects of ALMPs and government training programs used to deliver them deal almost exclusively with labor market outcomes, such as earnings and job outcomes. Although public health policy in the United Kingdom is increasingly focused on the potential to improve health and wellbeing and reduce health inequalities, by addressing the social determinants of health, such as employment and working conditions, the evidence base showing the success of specific policies is limited. Most evidence relates either to success or failure in narrowing the gap in the social determinants of health or to the impact that social determinants have on health. There is limited empirical evidence based on tracking individuals across the life course, from the point of delivery of social determinants interventions through to long-term health outcomes. Such evidence is needed to demonstrate more convincingly what works, in what circumstances, to reduce health inequities.

What are Active Labor Market Programs?

ALMPs aim to help people who have lost, or are at risk of losing, their job. Over the past 20 years, ALMPs have been used as key interventions in social protection, activation, and welfare-to-work policies. Their purpose is to increase employability and reduce the risk of further unemployment. They have been widely used across Organisation for Economic Co-operation and Development (OECD) countries and include such things as job search assistance, training, and wage and employment subsidies, which aim to enhance labor supply and improve labor market functioning (Daguerre & Etherington, 2009).

As an intermediate stage in the process of labor market reattachment/reemployment, ALMPs provide the unemployed and economically inactive with skills and experiences that may lead to employment. In these programs people are neither employed nor unemployed but occupy an intermediate stage in terms of their labor market status (Coutts, 2009). Participants in such programs may, therefore, be subject to both the negative and positive psychosocial mechanisms of employment and unemployment, as well as the ALMP processes that “reinsert” them back into the labor market.

A Gap in the Evidence Base

Despite policy interest in ALMPs there is still a relative lack of evidence and knowledge of how non-health sector policy interventions, such as labor market programs, affect health and wellbeing (Benach et al., 2010; Craig et al., 2008). This is surprising, especially given the comprehensive evidence on the linkages between labor market status and health, as well as the use of ALMPs in developing social protection policies and the wider political commitment to increasing personal happiness and wellbeing (Parliamentary Office of Science and Technology, 2012).

In view of consistently strong evidence about the negative effects of unemployment, there have been multiple calls from the academic community over the past three decades to evaluate the health effects of labor market policies. In 1998 the Acheson Report recommended assessing the impact of employment policies on health and inequalities in health (Acheson, 1998, Recommendation 9.2). In 2009, the Employment Conditions Knowledge Network of the Commission on the Social Determinants of Health examined the evidence linking labor market policies and interventions to various health outcomes. Most recently, Marmot (2010) noted that ALMPs could potentially help protect public health and reduce health disadvantage. However, the specific mechanisms responsible for these health effects were not fully explored.

Past research and evaluation of the effectiveness of ALMPs has tended to focus on tangible outcomes, such as job entry rates. There is evidence examining how welfare to work programs targeted at the disabled, chronically ill, and those receiving incapacity benefits (see, e.g., Bambra, Whitehead, & Hamilton, 2005; Barr et al., 2010; Waddell & Burton, 2006 for evaluations and systematic reviews). However, these studies focus on the employment-related outcomes of the programs; for instance, how the role of personal advisers and case management affects participants' ability to enter the labor market, rather than examining changes in participants' health status as they are exposed to the intervention.

Indeed, ALMPs can help people find jobs, but may be also beneficial for the entire economy. A meta-analysis of 199 programs from 97 studies demonstrated that job-search and training programs helped unemployed workers not only return to work but also earn more (Card, Kluve, & Weber, 2010). A study of Danish ALMPs found that the economic benefits of these programs far exceeded their costs, because the programs increased

workers' productivity and reduced reliance on welfare support. Jespersen, Munch, and Skipper (2008) estimated that a surplus of DKK 279,000 (about US$47,000) per worker was generated over 11 years. However, a recent evaluation by the U.K. Department for Work and Pensions signaled a note of caution about such expectations of ALMPs, and noted that economic effectiveness is largely determined by the nature of the local labor market (Daguerre & Etherington, 2009).

As detailed throughout this volume, there is a need to rethink how policy effectiveness can be measured (Kahneman, 2005; Layard, 2005; Parliamentary Office of Science and Technology, 2012). An examination of how government interventions, such as ALMPs, affect health and wellbeing fits neatly within the view that the role of the state is not only to maximize economic performance but also to improve the wellbeing of its population (Kahneman, 2005; Layard, 2005; Parliamentary Office of Science and Technology, 2012). Various efforts have urged alternative ways of thinking about the effectiveness of the government policies and interventions. For instance, the All Party Parliamentary Group on Wellbeing Economics (U.K.) and the 2009 Stiglitz–Sen Commission (sponsored by the French Presidency) drew on evidence from economics, psychology, and public health to call on governments to shift focus away from gross domestic product (GDP) and other economic measures towards such psychosocial goals as improved health, wellbeing, happiness, and self-esteem (Commission on the Measurement of Economic Performance and Social Progress, 2009; Parliamentary Wellbeing Working Group, 2010).

What Evidence is There?

The past empirical evidence that does exist on labor market status and health has tended to focus on the health-damaging effects of working conditions or of unemployment. This is evident from several systematic reviews and meta-analyses (e.g., Catalano et al., 2011; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Paul & Moser, 2009). This evidence is based on studies of population health under deteriorating working conditions (including individual experiences of unemployment). In these circumstances much, but not all, of the evidence shows that health will worsen.

The evidence demonstrates that unemployment poses serious risks to both physiological and mental health (see Bartley, Ferrie, & Montgomery, 1999; Catalano et al., 2011; Murphy & Athanasou, 1999; Paul & Moser, 2009

for comprehensive reviews). Longitudinal research has found that these negative health effects occur in three main labor market situations: at the onset of unemployment; during extended periods of unemployment; and after negative changes in working conditions[1] (Siegrist, Benach, McKnight, & Goldblatt, 2010). These events are associated with an increased risk of mortality and morbidity from a range of physical diseases, particularly heart disease; physiological changes to blood cholesterol and calcium levels have been detected (Catalano et al., 2011). Mental health problems associated with these labor conditions include depression, anxiety, and psychosocial malaise, which can increase the risk of suicide. However, the unemployment–health relationship appears to be modified by various factors, such as previous work experience, local levels of unemployment, and social support (Catalano et al., 2011; Hammarström, Novo, & Janlert, 2000; Murphy & Athanasou, 1999).

Multiple theories have tried to identify and label the key attributes that account for empirical observations. Such elements include: work security (Burchell, 1994; Burchell et al., 1999; Strandh, 2000); work satisfaction (Creed, Bloxsome, & Johnston, 2001; Graetz, 1994); demands and controls (Karasek & Theorell, 1990); effort–reward balance (Steptoe, Siegrist, Kirschbaum, & Marmot, 2004); supervisor and peer support (Burchell et al., 1999; Stansfeld, Fuhrer, Shipley, & Marmot, 2002); and perceived financial strain (Creed et al., 2001; Creed, Machin, & Hicks, 1999).

We can divide these theories into two broad groups: psychosocial and material. This division recognizes the observation that negative health impacts of poverty flow from both material ("direct") and psychosocial ("indirect") sources. Material impacts are primarily related to the poverty that results from lost income during unemployment, resulting in financial strain (Paul & Moser, 2009). Material factors of ill-health include poor housing and nutrition. Psychosocial factors include such things as social isolation, loneliness, and the subjective impression of being socially excluded (Catalano et al., 2011).

Occupational and community psychologists have tended to focus on the central role of social status. For example, Warr (1987) and Warr and Jackson (1987) argue that on becoming unemployed a person loses a socially approved role and the positive self-evaluations that go with it. The new social position is widely felt to be one of lower prestige, deviant, second-rate, or not providing full membership of society. The effects of perceived hierarchy, and the "shaming" aspects of unemployment have also been implicated. Eales (1989) found that 25% of unemployed men experienced feelings of

shame about being unemployed, and 50% changed their social activities to avoid shame. Feelings of shame were found to be related to depression, anxiety, and minor affective disorders.

Jahoda's (1982) latent deprivation theory argues that employment provides access to five important categories of experience: time structure, activity, social contact, collective purpose, and status. Jahoda says that "employment provides the imposition of a time structure, the enlargement of the scope of social activities into areas less emotionally charged than family life, participation in a collective purpose and effort, the assignment by virtue of employment of status and identity, and required regular activity" (Jahoda, 1982, p. 59). When people lose these "latent" functions they experience a high level of psychological distress. According to the theory, it may be possible to simulate aspects of the employment experience so as to mitigate the health risks arising from unemployment (Evans & Banks, 1992).

Fryer (1986) argued a material position: It is not the withdrawal of latent benefits but the loss of income from employment and the associated experience of poverty and financial strain that accounts for the deterioration of health and wellbeing. Fryer drew on an "agency-restriction" model to emphasize how economic deprivation places steep restrictions on an unemployed person's ability to exercise "agency," making it impossible to plan and organize a meaningful future, thereby negatively affecting wellbeing. Although Fryer (1986) acknowledged a role for Jahoda's latent benefits in understanding mental health, he argued that they could not fully account for, and were not the dominant source of, the reduction in wellbeing.

Others argue that, paradoxically, unemployment may be good for health (Catalano et al., 2011; Ruhm, 2005). They say it reduces the value of time, thereby encouraging healthy physical activity and spending time with children and family, among other potential health benefits. Further, people who have less disposable income tend to spend less money on tobacco or alcohol (Ettner, 1997).

Recently, researchers have tried to integrate these various theories into unified frameworks that are more consistent with empirical observation. For example, unemployed people report more financial strain than their employed counterparts, and financial strain is strongly linked to psychological distress (Vinokur & Schul, 2002; Vinokur, Schul, Vuori, & Price, 2000; Winefield, 2002). Other researchers are now encouraging the consideration of both latent and manifest functions[2] in studies of wellbeing in the unemployed (Creed et al., 1999; Hoare & Machin, 2011; Muller, 2012; Muller, Creed, Waters, & Machin, 2003).

In addition, the concept of "resilience" is receiving renewed attention. This concept refers to how individuals, communities, and even entire societies cope with the economic shock of job losses (Luthar, Cicchetti, & Becker, 2000). A significant multidisciplinary body of evidence finds that social contact serves as a resilience-promoting factor.[3] It is proposed that "good"-quality employment, or decent work, can provide greater social contact and access to social networks. Although unemployed and economically inactive people possess more free time, they tend to become more socially isolated, with leisure patterns centered on the home (McKee-Ryan et al., 2005). In response to the evidence linking unemployment and health, policy makers have assumed that ALMPs and welfare-to-work policies are important tools in tackling poverty and improving health (Coutts, 2009).

ALMPs, Health, and Wellbeing

Social protection policies, in the form of ALMPs and welfare-to-work interventions, have been found to be protective of health in times of economic downturn and rising unemployment (Stuckler, Basu, Suhrcke, Coutts, & McKee, 2009, 2011). Indeed, studies that have examined the health benefits of the process of reemployment demonstrate that it can reverse the negative health effects of unemployment (Claussen, 1999; Lahelma, 1989; Thomas, Benzeval, & Stansfeld, 2005).

Evidence from European Union mortality trends during recessions over the past three decades suggest that suicide rates can be checked by funding ALMPs. In states that spend less than US$70 per capita (e.g., Spain), a deteriorating economy correlates with a rising suicide rate. This is in contrast to states that spend more than $300 per capita (e.g., Finland and Sweden), where economic change and aggregate unemployment has no discernible short-term effect on mortality. However, the causal mechanisms for these various health effects of ALMPs and reemployment are not fully understood.

The models propounded by Jahoda (1982), Warr (1987), and Fryer (1986), as well as Bandura's (1997) self-efficacy model, offer a prospective explanation. These theories suggest that ALMPs have the potential to improve health—particularly mental health and psychosocial functioning—through the provision of latent psychosocial functions, such as social support and time structure, which can be absent during the unemployment experience (Creed et al., 2001; Eden & Aviram, 1993).

Using ideas developed from these theoretical frameworks, researchers have identified positive health impacts at Finland's national Työhön Job Search Training Program (Vuori, Silvonen, Vinokur, & Price, 2002), and at the University of Michigan's Institute of Social Research[4] JOBS program.

The evaluation of the Työhön program involved following 629 unemployed people who received the direct help of a trainer. These were compared to a control group who received printed information only. Within 3 months participants enrolled in the program experienced lower levels of distress, particularly those who were at high risk for depression on previous assessments. Program participants also found better quality jobs, with the greatest benefits among those who had lost jobs within the past few years. In a follow-up study at 2 years, participants reported a significant decrease in depressive symptoms, coupled with an increase in their self-esteem, and were more likely to be in work or in training for a job (Vuori & Silvonen 2005; Vuori et al., 2002; Vuori & Versalainen, 1999).

Within the JOBS program designed by the University of Michigan's Prevention Research Center researchers demonstrated that within 2 years, those who received job search support were more likely to be working again, had higher monthly earnings, and lower risks of depression. The JOBS program consisted of workshops involving 1,801 participants who were randomly assigned to a job search intervention or to a control group. The program is a group-based psychological educational intervention that has the dual goals of promoting reemployment and enhancing the coping capacities of unemployed workers and their families. The program is focused on personal development and designed around three broad theoretical principles that involve the acquisition of job search self-efficacy, inoculation against setbacks, and active learning processes. These are delivered in the form of workshops that consist of job search training and advice, as well as various elements of cognitive behavioral therapy. The programs have been replicated in Finland, China, and Ireland with similar positive outcomes (Caplan, Vinokur, Price, & Van Ryn, 1989; Vinokur & Schul, 2002; Vinokur et al., 2000).

In Australia, a number of studies (Creed et al., 2001; Hoare & Machin, 2011) have adapted the theories of Jahoda and Warr to create a scale that measures the perceived latent and manifest functions of the work and training environment.[5] These studies all identify the kind of psychosocial mechanisms that may produce positive health change. They include: enhancement of skills and competences; imposition of structure to the working day; social contact and status; and enhanced self-efficacy. It is proposed that access to social

support from peers and trainers acts to reduce feelings of social isolation and loneliness. Such components of ALMPs and training programs may explain reported mental health improvements over participation periods (Coutts, 2005).

In various European contexts, a number of individual-level studies have examined the health effects of ALMPs and associated labor market interventions. Findings show that participation in ALMPs can lead to a range of positive outcomes such as:

- reductions in psychological distress and depression (Coutts, 2005; Juvonen-Posti, Kallanranta, Eksyma, Piirainen, & Kiukaanniemi, 2002; Melin & Fugl-Meyer, 2003; Westerlund, Theorell, & Bergstrom, 2001):
- increased subjective wellbeing (Andersen, 2008; Coutts, 2005);
- higher levels of control/mastery (Creed et al., 1999);
- improvements in motivation and self-esteem through feeling needed (Coutts, 2005; Hagquist & Starrin, 1996; Harry & Tiggemann, 1992); and
- improved social support (Coutts, 2005).

In the United Kingdom, a recent qualitative study of unemployment training programs in Bradford suggested that the health and wellbeing of unemployed participants could be protected through the provision of the kinds of psychosocial and material needs disrupted by unemployment (Giuntoli, South, Kinsella, & Karban, 2011). Andersen (2008) investigated the effect of participation in government training on subjective wellbeing. She applied Jahoda's and Fryer's theories to interpret data from the first 13 waves of the British Household Panel Survey and found that both current and previous participation in government training had a positive effect on subjective wellbeing, although the effect of previous participation decreased over time.

Coutts (2005) examined the health impacts of two training programs for lone parents, asking whether changes in participants' psychosocial environment, as measured by the LAMB scale, could explain these health impacts. Longitudinal data were obtained from 62 lone parents participating in programs over 5 months. Self-ratings of mental health, self-esteem, mastery, positive and negative affect, self-efficacy, and perceived psychosocial environment were assessed at three time intervals (baseline, 2.5, and 5 months). The results indicated that simply entering into the programs improved the mental health and wellbeing of participants. A clear relationship emerged between

psychosocial environment variables (social contact, collective purpose, social identity) and mental health. In contrast, material economic variables did not contribute significantly to these health effects.

The evidence is equivocal, however, on the extent and duration to which health gains may persist post intervention. Some researchers report that certain benefits persist for up to 2 years beyond the training program (Vinokur et al., 2000; Vuori et al., 2002; Vuori & Versalainen, 1999), up to 4 months (Harry & Tiggemann, 1992; Vinokur et al., 2000) or, alternatively, rapidly decline after participation (Andersen, 2008; Creed, Hicks, & Machin, 1996; Creed et al., 1999; Vuori & Versalainen, 1999). However, it is possible that potential health improvements may not be realized at all if programs are perceived by participants as an inadequate alternative to work (Branthwaite & Garcia, 1985) or that low financial rewards exacerbate financial strain (Oddy, Donovan, & Pardoe, 1984; Westerlund, Bergström, & Theorell, 2004).

A number of studies appear to show limited or no effects of participation in ALMPs, although various methodological problems have been noted in these studies (Reine, Novo, & Hammarström, 2011). Additional negative mental health impacts have been identified for ALMP participants, such as less control over their lives (Donovan, Halpern, & Sargeant, 2002; Hagquist & Starrin 1996; Oddy et al., 1984), feelings of exploitation, and generally poorer health, particularly among women (Branthwaite & Garcia, 1985; Hammarström et al., 2000).

Numerous studies (e.g., Vuori et al., 2002; Vuori & Versalainen, 1999) demonstrate that job search is a significant predictor of entry into paid work. Therefore, many ALMPs, and return-to-work interventions, consider search skills a fundamental component of their training. However, training and support given by job search trainers and advisers can be haphazard, resulting in uncertain health outcomes (Lakey & Bonjour, 2001; Lakey, Mukherjee, & White, 2000). The expectancy-valence approach (Feather, 1990) suggests that job seekers could be helped by the provision of counseling to enhance their expectations of success in job search. This, in turn, may activate the intensity of job search and lead to an increased likelihood of finding a job. However, in labor markets where there are few jobs to enter, particularly for those who possess low skills and education, recurring experiences of failure can undermine self-efficacy and lead to "scarring effects" and a reduction of psychological wellbeing (Bandura, 1997; Leana & Feldman, 1995; Wanberg & Griffiths, 1997). Consequently, it is plausible that, in terms of health, employment demands may be excessive when compared to the limited pay and sustainability they provide, if any. As economic

geographers (e.g., Martin, Nativel, & Sunley, 2003) and Marmot (2010) note, this is especially so in conditions of low-pay, low-security, and high-stress work that is sometimes the only employment available to those with low skill levels or experience.

It may be considered, as a number of researchers caution, that, for these groups, ALMPs may merely become a "healthier" alternative to unemployment or "bad" employment, providing a space in which they can cope more effectively with the stresses and strains of unemployment (Creed & Machin, 2002; Creed et al., 1999; Westerlund et al., 2001, 2004). Moreover, this "adaptation to unemployment" (Warr & Jackson, 1987; Westerlund et al., 2001) has become a politically sensitive issue in many European countries where welfare-to-work policies and accusations of "benefit scrounging" have become sharply politicized.

Conclusion

The evidence presented in this chapter shows that participation within ALMPs, specifically government training programs, can have a positive effect on participants' wellbeing, compared with remaining unemployed or economically inactive. In addition, ALMPs can be designed and delivered to have a "double" effect in terms of improving participants' basic skills and education, thereby increasing the potential for entering the labor market and securing employment. Program participation prior to labor market entry can also improve psychological health and a sense of wellbeing. The research base shows that health, particularly psychological health, is measurably and tangibly associated with training programs and social interventions (Fujiwara, 2010; Fujiwara & Campbell, 2011; Helliwell, 2011). Psychological health is both a necessary part of an individual's portfolio of employability and a "step" towards labor-market entry.

Social protection is a vital investment in social and economic development, helping individuals and communities cope with economic crises and constrained fiscal budgets (International Labour Organization, 2012; Stuckler et al., 2010; Stuckler et al., 2009). The recent global financial crisis has added a sense of urgency for countries to implement national social protection policies. However, many states claim they lack the required finances to introduce such packages, often arguing that social protection and social security budgets need to be cut as part of an overall austerity strategy (Stuckler, Basu, & McKee, 2010b). There

is a trend for states to reduce the scope of ALMP programs that provide personal development aspects such as support, education, and skills, opting instead for programs that attempt only to return people to any employment (McKee & Stuckler, 2011; Stuckler, Basu, & McKee, 2010a).

The evidence presented here demonstrates that abandoning ALMPs would, arguably, be an unwise move in terms of both the potential short-term health and long-term economic effects. The emerging evidence (see Stuckler et al., 2010a) shows that ALMPs can mitigate against the social, health, and wellbeing impacts of economic downturns by enhancing individual resilience against the harmful effects of unemployment. These programs provide small, but important, "steps" towards improving the stability and quality of life for the disadvantaged and those furthest from the labor market.

Notes

1. Working conditions refer to the psychosocial and material attributes of the workplace and employment itself. They may be related, inter alia, to demand controls, effort-rewards, and insecurity.
2. Latent and manifest functions, or "vitamins" as termed by Warr (1987), refer to the material and psychological attributes of work. These are factors such as financial strain (manifest function/attribute), collective purpose, social contact, status, time structure, and activity (latent benefits).
3. Social support networks may provide instrumental and material benefits and opportunities, as well as close social contact and emotional support, which generate opportunities for participation, consequently reducing feelings of social isolation. Social exclusion and the ensuing isolation and lack of social support are linked to various health outcomes, including depression, cardiovascular disease and coronary heart disease (Berkman & Glass, 2000; Cohen, 2004; Cohen & Janicki-Deverts, 2009).
4. For downloadable publications from the Michigan Prevention Research Centre and JOBS program, see http://www.isr.umich.edu/src/seh/mprc/public.html.
5. This is known as the LAMB scale.

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Part 3

The Policy Perspective

14

Creating Good Lives Through Computer Games

Daniel Johnson, Peta Wyeth and Penny Sweetser
Queensland University of Technology, Australia

Introduction

In this chapter we aim to explore how videogames can lead to improvements in wellbeing. Following Keyes (2007) and Huppert and So (2012) we view wellbeing as a multidimensional concept with both hedonic and eudaimonic aspects. In this chapter we take a broad approach in terms of exploring the impact of videogames on the psychological, social, and physical components of wellbeing. We explore how videogames have been shown to have an impact in each of these domains. Although there is a great deal of evidence for the actual and potential positive impacts of videogames, there are many unanswered questions regarding the situations in which there is likely to be an impact of videogame play on wellbeing, as well as the aspects of wellbeing that are likely to be impacted by videogame play. We conclude the chapter by outlining the key questions for future research. Our focus in this chapter is on the positive influences of videogames. We do not explore research on contexts in which negative impacts are possible or subgroups for which videogames could cause harm. However, these questions are obviously important and we see balanced engagement with age-appropriate videogames as a key prerequisite for any of the wellbeing benefits discussed below.

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Videogames offer a uniquely powerful means of engaging people and have become a mainstream pastime, with 73% of a U.K. sample (over the age of 8 and with access to the Internet) indicating that they play videogames (U.K. National Gamers Survey, 2009). Although the relative proportion of people playing videogames is unsurprisingly biased towards younger age groups (e.g., 97% of males and 86% of females aged 13–19 years), it is important to note that 42% of those over 50 years reported playing videogames (U.K. National Gamers Survey, 2009). Moreover, the gap between males and females is a lot smaller than is sometimes assumed, with females making up close to half of the game-playing population in the United Kingdom. These figures are very much in line with trends around the world. For example, in Australia the average age of videogame players is 32 years, 75% of players are over 18 years of age, and 47% of players are female (Brand, 2012). Videogames are no longer (if they ever were) the exclusive domain of young males and are being played by the majority of our society.

Psychological Wellbeing

Research has demonstrated that involvement in extracurricular activities—those discretionary activities that are physically or mentally stimulating and contain some structural parameters—is positively related to life satisfaction (Gilman, 2001). In a majority of instances videogames are structured, challenging, and meaningful, and as such may be categorized in much the same way. The choice to play games is an active one, and people who choose to use gaming media are involved in a determined, goal-directed activity that is largely driven by an individual's motives (Jansz & Tanis, 2007). Many young people engage with games daily as an extracurricular activity, and consider game play a hobby. Research reveals that high levels of satisfaction have been reported when youth engage in structured activities such as team sports and games (Wong & Csikszentmihalyi, 1991). Conversely, unstructured, passive activities (e.g., television watching) and solitary activities (e.g., studying for an exam) are more likely to result in lower levels of reported life satisfaction (Gilman, 2001; Wong & Csikszentmihalyi, 1991). One means by which the wellbeing and satisfaction associated with videogame play can be understood is self-determination theory.

Self-Determination and Videogames

The increasing number and diverse range of people playing videogames are evidence for the unique motivational pull this medium offers. Although it is commonly accepted that videogames are gratifying and enjoyable, Ryan and colleagues (Przybylski, Rigby, & Ryan, 2010; Ryan, Rigby, & Przybylski, 2006) were among the first to explore people's motivations for playing videogames and the extent to which play leads to improvements in wellbeing. These researchers applied an established psychological theory—self-determination theory (SDT)—to videogame player motivations. SDT is primarily concerned with the potential of social contexts to provide experiences that satisfy what are claimed to be universal psychological needs in people, namely autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2000). SDT has been successfully applied in research on sports, education, and leisure domains. Ryan and colleagues explored how videogames fulfill or thwart psychological needs and thus promote or discourage sustained engagement and either positive or negative outcomes for players.

Through applying SDT (and certain key sub-theories of SDT such as cognitive evaluation theory and basic psychological need theory) to videogame play, Ryan and colleagues argue that videogames attract players because of their ability to satisfy three primary needs: autonomy (a sense of volition or willingness when doing a task); competence (the need for challenge and feelings of empowerment as a result of one's actions); and relatedness (feelings of connections with others). Through a series of experimental and survey studies these researchers were able to show not only that these primary needs could be met through videogame play, but also that the satisfaction of these needs was related to improvements in subjective wellbeing among players. SDT findings linking the experience of competence while playing videogames with feelings of wellbeing align with McGregor and Little's (1998) work on personal projects, in which efficacy was shown to be associated with happiness.

More recently, research based on self-determination theory has explored how need satisfaction varies across genres of games (Johnson & Gardner, 2010). The research involved videogame players responding to a survey regarding their current favorite videogame. Comparisons were made between the following genres: shooting games, sport and simulation games, action-adventure games, and strategy and role-playing games. In terms of the components of self-determination theory (autonomy, competence, and

relatedness), only minor variations across genre were found. Specifically, the experience of autonomy was found to be lowest for action-adventure and shooting games, moderate for sport/simulation games and highest for strategy/role-playing games. These differences are assumed to be a function of the style of the individual genres (for example, there tends to be more freedom of choice regarding in-game actions in role-playing games than in other genres of videogame). However, the results also suggest that the experience of a sense of competence and relatedness does not vary significantly and is reasonably high (above the mid-point of the scale) across genres of games. This can in turn be interpreted as evidence that successful or popular videogames in general satisfy these specific wellbeing-related needs.

Flow and Videogames

Csikszentmihalyi (1990) conducted extensive research into what makes experiences engaging, based on long interviews, questionnaires, and other data collected over a dozen years from several thousand respondents. He began his research with people who spend large amounts of time and effort on activities that are difficult, but provide no external rewards (e.g., money or status), such as composers, chess players, and rock climbers. Later studies were conducted with ordinary people with ordinary lives, asking them to describe how it felt when their lives were at their fullest and when what they did was most enjoyable. His research was conducted in many places (United States, Korea, Japan, Thailand, Australia, Europe, and a Navajo reservation). He found that optimal experience, or flow, is the same the world over: very different activities are described in similar ways when they are being enjoyed, and that enjoyment is the same, irrespective of social class, age, or gender.

Flow is an experience "so gratifying that people are willing to do it for its own sake, with little concern for what they will get out of it, even when it is difficult or dangerous" (Csikszentmihalyi, 1990). Flow experiences consist of eight elements, as follows:

- a task that can be completed;
- the ability to concentrate on the task;
- that concentration is possible because the task has clear goals;
- that concentration is possible because the task provides immediate feedback;

- the ability to exercise a sense of control over actions;
- a deep but effortless involvement that removes awareness of the frustrations of everyday life;
- concern for self disappears, but sense of self emerges more strongly afterwards; and
- the sense of the duration of time is altered.

The combination of these elements causes a sense of deep enjoyment so rewarding that people feel that expending a great deal of energy is worthwhile simply to be able to feel it (Csikszentmihalyi, 1990). Most flow experiences occur with activities that are goal-directed, bounded by rules, and require mental energy and appropriate skills. Additionally, an important precursor to a flow experience is a match between the person's skills and the challenges associated with the task, with both being over a certain level. One key element in flow is that it is an end in itself: the activity must be intrinsically rewarding and autotelic. Autotelic activities are done for their own sake: the experience itself is the goal (Csikszentmihalyi, 1990). This is particularly true for videogames, where people play purely for the experience itself, as there is no external reward. Similarly, flow activities provide a sense of discovery, a creative feeling of being transported into a new reality, which is a common sensation for videogame players. A number of researchers have explored the propensity for videogames to facilitate the experience of flow (for example, Beume et al., 2008; Bryce & Haworth, 2002; Chiang, Cheng, & Lin, 2008; Chiang, Lin, Cheng, & Liu, 2011; Jin, 2011; Keller & Bless, 2008; Nacke & Lindley, 2008; Sherry, 2004; Wang, Liu, & Khoo, 2009; Weibel, Wissmath, Habegger, Steiner, & Groner, 2008). There is widespread agreement that videogames are particularly well suited to generating an experience of flow.

Although much of the research on flow in videogames is theoretical or correlational, Keller and Bless (2008) undertook experimental research that directly tested the nature of the link between videogames and flow. These researchers manipulated the match between the skills of players and the demands of a videogame and were able to show a direct impact on the experience of flow in terms of perception of time, involvement and enjoyment. Given the links between flow and wellbeing (e.g., Bryce & Haworth, 2002) it seems reasonable to assume that the experience of flow among videogame players has a direct impact on their psychological wellbeing. However, as will be discussed later in the chapter, research directly assessing this relationship is needed.

Refining the Notion of Flow in Games: GameFlow

Sweetser and Wyeth (2005) conducted a comprehensive review of the literature on usability and user-experience in games to determine the key elements of player enjoyment in videogames. The result was the identification of eight core elements of player enjoyment in games: concentration, challenge, skills, control, clear goals, feedback, immersion, and social interaction. Sweetser and Wyeth (2005) observed that these core elements overlapped closely with the elements of flow and subsequently mapped their core elements of player enjoyment to Csikszentmihalyi's (1990) elements of flow. This structure formed the foundation of their model of player enjoyment in games, called GameFlow.

The first element of flow, a task that can be completed, is not represented directly in the GameFlow elements, since it is the game itself. The remaining GameFlow elements are all closely interrelated and interdependent. In summary, games must keep the player's concentration through a high workload, with tasks that are sufficiently challenging to be enjoyable. The player must be skilled enough to undertake the challenging tasks, the tasks must have clear goals so that the player can complete the tasks, and the player must receive feedback on progress towards completing the tasks. If the player is sufficiently skilled and the tasks have clear goals and feedback, then the player will feel a sense of control over the task. The resulting feeling for the player is total immersion or absorption in the game, which causes the player to lose awareness of everyday life, concern for themselves, and alters their sense of time. The final element of player enjoyment, social interaction, does not map to the elements of flow, but is highly featured in the literature on user-experience in games. People play games to interact with other people, regardless of the task, and will even play games they do not like or even when they do not like games at all.

Videogames, Positive Mood and Emotion

While some researchers have focused on the motivations for play and the process that might lead to improvements in wellbeing, others have looked more specifically at the nature of the impact of videogame play on mood and depression. Russoniello and colleagues (Russoniello, Fish, O'Brien, Pougatchev, & Zirnov, 2011; Russoniello, O'Brien, K., & Parks, 2009a, 2009b) conducted a randomized controlled trial to explore the impact of videogames on mood, stress, anxiety and depression. Using both

validated survey-based measures and objective measures including heart rate variability and brain activity (as measured by electroencephalography) these researchers found evidence of improvements in mood as well as decreases in stress and depression. The improvements in mood extended to decreases in tension, anger, depression, fatigue and confusion, and increases in vigor. The subjective reports provided by participants were directly supported by the physiological and biochemical measures made in the study.

Similarly, Nacke and Lindley (2008) employed a biometric measure of emotion (electromyography) and found that more arousing games were associated with greater positively valenced emotional response. In their research focused on self-determination theory, Ryan, Rigby, and Przybylski (2006), in a series of experimental and survey-based studies, were able to show a positive impact on mood among those electing to play videogames. Specifically, improvements were shown in terms of both subjective vitality and positive affect in response to videogame play. An experimental study by Sheldon and Filak (2008) showed that the experience of competence and relatedness during videogame play was associated with increased positive affect and decreased negative affect. Ravaja and colleagues (2004) investigated the emotional response elicited by videogames with different characteristics. They found that while there was variation across games, particular games elicited positively valenced emotion, arousal, joy, and pleasant relaxation. In sum, there is a wide range of evidence for players responding positively to videogames in terms of both mood and emotions.

Cognitive Benefits of Videogames

There is a substantial body of research that illustrates the benefits of videogames, in terms of cognitive skills and development. Playing videogames has been shown to enhance the capacity for visual attention and dynamic spatial skills (Boot, Kramer, Simons, Fabiani, & Gratton, 2008; Green & Bavelier, 2003; Subrahmanyam & Greenfield, 1994) and improve problem solving and inductive reasoning (Pillay, 2003). Playing videogames can also lead to changes across sensory, perceptual, and attentional abilities, resulting in improvements in contrast sensitivity, spatial resolution, attentional visual field, enumeration, multiple object tracking, and visuomotor coordination and speed (Spence & Feng, 2010).

Additionally, videogames have been shown to help children with autism spectrum disorders and attention deficit hyperactivity disorder (ADHD) (Durkin, 2010). Based on a review of existing research, Durkin concluded

that videogames have the potential to make a positive contribution to the lives of children with developmental disorders. Specifically, Durkin noted that videogames provide enjoyment, highly motivating opportunities for the development of skills, and imaginative and cognitive stimulation: all of which are particularly important for children with developmental disorders.

Videogames Designed for Psychological Benefit

Some of the most innovative and interesting work in terms of games designed to improve people's lives and make changes in the real world is being led by Jane McGonigal (2011). Based on the principles of positive psychology, McGonigal designs games that are intended to help players cultivate the full range of positive emotions and engagement, stronger social connections and relationships, greater resilience, and the achievement of greater accomplishments. McGonigal has been involved in the development of games that have been designed to:

- help people feel happier in their everyday lives, for example by being kind to strangers;
- encourage people to engage with solving real-world problems, including global peace, poverty, hunger, and climate change;
- have positive health impacts including speeding up recovery from brain injuries or increasing physical activity (McGonigal, 2011).

Focusing more directly on mental health and wellbeing, Burns, Webb, Durkin, and Hickie (2010) developed a videogame to complement existing online services (Reach Out) with the goal of generating greater engagement. Based on social cognitive theory, the elaboration likelihood model, and cognitive behavior theory a single-player game called "Reach Out Central" (ROC) was developed. ROC is a game designed to encourage young people to recognize that there are simple and effective strategies for improving their mood in response to various events, and in multiple contexts. As the game begins, the player is presented with the scenario of just having moved to a new town. They interact with a number of characters through different plots and progress through the game by choosing how to respond. The purpose of the plots is to present to the player with real-world scenarios through which they can make choices, see the consequences of those choices, and learn from them. The key themes that are explored during the game include depression, drug and alcohol use, relationship problems, bullying and victimization, grief and loss, family relations, and managing money.

The launch of the game resulted in a very large number (over 70,000) of new visitors to the existing website, suggesting that the campaign was successful in reaching the target audience. The ROC game was evaluated using a quasi-experimental design and a small sample (266) of young people aged between 18 and 25 years of age. The overall results suggested that the game was successful in terms of educating, attracting, and engaging young people. Additionally, for women there was a clear impact in terms of a reduction in psychological distress scores and improvements in reported life satisfaction, problem solving, and help seeking. No equivalent significant changes were observed for men, however, the authors note relatively low levels of recruitment among males as well as a substantial rate of attrition. In short, it is not possible to be sure whether the lack of results shown for males reflects that the game had less impact for them or a lack of statistical power due to the low numbers of males in the study. Regardless, the study provides encouraging evidence of the use of a game for engaging and educating young people about mental health and wellbeing.

Physical Wellbeing

Videogames Requiring Physical Activity

Videogames that involve physical activity have become increasingly popular and prevalent in recent years. With the advent of the Nintendo Wii, Sony PlayStation Move, and the Microsoft Xbox Kinect, active videogames have become readily available and mainstream. These devices generally require at least a modest level of activity from the player. The Sony Playstation Move and the Nintendo Wii both involve the player holding a controller that in some ways resembles a television remote. The player is required to make gross muscle movements (for example, mimicking the motion of swinging a tennis racket or a golf club) in order to interact with the videogame. In contrast, the Microsoft Kinect is a camera that is able to track the movement of people in three-dimensional space. As with the aforementioned devices, the player is required to make gross muscle movements in order to play games via the Kinect, but no device needs to be held or manipulated as the players' body movements themselves are the input to the videogame.

Physically active games are comparable to physical exercise. Some are specifically designed to improve fitness (e.g., Wii Fit) but most are primarily designed to be entertaining with exercise being a side effect of play (e.g.,

Dance Central) (Lieberman et al., 2011). Playing active games has been shown to be similar in intensity to light to moderate walking, skipping, and jogging (Maddison, Mhurchu, Jull, Prapavessis, & Rodgers, 2007). Playing games that encourage use of nondominant limbs (i.e., both arms), such as Wii Sports boxing, results in significantly greater energy expenditure and heart rate (Graves, Ridgers, & Stratton, 2008). Emerging research has also shown that active videogames can improve academic performance and reduce classroom absenteeism, tardiness, and negative classroom behaviors (Lieberman et al., 2011). Active videogames can also be used to motivate young children to exercise and be more active outside of the game setting (Borja, 2006) and can improve group socialisation, bonds, mutual support, and self esteem (Lieberman, et al., 2011). There is also evidence that children enjoy playing active videogames more than traditional games in school physical education classes (Yeh-Lane, Moosbrugger, Liu, & Arnold, 2011).

Videogames Designed for Physical Benefit

A great deal of research has been conducted exploring the use of videogames for specific health-related behavior changes. Baranowski, Buday, Thompson, & Baranowski (2008) reviewed the research in this space and found a number of randomized controlled trials as well as more basic single-group evaluations. The focus of the various games reviewed included diet change, increasing physical activity among the general population, increasing physical activity among people with disability, preventing asthma symptoms and improving self-management of asthma, improving self-management of diabetes, and adhering to cancer medication regimes. The review revealed two primary approaches to influencing behavior through videogames, inserting behavior-change procedures (for example, goal setting) into the process of playing the game or inserting behavior-change procedures in the story associated with the game. Baranowski and colleagues concluded that playing most behavior-change videogames led to positive outcomes including increases in knowledge, changes in attitudes, and changes in behavior.

Videogames are increasingly being used in the treatment of children with chronic illnesses and physiological impairments. Research has also shown that videogames can be used effectively as a distraction intervention for children undergoing chemotherapy (Schneider & Workman, 2000). Children with cystic fibrosis (Bingham, Bates, Thompson-Figueroa, & Lahiri, 2010) and muscular dystrophy (Disord et al., 1994) have used active videogames as part of their respiratory therapy and videogames have also been used as

mobility therapies for children with cerebral palsy (Deutsch, Borbely, Filler, Huhn, & Guarrera-Bowlby, 2008) and to provide motor learning skills for children with acquired brain injuries (Grealy & Heffernan, 2001; Levac, Missiuna, Wishart, Dematteo, & Wright, 2011).

Social Wellbeing

Earlier in the chapter we examined how engagement with videogames has been (or is potentially) associated with psychological and physical wellbeing. Now our attention turns to the opportunities for social interaction and social wellbeing through videogame play. We have already touched on the interplay between self-determination theory, feelings of relatedness and game play motivation. Social interest and positive interactions are important contributors to an individual's satisfaction with life, a core component of subjective wellbeing (Gilman, 2001). Our focus on the impact that videogames has on social wellbeing acknowledges that psychological wellbeing is impacted by the types of activities in which people participate (Park, 2004).

High-quality social interactions are strong predictors of high life satisfaction among young people (McCullough, Huebner, & Laughlin, 2000). Although videogame play is often characterized as a pursuit being largely undertaken by socially isolated computer nerds, videogame experiences are, in many situations, inherently social. Research has established that social interaction is a compelling motivation for playing games (Jansz & Tanis, 2007; Sherry & Lucas, 2003). Game players frequently create social networks and actively engage with others in their gaming activities. Studies reveal that a high proportion of time playing games includes friends and family (Durkin & Barber, 2002) and children see videogames as intensely social (Olson, 2010). First-person shooter (FPS) games, in particular, are often cited as contributing to social isolation; they are seen as an activity that people engage in to escape interactions with others. However research consistently demonstrates that FPS game play does not occur in isolation (Jansz & Tanis, 2007). The notion that normal social interaction is sacrificed by computer game players may be misplaced given the emerging evidence of social interactions that are fostered in and around videogame play (Colwell, Grady, & Rhaiti, 1995).

Our own research (currently in preparation) has found social connections and feelings for relatedness are important to game players. The study involved 466 participants (82% males) completing an online survey about

their game play. The survey asked students to nominate their current favorite game and its genre and complete a scale designed to measure the components of self-determination theory as manifest in videogames (the Player Experience of Need Satisfaction Scale; Ryan et al., 2006). A comparison of levels of relatedness across genres revealed that players experienced the highest levels of relatedness in Massively Multiplayer Online Role-Playing Games (MMORPGs), which is not surprising given that these games involve the largest groups of people playing simultaneously. However, it is noteworthy that players of these games indicate that they also have the experience of a strong sense of relatedness with their fellow players. Relatively high levels of relatedness were also found among players of shooting games (first- and third-person shooters), sports games, and fighting games. This suggests that a sense of connectedness to other players is also occurring during games that are generally considered more competitive (i.e., shooters, sport, and fighting games).

Videogames and Friendship

It has been asserted that videogames may be viewed by game players as "electronic friends" and that, for some people, may be preferred to other social interaction. However, there is evidence that videogames create a common ground that assists young people in their attempts to create and maintain friendships. In social identity theory terms it is an activity which helps define group membership (Colwell et al., 1995). Research by Durkin and Barber (2002) found that adolescents who played games reported high levels of family closeness and strong friendship networks compared to those who did not play games. The data suggests that attachment to school is also higher for game players than it is for non-game players. In addition to the social interactions that occur within games, games also become the focus for casual conversations with friends in other situations (Olson, 2010). Videogame players reported no interference with family life (Durkin & Barber, 2002).

Data suggests that games fulfil friendship needs, particularly for boys (Colwell et al., 1995). As they move through their teenage years, boys might use videogames as an expression of masculine group norms. Importantly, studies have shown that games are not a replacement for other social interactions (Cole & Griffiths, 2007; Colwell et al., 1995; Durkin & Barber, 2002). Research has shown a positive relationship in males between playing videogames and the number of times friends are seen outside school (Colwell

et al., 1995). Naturally, this shared time might involve videogame play, but the premise that these games replace normal social interactions for males, does not appear to be supported by research. Making friends is a strong motivator for videogame play for children with learning disabilities (Olson, 2010). It may be that these children put a higher value on connecting with peers through videogames, as they are more likely to experience feelings of exclusion.

Social Wellbeing and Massively Multiplayer Online Games

Massively multiplayer online (MMO) games such as World of Warcraft, are increasingly popular and perhaps more than any other kind of computer game are influenced by personal behaviors and social relationships (Caplan, Williams, & Yee, 2009). Within MMOs, players are required to work together to achieve goals and progress within the game. Success within MMO games relies on positive social interaction (Cole & Griffiths, 2007), relying on both small and large group cooperation (Caplan et al., 2009). With the total number of MMO subscriptions reaching over 47 million in 2009, there are large numbers of people banding together within game play to achieve tasks, form ad hoc groups, and creating long-term associations (Caplan et al., 2009). People who play MMO games engage in computer-mediated interpersonal interactions with other players (Caplan et al., 2009; Cole & Griffiths, 2007; Lo, Wang, & Fang, 2005; Yee, 2006), creating relationships and managing preexisting ones. The fact that they never meet in the real world does not lessen the connections made during the process of game play (Olson, 2010). Complex relationships develop between game players, their avatars, and the groups with which they interact. Within these games communication includes nonverbal actions, rule-governed behavior, emotional behavior exhibited through avatars, text-based communication, and speaking via digital voice technology (Caplan et al., 2009).

Whether competing, collaborating or connecting, making friends is a major attraction of online gaming (Przybylski et al., 2010; Yee, 2006). Managing relationships and spending time with others is both an important means to an end, and an end in itself (Caplan et al., 2009). MMOs have been found to be highly social, providing opportunities to create strong friendships and emotional relationships (Cole & Griffiths, 2007). Research conducted by Yee (2006) revealed that motivations to play MMO games included a strong socialization component that embodied three elements:

- socialization reasons—interest in helping and chatting with other players;
- relationships—the desire to form long-term meaningful relationships with others; and
- teamwork—deriving satisfaction from being part of a group effort.

A study by Cole and Griffiths found that three quarters of both male and female MMO players had made good friends within a game, with the mean number of friends made being seven. Their research also revealed that 80% of players enjoyed playing the same game with real-life friends and family. Interestingly, approximately 40% of players said they would discuss sensitive issues with their online gaming friends that they would not discuss with their real-life friends. Forty percent of participants had met with online friends in real-life situations. More generally, research has demonstrated that browser-based games serve as a platform for enjoyable social contact with other players. In a similar fashion to MMOs, they serve as a stage for making and meeting friends and for elaborating social relationships through joint game play (Klimmt, Schmid, & Orthmann, 2009). It should also be noted that much of the existing research has focused on MMOs as a means of social connection, however, it seems reasonable to expect that these trends will be found in other genres and future research should be directed towards this question.

Wellbeing for People with Intellectual Disability: The Stomp Case Study

Research currently being undertaken by our research group involves the development of a new gaming system, called Stomp, for people with intellectual disability. The Stomp project is focused on creating new opportunities for fun, learning, and sharing. The system is designed to create accessible interactions through matching technology to the physical and cognitive abilities of people with intellectual disability. Creating a system where input relies on simple gross motor actions opens opportunities for the intellectually disabled to experience the fun of playing videogames and enjoy the social connection resulting from cooperative play. It is widely acknowledged that social connectedness positively influences health and wellbeing and that community engagement plays a significant role in connecting people in socially cooperative endeavors (OECD, 2001). Given that people with learning disabilities represent one of the most socially excluded groups

(Department of Health, 2001) and there is a pervasive lack of independent leisure time activity choices for people with intellectual disability (Weiss, Bialik, & Kizony, 2003), this project is focused on enhancing the wellbeing of people with intellectual disability through providing social engagement, physical activity, and accessibility to mainstream experiences that others take for granted.

At present it is often difficult for people with disabilities to access games and other technologies that support engaging social interactions. Although technologies, such as the Nintendo® Wii™, are making gaming accessible for a wide range of people, these technologies are only usable for a small percentage of people with intellectual disabilities. Despite much of the research involving children with intellectual disability focusing on engagement and social interaction (Farr, Yuill, & Raffle, 2010; Pares, Masri, van Wolferen, & Creed, 2005; Piper, O'Brien, Morris, & Winograd, 2006), the focus for the adult population shifts to more personal, task-oriented technology (Carmien et al., 2005; Romski & Sevcik, 1988). The investigation of technology use for adults with intellectual disability is primarily centered on the use of assistive technology to support daily activities or communication (Romski & Sevcik, 1988) and the use of off-the-shelf technologies (Dawe, 2007). In light of the relative absence of research on engagement and social interaction for adults with intellectual disability, Stomp is designed to help explore alternative means of bringing these opportunities to adults with intellectual disability. Our research centers on offering people with intellectually disabilities previously unavailable opportunities to experience the joy and camaraderie of playing videogames with friends.

The Stomp System

Stomp is a floor-based system that allows users to interact with digital environments by triggering pressure sensors embedded within a 2 × 3 m floor mat. The floor mat contains 56 pressure sensors that are then mapped, through a keyboard encoder, to system input. We have developed 14 interactive experiences that use this sensor information as input. These experiences are projected onto the mat using a short throw projector. The Stomp platform effectively turns the floor into a large, pressure-sensitive computer screen. Stomp can be used by a single participant, pairs, and larger groups. Users interact with experiences through stepping, stomping, pressing, jumping, and sliding. Interactive experiences have been developed using Adobe Flash and are run from a computer within the Stomp hardware

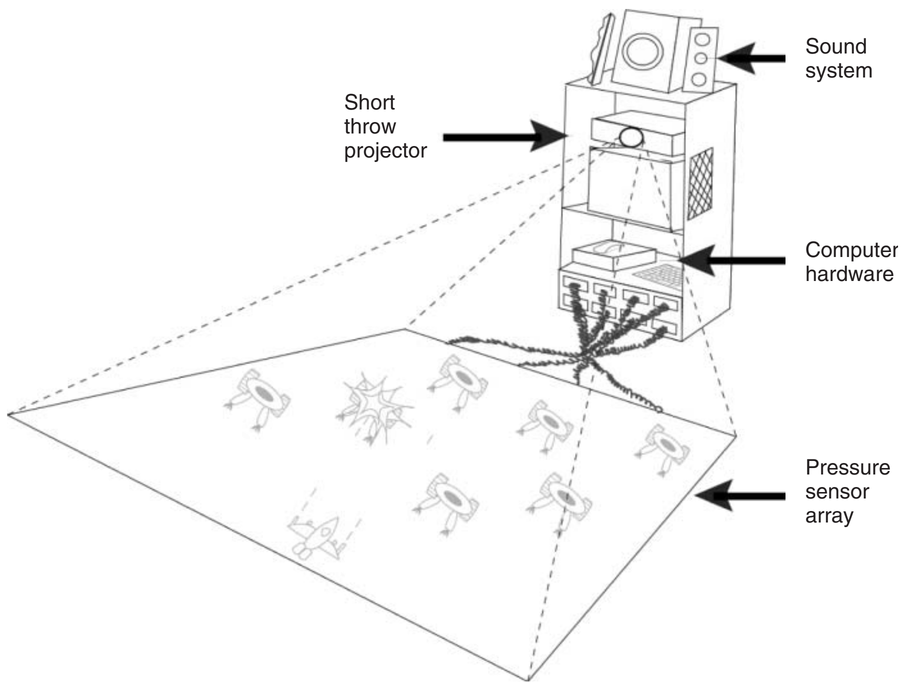

Figure 14.1. Stomp's Underlying Hardware, Including a Short Throw Projector and a Floor Mat Containing 56 Pressure Sensors.

box. Figure 14.1 identifies the key hardware components used in the development of the Stomp platform.

Three of the 14 games developed involve musical instruments: a piano keyboard, a guitar, and a drum kit. Four experiences are game-like and involve blowing up robots and spacecraft. We developed three interactive sports experiences: soccer, car racing, and pong. A creative painting experience was developed to allow users to create large canvas "paintings" using the floor mat. We also developed an interactive pond experience, as well as two educational games: a sheep herding numeracy experience and a road safety game.

Evaluation of Stomp demonstrated that the system promotes participation in terms of both physical and social activity. We took the system to an Endeavour Foundation Learning and Lifestyle center, a community-based day center for adults with a wide range of intellectual disabilities. Findings are based on observations of participants' engagement with the Stomp system, combined with focus group interviews with staff and service users after the study. Approximately 40 people with intellectual disabilities were observed

during a 2-week period. Two focus groups involved service users from the center, the first including five participants and the second involving four. Two staff members from the center also participated in interviews to provide feedback on Stomp experiences.

Social Interactions with the Stomp Games

The study demonstrated that many of the Endeavour service users were immediately keen to "have a go" at Stomp experiences and a majority of study participants who used the mat were observed quickly coming to terms with the physical interaction required by the system. Study participants were observed stomping, stepping, jumping, and walking to trigger system input. As our interviews with Endeavour staff indicated, Stomp autonomously engaged service users in both physical and cognitive activity.

Jessica: It got their attention straight away. And I think it's quite physical for them so a bit of fitness and exercise for them. And it gets them to think. You know like you said Mandy, she was having to think and she could work out what to do without being told which I think is a good skill to encourage.
Craig: It's like the mental application but the physical application—the combination of both at times. That's a really good sign.

According to Endeavour staff, the experiences encouraged service users to engage in a level of physical exercise that would typically not be undertaken. During an interview, one staff member commented on one service user who had become less active in recent times despite his orientation toward sport and competition. This client actively engaged with Stomp experiences, particularly the arcade style games and experiences that incorporated competitive features. The Endeavour staff member felt that this was a positive outcome, both physically and socially, for this particular person.

From observations it was clear that many service users enjoyed social stimulation and were excited by the idea of competing with others and winning games. An excerpt from the first focus group undertaken with service users demonstrates this point:

Interviewer: You liked the soccer one did you Josh? What did you like about the soccer one?
Josh: Get ball in the goal.
Interviewer: Did you find it easy?
Josh: Yeah. Know how to play that.
Interviewer: Did you like it with the scores?

Sophie:	Yes.
Ron:	Yes. I won it. I did.
Interviewer:	What's that?
Ron:	I won it.
Sophie:	And I won it too.
Ron:	No, I did.
Sophie:	Uh aah, I won it.
Ron:	No, I did. I did.
Josh:	I won it too.
Ron:	I got 10 points.

Responses show that the services users were interested in social competition and in winning the game. The excerpt shows participants engaging in the types of social banter typical of all game players. It demonstrates a game's ability to create connections beyond the gameplay session, becoming the focus of later casual conversations. Stomp facilitated social interaction in a number of ways (Figure 14.2). Participants in Stomp experiences could:

- engage in explorative shared or individual experiences (e.g., painting, drums, piano);
- engage as individuals, yet in a competitive context comparing performance against other participants (e.g., car racing);
- compete against each other individually or in teams (e.g., soccer and ping pong);
- work together to achieve a goal (e.g., invader, sheep herding).

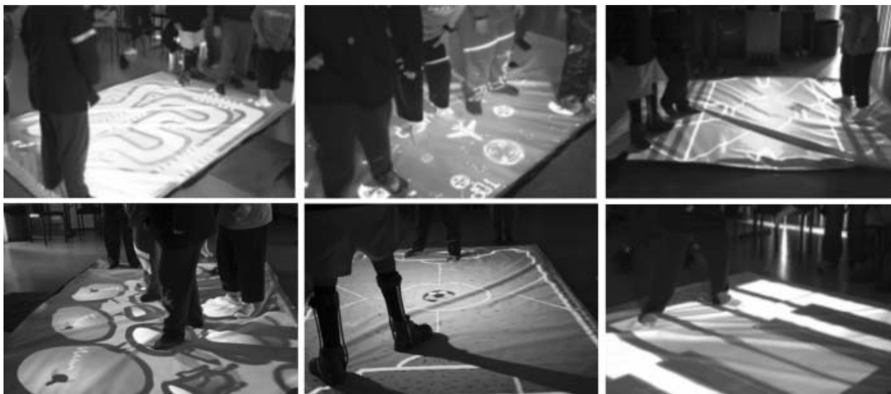

Figure 14.2. Social Participation Experiences Available through Stomp. Clockwise from the Top Left: Individual Competitive, Collaborative, Team Competitive, Shared, Individual Competitive, Individual.

Staff felt that this breadth in interaction offered opportunities for many of the Endeavour service users to find something of interest and become active participants in Stomp experiences. There were occasions when there were up to nine participants engaged in a Stomp activity. Socialization occurred both as peripheral to game interactions (i.e., bumping into each other, engaging in discussions triggered by in-game events) and through collaboration or competitive action. Social experience emerged as participants played in parallel, played together, and competed in gameplay. It was both verbal and nonverbal.

There were a small number of services users (approximately 10%) who appeared uninterested in the Stomp system and did not participate in any Stomp activities. Around 40% of service users were involved in passive participation, either through watching from a distance, or standing around the edge of the mat. Some of those at the edges would offer comments and support. These participants appeared eager to be involved in activities as an active audience, talking and laughing with participants and offering encouragement and suggestion.

Active participation involved both individual and collaborative (or competitive) engagement. Approximately 50% of service users involved in the study were observed participating in this sense. We were able to identify two categories of active involvement. There were those participants who were actively observed interacting with others in a competitive or collaborative sense. They would discuss goals, suggest strategies and discuss outcomes. Other participants were more focused on individual engagement, happy to interact in parallel with others. These participants only occasionally engaged in cooperative or social interaction.

Some participants would engage infrequently, whereas others were constantly interacting with Stomp experiences. It was interesting to observe the most active of participants encouraging less engaged services users to join them. Figure 14.3 demonstrates how one participant went from passive

Figure 14.3. A Participant Gradually Moving from Watching the Stomp Action to Social Engagement.

participation at the edge of the experience, to active engagement and social connection within the experience.

Of the service users who initially took on an observational role, some required only minimal initial encouragement to try Stomp experiences and, after this, engaged with the games for an extended period. Others were more inclined to have a try and then retreat back into the observational role. Staff noted how Stomp experiences encouraged some service users, who typically would not associate with each other, into the same space. It was suggested that Stomp might provide a platform for service users to broaden their associations with each other and build friendships.

Stomp created active, excited, and vocal physical participation. The shared social experiences of Stomp, whether companionable, cooperative, or competitive were seen in a positive light by both service users and staff. The range of social interactions exhibited during the study is a significant contributor in promoting new zones of inclusion for people with intellectual disability. Stomp provided opportunities to engage with experiences that would generally be inaccessible to many people with intellectual disability. Our research provides clear evidence that videogames delivered via the Stomp system provide experiences which engage, excite, and connect people with intellectual disability. Given the relationships between social connectedness, physical activity, and wellbeing, games on this platform may provide a pathway to improved wellbeing for people with intellectual disabilities. Our ongoing and future research will employ more direct measures and indicators of wellbeing with a view to identifying when and how interactions with Stomp influence specific components of wellbeing.

Conclusions

In this chapter, we have focused on the actual and potential impacts on wellbeing of videogames. However, it is clear that excessive engagement with any form of media (e.g., television, books, videogames) is potentially harmful. A balanced life should include appropriate levels of engagement with recreational media. In the case of videogames, this balance extends to the frequency and duration of play, as well as to engagement with age-appropriate games.

Although the topic of potential negative impacts of videogames is beyond the scope of this chapter we think it pertinent to highlight recent developments in this space. The central question is whether videogames are

directly implicated in pathological or aberrant behavior, or whether some other variable (for example, a preexisting psychological imbalance) is a more valid explanation for problematic behavior than videogames. To this end, Ferguson, Colwell, Mlacic, Milas, and Mikousic (2011) recently published a study involving an international sample that showed a relationship between media violence exposure and violent crimes and depression. However, once personality features were taken into account, any link between exposure to media violence and violent crimes/depression disappeared. Furthermore, the work of Przybylski et al., (2010) suggests that it is people with low need satisfaction in other areas of their life that develop a disordered pattern of videogame play. Additionally, their findings indicate that disordered videogame play is a symptom rather than a cause of psychological distress.

Regardless of the above research suggesting that direct links between videogame play and pathology are unlikely, there is clearly value in identifying the patterns and modes of videogame play that are least likely to have a negative impact and most likely to have a positive impact on wellbeing. McGonigal (2011) has begun work in this space making specific recommendations in terms of the amount of play that is healthy, the relative benefits of cooperative (rather than competitive) play, play with friends and family (rather than strangers), and play with others who are physically colocated (rather than online). We propose that future research in this space should seek to identify which aspects of wellbeing are most likely to be impacted by different types of videogames, different styles of play and for whom these benefits are most likely. Moreover, further research that directly compares the physical and social benefits accrued via videogames to more traditional means (e.g., playing sport, real-world social interactions) is needed.

The experience of autonomy, relatedness, competence, and flow during videogame play can all be seen to lead to improved psychological wellbeing. Additionally, videogames can generally be expected to positively influence player mood and emotion. Commercial videogames have been shown to lead to improvements in cognitive skills and development and games designed to have a specific benefit have shown improvements in psychological wellbeing, education, engagement, physical wellbeing, and rehabilitation. With respect to social wellbeing, videogame play has been shown to be related to the development of real-life friendships, and rich and full social connections have been found as part of massively multiplayer online gaming. Finally, research on the Stomp platform has shown that videogames can provide the opportunity for social interactions and engagement among intellectually

disabled players. In sum, although key questions remain to be answered, there is evidence of the positive impact of videogames on the psychological, physical, and social components of wellbeing.

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15

Retooling for Wellbeing

Media and the Public's Mental Health

Marten W. deVries
Maastricht University, The Netherlands

Introduction

The global pervasiveness and wide reach of popular media are able to address a wide range of topics as well as target and reach a broad audience. Through media, positive psychology content may be brought to a population's attention quickly, directly, and conveniently, for the improvement of people's wellbeing. Mass media's impact on attitudes towards mental health has received research attention, but the use of media to improve the wellbeing of a population has been less actively pursued and investigated. Yet, as market analysts have shown, the target for such information is vast and diverse, encompassing an enormous global market for lifestyle information. TV, radio, the Internet, and new social media platforms may be specifically designed to engage populations and promote mental health and wellbeing.

Media is often viewed as a double-edged sword, cutting both ways. For all its potential positive power, it also has an oft-criticized, social "downside," ranging from state-deployed propaganda to the commercial depicting of violence, abuse, unhealthy lifestyles, and profane language. But, to a far larger extent, it has been a useful tool that today has entered into almost every aspect of daily life, improving communication and information exchange, increasing awareness of key social issues, enabling social change as well as entertaining large numbers of people (Costera Meijer, 2008).

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It is often assumed that technology and mass media can influence the wellbeing and the quality of life of large numbers of people positively. In light of these positive expectations, this chapter will explore how this may best be done by discussing a number of media platforms and creative broadcast formats embedded in the socioecology of community action. But, the impact of media on the public's mental health still needs to be proven. Multiple forms of new and traditional media still need to be designed to take quality of life and optimal experience fully into account. To that end, Riva, Banos, Botella, Wiederhold, and Gaggioli (2012) propose a "positive technology" with the goal of using technologies to support and improve the connectedness between individuals, groups, and organizations. They suggest that the quality of experience should become the guiding principle in the design and development of new technologies and media, as well as the basis for its research. Positive psychology has a large role to play in this media transformation toward influencing health and wellbeing positively, both individually and communally.

The premise is that the rapidly evolving media and digital landscape worldwide from telephony to the performing arts can be a powerful ally for improving the quality of life for many. The basis of such an approach is simple, sharing stories and connecting people. Storytelling is a key ingredient for emotional understanding, social cohesion, and community resilience. When included in the context of a mix of community and media interventions, it forms the basis of human communication and potentially stimulate communities to become storytellers and co-producers of media content. The rise of new media will facilitate the use of positive mental health content. It has recently been effective in political movements around the world and in maintaining self-help networks throughout the world. Media approaches anchored in concepts of positive thinking at the individual level and empowerment and participation at the community level can encourage people under diverse circumstances to use and communicate through media to improve the quality of their lives. In this, the role of media in agenda setting is key. This chapter discusses concepts, data, and issues related to the use of media in populations and aims to encourage positive psychology to engage populations, embed positive psychology in other community-based interventions, and employ various forms of media to influence wellbeing. In closing, I draw on two outstanding case examples demonstrating different approaches to a population-based mass media intervention: a pioneering media intervention for depression in San Francisco in 1978 (Muñoz, Glish, Soo-Hoo, & Robertson, 1982) and an in-depth discussion of the impact of

a successful socially embedded mixed-media approach in Kenya following the ethnic violence in 2007–2008 (MFoA, 2012), both may serve as models for positive psychological population approaches.

Background

Today the human mind is perhaps under the greatest pressure since modern history began. The impact of our globalizing, highly interactive, communication dependent, knowledge economies, and societies, on young and old alike, is great and increasing. While we face a century of overwhelming technological growth and potential welfare (or not), our new world challenges human psychosocial adaptation. Modern humans find themselves at a time of increasing social complexity, instant mass communication, and constant wireless, online information.

This may contribute to the high prevalence of mental health problems, human suffering, and delayed economic development and productivity losses worldwide. Mental health problems represent a serious and growing public health, social, and economic burden. The lifetime prevalence of mental disorders is now reaching 40% of the world's population, with only 8% receiving any sort of attention under the best of conditions (Kessler et al., 2007; WHO, 2008). Even this limited medical reach occurs at great direct economic cost to society as health-care costs swell globally. Depression and anxiety are among the most prevalent disorders, and there is a great impact in terms of personal suffering, utilization of health and mental health care, risk of physical illness and mortality, economic costs and social participation (e.g., raising children, work, education). The relation between these mental health problems and the social functioning of communities is bidirectional. On the one hand, incidence and prevalence of depression and anxiety are significantly influenced by exposure to community stressors such as poverty, unemployment, living in disadvantaged areas, domestic violence, social isolation, and lack of social cohesion (Flannery-Schroeder, 2006; Latkin & Curry, 2003; Lorant et al., 2003). On the other hand, mental health (mental capital) and wellbeing is increasingly recognized as a vital aspect of community life and a prerequisite to citizenship, and social participation (Laverick, 2004). The experience of general wellbeing has been linked to the adequate social and economic functioning of communities, even at times of economic crisis (Stuckler, Basu, Suhrcke, Coutts, & McKee, 2009).

At the same time, we have accumulating evidence that a small shift in a population's wellbeing (one point on the General Health Questionnaire) is associated with a substantial 6% reduction in the prevalence of common mental disorders (Whittington & Huppert, 1996). Huppert (2004) and Rose (2008) found that increasing the wellbeing of communities can have a direct effect in decreasing mental health morbidity. Moreover, National Councils like the Raad voor Zorg in the Netherlands (2010) and SAMHSA (2011) in the United States, have projected that implementing general prevention strategies for common mental disorders will achieve substantial savings, potentially reaching billions over ensuing years. What is most important to realize here is that this is a fundamental change in thinking, that prevalence rates in a population may be decreased by improving the wellbeing of a population rather than only treating the ill or focusing on risk groups. Treating the ill and removing the burden from those at risk is ethical, necessary, and important but will not change the explosive prevalence rates we find today.

Yet, relatively little scientific work has been carried out toward strengthening wellbeing in the world's communities. Programs are generally focused on the individual or targeted risk groups. A population-based frame of reference and action plan is necessary, allowing governments and institutions to confront this global problem directly. The role of governmental decisions is key. For example, although recessions themselves pose a risk to health, empirical data (Stuckler, Basu, & McKee, 2010) reveal that the decisions made by governments crucially determine how good or bad the outcome will be. In light of the need for governments and their institutions to legitimize their economic interest in limiting expensive health care, an ethical, justifiable, and appropriate alternative position would be to focus on the wellbeing and empowerment of their populations. This can be achieved with the promotion of positive psychology and public mental health principles through activities aimed at increasing citizen participation in the improvement of health behavior and preventive action.

Societies today are primed for such interventions. Social media has contributed to this preparedness and provides a powerful tool to achieve further gains. There is growing public interest in dealing with lifestyle, mental health, and wellbeing. Institutions can take advantage of this ground swell in the population. At the turn of the millennium, economic and market analysts highlighted a vast growing international demand, interest, and market in mental health know-how, self-help, and lifestyle products,

particularly in the media, ranging from print to broadcasting to the Web (PriceWaterhouseCooper, 2000).

The "duty to be healthy" is today a much-discussed proposition as governments grapple with their expensive medical systems. It is also an increasingly accepted proposition by a large portion of the world's citizens. Communities have opened up to lifestyle and health-related ideas, both in action and metaphor ("healthy cities," etc.). McLuhan's classic theories are helpful in that the medium used is an important part of the message. Where does the message come from; does it consider the issues of citizens? Are the approaches purely top-down? etc. Communities have also become increasingly sensitive to protecting their rights vis-à-vis their governments (WHO, 2008). Communication-based research has shown that purely informational and coercive measures, like "Don't smoke, it will kill you," have been shown to be less acceptable, often ineffective and may lead to community resistance, especially in difficult-to-reach groups (Ruiter, Abraham, & Kok, 2001).

Some 30 years ago Ivan Illich (1976), writing in *Medical Nemesis*, warned against the expropriation of health through a process he coined "medicalization." Today, this is a fact; society has to a large degree become medicalized, employing a range of traditional and alternative health/wellness aids to improve their health and adaptive advantage (deVries, Berg, & Lipken, 1982). Populations worldwide have increasingly accepted the "duty to be healthy," from dieting to fitness, and this has now become a multibillion dollar business for health and mental health products (Merrill Lynch, 2000), demonstrating not just a large market but also the public will to take action on their own behalf. How can the mental health and positive psychology professional capitalize on this process and growing awareness that people need and want to take health into their own hands? This is an opening to adjust the shortcoming of traditional illness-based policy, challenging us to develop innovative approaches in order to respond to this public interest and need. Here is where positive psychology and media meet and can become part of the solution.

A Rationale for Public Mental Health, Positive Psychology, and Media Action

Over the last decades those in the field of mental health have been confronted by perplexing and challenging mental illness prevalence statistics from every corner of the world (WHO, 2008). Kessler et al. (2007) formulate a set of

drivers explaining these high prevalence rates: chronicity, high impairment, young onset, and low treatment rates. To this we add lifestyle issues, rapid social change, global communication, work–life stress, and, most recently, global financial stress and debt. It has even been suggested that factors such as developmental changes leading to earlier occurrence of puberty perhaps create more active and environmentally sensitive brains and people (Saugstad, 1989). Of course, one of the most malicious contributors to our ability to deal adequately with mental health and psychological issues is the almost globally ascribed stigma around these human experiences (Sartorius & Schulze, 2005).

There is, however, a growing body of sound evidence in prevention research (Hosman, Jané-Llopis, & Saxena, 2004) as well as with primary care interventions (Jenkins & Üstün, 1998) that demonstrates efficacy in an accumulating database of successful programs. Health promotion efforts have demonstrated impact in areas of sexual behavior, smoking, diet, and exercise and most recently Internet intervention for depression. In the case of depression (Smit et al., 2006) and smoking intervention for example (Muñoz et al., 2005), larger numbers have benefited than the numbers traditionally reached through the Web. The vast majority of these efforts, however, have focused on small, "captured settings," secondary and tertiary prevention, with groups at risk and individuals indicated for treatment. There is much to be learned from these successful programs for use in larger population-based interventions. These laudable efforts need to be integrated and researched within the larger domain of public or universal interventions. This is a call for us to focus on what we can achieve to improve wellbeing at the population level with the tools already available but not adequately deployed, such as media.

Psychosocial Adaptation in Today's World

As Zygmunt Bauman (2005) argues, life has become more "liquid." For instance, today's youth often live far away from their natal environments. Urbanization, the search for economic advancement, and forced migration has uprooted vast numbers. Traditional social and family structures have been altered and with this, the secure authority dictated by custom. The information age has accelerated the process and rendered traditional hierarchies topsy-turvy [for earlier discussion of this topic, consult the classics Margaret Mead (1978) and Alvin Toffler (1970)]. This is occurring at a

time of increasing autonomy and independence of the individual with its direct negative consequence for maintaining social and other supportive networks. A culture mix has evolved that we often refer to as globalization, which has challenged the existing social fabric. Besides its positive attributes, it has also created stress, alienation, and often regressive reactionary politics. But primarily it points to the need for new skills, tools, and habits. New skills are needed to manage these profound and fundamental changes that have remained largely outside the control and power of citizens to comprehend and grasp in the context of their daily lives. Many such tools may be guided by the accumulating data of positive psychology.

Today, psychosocial competence is also required at a younger age than before. Schools play an increasingly minor role in developing attitudes and mind sets in a fluid environment of constant rapid change. More and more information comes from outside the classroom and family network. Peers and social media have to a large extent taken their place. Adults are also faced with new uncertainties: relationships such as marriage have become less stable, with soaring divorce rates and split families, and work insecurity is increasingly common in fragile economic times, both issues often resulting in debt and long-term financial insecurity. The work–life conundrum (deVries & Wilkerson, 2004) creates stress-driven time management (also not taught in schools nor elsewhere), which leads to decreased concentration on tasks, less "flow" and optimal experience, and greater anxiety, boredom, and apathy (Csikszentmihalyi, 1990). All of this makes it difficult for people to maintain social relationships supportive of wellbeing.

Ryff and Singer (2000) argue that interpersonal flourishing, conceived as the development of positive relations with other people, is a key dimension of wellbeing, which is stable across different cultures and across time. But although maintaining social relationships is seen as a key element for health and wellbeing (Chemiss, 2012), current society is increasingly characterized by loneliness and isolation. Media and technology can be seen to help here, but positive psychology is being challenged to understand how technology can be used to facilitate a mutual sense of awareness and to create a strong sense of community (Riva, Banos, Botella, Gaggioli, & Wiederhold, 2011). Media can be postulated to be useful in creating a sense of social presence, connectedness, and common experience, thereby decreasing the isolation that accompanies so much of human misery.

How Can Media Help?

I propose that media and positive psychology can play a major role here and influence positive mental health and wellbeing. Today, multiple forms of media and creative broadcast formats are available that can be coupled to sensitive social interventions for a positive effect on mental health and wellbeing at the community and individual level. Media can do so through setting a wellbeing agenda (not unlike that used by the Government of Bhutan) that would open the discourse for improving mental health and facilitating the reciprocal exchange of psychosocial knowledge between professionals and grassroots experts. A positive psychological frame is most useful here. On the side of media, broadcasters and publishers can provide a place where people rediscover themselves and interact, a place where security not anxiety is fostered, and a place where both the new can be depicted and discussed, while sustaining references to the past. Media formats that link information from the "past" to the new upswell of information through communication channels informed by positive psychology can facilitate knowledge building, decrease anxiety and apathy, and help create secure social interactions (Riva et al., 2011).

Going even further, I suggest that media-based improvements in wellbeing have the potential to decrease the current lifetime mental illness prevalence of 35–40% back to the 15–20% found in the 1950s by Leighton (1956) in a small town in the United States. This can be achieved over the next 20–30 years by retooling for positive mental health at the population level.

Research in the mental health field supports this with data that demonstrates that mixed media formats can increase mental health literacy, decrease stigma, and function preventively (Whitehorn, 1989). At the population level, they can stimulate social networks in a community and facilitate "boundary crossing" between citizens, the community, professionals, and policy makers, thus empowering populations in proactive and self-efficacious ways. Until recently, however, media approaches in health promotion, like mass media campaigns had not worked well. They were often deployed in isolation (Abbatangelo-Gray, Cole, & Kennedy, 2007), insufficiently engaging, and "too top-down." But media and the Internet today offer fresh opportunities as they are interactive, not solely focused on "informing," but also on developing "meaning" and involvement. In this approach, social media interventions become shaped in the interaction between citizens, scientists, mental health, and media professionals.

Local communities are then not necessarily only "the objects" of these media productions but are coproducers. This is done by embedding media productions in diverse community activities and developing programs in concert with citizen interests. Partnering with media skills here is essential in order to create engaging formats, based on emerging positive psychological principles, thereby adjusting the shortcomings of previous interventions. Moreover, community interactive social media, with weblinks and social gatherings, accelerates the reach and tempo of information exchange and influences behavior more quickly than traditional approaches. In doing so, it often stimulates a new sense of community as well. The interactive nature of today's media also provides the equally important possibility of intervening more quickly to stop abuse when this potential ally is having a damaging impact (Klin & Lemish, 2008; Murray, 2008; Wahl, 1992), both directly through contact with media personnel and through "consumer" networks: user-to-user communication (Mangold & Faulds, 2009).

Media can Influence Mental Ill-Health: Can it Also Improve Wellbeing?

Media is globally pervasive, has wide reach, and has a potentially broad audience, estimated at 60–90% of a total population (Fonnebo & Sogaard, 1995; Highet, Luscombe, Davenport, Burns, & Hickie, 2006). In various forms it enters the daily lives of people everywhere, from work to leisure to public transport to the living room to the breakfast table. Its impact is felt almost everywhere, and to understand its effect fully, we will have to rely on studies in many interdisciplinary fields. In the field of positive psychology, there is much yet to investigate, including how to develop the full participation of media and determine its ethical and effective use. Today, in the allied field of mental health prevention, several prestigious reviews in the scientific literature have stressed and encouraged the efficacious use of media technology and interventions for mental health improvement (Abbatangelo-Gray, Cole, & Kennedy, 2007; Kline, 2006; Maibach, Abroms, & Marosits, 2007; Miller, 2007).

In there contexts "edutainment" is often mentioned. Edutainment—the process of designing media message to both entertain and educate—is not a new form of programming, and goes back to the beginning of mass media more than 60 years ago. For example, in the late 1960s *telenovelas*, Latin America soap operas, began featuring educational messages designed

specifically to "teach" audiences certain desired behaviors. These have been followed globally in diverse health and social issue campaigns (Singhal & Rogers, 2004; Smith, Downs, & Witte, 2007), most notably the successful HIV prevention television series *Soul City* in South Africa (Usdin, Singhal, Shongwe, Goldstein, & Shabalala, 2004) to name just one.

Edutainment soaps often derive their motivation from psychological and social research. Bandura's influential work dating from the 1960s on social learning theory (Bandura, 1977) and self-efficacy, as well his later writings on the impact of media, is one of these and has had a major impact. Bandura (2009) concludes that mass media not only creates personal attributes but can also alter existing ones based on exposure to other forms of behavior. Social learning theory then postulates that exposure to new forms of behavior and information is central. Simply stated, individuals learn behaviors by watching others, whether in person or in the media, and imitating them. Imitating the modeled behaviors further increases the individual's sense of self-worth and efficacy, thereby reinforcing the effect (Bandura, 2001).

More directly than edutainment, mental health improvement campaigns have used media successfully, particularly in Australia, New Zealand, the United States, and the United Kingdom (Jorm, Christensen, & Griffiths, 2006; Regier et al, 1988; Voelker, 1996), with gains recorded for depression, suicide, anxiety, alcohol and sex abuse, and aggression. These mass media interventions have had a proven impact on mental health literacy, de-stigmatization, and prevention. This has been demonstrated by the use of a variety of research methods: mail surveys (Bartlett, Travers, Cartwright, & Smith, 2006), telephone interviews (Highet, Hickie, & Davenport, 2002; Highet et al., 2006), opinion surveys with disorder vignettes (Castiello & Magliano, 2007; Jorm et al., 2006; Lauber, Nordt, Falcato, & Rossler, 2003), participatory action research (Stip, Caron, & Mancini-Marie, 2006), questionnaires on attitudinal change (Finkelstein & Lapshin, 2007; Penn, Chamberlin, & Mueser, 2003; Twardzicki, 2008) and questionnaires on behavioral change (Sanders, Montgomery, & Brechman-Toussaint, 2000). These studies demonstrate that mass media campaigns have been effective in three areas: agenda setting in communities, opening the discourse on mental health and social issues, and targeting key problem areas leading to identification and early detection of mental health problems.

Media campaigns have been effective primarily by providing information. This can further be improved, following the Bandura effect, by creating positive role models to be imitated using positive psychology know-how,

providing examples of positive solutions, and doing so with media personnel through entertaining, engaging/interactive formats from TV/radio to Internet.

Targeted mental health interventions have produced encouraging results. Numerous studies have measured changes in attitude, clarifying misconceptions, raising empathy, and improving the understanding of mental illness (Finkelstein & Lapshin, 2007; Fonnebo & Sogaard, 1995; Penn et al., 2003; Ritterfeld & Jin, 2006; Twardzicki, 2008; Warner, 2005). Programs targeting specific problems such as school bullying and violence have had an effect. For example, a media campaign in middle schools in the United Kingdom to prevent violent youth behavior (Swaim & Kelly, 2008) has been successful in decreasing intent for violence, physical assault, and verbal victimization, and increasing perceived safety.

Although media interventions and research in mental health are still in their infancy, early results show that they can improve active advice seeking and stimulate discussions, leading to the recognition of a problem and the acknowledgment of its severity and prevalence (Kato, Yamanaka, & Kaiya, 1999). These approaches open the way for moving beyond illness models to more positive aspects of psychosocial life and its associated social issues. Positive psychology can thereby set the agenda for wellbeing interventions, depathologize troublesome aspects of human experience, and emphasize resilience, coping skills, positive social interaction, and communication. It can do so by sharing and making public its growing knowledge base with the general population. By accenting positive aspects and solutions—support that people often need—it could augment existing preventative approaches and provide an alternative to illness-based, medicalized approaches, thereby fitting better with the current societal tone of developing a healthy lifestyle.

A strong example of where positive psychology can play a role is within existing highly efficacious programs such as Sanders' Triple P program (Sanders et al., 2000). This mixed-media, multilevel intervention for communities, families, and parents is a process that cascades from community universal preventive approaches to family-targeted interventions. In over 40 controlled trials across different cultures (De Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008) positive outcomes were sustained over 1 year related to dysfunctional parenting strategies (e.g., coercive), stress and anger, depression, wellbeing and parent's relationship quality, and it had a positive effect on children's conduct problems and the reduction of verified cases of child abuse in communities. Existing programs such as this provide

just one example of a good fit for positive psychological principles to be employed, further enhancing sustainable success.

Can the New Interactive Social Media Help?

The new and growing world of social media can improve on this already strong effect (Webb, Joseph, Yardley, & Michie, 2010). Social media have today proliferated (see Box 15.1), but can they facilitate reflection and learning focused on themes of wellbeing and resilience? Previously, online sharing of information and experience has largely been the domain of the young, but older groups are rapidly catching up (Lenhart, Purcell, Smith, & Zickuhr, 2010). The use of social media has expanded rapidly over the last decade, with 65% of adult Internet users reporting using a social network site (Madden & Zickuhr, 2011). Adult women seem particularly keen on seeking health-related information and men on social media contacts, although both are increasingly using the full range of social media. Interestingly, in the United States people of foreign origin are more likely to use social network sites than longer established citizens (Korda & Itani, 2011). It thus creates the opportunity for maintaining interactions and facilitating open discussion of sensitive emotional issues. It may thereby potentially de-stigmatize vulnerable emotional experiences, given its anonymous nature, if one chooses to use it so. The Internet allows the search for information to occur anonymously without the risk of stigma: information that may further empower, lead to help seeking, and open informal communication about sensitive issues.

Especially when tailored to the particular needs of a population, social media has been shown to be effective in engaging, creating empowerment, and challenging dysfunctional beliefs (Webb, Joseph, Yardley, & Michie, 2010). Social media can therefore help to identify problems as well as provide examples of multiple ways of dealing with them, while remaining within the context of a social network.

Lessons can further be learned from how social media is used commercially. Business capitalizes on it as a quick and effective way to reach a large audience almost instantaneously. Research in this area has demonstrated that social media should not be viewed directly as a panacea for health promotion. It can, however, indirectly assist with attitude and behavior change through the process of engaging, enhancing communication, and informing audiences (Neiger et al., 2012). This is where consumer-to-consumer networks

Box 15.1. Examples of Current Social Media Sites (Mangold & Faulds, 2009).

- Social networking sites (MySpace, Facebook, Faceparty)
- Twitter networks
- Creativity works-sharing sites
- Video-sharing sites (YouTube)
- Photo-sharing sites (Flickr)
- Music-sharing sites (Jamendo.com)
- Content-sharing combined with assistance (Piczo.com)
- General intellectual property-sharing sites (Creative Commons)
- User-sponsored blogs (The Unofficial Apple Weblog, Cnet.com)
- Company-sponsored websites/blogs (Apple.com, P&G's Vocalpoint)
- Company-sponsored cause/help sites (Dove's Campaign for Real Beauty, click2quit.com)
- Invitation-only social networks (ASmallWorld.net)
- Business networking sites (LinkedIn)
- Collaborative websites (Wikipedia)
- Virtual worlds (Second Life)
- Commerce communities (eBay, Amazon.com, Craig's List, iStockphoto, Threadless.com)
- Podcasts (For Immediate Release: The Hobson and Holtz Report)
- News delivery sites (Current TV)
- Educational materials sharing (MIT OpenCourseWare, MERLOT)
- Open source software communities (Mozilla's spreadfirefox.com, Linux.org)
- Social bookmarking sites allowing users to recommend online news stories, music, videos, etc. (Digg, del.icio.us, Newsvine, Mixx it, Reddit)

become important. Information exchanged between consumers/users is today viewed by many as a more trustworthy source of information about products and services than traditional advertising and institutional sources. Consumers further like to network with people with similar interests and values. Creating such communities can strongly influence user behavior and be usefully employed in self-help, social support, and health promotion

interventions. By making this process increasingly interactive, with blogs, voting, and gaming—in short, "having fun"—the impact of the social media message is markedly improved (Mangold & Faulds, 2009). Social marketing research and literature is of special interest for those developing interventions to improve the wellbeing of a population.

Social media then represents a movement away from "providing information," to creating an interactive platform for the community, individual, and professional to learn from one another. The Internet provides an obvious tool for positive psychology to use. Much current data on Internet interaction and health behavior (Smit et al., 2006) demonstrates that engagement on the Internet linked to other media and the use of gaming strategies, can be an important ingredient to ensure sustainable involvement of people and create behavior change. Positive psychology concepts are of prime use here and can go beyond the labor-intensive focus on target group interventions (courses, group trainings) and reach a broader audience. Social media tools—Internet, mobile phone, interactive TV, etc.—are far less labor intensive and expensive, and have potential to reach large numbers of people with greater efficiency and cost savings (Austin & Husted, 1998; Foster, Prinz, Sanders, & Shapiro, 2008) than more traditional preventative approaches. This is particularly so if positive psychology interventions are entertaining, occur in the context of other public mental health interventions or contexts, and are developed in partnership with media colleagues; journalists, producers, actors, film makers, and the performing arts.

However, as decades of research on media effects shows, mass media does not work in a vacuum, it is rather part of a larger ecosystem, including audience, message, and environment (Bratić, 2006). Interaction, engagement, and dialogue are critical factors in the outcome of any media intervention (Becker, 2004). In order to have a substantial impact on the wellbeing of a population, a number of theoretical (health promotion, public mental health, social learning, etc.), environmental, social, and historical factors need to align with the media effort. A change in behavior depends on many variables other than the impact of the media programs (see the case discussion of *The Team* below). Only the true integration of media, ongoing social processes, and other population-based strategies can guarantee a significant move toward greater wellbeing. Enlisting the involvement of the local or virtual community is a key ingredient in a successful intervention. Participation can take a variety of forms, from contributing to the form, content, and production of the media intervention to engaging in community screenings or assisting with promotion and dissemination of the program to

a wider audience. The lesson for a successful positive psychology approach with populations is clear: it requires the integration of mixed-media products with ongoing community-based interventions and staying in dynamic tune and participatory interaction with the realities of day-to-day life in a population.

Two Examples of Mass-Media Interventions From the United States and Kenya

From the vast number of media programs and interventions related to mental health and social wellbeing carried out over the last 60 years, I have chosen two outstanding and different examples to illustrate and hopefully inspire the use of diverse media platforms in positive psychology. The first is a pioneering collaboration in San Francisco between a broadcasting network and University of California research groups from San Francisco and Berkeley (Muñoz et al., 1982) targeting depression in the population of San Francisco in 1978. The San Francisco Mood Survey resulted in creating greater awareness depression and management of mood in the general population and for some even decreased symptoms. The second is an integrated media and social effort in Kenya employing a wide range of mixed-media techniques and community involvement to assist with the increasing national unity and healing a traumatized population after the 2007–2008 ethnic violence. It is an exemplary effort of multiple forms of media embedded at the national and village levels centered on a soap series, *The Team*, and a talk show, *Fist to Five for Change*. After the violence and during the productions of the interventions a process of mutual learning took place both for the population in the use of social media and social gatherings and for the producers in the production of appropriate messages. The result was a noticeable contribution to national unity, political involvement, and social healing with the creation of positive social spin-offs still active to this day. Given the multiple lessons learned in this project for honing a population intervention, I will discuss it in greater detail.

The San Francisco Mood Survey: A Pioneering TV Intervention

In 1978, Muñoz and colleagues (1982) developed and produced a media-based mood management mini-series with the help of a major U.S. broadcaster. They were interested in investigating the possibility of using

media to broadcast a cognitive behavioral treatment approach for depression aimed at evaluating its impact in an entire urban population. The show was broadcast in English only, so a control group could be drawn from Spanish-speaking Hispanic neighborhoods in the city, where little to no English was spoken. Comparisons could thus be made between people who watched and those who did not, including the Hispanic group that could not get the message. Participants in the study were evaluated by phone interviews before and 2 weeks after the series. Changes in behavior and mood after exposure to the series and mood-management techniques was the focus of the research. Interviewees drawn from a random sample of the population were asked if they watched the shows and how many, if they approved, liked, or disliked it; what they learned and did in response to the information; if their attitude and behavior toward their moods was affected, and if their mental state and mood had changed as a result of program contact.

The researchers were able to take advantage of an existing TV format, Dr. Uline's medical advice program. The mini-series of brief, 5 min episodes of Uline's program was designed as the depression intervention. They were shown after the news, a period of high viewer density, particularly as at that time a social pattern of watching the news daily existed in the United States. Each episode provided information in a newsroom format with video vignettes highlighting and illustrating the content with an emphasis on positive psychological approaches. Segments specifically and directly described how to deal with depressive feelings and positive thinking with a focus on gaining control of activities that "make you feel better." The viewer, after being warned that "if depressive symptom were severe to contact a professional," was further instructed in tasks and homework assignments to be done each day over the period of the broadcasts. The viewers were advised to carry out and track activities that "you like to do" during the day and decrease activities that "you don't like." They were instructed to list and become aware of these activities as well as track changes and score their response. Contracts were made and rewards were specified to reinforce the behavior change. The population of San Francisco received a short course in behavioral techniques with video examples modeling how to do it while emphasizing and demonstrating potential positive outcomes. Imitation of modeled approaches, mood-management techniques and increasing awareness were key elements. The results of the combination of information, advice, and activity with engaging illustrations were surprisingly encouraging given the actual limited amount of time and dosage of the presentations.

Specifically, the 4 min segments were broadcast three times per day, morning, noon, and evening, after the news, for a period of 12 days over 2 weeks. The Mood Survey found that on average, 36 min of TV was watched by the participants over the 12 days. Even though the viewing exposure was minimal, Mood Survey results indicated that the program was positively received. People who did not report depressive symptoms had begun to pay more attention to mood, positive thinking, and their selection of daily activities in response to the program, a striking population effect. Even more remarkable was that those who had reported depressive symptoms before the series reported significant symptom reduction thereafter (Table 15.1).

Table 15.1 depicts results of a sub-sample comparison between those that watched the series and had initially reported being symptomatic demonstrating a significant symptom reduction in that group. That a mass-media intervention focused on the population could decrease symptoms in an afflicted group was unexpected and encouraging finding. The result is most likely due to the attention focus of the mildly depressed, who would be looking to the series for help and perhaps be more diligent in carrying out the advised cognitive behavioral interventions.

The San Francisco Mood Survey is an example of how a directive and instructive approach may benefit a population's wellbeing as well as the already ill. Such programs respond to the need people have for health-related information, particularly in populations that have not been bombarded with media messages, as was the case in the 1970s when the San Francisco study was aired. The mood management techniques depicted in the series implied that individuals can help themselves, find relief from depression,

Table 15.1. San Francisco Depression Data.

	Pre		**Post**		
Group	*X*	**SD**	*X*	**SD**	*N*
Nonsymptomatic**					
Did not watch	6.60	4.50	9.53	8.24	88
Watched	7.81	4.44	10.69	9.98	26
Symptomatic*					
Did not watch	22.31	6.50	17.26	9.33	35
Watched	23.81	6.64	10.50	6.97	12
Total	11.50	5.16	11.47	8.71	

ANOVA *$F(1.41) = 5.25$, $p < .027$.
**$F(1.117) = 0.07$, $p < .8$.

and/or prevent it from reoccurring. The provision of concrete advice and methods provides a useful model for positive psychology. For a number of reasons, perhaps due to the expense, the reluctance to cross-disciplinary boundaries to media or the time required for the process of both making the media product and studying it, the San Francisco study was never replicated, neither in the original environment in which it took place nor in another social setting. It awaits an adjusted positive psychological redeployment.

The Team: Lessons from a Social-Value Soap Dealing with a National Trauma

The Team is a Kenyan TV drama series that was coproduced by Media Focus on Africa Foundation (MFoA) (www.mediafocusonafrica.org) and the Search for Common Ground (www.sfcg.org) in response to the devastating violence in Kenya following the 2007 general election. As the post-election violence shook the entire Kenyan nation in 2008, unity and reconciliation seemed like a distant dream and the future looked bleak. However, in the period immediately following the violence, the country began a process of healing and reunification that is still underway in which a media response played an important role. MFoA in concert with this process developed two television programs, *The Team* and *Fist to Five for Change*, which opened discussion related to the experienced trauma of the ethnic violence by encouraging social healing and national unity. *The Team* is a drama series targeting all Kenyans, but particularly the youth, through a fictional Kenyan soccer team designed as a metaphor for contemporary Kenya society. The series was conceived by Search for Common Ground (SFCG) founder John Marks, and produced by the late Frank Klein, director of MFoA. They sought to use a multimedia strategy as a tool to promote discussion and understanding between people of different ethnic backgrounds with the immediate goal of preventing future violence through changing attitudes and promoting national unity.

Program content and approach.

In *The Team* episodes, aired weekly, members of the co-ed soccer league Imani FC (*imani* means “faith” in Swahili) struggle to overcome their tribal, ethnic, social, and economic differences to play as a team. This serves as a metaphor for Kenya’s current state of affairs and hopes for reconciliation. The series uses real-life events and dramatizes Kenyan society by showing how the newly recruited members of the co-ed Imani soccer club learn to

overcome their differences. Audiences watch what happens as each of the players, and their coach, struggle to overcome racism and hatred against the background of daily life issues in a still tense society. Raising the question, "is coexistence possible" and "then how?"

As the makers say:

> Anybody will tell you that it's an artistic no-no to bludgeon your audience, week in week out with a didactic message. The great challenge in creating "The Team" was to couch the message of reconciliation and tolerance within the soft underbelly of a good and entertaining story, well told. The mantra was always "Keep it credible!" It's then over to the final decision makers—the audience—to rule on how right or wrong we got in the end.
>
> www.mediafocusonafrica.org

The makers of *The Team* got it right. The series content depicts recognizable locations and daily life themes, often focusing on traumatic issues such as corruption, ethnic differences, coping with emotions, rape, and drugs. Although *The Team* adopts many elements of the traditional telenovela model, they moved beyond it, incorporating a social networking component to allow for audience participation; holding mobile screenings in conflict zones for larger societal impact; and creating morally complex characters who must make decisions that do not always have clear "right" and "wrong" choices. *The Team*'s use of a metaphor of a football team helped avoid paternalism and larger didactic statements by presenting situations in which characters must decide how to deal with conflict situations themselves. Audience members were not told which decisions to make, but were rather encouraged to evaluate decisions made by the show's characters and to think about what they would do in similar circumstances (Tully & Ekdale, 2010).

The Team used an entertainment–education approach combined with social media, social networking, and offline interaction through facilitated screenings and discussions groups. The incorporation of social networking sites, particularly Facebook and Twitter, as well as short message services (SMS), were incorporated into *The Team*'s larger strategy. This involved targeting different audiences with the different types of media and adapting the messaging strategy for each medium. This cross-media approach also included a radio program, large-scale mobile screenings, and distribution of DVDs for community screenings (MFoA, 2012). This approach allows for a two-way flow of information as opposed to the one-way, top-down message delivery to viewers, which is an often-criticized approach particularly in developing countries (Huesca, 2003).

In response to the current explosion of social media use in Kenya, covering 45% of Kenyan Internet users, *The Team* creators developed a lively Internet presence. Although numbers vary per report and are increasing (Synovate, 2009), it is said that 3.5 million Kenyans access the Internet monthly and more than 2 million Kenyan Internet users are Facebook users. *The Team*, with two Facebook pages, a Twitter account, a YouTube channel, and website, is well represented. Using social networking sites to engage *The Team* reached thousands of young people, particularly urban youth, and a critical audience given their involvement in the 2007–2008 violence.

Despite the indirect approach and nondidactic design of *The Team*, on its two Facebook pages discussions were less controlled, more explicit and directive in their calling for accountability with the agenda of promoting peace in Kenya. Although *The Team* was able to engage Kenyans on issues of unity and conflict resolution, both metaphorically and literally, social network discussion online tended to focus on the larger, more direct interpretations such as accountability and governance (Tully, 2010). This difference between audience responses to a produced communication like the drama and the more open-ended opinion world of social media is important to keep in mind in developing mixed-media projects when political or sensitive processes are part of the issue.

Impact data.

The series was intended to stimulate learning, reflection, and discussion in daily social life and in general research showed that it achieved its goal of stimulating social discourse, imputing "second thoughts," and improved perspective on the ethnicity of others (Abdalla, 2012; Tully and Ekdale, 2010).

First, it was watched or listened to. Standard media viewer ratings showed that viewer density overall was high, with 70% of the population watching 50% of the episodes. In a countrywide research sub-sample ($N = 406–327$, during different phases of the research; Abdalla, 2012), 73% of respondents reported watching, with 55% of survey respondents having watched, and 24% having listened to at least 10 of *The Team* episodes. When the approach was connected to outreach mobile cinema units in eight severely affected areas of Kenya, extra benefit accrued, as episodes were reshown in villages throughout the country. This was especially true when linked to the *Fist to Five for Change* talk show, which included a presence at the village level.

Fist to Five for Change

As part of *The Team* approach a television talk show, *Fist to Five for Change*, was developed and aired on national television during primetime to reach the largest possible audience. It was formatted as a focus group talk show, in which afflicted citizen participated in confrontations and discussions. As *The Team* series began receiving national attention, the issues raised and discussed in *Fist to Five* proved therapeutic and highlighted emotions shared across the country.

Fist to Five's 19 episodes were organized in a three-part sequence. The first show in the series provided an opportunity for those affected by post-election violence to share their stories and experiences. The second show dealt with root causes of the violence and tried to remedy misconceptions. In the third show, participants identified common interests and propose solutions for their problems and ways to move forward. *Fist to Five* is a consensus activity that allowed people to show their agreement or disagreement with an opinion or statement. A fist (a zero) represents total disagreement, whereas an open hand (a five) represents total agreement. One, two, three, and four fingers represent different levels of agreement. In this way, the facilitator would ask participants to show how they felt about issues raised by other participants. The show thus encouraged open dialogue by offering participants a safe space and method to discuss contentious and often unspoken issues (www.mediafocusonafrica.org; Tully & Ekdale, 2010).

In addition to the national broadcasts, a strategy of free mobile screenings and facilitated small-group workshops was developed to bring the show to communities with little access to television and to areas most deeply affected by the post-election violence. The large outdoor screenings and community workshops were available for diverse groups of community members—men, women, young, old, victims, and perpetrators of violence, to name a few—and allowed thousands of people to watch the program. Participants watched a shortened version of the program to provide a model for the discussion of their experience. Discussions took place following the three-step order of the broadcast: first sharing their experiences during the violence, then uncovering root causes of the violence, and finally seeking some common ground before moving on to providing possible solutions. Having a chance to not only watch others engage in this process on the talk show, but actually doing it, provided an opportunity for healing and community reconciliation (Tully, 2010).

Overall, *Fist to Five* successfully incorporated mass media and interpersonal communication at the broadcast and village level to create a useful strategy for coping with the post-election violence. The use of mobile screenings and facilitated workshops was arguably the most successful part of the program.

Evaluation of *The Team*'s Mixed Media Overall Impact

A public survey, developed to measure specific changes in citizens' awareness, knowledge, and attitudes in a diverse sample of 406, spread over the entire country, concluded that *The Team* contributed to positive changes on all three indicators for those who watched the dramas. Quoted statements such as "I worked with people from other tribes on community issues," "I made positive changes to the way I deal with other citizens," "I made requests to local officials for services," "I can solve inter-tribal problems more efficiently," and "I am familiar with my rights as a citizen," were noted and attributed to broadcasts. Further, statements on citizenship skills and civil participation were rated on a 1–10 scale: Did the show achieve its goal of citizen involvement and engagement with content issues? Did you take action? (average = 8.11), Did you have impact? (average = 6.04), Did the show assist in developing community skills related to ethnicity? (average = 7.73) (Abdalla, 2012). Regular viewers of *The Team* demonstrated significantly more positive attitudes compared to respondents who saw fewer episodes.

Whether *The Team* directly contributed to initiating and shaping social attitudes and actions remains an open question, but reports from the field indicates its positive influence: Youths formed football teams across tribal lines, following *The Team*'s model; a national commemoration day incorporated *The Team* model into its educational activities; community members formed reconciliation teams to help displaced citizens return back home, and in Nairobi there was a governmental response, in that Kenya's Ministry of Education incorporated *The Team* outreach model into the extracurricular activities of some government-run schools. Individuals testified to forsaking alcoholic lives and others capable of doing so created "peace" football, business, and development clubs to mention just a few. All of these directly acknowledged the influence of the TV drama and its mobile outreach activities to their initiatives. Moreover, respondents mentioned their increased ability to collaborate and problem solve around the themes dealt with in *The Team*. Many demonstrated a desire to improve

tribal and local relations and experienced an increased level of knowledge of understanding of governance issues.

The impact has been as diverse as the Kenyans themselves, leading to many and on-going spin-off activities across the country (MFoA, 2012). In Naivasha, an outreach group rebranded itself as a human resource group engaging local businesses for job placement of members; so far, 105 members have benefited, with 60% of them under permanent employment. In another affected area, a youth group started holding informal discussions on leadership and development issues, attracting other local youth into the discussions through the assistance of local community dancers who did their performance for free, and also joined in the discussions. This led to a more formal monthly forum dubbed the coffee bar, where meetings take place in a local hotel or restaurant with tea or coffee and a variety of relevant and pressing issues are addressed. Experts and officials are invited when needed; so far, the mayor, district commissioner, district officer, and police officials have taken the opportunity to participate.

In Kisumu, youths realized the need to continue the discussions of social issues after the mobile screenings ended. They did so using an economic empowerment model and building a system for providing loans to youths so that they could carry out their business ideas. In Mombasa, a group meets regularly in different city wards "to facilitate greater youth involvement in and influence over decisions which affect them in the region." Their efforts have not gone unnoticed, as politicians have sent representatives to some meetings. In Nairobi slums, the impact was even seen in youth gangs, where *The Team* influenced the adoption of a "Robin Hood"-like approach, with gang members changing their names with reference to the soap and redistributing their spoils to those in need. All and all, perhaps despite the criminality, the direct stimulation by *The Team* of youth-led social activism in most groups is inspiring.

In conclusion, *The Team*'s success was dosage related and its most powerful input was its community outreach activity. In the words of Abdalla (2012) of the University for Peace research team:

> A great success! Since it started, *The Team* in Kenya touched the hearts and minds of many, helped them to see issues of grave concern to them with constructive lenses, with the aim of effecting change on individual and institutional levels. In the process, *The Team* inspired openness, dialogue and engagement with one another to heal old wounds, and to build peaceful communities. Its outreach activities, motivated individuals, groups and organizations to translate their inspiration by *The Team* into action on the ground. They took it on

> themselves to start up activities and projects aimed at re-building trust among their fellow Kenyans, channeling youth's energy in positive directions, and sustaining healthy dialogue on issues raised in *The Team*, and which resonate very much with their realities.
>
> Abdalla (2012), p. 42

The drama soap and talk show broadcasts coupled to the outreach mobile screenings and social media presence seemed to have increased the social harmony and awareness in a significant part of a population that still describes itself as traumatically affected by the ethnic violence. It serves as an example of a remarkably successful mixed-media, population-based intervention with demonstrated impact on the wellbeing and empowerment of a population under difficult circumstances.

In Closing: How to be a Media and Positive Psychology Expert

For positive psychology the message is clear: "Be Media". This involves:

- including media personnel in planning programs and research;
- adding a media/communication component to all projects;
- learning media rules, finding trusted "media-pros" and partnering;
- providing media partners with positive psychology information;
- translating positive psychology data into mixed-media community-friendly formats;
- including target groups and communities in the cocreation of formats and messages;
- developing a two-pronged approach for community impact: broad- and virtual- casting linked to active community involvement;
- embedding positive psychology in existing population processes, on-going interventions, and daily life realities;
- taking action when necessary to curtail abuse by media;

accepting that journalists have the right to report as they see fit (this can hurt but that's life, try and remember the adage "there's no such thing as bad publicity"!).

"Be media" is intended to convey the concept of the public mental health aim to improve lifestyle resilience and mental health throughout the life cycle primarily by informing and facilitating the ability to share and talk

about psychological and emotional issues (and thereby de-stigmatizing) through the use of entertaining and engaging mixed-media formats on any available media platform. Based on the presented evidence and examples, the impact of diverse media on mental health and wellbeing is sufficiently strong for positive psychologist and mental health personnel globally to attempt creative solutions in partnership with local communication and media experts. Novel TV formats, such as the San Francisco Mood Study and *The Team*, including its talk show and mobile unit spinoffs, are just two examples of how mass media interventions may contribute and have an impact on the social behavior, wellbeing, and mental health of communities. There are many other examples to be drawn from and I suggest that those interested in applying positive psychology at the population level do so. The new world of social media and its capacity to facilitate interaction and promote wellbeing is at our doorstep. The information and examples presented will, it is hoped, provide some initial models and encouragement to use the media and virtual tools that are becoming increasingly available for the improvement of mental health and wellbeing for everyone.

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16

Policy and Wellbeing

The U.K. Government Perspective

David Halpern
No. 10/Institute for Government, U.K.

> *economic growth is a means to an end. If your goal in politics is to help make a better life for people—which mine is—and if you know, both in your gut and from a huge body of evidence that prosperity alone can't deliver a better life, then you've got to take practical steps to make sure government is properly focused on our quality of life as well as economic growth, and that is what we are trying to do.*
>
> *David Cameron, 25 November 2010*

Policy and Wellbeing

It is a long road that has brought governments and societies to the point that "wellbeing" is more than a rhetorical flourish in speeches. But in November 2010, the U.K. Prime Minister publically announced that the Government was committing itself to the large-scale measurement of subjective wellbeing and its systematic consideration in policy.

The seniority of the line-up was as significant as the announcement itself. To one side of the Prime Minister sat the Head of the Civil Service, Sir Gus O'Donnell. To the other side sat the National Statistician, Jil Matherson. The heads of our political, administrative, and statistical systems were standing together to say that there was a serious gap in how previous governments

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had thought about the objectives of policy, and it was time to get serious about subjective wellbeing.

This chapter sets out these "practical steps" that the Prime Minister referred to, and gives a glimpse into the kind of policy implication that might follow.

How Did we Get to Taking Wellbeing Seriously?

Advocates of wellbeing agenda often like to quote the famous words of the American constitution about "the pursuit of happiness." However, one can argue that the prime intent and practical application of these words was that government should largely stay out of the way of citizens to enable them to find their own routes to happiness. The role of government was limited to creating the conditions for citizens to find happiness, and certainly not to find, or define, it for them.

Curiously, a similar sentiment is expressed in the words of the Coalition Agreement of the 2010 U.K. Government, arguing that a key part of its approach would be "finding intelligent ways to encourage, support and enable people to make better choices for themselves" (Cabinet Office, 2010, p. 8). So how does this fit with the decision to measure and highlight wellbeing?

In the classic popularization of the work of British philosopher Jeremy Bentham, the business of government was to produce the maximum happiness for the maximum number. In the years since, a whole range of practical, moral, and political objections have been raised about Bentham's ideas. High, if not top, on the list was the practical problem of measuring subjective wellbeing. To many philosophers and policy makers, this measurement problem seemed so insurmountable as to render the discussion of wellbeing little more than idle gossip. However, more than half a century of work, principally by psychologists and social researchers who did not know any better, has gradually chipped away at this most basic of problems.

Starting in the 1950s, particularly in the United States, surveys started to ask people questions such as "generally speaking, how happy are you?" In parallel, a large psychiatric literature developed that showed that "unhappiness," ranging from serious psychiatric conditions to everyday misery could be reliably and consistently measured. Screening questionnaires, such as the Langer-22 and Goldberg's General Health Questionnaire showed that, contrary to the widespread view at the time, people seemed able and

willing openly and honestly to answer questions about their emotional and psychological state of mind. Indeed, the preponderance of somatic questions in the early versions of such questionnaires—based on the expectation that the researchers would have to obliquely explore feelings by asking about trouble sleeping, and physical aches and pains instead—gradually gave way to much more direct questions about how people felt.

By the 1970s and early 1980s, a number of cross-national surveys emerged that asked questions on respondents' happiness and life satisfaction, such as the Eurobarometer and the World Values Survey (WVS). As this data came through, new methodological questions were raised. The data showed marked and stable differences between countries. Similar national comparisons in GDP, education, or investment often attract great interest among policy makers, but not so the wellbeing data. A frequent interpretation was that linguistic and cultural differences led respondents to interpret these highly subjective questions differently. The easy conclusion was that national differences were measurement error, rather than anything deeper that policy makers should focus on.

I suspect that in countries where they had their own data series, notably the United States, policy makers of the time would also have been dismissive because of the sheer lack of responsiveness of the time series. For example in the United States, how could the happiness data mean anything when, despite economic growth, major events and even wars, it never seemed to respond. Similarly in Europe, if measures of life satisfaction failed to respond to major events such as the emergence and expansion of the European Union, then they did not seem to be much use. Subjective wellbeing measures looked like a broken dial on the dashboard: it didn't seem to respond to anything the pilot did, so after a while no one looked at it anymore.

Yet for those researchers who scratched beneath the surface, the measure was not so easy to dismiss. Inglehart, who led the WVS, systematically showed that linguistic differences did not appear to account for the differences in expressed happiness in European countries (Inglehart, 1989). German, Italian and French speakers were all much happier in Switzerland than their fellow speakers in Germany, Italy, and France. The measures also stood up well to robust validation. Respondents' ratings of their own happiness and life satisfaction were found to correlate highly to ratings made by people who knew them; were consistent (reliable) over time; and correlated with the independent ratings of strangers given the opportunity to view the subjects' behavior (Donovan & Halpern, 2002).

Nonetheless, the lack of responsiveness of wellbeing measures to things that politicians and policy makers thought were important continued to undermine their incorporation into policy or national statistics. For example, an early attempt to incorporate subjective wellbeing measures into UK statistics was made shortly after the election of the Labour Government in 1997 by officials in the Environment Department. Though initially agreed to by the minister, Michael Meacher, he later backed off their use when he saw the actual survey results, reputedly declaring "people cannot be that happy!" In other words, after what had been seen as a long and difficult period under the previous administration, with high levels of poverty, inequality and public services in need of investment, how could it be that a majority of Britons described themselves as satisfied with their lives?[1]

Meacher's incredulity is an echo of a subtle and important critique of wellbeing measures: that they are subject to a sort of "false consciousness." Sometimes known as the "happy slave" problem, the argument is that people in objectively terrible circumstances might say, or even *believe*, that that they are happy, though any rational person looking at their circumstances would say that their conditions are unacceptable. This has led some well-known figures, such as Amartya Sen in relation to international development, to be wary of subjective wellbeing measures, instead arguing that objective or "capability" measures should be used (Sen, 1985).

These arguments are rehearsed elsewhere but suffice to say closer inspection of the empirical data suggests that the "happy slave" problem has often been overstated. Ed Diener, for example, highlights how certain population segments—such as prostitutes—have low levels of life satisfaction (Biswas-Diener & Diener, 2001). Similarly, the data repeatedly show that people with lower incomes tend to be less happy, and that across countries people seem able to answer wellbeing questions that reflect both their absolute and relative position in society.

In 2002, a "discussion paper" was published by the Prime Minister's Strategy Unit (PMSU) entitled "Life satisfaction: The state of knowledge and implications for government" (Donovan & Halpern, 2002). In fact, it was a paper I had suggested be written before I joined the Strategy Unit in 2001, though at that time its then head, Geoff Mulgan, was skeptical (he has subsequently become a powerful and vocal advocate of the promotion of wellbeing). It was a paper we published at the margins of the main work we were doing. In case there be any doubt, the paper had printed prominently on every page that it was "not a statement of government policy," and

though it would have been submitted to his box, it was not a paper that our then prime minister Tony Blair ever read (to my knowledge).

Nonetheless, the 2002 paper attracted considerable external interest, and was one of the most heavily downloaded papers that the PMSU ever produced. It offered a signal that policy makers were interested and helped encourage others in the academic and policy world that it might be worth taking seriously. Economists such as Richard Layard entered the fray and, importantly, the Head of the Civil Service, Sir Gus O'Donnell made clear that he thought it was a serious and important agenda.

But politically, it failed to attract any serious interest. None of the main parties, nor any minister, stated a claim on the territory. One reason may have been that few were sure of what the policy implications of wellbeing might be; as well as the simple fear of ridicule (Box 16.1).

Box 16.1. The Behavioural Insights Team.

One of the innovations of the incoming 2010 U.K. Government was the creation of the Behavioural Insights Team (BIT), often known as the "Nudge Unit." The team was established to make a reality of the coalition commitment to find "intelligent ways to encourage, support and enable people to make better choices for themselves."

In essence, the BIT draws on the growing literature on what drives behavior and choices to design services that are easier to use and policies that achieve outcomes at lower cost or higher effectiveness. For example, using randomized control trials, BIT work has shown that seemingly small changes to programs and communications can greatly increase the rates at which unpaid tax is paid by 15%; increase the uptake of energy conservation by three-fold; and can increase the repayment of court fines without the use of bailiffs by five-fold.

The team is also working on issues including economic growth; employment; public health; social mobility; and giving. The team is involved in the work on wellbeing too, as would be expected given the well-documented tendency of people to misremember and mispredict what makes them happy.

Based in the Cabinet Office and No. 10, BIT has a steering group chaired by the cabinet secretary with political representation from the prime minister and deputy prime minister. It also has an academic

advisory group, including Richard Thaler (coauthor of Nudge) who has worked with the team from its inception. Although set up with a 2-year sunset clause, in the wake of its documented successes and savings it was instructed to continue by the cabinet secretary and prime minister in July 2012.

The Coalition Government of 2010

While some continued to explore the implications of wellbeing for policy (Halpern, 2010; Layard, 2006), the agenda attracted an unexpected ally in the form of the young opposition leader of the Conservative Party, David Cameron, and his adviser Steve Hilton. In the run-up to the 2010 election, Cameron gave a speech—widely seen as echoing the words of the U.S. President Kennedy—that perhaps governments should worry about "gross national happiness," not just gross national product. Although many thought it was merely rhetoric, in office, Cameron showed that he was indeed serious.

Measurement

Within No. 10, work was done to initiate a program that could turn the idea into policy reality and, despite a tough spending round, money was found to fund a measurement program led by the Office of National Statistics (ONS) as part of their spending settlement.

The measurement program had two key elements. First, a measure of subjective wellbeing was to be developed and fielded, plugging a specific gap in our measurement "dashboard." This was to be done rapidly so that the data would begin to be gathered within a year. Second, the ONS was to consider and develop a more balanced measure, or dashboard of measures, to replace or stand alongside existing headline measures, notably gross domestic product (GDP).

The core insight was simple: high-profile conventional measures of social and economic progress, notably GDP, had serious flaws. How could it be that our primary measure of economic progress rose in response to a tsunami hitting Japan or an oil spill off the U.S. coast? It did so because GDP counts the rebuilding and cleanup costs, but not the environmental or social damage done. As rehearsed by the Stiglitz report—and in the wake

of the banking crisis of 2008—GDP had other flaws too (Stiglitz, Sen, & Fitoussi, 2009). It not only failed to capture environmental sustainability and the depletion of natural resources, but did not even cover economic sustainability, such as the build-up of unsustainable debt or severe inequality. And, as more than three decades of data had shown, growth in GDP was not necessarily associated with any growth in life satisfaction, at least in countries such as the United Kingdom and United States.[2]

To be fair, proponents of GDP did not claim that it covered all these things. A car dashboard does not have a single number on it combining speed, revs, distance traveled, miles per gallon, and so on, and for good reason. But it was still reasonable to ask if drivers of cars, or societies, have all the information to hand that they need. After all, there is no point in obsessively checking the speedometer if you are hurtling in the wrong direction.

In the wake of the Stiglitz report (Stiglitz et al., 2009), the ONS's chief economist Joe Grice led a review that concluded that most of measures Stiglitz et al. recommended that statistical agencies should gather were already collected in the United Kingdom. However, one clear omission was good data on subjective wellbeing, a conclusion on which both the ONS and No. 10 agreed.

It was felt important that the work to develop the exact wellbeing measures should be led independently of the political process. The ONS were given the space and the resource, and the ONS embraced the task with real vigor. They conducted a national consultation to ask the public about what citizens thought wellbeing and progress was about (reflecting the two tasks above). On the wellbeing measure specifically, they assembled an expert advisory group and commissioned reviews from leading experts on the range of existing measures.

The technical discussions about which measure, or measures, of wellbeing should be used were at times heated. As rehearsed elsewhere in this volume, there were some passionate differences of view about whether to go for more evaluative (e.g., life satisfaction), hedonic (how happy are you?), or flourishing measures (such as related to the concept of flow). There were also arguments about which questions would be used even within a given category, such as the pros and cons of life satisfaction versus "ladder of life" questions.

The final conclusion was that a range of four questions—or "experimental measures"—were included in the national survey (Box 16.2), whereas a wider range of more detailed questions were included in smaller sample supplementary surveys.

Box 16.2. The ONS Measurement Program.

From April 2011, the ONS is asking around 200,000 Britons per annum the following questions on the integrated household panel survey:

1. How satisfied are you with your life nowadays?
2. How happy did you feel yesterday?
3. How anxious did you feel yesterday?
4. To what extent do you feel the things you do in your life are worthwhile?

Responses are coded on 0–10 scales. The sample has been constructed to produce representative samples within each local authority area, and nationally representative samples on a quarterly basis.

The first full year of data were released on July 24, 2012. Although there has been much attention on the idea of a headline figure, this is not the primary value of the survey. Far more important is the richness of analysis that is possible as a result of the survey's scale, the ability to break down the data into representative local area samples, and to cross-tabulate the data with other measures. This data and the analysis will be of interest to Government, but we expect it will have an even more powerful and direct effect: citizens can use it themselves.

Imagine that you are a 17-year-old trying to decide on a career choice. If you hunt around, you may well be able to find data on how much the average car mechanic earns relative to a forester, a teacher, or a lawyer. But what about data on how satisfied are people in such professions, especially having controlled for other factors such as educational attainment, earnings, or gender? Do 45-year-old lawyers or teachers feel that the things they do in their lives are worthwhile? A young person can ask a friend of their parents who are in those professions (if they know any) how they feel, but are they typical? Yet imagine if you could ask 200,000 people?

Or perhaps you are trying to decide where to settle with your young family. Is X a nice place to live: not just the quality of the housing stock, but are people who live there happy? Or maybe you are trying to decide whether to have children early or late: Are people who have children early

in their career happier than those who wait, or does it make no difference on average?

These are not just academic questions. These are real questions that most of us face in our lives. As psychologists have shown, people are often surprisingly poor at predicting what will make them happy (Gilbert, 2007). The answers to such questions, and even the questions themselves, are generally "shrouded variables," as the economist David Laibson has put it. Of course, the "right" answer for an individual to any of these questions will depend on a large number of factors, many of which may be highly personal and specific. But in lieu of time machines that enable us to ask our future selves how it turned out, learning from the experiences and feelings of others is a rich and useful guide to our own likely experiences and feelings.

It is not, of course, for government to produce the citizens' "TripAdvisor for life," but data from the ONS, especially when meshed with other sources, may provide a useful starting point. Figure 16.1a illustrates mean life satisfaction for people working in different industry sectors and highlights that there is variation across some of the sectors that clearly exceeds the variation within sectors. We can also present the eudaimonic wellbeing results by industry sector (Figure 16.1b), and it is interesting to compare the results. We can see that they capture different concepts, with people working in the public sectors, such as education and health and social work, and arts and recreation having higher relative levels of "worthwhile" than "life satisfaction," whereas those in the finance sector appear to have lower self-reported levels of "worthwhile." Some sectors seems to correspond to higher (e.g., agriculture) or lower (e.g., transport) levels of both. We can also compare the differences between jobs and professions. Such information could be very useful to people when choosing their careers, complementing other factors such as potential future salary that are already frequently considered.

The Policy-Making Process and the "Green Book"

Alongside the measurement program, the prime minister and cabinet secretary announced that the government would revisit and revise the "Green Book."

Most people outside of government will never have heard of the Green Book. It is a sort of "instruction manual," or guidance, for policy makers on how to go about making policy. More specifically, the Green Book gives

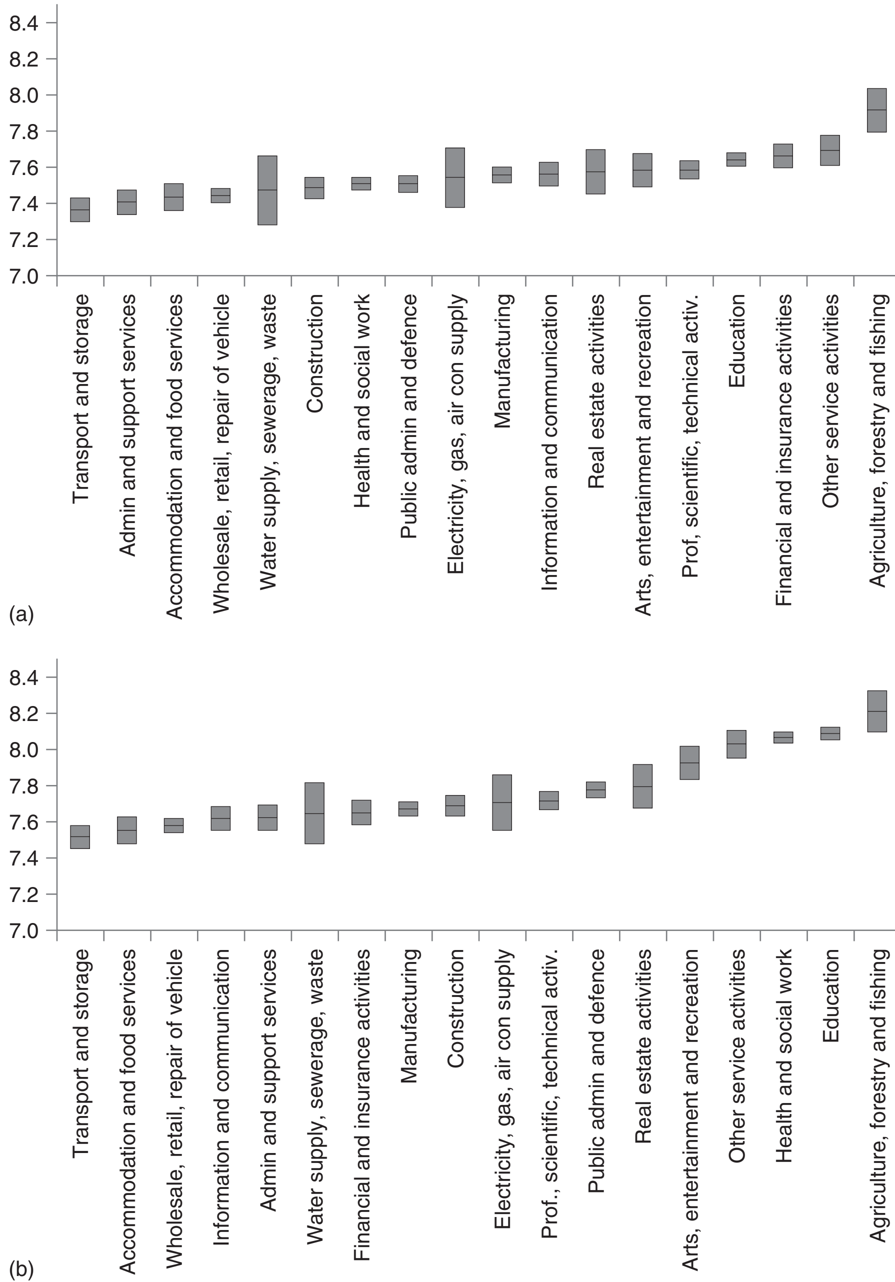

Figure 16.1. (a) Mean Life Satisfaction by Occupation and (b) Mean Worthwhile Occupation. Data from 12 months of the ONS survey, 2011–2012. Bars show 95% confidence intervals.

technical guidance and advice on how policy appraisal should be done: how to weigh the pros and cons of alternative policy options and how turn this into robust and trustworthy policy advice. For example, the Green Book is used to guide cost–benefit analysis of major transport and infrastructure schemes, such as proposals for high-speed rail or widening the M25 ringroad around London.

The study of wellbeing throws up two challenges—or avenues for improvement—for the Green Book's editors and users. First, wellbeing measures can offer an alternative, and possibly superior, measure for use in cost–benefit analysis. The Green Book urges policy makers to consider the full range of possible impacts, costs and benefits, explicitly including those which are heard to measure. For example, it is relatively easy to calculate the construction cost of a new road, but the wider costs and benefits are much harder to calculate. There are increasingly good models to estimate how many more vehicles could travel and how journey times will be reduced, and putting a value on the time saved can also be done, albeit subject to debate (is it wasted time, or is it of value?). But it is much harder to calculate the "utility" impact of the extra road on the environment, the amenity of nearby villages, and the social capital—the quality of relationships—of residents and commuters as a result of the road and changed journey patterns.

Rather than seeking to estimate all these effects in pounds and imputing the utility, wellbeing research offers the possibility of using a more fundamental and direct measure of utility. For example, analysts might factor the impact of commuting on wellbeing, noting that longer commutes not only appear to reduce the wellbeing of the commuter, but also that of their families (Stutzer & Frey, 2008). This data could be used to factor in both the reduced commute time for existing travelers and also the possible impact on new commuters who would be drawn into the habit. Furthermore, data might be drawn from actual impacts of new roads on residents to estimate the net effects of any new proposals.

The second challenge is more subtle and methodological. The Green Book, and its sister book covering methods of evaluation (the "Magenta Book"), offers views about how policy makers might go about extracting estimates of impacts. For example, it details the use of "willingness to pay" methods, whereby a sample of the public are asked, say, how much would they pay for a commute that was 10 min shorter. However, the wellbeing literature, and the related literature on behavioral economics, raises serious doubts about the reliability of many of these established techniques (Dolan, Hallsworth, Halpern, King, & Vlaev, 2010; Gilbert, 2007). It has been

found, for example, that people's estimates of how big an impact a future change will have on their wellbeing are often substantial overestimates. When our attention is drawn to the possibility of the new road near our home, we focus on it and forget all the other factors that also affect our wellbeing and that the road will not affect (focusing errors). Similarly, people estimate the impact of a future change as far larger than an identical change that is described as already in the past. In essence, this literature suggests that many of the standard methods used to elicit estimates of the impact of a given policy change, and particularly methods and focus groups that rely on subjects to estimate the future impact of the change on how they will feel, or their willingness to pay for or avoid a change, are to be treated with substantial skepticism.

The Treasury, who take responsibility for the Green Book, have published a review of these implications (Fujiwara & Campbell, 2011). As a living document, further changes can be expected within the Green Book itself, though internal debate continues over how extensive these ultimately will need to be.

However, while the details of the Green Book have been of great interest to some campaigners for the incorporation of wellbeing into the heart of policy—it is surely a document that Bentham would have been proud of, even before any of the more recent changes—it is important to not overrate the role played by the Green Book in day-to-day policy making. As has been noted over many decades, the practical reality of everyday policy making is often far removed from the technocratic ideals of the Green Book (Greenaway, Smith, & Street, 1992). Although some departments do have a strong tradition of using the Green Book (e.g., transport), many policy makers in Whitehall have never even read it.

As the prime minister, and certainly a cabinet secretary such as Gus O'Donnell, who himself once worked on an early version of the Green Book, realized: if you really have an impact on policy you ultimately have to get into the cut and thrust of policy debate.

Implications for Policy

The third strand to the Government's strategy on wellbeing, as set out by the prime minister in the November launch and later speeches, was to encourage departments and ministers to incorporate a "social value" test into their own thinking. The idea, as a practical complement to the theory

of the Green Book, was that policy makers should ask themselves at a basic level: have you really thought about the impact that this policy will have on the wellbeing and social fabric of communities?

> Government has sometimes seemed to carry on oblivious to the fact that we are human beings, behaving in ways that ministers and officials can't possibly plan or predict. Government has ignored the fact that at heart, as the American writer David Brooks eloquently points out in his new book—we are social animals.
>
> In this past decade we have surely tested to destruction the idea that a bit more state action here, a welfare payment, law or initiative there will get to grips with the crime, the drug addiction, the family breakdown that plagues too many of our communities. Social problems need social solutions. And in a way that I don't think has been sufficiently appreciated, we are bringing that insight right into the heart of the business of government.
>
> Right across Whitehall we are today applying to the design of policy the best that science teaches us about how people behave—and what drives their wellbeing.
>
> We are revising the "Green Book"—the basis on which the Government assesses the costs and benefits of different policies—to fully take account of their social impact.
>
> We are developing a new test for all policies—that they should demonstrate not just how they help reduce public spending and cut regulation and bureaucracy—but how they create social value too.
>
> And, the Office for National Statistics is developing new independent measures of wellbeing so that by the end of the year, we will be the first developed country in the world that is able rigorously to measure progress on more than just GDP.
>
> Taken together, these may be the most quietly radical things this government is doing. These are big changes, and they all show how serious I am about building a bigger, stronger society. They also show how different our approach really is. In the past, the left focused on the state and the right focused on the market.
>
> We're harnessing that space in between—society—the "hidden wealth" of our nation.
>
> Prime Minister David Cameron's speech of May 23, 2011

For the prime minister, the wellbeing literature resonated deeply with a feeling—a deep instinct—that the economic arithmetic of policy was failing to capture important dimensions to everyday policy decisions. Consider, for example, the closure of rural post offices in the United Kingdom. With subsidies to small post offices historically running in excess of £400 million,

they had long been an obvious target for cuts. Many of their functions, such as the payment of benefits to the elderly, could in principle be done much more efficiently by direct transfers to bank accounts. Yet ministers and MPs knew that local communities often seemed to feel strongly that there were other unaccounted benefits that flowed from their local post office. It was a place where people bumped into each other, and in many areas it seemed to be the symbolic center of the community. The post office seemed to be the community equivalent of the office water-cooler, and this value was not reflected in the advice to close them down.

Other examples that sprung to mind had a similar uncosted social dimension. The "school gates phenomenon": how gates, presumably designed to keep kids in and safe, became the places where parents gathered and chatted, and where communities and friendships were quietly melded.[3] Parenting: an issue that governments had long been wary of getting involved in, but that seemed to have profound impacts not only educational attainment and crime, but also on the child and later adult's wellbeing. And even the humble website: was this only a place for the efficient transaction of business between state and citizen, or could it also be a place where citizens could learn from and support each other? These forms of social interaction appear to be systematically underestimated, not only for their impact on wellbeing but for their impact on a host of outcomes, the "hidden wealth of nations" as I have called it (Halpern, 2010).

The power of the wellbeing approach is that it crystallizes these political intuitions and turns them into potentially answerable empirical questions. Of course, those from different political persuasions might choose to direct their attention to different starting concerns (Box 16.3), but for Prime Minister David Cameron it was the links with the idea of "Big Society" that stood out.

On even a cursory inspection of the drivers of wellbeing, the impact of social relationships jumps out. From cross-national to individual level comparisons, people and places with stronger and more supportive social relationships show a strong tendency to be happier and more satisfied with their lives (Figure 16.2). Having fellow citizens who you feel you can trust; being married; volunteering; knowing your neighbors, are all strongly associated with higher levels of subjective wellbeing. Of course, cross-sectional associations by no means prove causation: unhappy people are less attractive as marriage partners, for example, but the combination of data is strongly suggestive of at least some causal effects. We are profoundly social beings, and this is reflected in our desire for affiliation and connection.

Box 16.3. The Politics of Wellbeing.

By its very nature, subjective wellbeing is affected by a broad range of factors. This gives room for politicians from a variety of backgrounds to pick out effects to support their cause. For example:

- Social relationships, community and national pride have all been identified as having impacts on wellbeing, and may be highlighted by those on the center-right.
- Autonomy and control have been found to have important impacts on wellbeing at both the national and individual level, and are a major factor in explaining movements in national levels of wellbeing in a number of countries over the last few decades. These effects may be of interest from many political persuasions, but especially those from a liberal perspective.
- Inequality and the impact of income: The curvilinear relationship between income and wellbeing seen in most data, implying that the wellbeing impacts of changes in income at the bottom are bigger than for those who are already relatively rich, has been used to make the case for redistribution. This evidence and argument may be especially highlighted by those on the center-left.

However, the real promise of the wellbeing literature is that it offers the possibility of putting these types of argument side by side, though moral and political judgments will always come into play.

So what might some of the concrete policy implications be? This is the question that we can only tentatively answer, not least because of the paucity of intervention studies to make the pivotal link from association to action. Nonetheless, the ideas below give a glimpse into some of the possible policy implications, noting that these are not necessarily government policy nor that of any given party:

- *Prioritizing employment over income support.* One of the most robust findings of the literature is that the wellbeing impacts of unemployment far exceed those attributable to loss of income alone (Helliwell, 2003; Helliwell & Putnam, 2004; Jahoda, 1958). This strongly suggests that, in as far as there is a trade-off, it may be better to put scarce resources

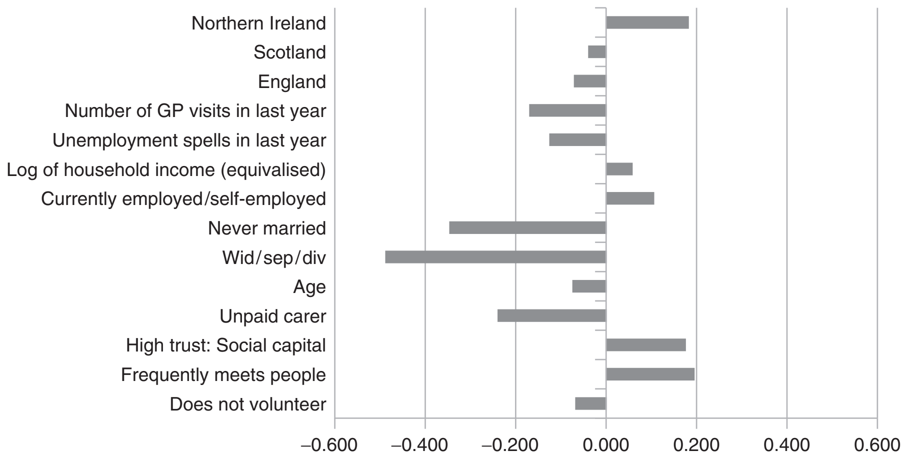

Figure 16.2. Analysis from the British Household Panel Survey Showing the Relative Impact of Various Socioeconomic Variables. Note the large associations with social variables. (Cabinet Office internal analysis; with thanks to Paul Oroyemi and Ewen McKinnon).

into getting the unemployed into work than offsetting the impact of unemployment through greater income support.

- *Encouraging volunteering and giving.* Unlike income and conspicuous consumption, increased volunteering has been shown not only to boost the wellbeing of the volunteer but also appears to boost the wellbeing of others in the community. Similarly, the giving of money as well as time has been found to have surprisingly strong positive effect not only on the receiver but the giver (Dunn, Gilbert, & Wilson, 2011). A pattern of such positive spillovers, or externalities, this suggests a prima facie case for government action to support and encourage volunteering and giving.
- *Promoting autonomy and self control.* The power of personal agency and self-control is a clear theme in the wellbeing literature, from laboratory experiments to explaining national changes in happiness and life satisfaction (Inglehart, Foa, Peterson, & Welzel, 2008). This reinforces the case for public service reforms that devolve commissioning not just down to local areas, but where possible to individuals too. For example, social care budgets are increasingly held directly by individuals, and pupil premiums are budgets attached to individual students from disadvantaged backgrounds to be spent in ways agreed between the student, their parent, and the school.

- *Creating opportunities for social connection.* There is now overwhelming evidence of the wellbeing benefits of social networks, as well as to many other outcomes (Halpern, 2005). However, a key insight is that what matters is not just social interaction per se—being packed in the underground is not especially pleasant—but social interaction that the individual can choose and control. This can be fostered by creating semi-public spaces, either physical or virtual, that make it easy for people to be social if they choose but can be avoided if they would rather.
- *Fostering psychological resilience in schools and workplaces.* A major strand of positive psychology is that individuals and communities can, to some extent at least, learn the skills of resilience, empathy, and so on (Seligman, 2011). There are a number of trials showing positive results with resilience training in schools and workplaces, including tentative results from the largest of all: the retraining of the U.S. Army.
- *Culture and green spaces where you can see them.* There have been a series of results suggesting striking positive effects on wellbeing of cultural experiences, as well as the positive effect of being able to see green spaces. This suggests, for example, that while the carbon value of a tree may be much the same wherever it is placed, an extra wellbeing boost is gained when that same tree is placed in a place that people can see it.
- *Harnessing asymmetries in the experience of losses and gains.* A repeated finding in the behavioral economics literature is that the wellbeing "hit" of a given loss tends to be significantly larger than the wellbeing gain from a monetarily equivalent windfall. This suggests that tax benefit systems should be designed to err on the side of modest overcollection followed by rebates to citizens (as in the United States) rather than risking undercollection followed by demands for extra payments; or at least this "certainty" option should be offered to citizens as a service.

Conclusion

Though policy makers in the United Kingdom have been interested in the measurement and implications of subjective wellbeing for over a decade (Donovan & Halpern, 2002), the personal interest and commitments made by David Cameron that have taken this interest to a new level.

A range of subjective wellbeing data, including life satisfaction, happiness, and flourishing ("the things you do in your life are worthwhile") have been published for the United Kingdom. The sample is representative down to

local authority level, and the data can be publically accessed to this level and for researchers in anonymized form. It is intended that this data will be widely used not just by central and local government, but by many intermediaries and the public to "de-shroud" the drivers of wellbeing and directly inform real-life choices. The data and the profile it attracts are also likely to increase the level of political interest in wellbeing.

Second, revisions have been made to the Green Book—the guide to making policy—to draw attention to the use of wellbeing as a powerful, and potentially central, metric in cost–benefit analyses. The methodological implications for cost–benefit analysis have been drawn out, and particularly the implied limitations of focus groups and willingness-to-pay methods.

Third, we are now beginning to explore the implications of wellbeing in mainstream policy, including the nurturing of trusting and supportive relationships, the promotion of autonomy and personal control in public services, and the fostering of resilience in education and the workplace. An independent commission on the policy implications of subjective wellbeing, chaired by Lord Gus O'Donnell and supported by the Legatum Institute, will report in late 2013.

The United Kingdom is not alone in experiencing growing interest in wellbeing, though it is perhaps ahead of the pack in terms of the breadth and depth of our response. The Organisation for Economic Co-operation and Development (OECD) is actively coordinating cross-national measurement efforts, while the United Nations hosted a major debate in April 2012, sponsored by Bhutan, on the implications of wellbeing. Strikingly, the president of the EU Council, Van Rompuy chose to send out to EU prime ministers a book on wellbeing for Christmas and the New Year 2012, with a personal note emphasizing how it should be at the heart of our thinking.

There is no doubt that we have much further to go. Intervention studies stand out as a particular gap that urgently needs filling: policy makers need a menu of cost-effective interventions to improve wellbeing if popular interest is to turn into hard action. But it is a promising and exciting time for proponents of the agenda, and we must now see if we can actually make a difference.

Notes

1. Defra did, however, a few years later, go on to add life satisfaction questions into their sustainability data under the direction of their then head of strategy, Jill Rutter. Jill also went on to chair a cross-Whitehall officials group on wellbeing in the wake of the 2002 PMSU report.

2. I often put up a graph overlaying 30 years of UK life satisfaction data (which was flat) against GDP (which rose steadily). It is a very powerful image, that Steve Hilton nicknamed the "Halpern wedge." Indeed, joked about selling T-shirts with the wedge printed on with a question mark to help provoke debate and reflection.
3. The phrase "school gates phenomenon" was coined by the Internet entrepreneur Tom Steinberg.

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17

Measuring what Matters

Juliet Michaelson, Charles Seaford, Saamah Abdallah and Nic Marks
Centre for Well-being, New Economics Foundation, U.K.

Introduction: Why Measuring Matters

Discussions about measurement systems may seem irrelevant to the business of getting things done, especially in a volume focused on *intervening* to improve wellbeing. But in this chapter we argue that measurement systems can be a crucial enabler of policies directed towards enhancing wellbeing.

In today's complex societies a huge amount of activity is devoted to measurement, by governments and within organizations, through targets, performance indicators, outcomes frameworks, and so on. But only a few indicators emerge from this noise of information to become the key means by which we judge the progress of, and tell a story about, society overall. These "political indicators" play an important democratic role, helping voters judge the success of those they elect; they thus come to have a strong influence on politics and policy making. They both frame the way voters think about what it means for society to be successful, and create incentives for politicians. It is this role of measurement on which we concentrate in this chapter.

Describing what has been discovered by cognitive scientists about framing, George Lakoff writes:

> The first basic result: The meaning of every word is characterized in terms of a brain circuit called a "frame." Frames are often characterized in terms of the usual apparatus of mental life: metaphors, images, cultural narratives—and

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> neural links to the emotion centers of the brain. The narrow, literal meaning of a word is only one aspect of its frame-semantic meaning.
>
> The second basic result is that this is mostly unconscious, like 98% of human thought.
>
> Lakoff (2010)

Lakoff points out that much of the business of politics involves framing issues in particular ways through precise (though not necessarily conscious) choices about the language—terms, metaphors, images, and so on—that is used to describe an issue. Clearly the headline indicators—the small number of prominent indicators used to judge the success of the politicians who govern our societies—play a framing role in how we think about what it means for a society to be successful.

Although the results from measuring wellbeing are often used to challenge the underlying assumptions of classical economic theory, one core economic tenet reminds us of another reason measurement matters: incentives drive behavior. Where measures are used as benchmarks by which performance is judged, particularly where this determines future rewards and resources, they create strong incentives for action in the direction they indicate. The bemoaning of a "target-driven culture" comes from the recognition that measures used in this way can lead to an extreme narrowing of focus towards those behaviors which will affect the measurement score, to the detriment of everything else. Accounts of ambulances circling hospital car parks to reduce waiting times *inside* U.K. accident and emergency departments—which was a key government target—provide one example of the possible perverse incentives.[1] Such examples demonstrate both that indicators have a powerful ability to drive behavior and that it is crucial to use the right indicators to minimize perverse incentives.

If indicators can indeed shape what we think of as success and provide incentives for action—and accordingly influence politics and policy making—then clearly it matters what we measure. Although indicators are always proxies for the outcomes we really want, the challenge is to make the proxies as close to the real thing as possible.

A first task is to be clear what these outcomes are. There is no unanimity on this, but there is an increasing consensus that a "good" society is one which maximizes human wellbeing, fairly distributed, both now and into the future. This is not of course to deny that there are sometimes trade-offs between overall wellbeing and fairness and between now and the future.

It follows that policy and politics need to be designed to produce these outcomes and to manage the trade-offs. Hence the need to measure the outcomes as best we can. Of course, policy is not the only thing which influences these outcomes: other factors sometimes play a large part. Hence the need to measure intermediate policy "outputs," such as economic performance, democratic engagement, the quality of local living environments, as well as outcomes, because they are the means that will bring about the ends of fairly distributed wellbeing and sustainability (sustainability being the condition needed if we are to enjoy fairly distributed wellbeing in the future).

This framework is captured in Figure 17.1. Our view, to which we will return, is that a small number of headline indicators are required to best measure it, with one or two headline indicators for each of its spheres (and, in one case, the relationships between them—see Figure 17.7). To use a term growing more common in discussions of new measures of progress, this would be a compact, structured "dashboard" of headline indicators.

In this chapter we focus on wellbeing as a key component of the measurement framework implied in Figure 17.1. We do not argue that there is no need to measures economic performance: it is an important part of the conditions for wellbeing and sustainability. What we do argue is that if we are to frame the way we think about success adequately, and then create the right incentives for politicians, we need the best possible measure of

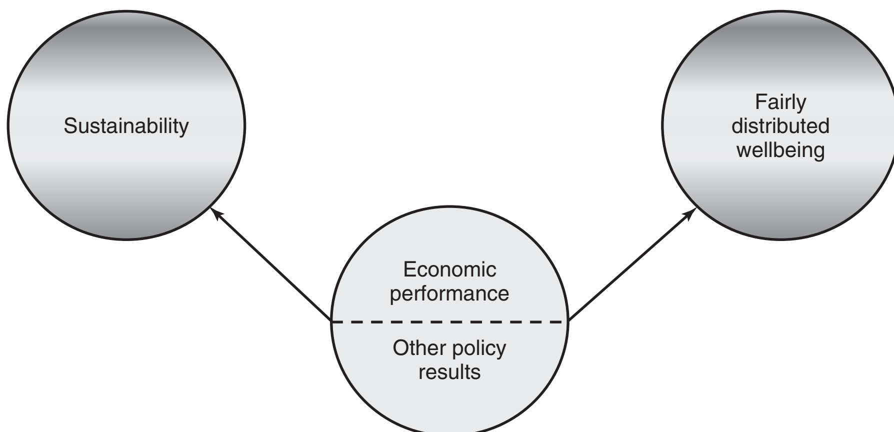

Figure 17.1. A Conceptual Framework for Measuring Progress. Adapted with permission from Centre for Well-being (2011).

outcomes *in addition to* measures of outputs and this means using subjective wellbeing measures.

The structure of our argument is as follows. We first point out just how inadequate economic measures are as a proxy for wellbeing. We then present an alternative: a model of wellbeing and the measures associated with it. We define criteria for an effective measurement system based on this and then after addressing some standard criticisms, outline what the resulting system would look like. We then assess the U.K. Office for National Statistics' wellbeing measurement approach against this standard.

What Headline Economic Indicators Don't Tell You

Diener and Seligman, in their paper, *Beyond Money*, demonstrate how political framing occurs through use of the indicators that currently hold sway over national governments, those of economic activity:

> Economics now reigns unchallenged in the policy arena, as well as in media coverage of quality-of-life indicators. News magazines and daily newspapers have a section devoted to money . . . Economists hold prominent positions in the capitals of the world. When politicians run for office, they speak at length about what they will do, or have done, for the economy . . . Rarely do the news media report on how depressed, engaged, or satisfied people are. In part, policy and media coverage stems from the fact that economic indicators are rigorous, widely available, and updated frequently, whereas few national measures of well-being exist.
>
> Diener and Seligman (2004), p. 2

Of course, Diener and Seligman are not here merely describing the status quo. They are questioning the degree to which economic indicators *ought* to play such a defining role in policy making. And there are a number of reasons for thinking that headline indicators of economic activity do not, on their own, do a good job in reporting on the success of societies and should be supplemented by subjective measures of wellbeing, that is survey questions which ask respondents to report directly on their experiences of and judgments about their lives.

Most people would agree that economic success is a means to the end of human lives going well, rather than an end in itself. Given the chance to reflect, it is clear that people have always known the dangers of concentrating too narrowly on accumulating material means as the path to the good life:

from the Midas myth to the Beatles hit proclaiming "money can't buy me love." As economist Andrew Oswald has pointed out:

> Economic performance is not intrinsically interesting. No-one is concerned in a genuine sense about the level of gross national product last year or about next year's exchange rate. People have no innate interest in the money supply, inflation, growth, inequality, unemployment . . . Economic things matter only in so far as they make people happier."
>
> Oswald (1997), p. 1815

But this is an observation that risks being overlooked. With the continual use of economic language and measures to describe success or failure, it becomes very easy simply to think of success and failure in these terms.

A standard response to Oswald and others arguing for new measures is that gross domestic product (GDP), although obviously not an end in itself, is a good proxy for wellbeing. However, there is now substantial accumulated evidence that economic indicators in general, and GDP in particular, are in fact flawed as proxies for wellbeing.

First, GDP excludes the ways in which the production and consumption of goods and services outside the market impact on wellbeing, and for including expenditure on social bads, for example, cleaning up after environmental disasters (Michaelson, Abdallah, Steuer, Thompson, & Marks, 2009).

Second, among individuals within a society, the effects of increasing income on measures of subjective wellbeing diminish as income rises. It is true that income is important for those at the lower end of the distribution, but an indicator of GDP growth does not capture distribution effects. Furthermore, the average effect of income (modeled using its logarithmic transformation to represent this curved relationship) on wellbeing is usually found to be weaker than the effect of other factors, particularly unemployment (controlling for associated loss of income) and marital status (Blanchflower & Oswald, 2004, 2011; Di Tella, MacCulloch, & Oswald, 2003).

Cross-nationally, the relationship between GDP per capita and average subjective wellbeing also shows diminishing returns. As for the relationship between economic growth and changes in wellbeing over time, the evidence is strongly contested (e.g., Easterlin, Switek, Sawangfa, & Zweig, 2010; Sacks, Stevenson, & Wolfers, 2012). Reviewing this evidence, the recent World Happiness Report concluded "In a typical country, economic growth improves happiness, other things being equal. But other things are not

necessarily equal, so economic growth does not automatically go with increased happiness" (Layard, Clark, & Senik, 2012). Certainly in the United States, GDP growth over recent decades has not been associated with a rise in subjective wellbeing (Blanchflower & Oswald, 2011).

Indeed, evidence suggests that at least some types of economic growth may have negative effects on one of the key factors promoting wellbeing: strong social capital (Bartolini & Bonatti 2008).

As we will see, subjective measures of wellbeing can provide policy makers with evidence about a much wider set of factors that affect human welfare (Michaelson, in press), allowing considerations of material factors alongside issues such as community cohesion, local environment, and working conditions. They can also help individuals in society make decisions about their own priorities (Diener & Tov, 2012), telling a broader story than the idea that pursuing a higher income should override all other goals in life.

An Alternative: Measuring Flourishing

What exactly is it that we are trying to capture by using subjective measures of wellbeing? Three answers are commonly given: "affect," "functioning," and "overall evaluations of life." Each of these is best captured using different measures.

Affect (i.e., emotions and feelings) is the focus of, the "hedonic" approach to wellbeing. In this scheme, wellbeing consists of happiness, pleasure, and generally a good balance of positive to negative emotions. Such feelings are traditional subjects of psychological inquiry.

Functioning is a less familiar concept, the focus of the "eudaimonic" approach, associated with Aristotle. In this world view, wellbeing is a matter of a life well-lived, of "doing what is worth doing" (Ryan & Deci, 2001). A number of researchers have aimed to include a eudaimonic approach in their work. Keyes (2002) describes positive functioning as encompassing both the six dimensions of psychological wellbeing previously identified by Ryff (1989)—self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy—and dimensions of social wellbeing. He uses the term "flourishing" to identify the positive end of a dimension of the presence and absence of mental health whose negative end is "languishing," contrasted with a separate dimension of the presence and absence of mental illness (Keyes, 2002). Huppert (2009) draws on Keyes' concepts and an epidemiological model (Rose, 1992) to propose

a one-dimensional model ranging from flourishing to languishing, below which are those experiencing mental disorders. The implication is that by promoting positive wellbeing across a whole population, not only will more people experience flourishing but fewer will experience mental disorders. The work by Ryff and Keyes shares a number of similarities with the self-determination theory of Deci and Ryan (2000), based on empirical work on the sorts of motivation and goals which lead to high wellbeing. As a result, it identified autonomy, competence, relatedness as three basic psychological needs which if achieved result in wellbeing (Ryan, Huta, & Deci, 2008).

In the third view of wellbeing, what matters is the overall evaluation people make about their life, a judgment as to whether it is going well or not, whether they feel happy or satisfied with it overall. Such evaluations may or may not be explicit, they may be only brought to the surface in response to particular survey questions. [Although other evaluative approaches combine judgments about a variety of domains of life (e.g. Cummins, Eckersley, Pallant, Van Vugt, & Misajon, 2003), the use of overall life evaluations is much more common.]

Much evidence suggests that there are strong associations between these different aspects of wellbeing. Hence, at the New Economics Foundation we have developed a dynamic model of wellbeing (Centre for Well-being, 2011; Thompson & Marks, 2008) which combines all three approaches. It acknowledges that the "concept of wellbeing refers to optimal psychological functioning *and* experience" (Ryan & Deci, 2001; emphasis added). The model is also strongly informed by empirical evidence about the drivers of wellbeing (Figure 17.2).

The drivers are referred to in the bottom two boxes. Individuals' external conditions are bottom left: personal material circumstances, employment status, and so on, but also broader conditions in the local physical environment, and the social context in which they are situated. Personal resources are bottom right: relatively stable (but not entirely fixed) physical and psychological traits such as health, self-esteem, optimism, and resilience. Clearly policy outputs generally have direct impacts on these drivers rather than on wellbeing itself. These two sets of drivers then act together to determine the extent to which people function well (middle box), that is, have good interactions with the world around them and fulfil psychological needs, such as being autonomous, competent, safe and secure, and connected to others. Functioning well in turn leads to good feelings (top box), in both the hedonic and evaluative sense. Together, these top two boxes comprise *flourishing*, having high wellbeing. The model is

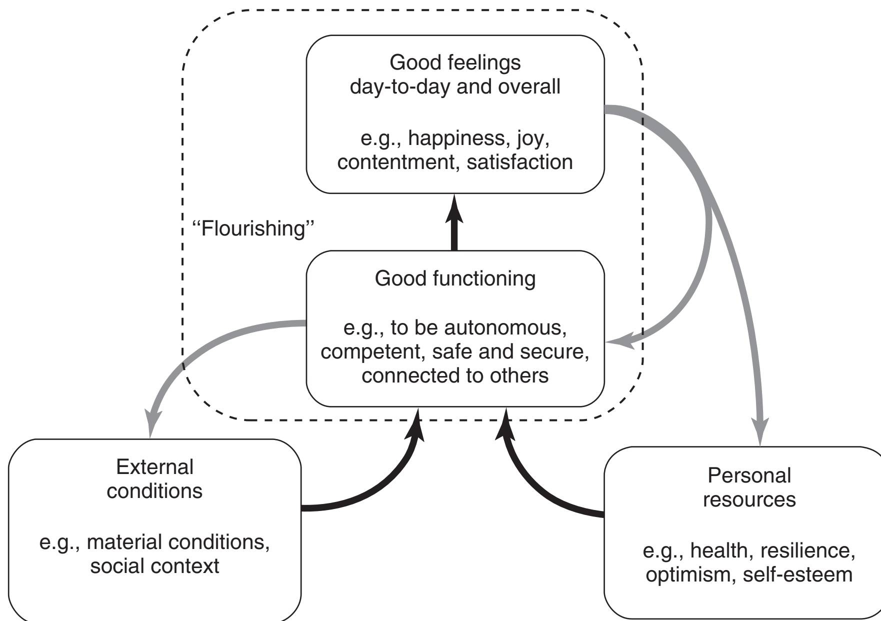

Figure 17.2. The Dynamic Model of Wellbeing. Reproduced with permission from Thompson and Marks (2008) and Centre for Well-being (2011).

"dynamic" because it recognizes the importance of feedback loops between the different elements. Good functioning—for example, exercising autonomy and taking part in strong social relationships—can help individuals improve their external conditions. Experiencing positive feelings (in the hedonic sense) encourages people to do more of the activities which create such feelings. Empirical evidence also shows that feeling positive enables people to broaden their scope of possible action and build up personal resources over time (Fredrickson, 2001).

Each of the different boxes can be measured and, as we shall see, measured in a robust way. In deciding what to measure, there is no need to take a philosophical stand in favor of the evaluative, hedonic, or eudaimonic approach. In particular, we think there is a strong case that those favoring the evaluative and hedonic approaches will find some eudaimonic measures useful since they can help decision makers understand *how* the changes they make, particularly to people's external conditions, are translated into good feelings day-to-day and overall. For example, there is extensive evidence that unemployment has a stronger negative impact on wellbeing than simply the

associated loss of income (e.g., Clark, 2010). Thinking about functioning concepts, such as the feeling of competence, meaning, and strong social relationships that people derive from their jobs, can help suggest mechanisms for this association.

Measures of Flourishing Versus Measures of its Drivers

In measuring wellbeing it is important to be clear which box of the dynamic model you are measuring, and the first distinction is between ends and means: outcomes (i.e., the top two boxes, flourishing) and drivers (i.e., the bottom two boxes).

The growing interest in wellbeing in recent years has seen the development of a number of composite measures and indices by academic groups, nongovernmental organizations, and government bodies that do not observe this distinction. These measures and indices normally set out to measure what they describe as “wellbeing,” “good lives,” “better lives,” and similar concepts. They tend to share a common type of structure, based on a set of key life domains, with specific measures within each domain. Table 17.1 compares the features of three such indices that have attracted attention over recent years, produced by both government-linked and nongovernmental bodies.

These indices have a very important role to play in contributing to the dialogue, within their countries and internationally, about going “beyond GDP” in the measurement of national success. In other words, they contribute to the framing of national progress in terms which extend beyond material wealth. However, their design risks obscuring a crucial distinction between drivers and outcomes. In our model of wellbeing, flourishing, understood as functioning well and feeling good, is the key outcome. It is driven by factors external to and within the individual. This clear conceptual distinction is common to evaluative, hedonic and eudaimonic approaches. Composite measures which include a mix of drivers and outcomes risk leading to confusion about the purpose of such measures.

It might be argued in response to this that some of the objective measures in these systems are not in fact designed to measure drivers but outcomes: they are proxy measures of wellbeing. In particular, since people may identify certain domains as important (family life, health, education, and so on) and perhaps as ends in themselves, both objective and subjective measures of

Table 17.1. High-Profile Composite Wellbeing Measures.

Name of index	Gross national happiness index	Better life index	Canadian index of wellbeing
Producer	Centre for Bhutan studies	OECD	Canadian index of well-being network
Type of organization, country	Autonomous government-established research body, Bhutan	Government membership body, cross-national	Board of indicator experts and practitioners, Canada
Domains	Psychological wellbeing	Life satisfaction	Healthy populations
	Health	Health	Education
	Education	Education	Leisure and culture
	Culture	Safety	Democratic engagement
	Good governance	Governance	Community vitality
	Community vitality	Community	Environment
	Ecological diversity and resilience	Environment	Living standards
	Living standards	Income	Time use
	Time use	Jobs	
		Work–life balance	
		Housing	
Source	http://www.grossnationalhappiness.com/	http://oecdbetterlifeindex.org/	http://ciw.ca/en/

success in those domains may add a degree of richness to purely subjective and general measures of wellbeing.

It is true that these kinds of objective data may be useful. The problem arises when you try to aggregate the measures into a single indicator, that is to say into the kind of headline indicator of wellbeing which, we have suggested, has a key role to play, along with other headline indicators of spheres of progress, in reframing our ideas of what a successful society looks like.

This is for two reasons. First, there is an element of apples and pears: it is not clear what the final number represents. But the history of indicators, including the social indicators movement in the 1960s (see, e.g., Cobb & Rixford, 1998) makes clear that the only way an indicator can engage

the public and therefore play a meaningful role in politics is if it is easy to understand, and communicates a simple, intuitive idea. Single numbers measuring clear concepts are needed. This need is not met by composites that combine different issues which do not correspond to a single, easily graspable idea.

One response to this is to suggest that using a dashboard of indicators could solve the problem, but the dashboards resulting from this sort of approach are likely to suffer the same lack of coherence as the composites. What, it might be asked, do they add up to? In any case this does not deal with the second problem: arguments about what should be included in the index (or dashboard). Thus each of the indices in Table 17.1 includes a somewhat different set of domains. Although public consultation often forms the start of the process of deciding what to include in such an index, inevitably, to produce a manageably small number of domains, decisions by researchers are required. Hence it is likely to be very hard to reach an accepted set of domains and measures, with disagreements of what to measure going beyond purely technical questions about how to measure.

A related issue is the weighting of different domains: Should each contribute equally to the overall index score, and if not, how should the weighting be decided? Various solutions have been tested; for example, the Better Life Index website allows users to weight the different domains according to how important they regard each of them, but this is not a practical solution for national level measurement. By contrast, the use of subjective life evaluation measures in effect allows people to decide for themselves the things they consider to be most important in their lives, assess them according to criteria of their choosing, and assign weightings to them. They shortcircuit the need to ask people about priorities in order to weight an index. As Helliwell and Wang argue:

> The distinctive feature of happiness and other subjective wellbeing measures is that they offer people the chance to report on the quality of their own lives, reflecting their own histories, personalities and preferences. These are arguably the most democratic of wellbeing measures, since they reflect not what experts or governments think should define a good life, but instead represent a direct personal judgment. Seen in this light, the subjectivity of happiness is to be seen as a strength rather than a weakness. The most fundamental indicator of your happiness is how happy YOU feel, not whether others see you smiling, your family thinks you are happy, or you have all the presumed material advantages of a good life.
>
> Helliwell and Wang (2012), p. 21

Some official bodies exploring wellbeing measurement recognize the usefulness of the distinction between drivers of wellbeing and wellbeing outcomes. In its feasibility study on measuring wellbeing, Eurostat, the statistical office of the European Union, identified subjective wellbeing and life expectancy as key outcomes, whereas other domains such as education, housing, employment, and so on, are the drivers (Eurostat, 2010).

Valid and Reliable National Measures of Flourishing

How then should we measure flourishing at national level, if we are not to use the kind of composite indices just described? Clearly, any national measure needs to be technically effective, that is a valid and reliable measure of the concepts it claims to measure. In this section we set out the kind of measures that have been proposed and refer to the evidence that these are valid and reliable measures.

It is worth noting at the outset that the ability to undertake robust subjective measurement is now established in a way that was unavailable previously. MacKerron (2011) describes neo-classical economic methods based on utility from preference satisfaction being developed in the nineteenth century because it was believed that "inter-personal comparisons of happiness are impossible." In the twentieth century, the context of the need to respond to the Great Depression and the Second World War led to a focus on increasing production, captured in measures such as GDP which became systematized in the *United Nations System of National Accounts* in 1947, still used today (Michaelson et al., 2009). This measurement approach did not begin to be challenged until the "rediscovery within economics of subjective accounts" in the 1970s (MacKerron, 2011).

In considering how such subjective measures can be used for national measurement purposes, one group of authors, led by Kahneman and Krueger, make a specific proposal, for "time-based national well-being accounts" (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). They argue that national wellbeing should be measured by means which "represent actual hedonic and emotional experiences as directly as possible," and therefore propose a system based on the day reconstruction method, which asks respondents to fill out a diary of their activities during the previous day, rating each activity episode by a number of affect dimensions. In a later contribution (Krueger, Kahneman, Schkade, Schwarz, & Stone, 2009) they develop this proposal, using a similar methodology to construct the

"U-index," which reports the proportion of people's waking time that is spent in an unpleasant state. The authors argue that the U-index of a population can be tracked over time as a means of measuring society's wellbeing.

But most other proposals for national systems of subjective wellbeing measurement, although recognizing the value of "online" affect measures of this sort, tend to adopt a broader approach. They aim to encompass the three broad theoretical approaches to wellbeing discussed earlier. A good example is the set of "Guidelines for National Indicators of Subjective Well-being and Ill-being" developed by Ed Diener, and cosigned by a large number of experts in the field of wellbeing measurement, including in fact, all of the authors of the Kahneman/Krueger proposals[2] (see also Diener & Seligman, 2004; Diener & Tov, 2012). The guidelines call for national indicators of subjective wellbeing to include global measures of subjective wellbeing (e.g., life satisfaction measures), alongside measures of separate facets of wellbeing, including measurement through longitudinal designs, time-sampling, and diary recording of experiences (Diener, 2005). Similarly, in their report to the U.K.'s Office for National Statistics (ONS) setting out recommendations on measures of subjective wellbeing for public policy, Dolan, Layard, and Metcalfe (2011) recommend the use of three types of measure: life evaluations, measures of feelings over short periods of time (affect), and measures of eudaimonic aspects of wellbeing (functioning). This framework was subsequently adopted by the ONS (Hicks, 2011).

A good sense check on these sorts of proposals is whether they are implementable, that is, do robust measures covering a range of aspects of wellbeing exist? The answer to this is a clear "yes." Global life evaluation measures have been widely used in a large variety of measurement settings and there is considerable evidence of their robustness (e.g., Diener, Inglehart, & Tay, 2013). The work already discussed on day reconstruction method techniques demonstrates the effectiveness of in-depth methodologies of measuring experienced affect (Krueger, Kahneman, Fischler, et al., 2009). Simpler measures which ask respondents to sum up their experience of various forms of affect experienced "yesterday" have also been used to produce informative findings, and demonstrate substantive differences from global life evaluation measures (Kahneman & Deaton, 2010). Recent years have also seen substantial developments in measures of functioning. While Ryff's original work on her Scales of Psychological Well-being used 20- or 14-item scales for each of the six dimensions, making the measures lengthy and thus impractical for use in national surveys, subsequent work

has suggested that similar results can be obtained using three items per dimension (Ryff & Keyes, 1995). In the U.K., academics collaborating with public health bodies developed the Warwick–Edinburgh Mental Well-being Scale specifically to measure both hedonic and eudaimonic aspects of positive mental wellbeing (Tennant et al., 2007). In both its 14- and 7-item forms it has been widely used in population surveys in the U.K. and elsewhere.

In 2005, an international group of researchers, led by Huppert and Marks, were awarded the opportunity to design a 50-item module of wellbeing items for the European Social Survey (ESS), an academic-led cross-national survey which emphasizes methodological rigor. They did so explicitly as part of a "systematic [attempt] to create a set of policy-relevant national well-being accounts" which brought together measures of both feeling and functioning (Huppert et al., 2008). Two indicator proposals have resulted from this. In 2009 the New Economics Foundation (NEF) published its "National Accounts of Well-being" (Michaelson et al., 2009), an indicator framework drawing on a large number of the measures in this module, which used twin headline indices of personal and social wellbeing, constructed from measures grouped into seven key components of wellbeing, including satisfaction, feelings, functioning, and supportive relationships (Figure 17.3). These indicators were used to identify differences

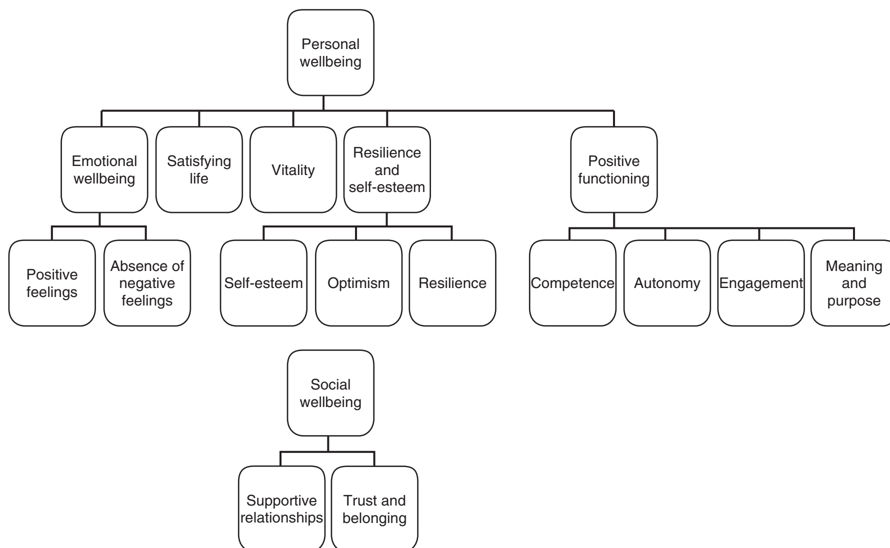

Figure 17.3. National Accounts of Wellbeing Indicator Structure. Reproduced with permission from Michaelson et al. (2009).

in population wellbeing across 22 countries in Europe. Huppert and So (2013) identified the "mirror opposite of the symptoms of the common mental disorders" so as to describe the characteristics of positive mental health. They identified 10 positive features of mental health, across both feelings and functioning, and used one item from the ESS module as an indicator for each, combining these into an "operational definition of flourishing." This revealed considerable differences in the proportion of the population in different European countries meeting the criterion for flourishing, from 41% in Denmark to 9% in Russia and Portugal.

Criteria for Technical Effectiveness

The foregoing discussion suggests the need to identify criteria to ensure the technical effectiveness of measures of national wellbeing. The first question with regard to the technical effectiveness is what types of subjective measures should be used as part of a national measurement system: both *what* should be measured and *how* it should be done.

In terms of *what*, the range of robust techniques we have just reviewed, covering the measurement of different elements of wellbeing, leads us to echo previous calls for a broad approach to subjective wellbeing measurement. Our first technical criterion for effective national subjective wellbeing measures is therefore that they should reflect different theoretical approaches within the science of wellbeing to measure a range of aspects of wellbeing, including overall evaluations of life, experienced feelings, and good functioning.

But are such measures valid and reliable? Diener and Tov (2012) review the now substantial evidence of the validity and reliability of subjective wellbeing measures, including their convergence with measures from a variety of other sources (e.g., biological measures of hormones and brain function, etc., reports from family and friends about the individual, observed behavior such as smiling, responses to open-ended questions and sociability); predictions of behavior in the future including advancement at work and certain health outcomes; and general stability over time but changes in response to significant changes in life circumstances. They note that the measures produce broadly understandable patterns of findings, such as the relationship between living in poverty and experiencing low wellbeing, and at national level between levels of democracy and higher levels of wellbeing. Diener et al. (2013) note that while there are various potential sources of measurement error which can arise from subjective wellbeing measures,

including influence from other survey questions and differences between the way individuals use specific numbers on the response scales, there is now a good understanding of what these errors are, and how to prevent and correct for them, through, for example, the placement and framing of survey questions, and in corrections at analysis stage.

During 2012, the Organisation for Economic Co-operation and Development (OECD) is planning to publish comprehensive guidance for national governments specifically on using subjective wellbeing measures, which acknowledges the attention across developed world governments on the special role of these types of measures. These guidelines will consider issues such as: question wording and the period over which respondents are asked to recall their experiences; the length, labeling, and other design elements of response scales; the order and placement of subjective wellbeing measures within questionnaire instruments; and the mode of administration of the survey. A large sample size is also an important means of reducing measurement error, particularly in analysis of population sub-groups. It is beyond the scope of this chapter to consider such issues in detail. However, we can sum up the need for detailed attention to such issues in our second technical criterion: that subjective wellbeing measures should be designed and implemented using methods which seeks to minimize all sources of measurement error.

Effective Measures of Flourishing

To play reframing and incentivizing roles, national wellbeing indicators need to be capable of influencing politicians, the public, the media, and other key opinion-formers. They also need to be usable by those who fund, design, and implement government policy. We set out here what this means in practice.

Political Effectiveness

A crucial part of the mechanism by which headline wellbeing indicators can shift societies towards the goal of human flourishing is by influencing politicians who set the overall direction of public policy. This implies that they influence the public who vote for them, and those who play key roles in forming public opinion, including the media. Some economic indicators—economic growth (change in GDP), the inflation rate, and levels

of unemployment—already play this kind of role: their positive movements are deemed to reflect success of political leaders, and negative movements failure. By examining the key features that enable these indicators to work in this way, we have identified a set of criteria for the political effectiveness of wellbeing indicators (a development of our proposal in Centre for Well-being, 2011).

First, as already argued in the section on composite indices, headline indicators need to be simple, clear, and easily graspable. This implies something about the structure of the indicator itself: that it should be communicated as a single number, in the same way GDP growth, the inflation rate and number of unemployed people. (It is worth noting, however, that this does not mean the data *behind* the indicator needs to be simple: the UN guidance document for the System of National Accounts, which produces GDP measures, extends over 600 pages.) It also implies the need for a simple idea to be attached to the indicator: a simple metaphor to which people can easily relate, just as rising GDP is understood as the equivalent of an increased business turnover or a rise in household income. Hence the subjective wellbeing measures that are used must be able to create headline indicators of this type.

Second, successful headline indicators must make clear that they measure something that matters to most people. It is not, as already argued, that people are innately interested in last year's GDP (Oswald, 1980). But people are interested in measures like inflation because it *directly* tells them about the cost of living, and in economic growth because it *indirectly* tells them about job security and pay rises. Most people care about these things and they are, in fact, all indirect indictors of the underlying thing that matters: people's wellbeing.

Third, successful headline indicators are those for which people feel able to blame or praise politicians. Politicians may, in fact, have less influence over economic conditions than is generally assumed, but because this *is* assumed, economic performance plays a big role in public assessment of political success. Other indicators of things that matter to people are clearly not within the control of politicians—the weather over a holiday weekend, for example—and therefore they do not play a political role.

Fourth, successful headline indicators are felt to reflect a shared experience. Hence rising inflation reflects common experiences of finding increased prices at the shops; rising unemployment the increased difficulty of finding work, and general job insecurity. These are the sorts of issues that are naturally the subjects of conversation and comment.

Fifth, effective headline indicators are designed to facilitate comparisons, particularly with other countries and over time. GDP measures, for example, are always reported in terms of percentage growth since the previous period (quarter, year), their absolute levels are almost invisible. And in fact, a further level of comparison is used in interpreting these figures; we only know whether a growth rate of 2% is good or bad by comparing to growth rates in earlier years and in other similar countries.

Finally, the indicators must inspire public confidence in their neutrality. They must not be seen as part of government propaganda. There should be an appropriate distance between official production of the figures and political reaction to them.

Policy Effectiveness

For subjective wellbeing measures to reach their potential in changing societies, they need to go beyond political effectiveness to be usable and used by government officials and others responsible for designing and implementing policy. To a large extent whether they are used by this group will be determined by whether they are seen as robust, credible and important—and thus by the extent to which measures meet the technical and political criteria set out in this chapter. But the measures also need to be fit for purpose within the policy process itself.

We have identified a number of uses for subjective wellbeing measures at each stage within the policy-making process (Centre for Well-being, 2011). This process is often viewed as a cycle, as described in Figure 17.4 (see also Cabinet Office, 1999). There is a role for subjective wellbeing evidence at each key stage.

The evidence has a key role in helping policy makers *understand the population*, by describing different aspects of wellbeing, revealing how levels of wellbeing are distributed across population groups, particularly with regard to inequalities in wellbeing, and identifying the policy-relevant factors associated with higher and lower levels of wellbeing. This information can result in increased priority for existing aims, for example, minimizing unemployment which is even worse for wellbeing than suggested by economic indicators (Clark, 2010). It can also suggest entirely new aims: for example, Bok (2010) argues that wellbeing evidence highlights sleep quality as a potential policy issue.

The evidence can also help at the second stage, that of *developing policy proposals*, by providing additional evidence for a course of action. Policies

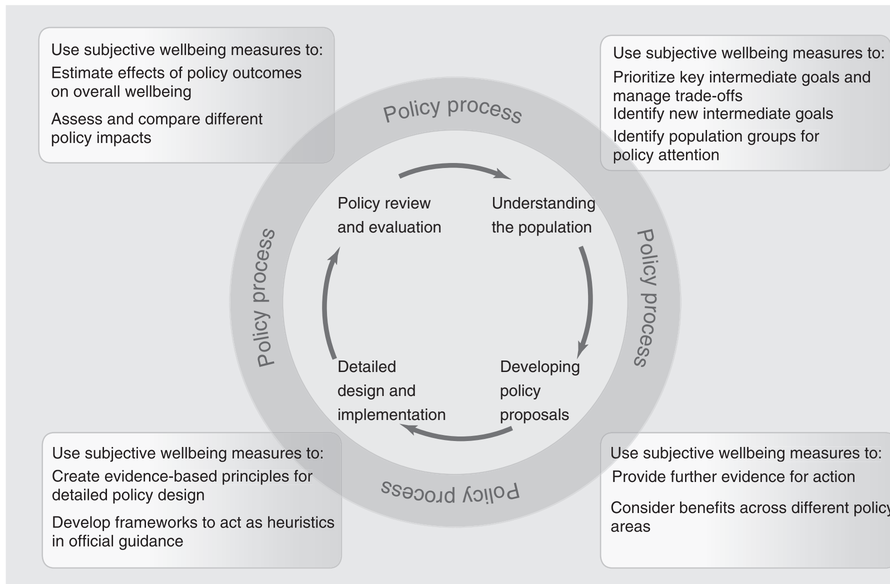

Figure 17.4. The Uses of Subjective Wellbeing Measures within the Policy Cycle. Reproduced with permission from Centre for Well-being (2011).

to encourage walking and cycling, for example, may have environmental and health benefits but are often regarded as potentially unpopular and so politically difficult. This can be balanced by the wellbeing evidence which suggests that cycling is experienced as being at least as flexible and convenient as driving, less stressful, and producing more feelings of freedom, relaxation, and excitement (Anable & Gatersleben, 2005). Wellbeing data can also be used to value nonmarket costs and benefits, avoiding the need for hypothetical estimates of willingness-to-pay. This is one reason why the U.K. Treasury is showing interest in them, with a comprehensive report reviewing the techniques published in 2011 (Fujiwara & Campbell, 2011) and an update to the Green Book (the key source of policy evaluation guidance for the U.K. civil service) which stated:

> The life satisfaction approach uses econometrics to estimate the life satisfaction provided by certain non-market goods, and coverts this into a monetary figure by combining it with an estimate of the effect of income on life satisfaction . . . The technique . . . may soon be developed to the point where it can provide a reliable and accepted complement to the market based approaches outlined above.
>
> HM Treasury (2003/2011)

At the third stage of detailed *design and implementation* of policy, wellbeing evidence can provide guidance on *how* policy is done. For example, Helliwell (2011; see also Chapter 19, this volume) distils some key principles for use in policy such as "existence of positive trumps absence of negatives," "humans are inherently social and altruistic," and "trust and procedures matter." The "Five Ways to Well-being," a set of messages developed by NEF to summarize the evidence about everyday activities that improve wellbeing, have become widely used in practical policy contexts in the United Kingdom (Aked & Thompson, 2011).

There is also a clear use for subjective wellbeing measures at the final stage of the policy cycle, capturing the direct wellbeing impacts on policy beneficiaries, via *evaluation* tools such as those being used to evaluate the Big Lottery Fund's £165 million Well-being Programme (Abdallah, Steuer, Marks, & Page, 2008).

Two common threads run across these stages of the policy cycle. First, wellbeing measures are of use to policy makers when they can be combined with data about all sorts of other aspects of people's lives (employment status, transport use, etc.) amenable to more direct influence by policy. Our first criterion for policy effectiveness is therefore that subjective wellbeing measures are collected within surveys which also collect detailed information on other aspects of people's lives. Ideally, these should be geographically tagged to allow area-based comparisons. One effective way of achieving this can be agreeing a common set of subjective wellbeing measures which are used within a number of different government surveys across different policy areas.

It is worth noting that much has already been established by a considerable literature about the relationships between these other aspects amenable to influence by policy and subjective measures of wellbeing (Dolan, Peasgood, & White, 2006; Stoll, Michaelson, & Seaford, 2012). This is valuable evidence, as a U.K. Government source recognized when reflecting on plans to introduce wellbeing measurement:

> Next time we have a comprehensive spending review, let's not just guess what effect various policies will have on people's well-being. Let's actually know.
>
> Stratton (2010), p. 1

The second common thread is that each stage of the cycle requires a *detailed* set of subjective wellbeing measures, to capture the different aspects of wellbeing associated with different population groups, and policy-relevant

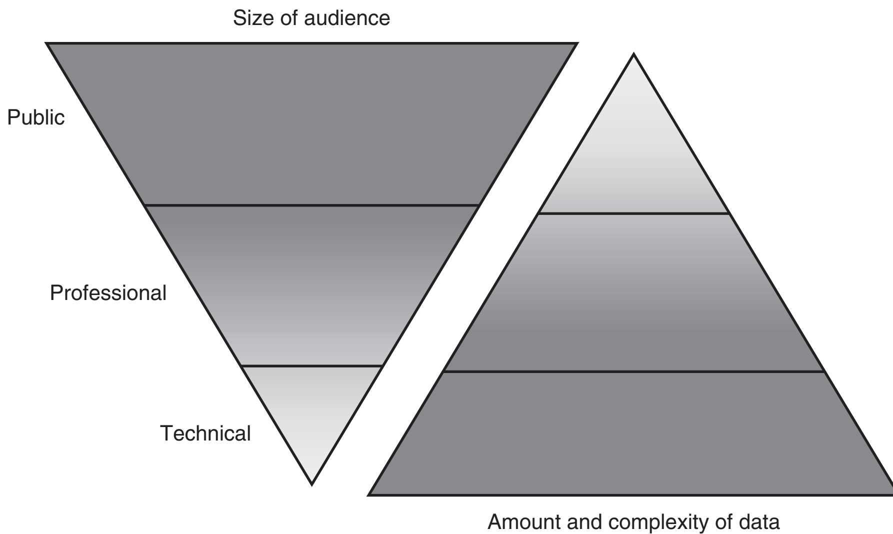

Figure 17.5. Audience Model for Statistical Products. From Statistics New Zealand, no date, reproduced in Scrivens and Iasiello (2010).

drivers. The measures need to be capable of detailed interrogation and statistical analysis: a clear contrast with the political need for a simple, single number to create a headline wellbeing indicator. Clearly a detailed set of wellbeing measures can be aggregated through technical means to produce a single number. But the danger is of the two drifting apart, obscuring the links between detailed policies and the overall political goals which are expressed in headline political indicators. Scrivens and Iasiello (2010) discuss a useful model, attributed to Statistics New Zealand (Figure 17.5) which can help avoid this problem. It suggests an inverse relationship between the amount and complexity of data and the size of three audience groups: the public (media, civil society, and interested non-experts), professional (policy makers and analysts), and technical users (statisticians and non-experts). It also suggests that these different data products can sit in a clear relation to one another, within an overall triangle structure. Hence, we believe that, crucially, attention should be paid to ensuring that there are "connecting rods" between the different layers. That is, the data should be made available in a way that makes it straightforward to dig beneath the headline indicator to see how it is constructed from components, and how these components relate to the measures that are used in technical analyses. Hence, our second criterion for effective measures within the

policy-making process is that they are sufficiently detailed to be used across all stages of the policy-making cycle, with clear links to the headline political indicator.

The contributions within this volume demonstrate the wide range of high-level policy and intervention-level actions that can improve wellbeing. Later, we discuss how establishing a headline wellbeing indicator is an important step in creating a culture within government decision making where this evidence is routinely reviewed.

Responding to Critiques of Subjective Wellbeing Measurement

Critiques of the use of subjective wellbeing measures as headline policy indicators fall into two broad groups: those which raise philosophical and political objections and those which highlight issues around the measures' perceived over- and under-sensitivity. They raise a number of important issues, but as we will see, they do not overturn the strong reasons for using subjective wellbeing measures as headline indicators.

Philosophical and Political Critiques

A common critique of subjective wellbeing indicators is that summed up by De Vos (2012) as follows: "Turning individual happiness into a policy goal implies an individualistic policy orientation. It may remove us from a narrow-minded obsession with individual interest, but only to replace it by a focus on individual pleasure" (De Vos, 2012).

De Vos's paper is published by the Institute of Economic Affairs, a free-market think tank, but a similar critique is made by those with very different views. O'Hara and Lyon (in press) voice concerns, rooted in a humanistic viewpoint, that the "satisfaction" measured by subjective wellbeing indicators "may be based on achievement of self-indulgent desires."

The use of subjective indicators to measure wellbeing does indeed result in a focus on individual experience, based on a belief that this is an effective way of assessing human lives. However, the resulting evidence demonstrates the importance of what goes on beyond and between individuals, as opposed to the achievement of "self-indulgent desires." Social trust and social connections are among the strongest correlates of wellbeing (Helliwell, 2011). Individual wellbeing is associated with social goods "experienced as part

of society at large," such as well-functioning democracy, high community involvement and, some evidence suggests, lower income inequality (Jacobs, 2011). Using evidence of individual's subjective experience would lead to an approach to policy making that is more, not less, concerned with the social and collective.

Beyond the charge of individualism, De Vos (2012) adds a further objection, that "happiness cannot be the sole measure if human beings are to survive over time." We are happy to agree, hence our framework for the measurement of national progress as a whole, which includes measures of economic activity and environmental resource use alongside subjective wellbeing measures.

Another common critique is that of the paternalism of the wellbeing agenda. In some ways this is the opposite of the charge that wellbeing focuses too much on individual outcomes, as it holds that governments which focused on promoting wellbeing would encroach unacceptably on the freedom of individuals. But there is a clear rejoinder:

> given the role of policy in shaping a myriad of factors in people's day-to-day lives—the quality of their homes, their access to open space, how they are educated and their options for travel, to name just a few—it would be extremely difficult for policy-makers to avoid having an impact on how people function and how they feel. Because of this, policy-makers should have a default concern that their decisions impact positively on well-being; this concern should inform every step of the policy process.
>
> Centre for Well-being (2011), p. 22

Diener and Tov (2012) mention a further, potentially valid objection: the risk that headline subjective wellbeing measures might put pressure on people to be or present themselves as happy. This risk can be reduced by avoiding too much talk about "happiness" and "being happy." It is important to distinguish between overall happiness—good experiences of life—captured by subjective wellbeing measures, and endlessly being or appearing to be in a good mood. Even where measures of positive affect are used as part of the measurement of subjective wellbeing, researchers emphasize the need for the right balance between positive and negative emotions, rather than constant cheerfulness. We find the language of "flourishing" a useful means of communicating the intention behind a wellbeing approach to policy making, because it suggests the concern with improving human lives, broadly conceived.

Sensitivity of the Measures

Another set of critiques relates to the perceived oversensitivity and undersensitivity of subjective wellbeing measures (Barrington-Leigh, 2008). The basic concern about oversensitivity arises from worries that fluctuations in people's moods, or in confounding factors, such as the weather, will mean that subjective wellbeing measures pick up meaningless "noise," and cannot therefore be a useful guide to policy making (De Vos, 2012). Such concerns are met by the nature of the large surveys through which subjective wellbeing measures are implemented. Because they cover large, representative samples of the population, over extensive fieldwork periods, fluctuations in factors like the weather will not have a systematic impact at the level of the whole sample. Likewise, a respondent having an unusually bad day will be balanced by someone else in the sample having an unusually good day (Centre for Well-being, 2011). Researchers should, however, be alert to the risk that a media-worthy event such as a national tragedy which leads to momentary changes in mood across respondents, might have an effect on average scores, and should aim to have a big enough time period of data collection to avoid overly strong effects of this type (Diener et al., 2013).

Deaton (2011) has used data from the U.S. Gallup-Healthways Well-Being Index (which collects data from a new sample every day) to suggest a related concern, that subjective wellbeing measures are not particularly sensitive to medium- and long-term changes in society, "being affected more by the arrival of St Valentine's Day than to a doubling of unemployment" during the first years of the financial crisis in the United States. However, Abdallah (2011) challenges Deaton's conclusions, pointing out that even relatively high rates of unemployment affect only a small minority of a total population, hence its effects may not be easily apparent in national average figures. This highlights the need to look at disaggregated subjective wellbeing figures for different sub-groups within an overall population. Reviewing a wide range of studies which *have* identified national level changes in subjective wellbeing, Abdallah argues that "large sustained changes of national averages for life evaluation or life satisfaction will only occur with large changes in conditions." He concludes that wellbeing measures can and do "change in ways that are consistent with cross-sectional evidence on the determinants of well-being," but that "these effects are best observed over a matter of years, rather than days or months."

The objection has also been made that the nature of subjective wellbeing measures means that they are inherently insensitive to change, because they

are measured on a bounded scale, and so cannot capture increases in wellbeing for people who have previously chosen the highest possible response. They are contrasted with variables to which they are often compared, such as income, which have no theoretical upper limit (Ormerod, 2012). This means that at some level of income you are bound to get diminishing returns, although it does not determine the shape of the resulting curve. This would be a problem if what was observed was that a large majority of respondents were using the upper categories of the scale, but this is not the case, certainly with the 7- and 11-point scales which are now most commonly used in subjective wellbeing research. The fact that there are clear differences between average levels of reported wellbeing in different developed countries shows that the measures are certainly not saturated, as does the evidence of national level changes in subjective wellbeing. Bounded measures, in fact, produce very useful results about the logarithmic relationship between wellbeing and income, allowing comparisons of the exact shape of this curve between societies. Using a bounded scale may in fact be an entirely appropriate way to represent reality, if, as we suspect, in rating their overall happiness with life people are implicitly comparing their wellbeing now to a notion of the best life could be. Wellbeing is perhaps not a boundless concept, which may challenge the notion of limitless growth within classical economic theory, but not, it seems to us, common understanding (New Economics Foundation, 2012).

Another common cause of concern is that subjective wellbeing measures are overly sensitive to cultural differences in response styles, hence when they are used to compare the progress of different nations they reflect differences irrelevant to policy. Although there is strong evidence that "the cross-national commonality of life evaluations is substantial" (Helliwell & Wang, 2012) there is also a clear cultural component in the way that people respond to these questions, even though it is relatively small (Oishi, 2010). Policy makers should thus be aware of the cultural component in answers when making cross-national comparisons and this is certainly an area worthy of further research attention. But it need not be perceived as an unsurmountable barrier to the use of the measures in policy making. In fact, Diener et al. (2013) argue that such differences should not be dismissed as merely artificial, as they give a guide to the weights different people, ethnic groups, and populations give to different factors in producing a life evaluation, which might be useful information to include in the policy-making process. There is also evidence that different types of subjective wellbeing measure are differently susceptible to cultural bias (Krueger,

Kahneman, Fischler et al., 2009), which strengthens the case for using different types of measure within a national indicator system.

Applying the Criteria: A Sketch and a Case Study

Our 10 criteria for an effective national system of subjective wellbeing measures are brought together in Box 17.1. We now use them to sketch what we think an indicator system meeting these criteria would look like, and then apply them to a real-life case study: the initiative to measure national wellbeing in the U.K. The numbers of the relevant criteria that each point aims to address are indicated in brackets.

An Indicator System, Sketched

The system would be built on a broad set of subjective wellbeing measures capturing a range of aspects of flourishing (criteria 1, 10), with sufficient resources allocated to allow rigorous and considered implementation (criterion 2) ideally by an arms-length government body, which operates with a high-level of transparency regarding the methods of data collection (criterion 8). The measures would be implemented on a national survey or surveys which collected a range of other, detailed, policy-relevant information about respondents (criterion 9).

The range of measures of flourishing would be combined into a single headline wellbeing indicator communicated with a very clear narrative about what the indicator shows (criterion 3). There would be clear communication about how the headline indicator relates to the underlying measures (criterion 10). The headline indicator would be reported in terms of a threshold, that is, the percentage of people with high wellbeing (flourishing). The threshold would be set, either empirically or theoretically, with reference to a suitable level of "high" wellbeing on each constituent measure. Threshold-based measures have two advantages over reporting average scores: first, they are intuitively graspable in that they refer to the *size* of a population group experiencing high wellbeing, not an average on an unfamiliar scale (criterion 3); and second, they are more likely to show short-term changes, lending themselves better to comparisons over time (criterion 7). A threshold approach also enables a second threshold reporting the percentage of people with low wellbeing to be used—a clear target to be reduced which some may feels matters more than the high threshold (criterion 4).

Box 17.1. Ten Criteria for Effective Subjective Measures Used to Measure National Wellbeing.

Effective subjective measures should:

Technical

1. reflect different theoretical approaches within the science of wellbeing to measure a range of aspects of wellbeing, including overall evaluations of life, experienced feelings, and good functioning;
2. be designed and implemented using methods which seek to minimize all sources of measurement error;

Political

3. be able to create a headline indicator that is simple, clear, and easily graspable;
4. measure something that matters to most people;
5. be measures which people feel able to blame or praise politicians for;
6. reflect a shared experience;
7. be designed to facilitate comparisons;
8. inspire public confidence in their neutrality;

Policy

9. be collected within surveys which also collect detailed information on other aspects of people's lives;
10. be sufficiently detailed to be used across all stages of the policy-making cycle, with clear links to the headline political indicator.

We have argued that subjective measures of good feelings and functioning capture crucial aspects of people's lives (criterion 4). But, as emerged strongly in the U.K. national consultation on measuring wellbeing (ONS, 2011) a cross-cutting issue which people also regard as strongly important is fairness. Hence we recommend either a second headline indicator of the *distribution* of wellbeing across the population, or the development of

a headline metric which incorporates the distribution issue (criterion 2). Because the distribution of wellbeing across a population is conceptually different from that of income (with no equivalent to the theoretical point of "all the income concentrated in one person"), this measure would have to be designed somewhat differently from the standard Gini Index-type measure of income inequality. In our work on National Accounts of Well-being, we created distribution measures based on a transformation of the standard deviation of a wellbeing indicator within a country (Michaelson et al., 2009). This sort of approach may provide a useful starting point for the future development of such an indicator, but creating an easily communicable distribution of wellbeing indicator will require considerable additional research attention.

Because subjective wellbeing measures are still new, their strong links with a large range of policy-relevant factors are not currently well understood by the public. There is therefore a risk that they are not seen to meet criteria 5 and 6, to measure things for which politicians can be held responsible and which reflect a shared experience. We therefore propose that a prominent *set* of measures of objective, policy-relevant drivers of wellbeing that connect the subjective wellbeing measures to more tangible outputs be communicated alongside the headline subjective wellbeing measure (criteria 5, 6). To avoid the problems of arbitrariness in selection of these measures noted earlier, the drivers reported should be those shown through data analysis to have the strongest associations with the headline subjective measure.

Finally, in order to facilitate international comparisons of the data, there should be an international process to agree a standard set of headline indicators with a common methodology for producing them (criterion 7).

A Case Study: The U.K.'s Measuring National Well-being Programme

The sketch above does not settle the question of what such a system would in fact look like in practice. However, as researchers based in the United Kingdom, we now have a home-grown test case of the implementation of a national wellbeing measurement system. The U.K.'s Measuring National Well-being Programme,[3] launched by Prime Minister David Cameron in November 2010, is among the most advanced government-led programs for measuring national wellbeing.

While it was initially announced by the prime minister, the program was conceived by and is being carried out by the ONS, a non-ministerial

government department which reports to the U.K. parliament, a mechanism designed to avoid political interference in the production of national statistics. This, and the fact that much information about the development of the program has been made publicly available, suggests that criterion 8—confidence in data neutrality—stands to be met, although fairly widespread media discussion of "David Cameron's happiness index" may militate against this.

The launch of the program started a period of public consultation, the National Debate on Measuring National Well-being, to "gather views on what matters to people and what influences their well-being," a clear attempt to address our criterion 4. The ONS uses the term "national well-being" to mean national success or progress and describes it as "influenced by a broad range of factors including economic performance, the state of the environment, sustainability, equality, quality of life and individual well-being." By "individual well-being" they mean wellbeing measured subjectively. To measure it, the ONS included four measures of subjective wellbeing on its largest household survey, the Integrated Household Survey, from April 2011 (ONS, 2011). This large survey contains a considerable amount of other data about respondents (hence meets criterion 9).

Following and in response to the National Debate, the ONS set out a framework for the program, describing the domains which it will measure, shown in Figure 17.6. Within each domain a small number of key measures have been identified, apart from the subjective wellbeing measures; these are all intended to be measures already collected by government sources (Beaumont, 2011). The ONS has described this as a dashboard approach (ONS, 2012), but it has no plans to produce a composite single indicator, or a more compact set of indicators, from the 30 or so measures to be contained within it. Within the conceptual framework, individual wellbeing is given some priority, distinguished from "factors directly affecting individual well-being" and, "more contextual domains." However, at the time of writing there is no indication how this distinction will be represented in the dashboard. It seems likely that subjective wellbeing measures will not be highlighted as a headline outcome indicator that matters to everyone (criterion 4).

The ONS has said it will publish distribution measures alongside the key measures in each domain, meeting people's concern with fairness (criterion 4). The range of policy-amenable domain-based measures are likely to be seen as relating to shared experiences and issues for which politicians can be held responsible (criteria 5, 6), but the large number of

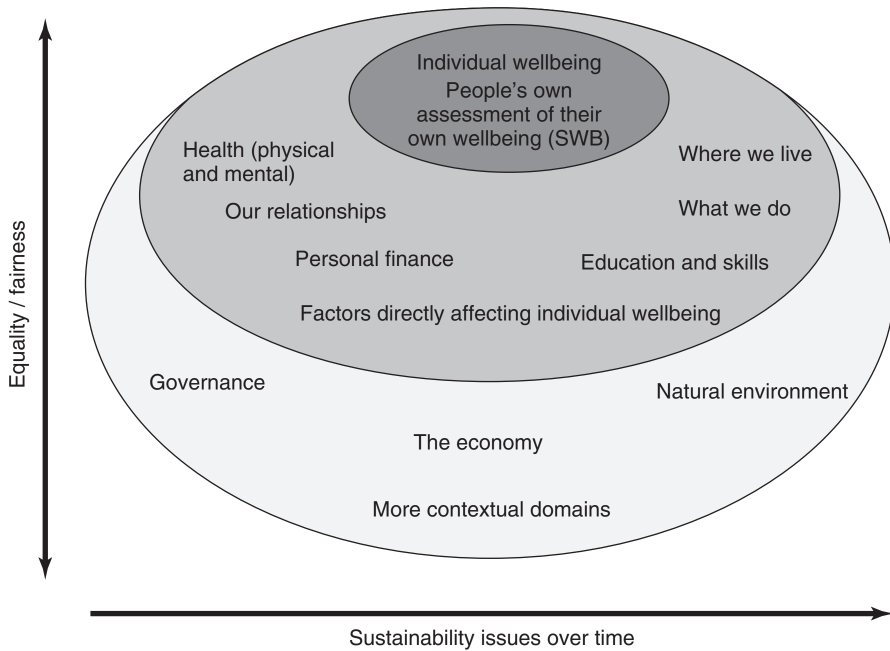

Figure 17.6. ONS National Well-being Framework. From Beaumont (2011).

measures that will be used (around 30) may make comparisons over time or to other countries difficult (criterion 7). More generally, without a clear headline measure the risk is this will not communicate a simple, clear and easily graspable idea (criterion 3) or help assess overall success or progress if, as is likely, some dashboard indicators show positive change and others negative. This reduces the chances of the dashboard becoming an effective political indicator with the power to shape overarching policy making.

The four subjective wellbeing measures being implemented in the Integrated Household Survey are:

- Overall, how satisfied are you with your life nowadays?
- Overall, how happy did you feel yesterday?
- Overall, how anxious did you feel yesterday?
- Overall, to what extent do you feel the things you do in your life are worthwhile? (ONS, 2011).

The questions reflect a range of aspects of subjective wellbeing (criterion 1): the first being a life evaluation measure, the second and third

measures of feelings, and the fourth a eudaimonic measure. The small number of measures risks introducing some measurement error (criterion 2), and also means that the subjective wellbeing measures do not themselves form a detailed measurement set (criterion 10). However, the ONS is carrying out an extensive program of testing of a range of other subjective wellbeing measures, as well as in-depth testing of the four measures being currently used. It is therefore taking a concerted approach towards methodological rigor and reducing measurement error (criterion 2). This also raises the possibility of using a larger set of subjective wellbeing measures in the future (criterion 10).

While the ONS program falls short in a number of respects of our criteria, we do not wish to underplay the significance of the U.K. Government's actions in this field. The fact that subjective wellbeing data are being collected on the biggest U.K. Government survey is creating a powerful new dataset for wellbeing analysis, and the program as a whole is raising the profile of the agenda with policy makers. Whether the current plans for designing and communicating the indicators will have a significant effect on U.K. politics and policy making remains to be seen, and as we have indicated, there are clear risks here. But the new data means that there is now much greater scope for producing headline national subjective wellbeing indicators for the United Kingdom than ever before.

Beyond Subjective Wellbeing: A Framework for Measuring Progress

Given the large range of issues elicited by the discussion of subjective measures of national wellbeing, we have not extended the discussion here to broader measures of progress as outlined at the start of this chapter. Our own framework for measuring progress shares elements with the frameworks developed by the ONS just described and the OECD's "Framework to Measure the Progress of Societies" (Hall, Giovannini, Morrone, & Ranuzzi, 2010), but we place more importance on simplicity, clarity, and, crucially, the *relationships* between the different spheres of progress. We introduced our conceptual framework earlier in Figure 17.1; Figure 17.7 shows the framework populated with examples of key indicators included.

This measurement framework recognizes high wellbeing, fairly distributed, as the ultimate goal of societies. But it also recognizes that in order to ensure continued wellbeing into the future, it is necessary to make sure that societies' use of the fundamental resources on which all human

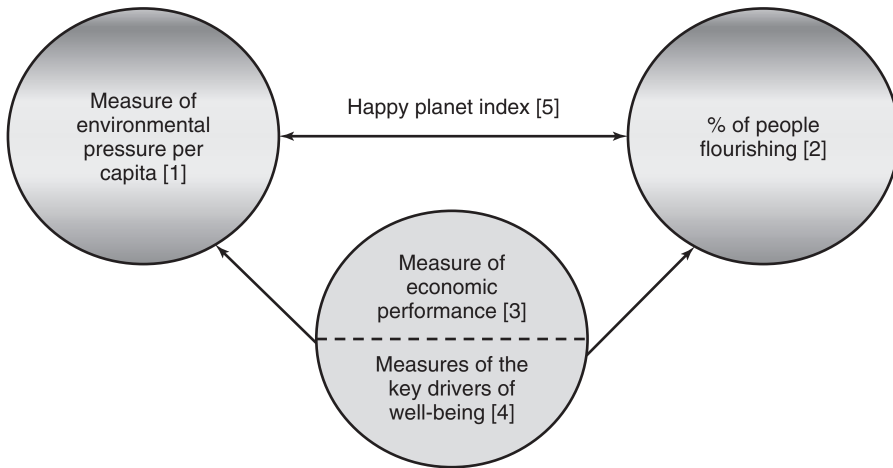

Figure 17.7. Framework for Measuring the Progress of Societies, with Examples of Indicators. Reproduced with permission from Centre for Well-being (2011).

wellbeing depends does not exceed the basic environmental limits, the natural boundaries imposed by our one shared planet. Between these two lie policy outputs which impact on the desired outcomes.

Although each of the spheres will require in-depth measurement, our criterion 3 leads us to suggest the need for a small number of clear headline measures, which together can enable societies to track their overall progress as a compact, structured dashboard of indicators. These are (numbers in square brackets refer to elements of Figure 17.7):

1. A measure of environmental pressure per capita.
2. A headline subjective wellbeing measure, as discussed in this chapter, presented as the percentage of the population flourishing, which can be presented together with a measure of the distribution of wellbeing (discussed earlier).
3. A measure of economic performance: How well is the economy doing in terms of delivering sustainability and wellbeing for all?
4. A measure or set of measures of the other (non-economic) policy-amenable drivers of wellbeing (discussed earlier).
5. A measure of wellbeing per unit of environmental pressure: the fundamental relationship between the two ultimate spheres. Our work at NEF on the Happy Planet Index (e.g., Abdallah et al., 2009) is an attempt to create a headline measure of this type.

This is an ambitious measurement agenda which will require concerted effort from researchers, governments, NGOs, and others around the world to bring to fruition. But given the potential of such initiatives to align politics and policy with what really matters, we feel such an initiative is certainly worth striving for. And there are signs of genuine political will to do so. The report in 2009 of the French Commission on the Measurement of Economic Performance and Social Progress ("the Stiglitz Commission") built on previous government interest to place wellbeing measurement firmly on the international agenda. In 2012, two high-profile United Nations events have further added to the momentum: in April, the high-level meeting on "Happiness and Well-being" which brought together measurement experts with national leaders, and in June, the Rio Conference on Sustainable Development, where considerable attention focused on measurement "Beyond GDP." The coming period is likely to be an important one for the development of an international approach to new measures of progress.

Conclusion

We are optimistic about the power of headline subjective wellbeing indicators to shape conditions in societies. They have huge potential to create new political incentives and new framing for the goals of societies, as well as providing a new direct source of evidence to be used in detail during the policy-making process. But as we have shown, there are a number of challenges which must be addressed in order for the measures to achieve their potential.

First, we need to continue to make the case for new headline metrics. Existing economic measures are inadequate proxies, particularly since there are now well-established and robust wellbeing measures that are sensitive to sustained changes in social conditions (i.e., the outputs of policy). There are philosophical and technical issues with subjective wellbeing measurement, but these can be addressed.

Second, a single headline measure of wellbeing will be needed: a single clear metric of something that matters to people, which changes over time and which people can come to see politicians as being responsible for. But the headline metric should be based on secondary measures of the different components of wellbeing: eudaimonic, hedonic, and evaluative. It should be supplemented by, or incorporate, a measure of the distribution of wellbeing.

This headline measure should be distinguished from measures of its drivers, which are also important. Subjective wellbeing measures should be implemented in surveys collecting a range of other information about people's lives, with clear links between detailed measures for technical and policy use, headline metrics of the key drivers and the headline indicator of wellbeing. The U.K.'s National Well-being Measurement Programme, a real-life case study of the implementation of such a system, has mixed success in meeting these criteria, but represents a significant step forward towards the goal of creating a headline subjective wellbeing indicator for the country.

The metrics of key drivers of wellbeing should form part of a wider system for measuring the progress of a society. The resulting compact, structured dashboard of indicators should also include measures of the use of environmentally limited resources and the relationship between this and wellbeing. Together, these add up to a set of headline indicators to point societies in the right direction on the key thing that matters, creating the conditions for flourishing, now and in the future.

Notes

1. One such an account was reported in *The Evening Standard*, December 22, 2003 in the article "Hospital chiefs force paramedics to wait outside with patients."
2. And one of the current authors, N.M.
3. Two of the authors, J.M. and C.S., have been members of the Advisory Forum and Technical Advisory Group established to support the U.K. program. This has given us an insight into the program and understanding of the process it has followed, but, we think it is fair to say, only minimal influence over its design and implementation.

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18

Mental Health and Wellbeing at the Top of the Global Agenda

Eva Jané-Llopis
World Economic Forum, Switzerland
Peter Anderson
University of Newcastle, U.K.
Helen Herrman
University of Melbourne, Australia

Making a Serious Case for Wellbeing: From Rhetoric to Measurement

In 1968, Robert F. Kennedy eloquently argued:

> the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotions to our country, it measures everything in short, except that which makes life worthwhile.
>
> Kennedy (1968)

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Since then much debate has taken place as to the measures of progress, and wellbeing is now high on the global agenda with increasing support to the argument that societal progress can no longer be measured by profit alone. This new current of thought is growing and countries around the world are waking up to the value of health and wellbeing as a measure of progress, as also evidenced throughout this volume (see Chapter 1).

In 2004, the Organisation for Economic Co-operation and Development (OECD) began its program to redefine progress (OECD, 2011a). The European Union followed with its program "Beyond GDP" (European Commission, 2009). In 2008, Nicolas Sarkozy, President of France, launched the work of the Stiglitz Commission (Stiglitz, Sen, & Fitoussi, 2009). In 2011, a United Nations resolution on wellbeing and happiness, agreed by 68 countries, stated that gross domestic product (GDP) alone is not an adequate measure of human prosperity. The resolution called for a more inclusive and equitable approach to promote sustainability, eradicate poverty, and enhance wellbeing (UN News Centre, 2012). The resolution was followed by a unique high-level event at the UN, highlighting the importance of happiness and wellbeing as central for development and making a call for wellbeing to be part of the sustainable development goals discussions (Helliwell, Layard, & Sachs, 2012).

Concrete measurement efforts have complemented the debates and high-level declarations. The OECD has gathered and analyzed indicators of the wellbeing of individuals and households recently published in its "How's Life" report (OECD, 2011b). The OECD "Your Better Life Index," based on better life initiatives and wellbeing indicators collected over the last 10 years, allows us to visualize wellbeing outcomes and rank countries according to various components of wellbeing (http://www.oecdbetterlifeindex.org/). Much discussion is currently ongoing, however, as to how subjective wellbeing can be measured and improved (see Chapter 19).

As one of the leading country examples, in 2010, David Cameron, Prime Minister of the United Kingdom, defined wellbeing as a core goal, and commissioned the U.K.'s Office of National Statistics (ONS) to measure population wellbeing (Cameron, 2010). The first one-year experimental results of this major effort, including 165,000 people, have been released (ONS, 2012). The report highlights important differences across population segments; for example, those declaring themselves to be in bad health or unemployed are significantly more anxious or less satisfied with their life, compared with those reporting good health or being in employment

(ONS, 2012). These experimental results, although they support existing hypotheses, are a major milestone in understanding how subjective and objective wellbeing measures relate, and provide an important set of estimates to complement existing socioeconomic indicators, allowing a fuller statistical picture of the nation's wellbeing (ONS, 2012).

Strengthening the Arguments for Wellbeing: From Economics to Sustainability

The body of evidence on individual, organizational, and policy level interventions to increase mental health and wellbeing is well-grounded and clearly demonstrated across chapters in this volume (see Chapters 2, 3, 6, 7, and 9). Although the gap between evidence and implementation of programs and policies for improving wellbeing is being closed in some countries, strengthened arguments to help set new priorities are needed for governments, communities, and business (see Chapters 10 and 16). Ongoing efforts such as the adoption of the World Health Organization (WHO) Resolution for Mental Health to draft a new Mental Health Strategy (WHO, 2012) will be instrumental to help this shift happen.

To further support moving dialogue into action, the World Economic Forum think tank on health and wellbeing gathers world leaders and cross-sector thinking from business, academia, government, and international organizations to galvanize messages that resonate to different stakeholders, from economic to ethical arguments as presented in the following sections (World Economic Forum, 2012a).

Economic Downturn and Wellbeing

The current severe economic downturn has had a terrible impact on wellbeing, and has disproportionately affected workers at either end of the age spectrum as well as those with disability (Stuckler, Basu, Suhrcke, Coutts, & McKee, 2011). Strong evidence also indicates that the risk of unemployment and loss of employment are associated with an increased rate of harmful stress, anxiety, depression, and psychotic disorders (WHO, 2010). The global financial situation and the increased instability in employment has had an indirect impact on how stress and lack of wellbeing are experienced, with negative knock-on effects in the immediate environment.

The Economics of Poor Mental Health and Wellbeing

Mental health issues are the most important cause of disability in all regions of the world, accounting for around one third of years lived with disability among adults aged 15 years and over (WHO, 2008). Furthermore, unlike most chronic illnesses, the age distribution is relatively constant, with adults of working age being as likely to suffer as those who are older. The economic cost to society is substantial, with depression estimated as absorbing 1% of Europe's GDP (Sobocki, Jonsson, Angst, & Rehnberg, 2006); overall, mental ill-health alone in the next 20 years is estimated to account for a cumulative US$16 trillion of global output loss (Bloom et al., 2011). For individual companies, mental health is now often the commonest cause of sickness absence in richer countries, accounting for 30–50% of all new disability benefit claims in OECD countries (OECD, 2011b), and for up to 40% of time lost (Cooper & Dewe, 2008), with presenteeism adding at least 1.5 times to the cost of absenteeism (Parsonage, 2007).

Why a Happy Home Life

A healthy emotional start in life sets an individual up with a lifelong advantage for wellbeing, influencing the child's later functioning in school, with peers, in the family and in broader connections with society (Grantham-McGregor et al., 2007; see also Chapters 2, 3, and 12). The single most important factor for building resilience in youth is to enable parents to provide adequate psychosocial stimulation (Patel, Flisher, Hetrick, & McGorry, 2008; Patel, Flisher, Nikapota, & Malhotra, 2008), from immediate skin-to-skin contact between baby and mother straight after delivery (Stewart-Brown & Schrader-McMillan, 2011), breastfeeding (Kramer & Kakuma, 2002) and carrying the baby in a pouch, by both mother and father (Konner, 2010) all of which lead to better long-term educational and cognitive development and healthier development overall (Richards, Hardy, & Wadsworth, 2005). Wider innovation, adaptation, and evaluation of programs is now required, especially in low-income countries (Herrman & Jané-Llopis, 2013).

Wellbeing over the life course is further supported by conducive environments and society's structures and influences, such as the role of the media (see Chapter 15). Family and society's supportive influence for wellbeing along with the individual's ability to satisfactorily combine work, family, and personal life is critical, not only for the wellbeing of the person and the

whole household but also as a predictor of enhanced productivity and ability to obtain better jobs in the future (Jané-Llopis et al., 2011) (Box 18.1).

Box 18.1. Impact of Positive Family Environment (World Economic Forum, 2012a).

A good family experience is crucial for a person's lifelong wellbeing. It provides emotional security:

- for children, whose ability to love and learn depend crucially on the love and closeness of their parents;
- for parents, who can only be good parents if they have a good work–life balance, and if good parenting programs are available to help them if they are struggling;
- for older people, who often need more social support than they frequently get.

It provides economic security, which is essential:

- for healthy eating and physical development;
- for intellectual development and awareness of a wider world.

It provides physical security, provided there are proper policies to prevent domestic violence and to ensure adequate safe space outside the home as well as within.

Wellbeing in the Workplace

A recent Harvard-led meta-analysis, which reviewed 36 studies for analytical rigor, identifies an average return on investment of $3.27 for every dollar spent on wellness programs (Baicker, Cutler, & Song, 2010). Robust reviews suggest that although the return may vary due to different factors ranging from how the program is set up to broader cultural and regional context, there is a measurable return for many of the dollars spent globally on these programs. But overall, although the cost of lack of mental health and wellbeing to employers and the return on investment of workplace programs is well documented (see Chapter 10) there is still a gap in the level of

Table 18.1. Percentage of Companies that have Established and Implemented Wellbeing Programs and Policies in the Workplace.

Policy or program	All countries	Low-income countries	High-income countries
Antismoking	59	37	74
Anti-alcohol	56	42	61
Incentives for exercise	30	21	35
Overall physical health	36	23	42
Stress reduction	23	14	32

From Bloom et al. (2011).

implementation across workplaces, especially in public sector organizations (World Economic Forum, 2012b). The 2010 Executive Opinion Survey, used in the World Economic Forum Competitiveness Report, generated responses from over 13,000 business executives in 139 countries (Bloom et al., 2011). The survey highlights that although over one half of executives expect that lack of wellbeing and noncommunicable diseases (NCDs) will have a serious to moderate impact on their business, implementation rates of workplace health and wellbeing programs in private sector organizations vary widely, with a higher share of companies in high income countries adopting action (Table 18.1) (Bloom et al., 2011). Stress prevention and mental health programs, are still those with less implementation penetration, even when it is recognized lack of mental health drives much of the burden at the workplace (Bloom et al., 2011).

Companies that pursue good practice in these respects can expect to achieve enhanced profitability. It is therefore advantageous for employers to measure the wellbeing of their employees, as many do, and to report this in their annual reports (World Economic Forum, 2012b).

Wellbeing: From Communities that Thrive to Building a Sustainable Environment

Our communities can impede or enhance our human capital development over our lives, including our health and wellbeing, our educational and personal development, our social capital, and the sustainable management of our personal and material assets. Whatever or wherever the structure of the

community and its governance, it can have a significant impact on our life-long wellbeing through: the environment or place where our communities are located; the social connections and networks our communities provide; the civic engagement and structures our communities proffer; the material assets that are available in our communities; the education, health and employment opportunities our communities create; and the environmental sustainability provided.

We depend crucially on our community for many reasons:

- It provides much of our education, not only in cognitive skills but also in emotional literacy and in how to behave. The neglect of girls' education in many parts of the world is a major source of injustice which also inhibits necessary reductions in the birth rate.
- It provides our sense of identity and belonging. In good communities, happiness spreads through contagion, and there is a degree of equality from which all gain, both rich and poor.
- It ensures our safety. Opportunities for physical exercise, safe water, proper incentives for healthy food supply, safety from crime and violence, and systems for controlling greenhouse gases are crucial for the future of humanity.

On the last point, much has been written about the impacts of climate change on wellbeing and on the co-benefits of climate mitigation and well-being policies (Costello, Maslin, Montgomery, Johnson, & Ekins, 2011). For example, moves towards lower carbon emission motor vehicles and increased active travel with less use of motor vehicles in London and Delhi would improve wellbeing by increasing physical activity at the same time as reducing CO_2 emissions (Woodcock et al., 2009). Mental health wellbeing and resilience at the individual and community levels are vital attributes to adapt to the stressors imposed by climate change and to prevent the social and community impacts of climate change that are likely to involve violence and intergroup conflict, subsequent to displacement and relocation, socioeconomic disparities, and decreased access to supportive and thriving ecosystems (Doherty & Clayton, 2011). Interventions can be conducted to strengthen mental wellbeing, mitigating stress due to climate change and hopefully helping to prevent the negative social and community responses to climate change.

Opportunities for Transformation: Challenges Ahead and Areas for Development

In spite of the current traction and arguments, the true value of wellbeing is yet to be crystallized, both in understanding its worth as well as realizing the implications of the opportunity loss where wellbeing is not optimized. Further conceptualization that is globally accepted, more understanding on its value, and more comparable metrics are on the way and already define the opportunities for transformation in this field. In addition, two more challenges seem to be emerging: wellbeing governance and impact.

Governance: A Multi-Stakeholder Approach to Wellbeing

Who is accountable for wellbeing? Much of health and wellbeing is created, influenced, and impacted by determinants outside the health arena. We are witnessing universal trends difficult to reverse, from the environment in which we live, and the rapid increase of urbanization, through the fast pace of modern society and the globalization of unhealthy lifestyles to the larger macroeconomic issues of global trade and fiscal policies. This has had knock-on effects worldwide and has meant a shift away from traditional ways of life to the spread of a "Westernized model" of living with increased unhealthy lifestyles and a set of new multifactoral stressors determining the new normal. Whether this new normal is positive or negative with regard to wellbeing is difficult to judge but it underlines that wellbeing is clearly influenced by a set of multisector influences that cannot be considered in isolation. As has been noted,

> globalization has increasingly turned health and health-care into cross-national issues, raising questions as to which collective action problems to prioritize as well as how to mobilize and coordinate the numerous actors who have some potential, yet critical role in delivering collective solutions.
>
> Smith (2009)

To address wellbeing requires a cross-sector response which lies largely outside the health sector and involves trade policy, tax incentives, international regulation, the agriculture and environment sectors, and general working and living conditions (Nishtar & Jané-Llopis, 2011).

This multi-stakeholder nature of wellbeing calls for new mechanisms and platforms that support and stimulate collaboration across the academic,

political, nongovernmental, and corporate worlds. This need has been recognized at higher levels including the UN High Level Meeting on Happiness and Well-Being (April 2, 2012) and the recent Rio+20 political declaration "The World We Want" (UN, 2012).

Develop and Align Measurement: Impact of Actions on Wellbeing

Although much progress has been made to measure population wellbeing, there is a growing acknowledgement that the existing country-based efforts need to take into account the different international initiatives to harmonize subjective wellbeing data collection (ONS, 2012).

Furthermore, in addition to measuring the wellbeing of populations there is a need to measure the impact of existing actions, policies, and products on wellbeing. As stated above, there is a universe of influences, negative and positive on health and wellbeing, so what are the impacts of macro- and micro-level action on health and wellbeing?

It has been proposed that measuring the "health and wellbeing footprint" that each stakeholder contributes through its actions, policies, or products and services seems to be a complementary way to address accountability as discussed in the previous section. A wellbeing impact assessment of policies, products, and services would help to identify progress in developing wellbeing, would support arguments for accountability to be distributed and acknowledged by all relevant stakeholders (public and private and across all relevant different sectors), and metrics and trends would become available so that further interventions and incentives for wellbeing could be designed.

A health footprint could be a fundamental tool to adequately distribute roles and responsibilities across all sectors and actors involved in prevention efforts, track progress in production and shift towards healthy options, and provide a way to reflect the interdependence of most players and forces that determine or can influence health. A wellbeing footprint that can be developed at individual, industry, community, and government levels could represent a model for integrating the evidence on burden of disease, the insights about the drivers of consumer behavior, a track mechanism for understanding progress over time that reflects the impact of interventions, and a tool to support aligning incentives for health (Harrison, Hajat, Cooper, Averbuj, & Anderson, 2011). At its core, it would speak to the accountability of all actors and would provide a framework to identify gaps and, accordingly, match necessary interventions, leading towards the co-creation of wellbeing governance.

Conclusion: Global Traction for Wellbeing and Happiness

Most recently during the Rio+20 high level event member states agreed there was a need to take steps to go beyond GDP to assess the wellbeing of a country (UN, 2012). As the Director General of the UN stated, "The outcome document provides a firm foundation for social, economic and environmental wellbeing, it is now our responsibility to build on it."

The evidence compiled in this volume provides the ammunition necessary for moving from rhetoric to evidence-based action in promoting mental health and wellbeing. A call to all stakeholders is now on the table.

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19

How can Subjective Wellbeing be Improved?

John F. Helliwell
University of British Columbia, Canada

Introduction

Individuals, communities and governments are increasingly interested in using subjective wellbeing (SWB)—based on how individuals rate the quality of their own lives—to supplement or even supplant more conventional economic measures of individual and social progress. Some countries, including Bhutan since 1972, and more recently the United Kingdom, have made higher SWB an explicit goal for public policy. This flowering of interest has naturally sparked efforts to increase the quality and quantity of SWB data, research, and policy analysis. These have included the Stiglitz–Sen–Fitoussi report (Stiglitz, Sen, & Fitoussi, 2009) and the Bhutan-sponsored UN General Assembly resolution of July 13, 2011 inviting member states to "pursue the elaboration of additional measures that better capture the importance of the pursuit of happiness and well-being in development with a view to guiding their public policies." This resolution in turn led to the resulting UN High Level Meeting on Happiness and Well-Being on April 2, 2012, for which the first-ever *World Happiness Report* (Helliwell, Layard, & Sachs, 2012) was prepared. These global initiatives have been matched by public consultations and widespread SWB data collection in the United Kingdom, and efforts by the European Commission and the Organisation for Economic Co-operation and Development (OECD) to develop international standards and uniform surveys for the measurement of SWB.

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Thus it is a good time to take stock of what is known and what most needs to be done to move the analysis and policy agendas from demonstrated interest to well-founded change. This chapter attempts such a stocktaking in several stages. I shall first review a range of the most policy-relevant measures of SWB, then outline some research results with direct bearing on policy issues, and finally illustrate how these results, and others like them, can be used to improve evidence-based policy choices by governments, companies, and communities.

How can Subjective Wellbeing be Measured?

The most common SWB measures are evaluations of life as a whole. The principal question refers to satisfaction with life (SWL), with alternatives including Cantril's self-anchoring striving scale (hereafter referred to as the Cantril ladder, and used in the Gallup World Poll, and the Gallup/Healthways Daily Poll in the United States) and questions asking how happy respondents are with their lives.

The other main class of SWB measures includes positive and negative emotions, sometimes measured on a momentary basis, and sometimes as remembered at a later time. Redelmeier and Kahneman (1996) collected both momentary and remembered measures of the pain of a colonoscopy, and found that the remembered assessments differed systematically from the sum of moment-by-moment assessments.[1] Where these two assessments differ, how should the analyst proceed? Kahneman has argued, following the example of Jeremy Bentham's felicific calculus (Kahneman, Wakker, & Sarin, 1997), but also harking back to the Epicureans, that the true measure of utility is the cumulant of momentary pleasures and pains, with pain and negative emotions being given negative weight. If these cumulants differ from the remembered experiences of pain, as in the colonoscopy case, then he thinks the latter should be seen as mistaken (Kahneman & Riis, 2005). Others, including me (Helliwell, 2008), have argued that since it is the remembered pleasure or pain that governs subsequent decisions, whether about having another colonoscopy (Redelmeier & Kahneman, 1996) or where to go on the next spring break (Wirtz, Kruger, Scollon, & Diener, 2003), the remembered experiences should be treated as intelligible and often useful reframing of past experiences to support future decisions (otherwise, would there not be more one-child families?).

Although momentary assessments of emotions have been tested in clinical and experimental settings (Shiffman, Stone, & Hufford, 2008), they are expensive to collect and invasive of the lives being monitored. Thus most surveys that ask about emotions do so on a remembered basis, either as a part of a time-use survey (Krueger, Kahneman, Schkade, Schwarz, & Stone, 2009) or with reference to a specific time period (e.g., yesterday).

How do remembered moods and life assessments differ in what they say about the quality of life? Although some analysts treat positive and negative moods as equivalent, as in the U-index of Krueger, Kahneman and colleagues (Krueger, 2009), most researchers have found that positive and negative affect should be kept separate, as they have different sources and different consequences, at least in some important applications. Related evidence is reported in the next section.

Mood assessments, especially those relating to a specific moment or day, fluctuate with changes in the daily or hourly content of life. This makes them especially appropriate for inclusion in time use surveys, where they can help to unpack the hedonic content of daily life. If asked every day, of either the same or comparable samples of respondents, they can be used to reveal the nature and sources of day-to-day fluctuations of moods.

Life evaluations differ from mood assessments in two key ways. First, life evaluations are much more stable, on a day-to-day basis, than are daily assessments of moods. This is shown clearly by the data from the Gallup/Healthways Daily Poll in the United States, which asks for life evaluations, based on the Cantril ladder, and for the prevalence yesterday of several measures of affect, both positive (happiness, enjoyment, and laughter) and negative (worry, sadness, and anger). Positive emotions are significantly more prevalent on weekends than on weekdays, with the reverse result holding for the three measures of negative affect. By contrast, there are no daily patterns apparent in the life evaluations drawn from the same respondents (Helliwell & Wang, 2011a, figure 1.2).

The second key difference between daily mood assessments and life evaluations is that when the same set of variables is used to explain them, life circumstances are much more closely related to life evaluations than are emotions. This difference helps to validate both measures, as theory would suggest that cognitively based evaluations of life would pay more heed to the main circumstances of life than would reports of emotions, especially where the latter relate to specific moments or days. Thus life evaluations provide more securely based estimates of the relative importance of different life

circumstances, as well as being a more informative guide to future individual decisions and a more useful tool for policy assessments.

Two more examples from SWB measurement are worth mentioning at this stage, since they may help to reassure those who fear that subjective responses may not connect closely enough to the world in which the respondents live. Many surveys ask respondents to rate the state of their current physical health on a five-point scale. The answers show a continual decline by age group. One set of surveyors, anxious to provide more precision to the question, asked respondents to rate their physical health on the same five-point scale, but to report their state of health relative to others in their own age group. The age-based decline was completely eliminated. This provides good validation for both sets of data, as it suggests that respondents were able to evaluate their own and others' states of physical health in precisely the same terms, revealing at the same time an age-based decline of subjectively assessed physical health that matches the decade-by-decade increase in health problems measured by clinical criteria.

A second example also shows how respondents are able to focus on the specifics of the question, and to answer appropriately. The World Values Survey (WVS) has in several rounds asked respondents how satisfied they are with their lives as a whole and, on a different scale and in a different part of the survey, how they rate their overall happiness.[2] Comparative modeling of the happiness and satisfaction evaluations (Helliwell & Putnam, 2004) shows the two evaluations to depend on much the same variables, in much the same way. The Gallup Daily Poll, by contrast with the WVS happiness question, asks respondents how happy they were yesterday. These answers are quite different from life evaluations collected in the same survey (Helliwell & Wang, 2011b; Kahneman & Deaton, 2010). Thus it would seem that "happiness" is capable of taking an evaluative role, as in the WVS (How happy are you about something?) and in the European Social Survey (Helliwell & Wang, 2012, figure 2.14), or a purely affective one, as in the Gallup/Healthways Daily Poll and the U.K. questions discussed below (How happy were you yesterday?). Satisfaction, by contrast, is more universally evaluative, since it necessarily refers to satisfaction with or about something.

The quartet of key questions announced by the U.K. Chief Statistician in late February 2011, to be asked annually of 200,000 respondents to the main U.K. household surveys, contains three direct measures of SWB, one evaluative and the other two emotional. The evaluative question asks respondents how satisfied they are with their lives as a whole nowadays,

on a scale running from 0 at the bottom to 10 at the top. There are then two questions on the respondent's emotions, one asking how happy the respondent was yesterday, and other asking how anxious, in both cases on the same 0–10 scale. The fourth question is not a direct measure of SWB, but instead asks "To what extent do you feel that the things you do in your life are worthwhile?" My interpretation of the four U.K. questions is that they represent an Aristotelian package centered on an overall assessment of life satisfaction flanked by examples of the pleasure/pain variables (represented by happiness and anxiety, respectively) emphasized by Bentham and the Epicureans, and the eudaimonic supports (represented by a purposive life) emphasized by the Stoics. Aristotle took a middle position, arguing that a good life requires both aspects: having good emotions and also doing the right thing.[3]

In this interpretation, overall evaluations of life satisfaction lie at the center of the measurement of SWB. Emotions are also important direct measures of SWB, whereas a variety of other measures, including sense of purpose, trust, health status, sense of belonging to neighborhoods and nations, social engagement, social supports, income, and sense of freedom need to be collected along with SWB data to help explain why life satisfaction is higher for some people and communities than for others.

What has been Learned thus Far?

This section provides a selective review of some recent SWB research results that have special salience for the design and operation of policies and institutions (see also Diener, Lucas, Schimmack, & Helliwell, 2009).

Existence of Positives Trumps Absence of Negatives

Many public institutions, and the research intended to support them, are designed to diagnose and repair things that have gone wrong. Psychology over the past half century has been almost entirely concerned with the analysis and treatment of depression. But research over the past 25 years has shown that positive and negative states of mind can have independent sources and consequences. Not only do positive and negative states of mind have different biological markers (Steptoe, Wardle, Marmot, & McEwen, 2005), but they have different impacts on health outcomes. More importantly, positive states of mind provide a more important buffer against future bad health outcomes ranging from the common cold (S. Cohen, Doyle, Turner,

Alper, & Skoner, 2003) through a wide range of sources of morbidity and mortality (S. Cohen & Pressman, 2006; Danner, Snowdon, & Friesen, 2001; Diener & Chan, 2011). Although most prospective studies have involved measures of positive and negative affect (Chida & Steptoe, 2008), in those cases where life satisfaction has been measured it also predicts longer lives (for Finnish males, see Koivumaa-Honkanen et al., 2000).

Humans are Inherently Social and Altruistic

Cross-sectional studies have consistently shown strong correlations between various measures of the existence and strength of social ties and SWB (e.g., Helliwell, Barrington-Leigh, Harris, & Huang, 2010; Helliwell & Putnam, 2004). Causal linkages in these cases almost surely run in both directions. However, when conditions are experimentally controlled, adding modest but meaningful social interactions significantly increased the SWB of seniors in a U.K. residential care facility (Haslam et al., 2010). Similarly, prospective studies show that stroke victims with more social contacts recover faster and more fully, especially if the social connections can be maintained (Haslam et al., 2008).

The basic and inherent nature of the social nature of humans is revealed by experiments showing that even just rowing in synchrony elevates pain thresholds by one third over doing the same workout in isolation (E. E. A. Cohen, Ejsmond-Frey, Knight, & Dunbar, 2010). A 50-year history of research (see Balliet, 2010, for a recent meta-analysis) shows that face-to-face communications substantially increase cooperation and trust.

Although all positive social connections are associated with higher SWB, there is a growing body of evidence, mainly based on experimental evidence, that altruism—doing things for others—has enhanced power to improve SWB, to an even greater extent than people realize. Regular peer-to-peer counseling between patients with multiple sclerosis (Schwartz & Sendor, 1999) was found to benefit the givers significantly more than the recipients. Students assigned to give money away were happier than those who spent it on themselves, and more so than they expected (Dunn, Aknin, & Norton, 2008). Comparable international research suggests that the SWB benefits of generosity are universal (Aknin et al., 2010).

Trust and Procedures Matter

It is well-established that trust and social connections are causally linked in both directions. As already noted, decades of experience and experiments

have shown that even modest increases in social connections increase interpersonal trust (Balliet, 2010). In the other direction, where there is a climate of trust, people are more willing to reach out and make connections with others (Putnam, 2000). Survey data from many countries suggests that both trust and social connections have independent linkages to SWB. Indeed, when respondents are asked to evaluate separately their trust in several different domains (e.g., in the workplace, in the police, among neighbors) their answers differ substantially, and trust in each of these dimensions is among the strongest correlates of SWB (Helliwell & Putnam, 2004). To have or not have trust in each of these key areas of life has the life satisfaction equivalent of more than a doubling of income (Helliwell & Wang, 2011a, tables 4-b to 4-d).

Trust matters for emotions as well as for life satisfaction. Data from the Gallup/Healthways Daily Poll in the United States show that most people, and especially full-time workers, are significantly happier on the weekend than during weekdays. These weekend effects are three times larger for those who work in low-trust workplaces than they are for those in high-trust workplaces (Helliwell & Wang, 2011b, figure 3.3). But happiness on the job, and hence the relative absence of a blue-all-week effect, also depend importantly on how things are done, and on the nature of social dynamics on the job. For example, weekend effects for happiness are twice as large for those whose immediate work supervisor acts like a boss, compared to one who acts more like a partner (Helliwell & Wang, 2011b, figure 3.3). The importance of trust can be seen as one facet of the frequent finding (e.g., Frey, Benz, & Stutzer, 2004) that how a policy is developed and delivered matters at least as much as the content itself.

Close-in Trumps Distant

Life is more local than most people realize. This is true both for the relative strengths of near-by and far-away trade, migration and capital movements (with the distant much less frequent than could be justified by transport costs), and for the densities of, and SWB derived from, social connections. Thus we find that while local, provincial, and national senses of belonging, and their related identities, all provide significant, and simultaneous, support for Canadian life satisfaction, a sense of belonging to the local community has the largest effect, bigger than the sum of the other two effects together (Helliwell & Wang, 2011a, table 3). In fact, it would appear that a good part of the strong life-satisfaction effect of

trust in neighbors is mediated through a sense of belonging to the local community, since the direct effect of neighborhood trust is one third less (although still highly significant, Helliwell & Wang, 2011a, table 3) when the equation also contains the respondent's sense of belonging to the local community.

How can the Results be Used to Improve Policies?

It is one thing for individuals and governments to accept that the quality of their lives depends as much or more on the quality of the social fabric as it does on their material standard of living. That realization is important, but it is far from being sufficient. It is important because unless there is a widespread recognition among the general public, and among policy makers, that there is a need for better measures of the quality of lives in neighborhoods, towns, provinces, and nations, there will be no effective demand for the collection of the necessary data, and hence no ability to conduct the research required to make policies differently. It is not sufficient, because even with demand for better data, it takes time to build the data base, and longer still to develop a firm empirical basis for better policies.

There are now many countries, either singly or in concert, interested in building a large geographically coded inventory of SWB data, along with measures of its likely supports. Even before this data is fully in hand, it is worth considering how the data can and should be used to assess policies. It is also possible to survey existing SWB research to support an early harvest of policy ideas and assessment methods. In this section, I list an example range of methods and issues illustrating how government could be delivered differently.

Benefit/Cost Analysis

The first and relatively straight-forward application of wellbeing research is to extend conventional benefit/cost analysis to include matters that have long been understood to be important, but have previously been relegated to footnotes. A recent policy evaluation by the Social Research and Demonstration Corporation (SRDC) illustrates the differences in methods and results when SWB research is used to augment benefit/cost analysis (Gyarmati, de Raaf, Palameta, Nicholson, & Hui, 2008). The Community Employment Innovation Project (CEIP) transferred randomly chosen participants from

income assistance (IA) or employment insurance (EI) to employment in community projects chosen and managed by five participating communities. For participating individuals, the CEIP

> led to longer-term increases in job quality, transferrable skills, social capital, volunteering, and small improvements in overall satisfaction with life. For communities, CEIP led to increases in organizational capacity, through the direct supply of organizational labour as well as increased volunteering by participants and board members, in addition to improvements in community-level social capital.
>
> Gyarmati et al. (2008, p. 93)

In the benchmark benefit/cost analysis, the analysis included estimates of the values of most of these benefits, but excluded individual and community-level increases in social capital in order to achieve consistency with traditional benefit/cost methods where intangibles such as these are excluded.

Adding SWB-based estimates of the additional social capital and declines in hardship for the individual participants significantly increased the benefit/cost ratios of the CEIP. The total values of the estimated community-wide increases in trust and social linkages were far larger still, so much so that they were left in an appendix, reflecting their still-preliminary status. If more secure estimates can be made of continuing improvements in community-wide social capital, it is clear, from the CEIP and other analysis, that they have the potential for being a decisively important part of benefit/cost analysis. The SRDC analysis illustrates two important features the benefit/cost analysis will require if SWB data and research are to be made central to program design and selection. The first is the documentation of SWB among participants and their communities before and after changes in the policy environment. The second is an experimental design that enables project participants to be compared with otherwise-identical controls, coupled with some convincing way to establish benchmark communities to provide an assessment base for the community-wide consequences of different ways of designing and delivering policies. Both of these requirements, and especially the latter, will be much more easily achieved if governments adopt a more step-by-step experimental process in policy design, and if national statistical agencies develop data archives deep enough to provide a larger range of choices of benchmarks against which policy experiments can be assessed.

Coping with Disasters

In 1956, the growing number of people suffering brain and nervous system damage in Minamata (a fishing village on the west coast of Japan's southern island of Kyushu) was traced to many years of mercury in the effluent from the local Chisso chemical plant. Over the following 35 years, many people died or had chronic health problems throughout their lives. Those with the disease were discriminated against, and inadequately treated, raising the extent of their losses and increasing social divisions. Only in 1990, long after a string of lawsuits laying the blame on the source factory was completed, was there a local government in place that saw the need for a radically new approach if lives were to improve in Minamata.

Over the subsequent 20 years, Minamata refashioned itself into a champion of environmentally friendly products, rediscovered its social and cultural roots, and replaced shame and blame with pride and shared wellbeing. What were the secrets to this long-delayed discovery of a new path? According to Kusago (2011), the key elements of the Minamata model, which has since been packaged and used in other countries, for earthquakes and other disasters, were strong local leadership and top-to-bottom engagement of local citizens to rebuild social ties. This has involved first a vision of an alternative (green) path, followed by implementation based on local ideas, with the ultimate goal of sustainable wellbeing.

It should not require a disaster to trigger recognition of what is needed to support sustainable wellbeing. But it might nevertheless provide a necessary jolt. The experience of Aceh (Indonesia) after the 1994 tsunami helps to illustrate this point. Despite the enormous losses of life and property, the residents of Aceh were more satisfied with their lives in 2008 than they were before the disaster (Deshmukh, 2009), because the severity of the disaster was enough to stop a bloody civil war of 30 years' duration, and to induce former enemies to rebuild their lives together. The "peace dividend" of Aceh shows the power of a disaster to reset attitudes and minds along a better path. Unfortunately, if there is not a sufficient level of shared social capital to permit cooperation to take place, then disaster can merely exacerbate existing tensions and make a bad situation worse. This was revealed by parallel analysis of the effects of the 1994 tsunami in Jaffna (Sri Lanka). In Sri Lanka, relief operations took a back-seat to the continuing hostilities, with each side wanting to avoid aid going to the other (Deshmukh, 2009).

Thus disasters provide a testing time for the social fabric. If the fabric is strong, then post-disaster cooperation gives a chance for some of the ultimate sources of wellbeing to flower. What better than to have the chance to work together in a good cause in support of others? The evidence shows that these chances do not happen automatically in the rush of modern life, and that shared activities in a good cause are even better for SWB than people realize. Hence it is not so surprising to find *hikmah* (in Achenese, "something good out of the worst"; in Arabic "collective wisdom") in the wake of a disaster.

But if the social fabric is too weak, or too badly frayed, then the shared opportunity for cooperation will be lost, and become instead another source of animosity.

Reform of Conventional Public Service Design and Delivery

Once SWB and its lessons are taken seriously, they ought to change the ways in which all public services are designed and delivered. Some of the positive consequences may flow merely from paying more attention to the opinions of those for whom the services are designed. For example, Halpern (2010, p. 42) reports that Merseyside police started a few years ago to collect data not just on crimes committed and clear-up rates but also on how satisfied citizens were with their contacts with the police. The surveys showed, to police surprise, that people cared more about whether police showed up when they said they would (a measure of trustworthiness) than about the rapidity of the response. The police were able to change their procedures accordingly, thereby increasing their efficiency and public satisfaction at the same time.

A more dramatic example, still in the field of law enforcement, is provided by the reforms of the Singapore Prison System. Because prisons are often considered social cesspits, or at least unpromising sources of increased SWB, any success there provides a powerful example. If prisons can be reformed to improve the SWB of all parties, then anything should be possible. Since 1998 the Singapore Prison Service has converted its prisons into schools for life, thereby improving the lives of inmates, prison staff and the community at large (Helliwell, 2011; Leong, 2011). The reforms embodied all of the SWB lessons described earlier in this chapter. By any measure, the results have been impressive, ranging from a one-third drop in recidivism to improved staff morale and better social connections between prisons and the rest of society.

Health care makes up the largest and usually fastest growing component of most government budgets. What does SWB research have to contribute on the design and delivery of health care? Health care has long adopted the same problem-fixing mode that characterized psychology before SWB was paid much heed. It is still mainly concerned with applying procedures and drugs to cure diagnosed illnesses. The patients are at best clients, to whom services are delivered. Their communities and their families are a complication, or part of the backdrop. The previous section alluded to the accumulating results showing that improving positive states of mind, and the social interactions that they support and are supported by, has striking impacts on health outcomes. There has been increasing study of the biological and neurological pathways that are implicated, but much less by way of experimental changes in using this knowledge to redesign health care to deliver better outcomes at a lower cost.

New Models for Local Government

The efficacy of face-to-face contacts, the SWB advantages of a local sense of belonging, and the psychological benefits of working together for the benefit of others all explain why local government is such fertile ground for the development and application of policies aimed at improving SWB.

The Young Foundation in the United Kingdom has pooled the ideas and resources of wellbeing researchers, policy makers, and three leading local authorities to form the Local Well-Being Project (Bacon, Brophy, Mguni, Mulgan, & Shandro, 2010) to design and test community activities and public services that enhance SWB. They do this both through what is done and how it is done. In all cases the emphasis is on having both design and delivery exploit and strengthen social glue. The areas of experimental application include family relations, education, health, aging, the workplace, health, sports, and the arts, essentially everything that takes place in the community.

Several metropolitan areas in Canada, including Victoria, Calgary, Vancouver, and the National Capital Region, have been bringing together stakeholder groups and social sparkplugs to envisage and enable better ways of building communities and delivering services. In the Greater Victoria region, universities, health authorities, municipal governments, foundations, and grassroots organizations started with a wellbeing survey,[4] subsequently using the results as a basis for all-party discussions of what initiatives might serve to improve wellbeing.

Improving Environmental Sustainability

Attitudes towards the natural, built, and social environments are changing, and with these changes comes the possibility of creating and harnessing new environmental norms. Conventional environmental policy often finds itself arguing about, and choosing among, taxes, regulations, subsidies, and tradable pollution permits, and the level and structure of utility prices. Although these tools, especially those that enable users to know the overall social costs of the resources they are consuming, are an essential part of the story, they ignore the all-important social norms.

It has been shown that SWB is raised when people are given the opportunity to do things for others. Actions to improve the local and global environments for the benefits of others in current and future generations fall right into that sweet spot. Such actions are most likely to be effective where they are socially connecting, demonstrably efficient, and represent voluntary actions by the givers rather than actions they are paid or forced to do.

Ian Stewart's side-yard ice rink is an inspiring example. It gives pleasure, healthy sport, and social connections to many cohorts of grateful users, and returns pleasure and good feelings to their genial icemaker. Such actions can happen anywhere, and virtuous circles can be started as simply as by random acts of picking up sidewalk litter. It takes more planning to make them a part of public policy, and even here the more local the better. The "Green Gyms" initiative of the South Tyneside Metropolitan Borough Council, centered in the most deprived wards of the borough, provides a nice example (Bacon et al., 2010, p. 84). These community-led projects include allotment development, nature reserve conservation, and restoration of community gardens and public open spaces. Similarly inspired neighborhood gardens are starting to appear all over Vancouver. These activities require leadership and supporting social norms to get started, but the individual and community-level rewards they provide—ending or reducing social isolation, building connections that increase both current wellbeing and community capacity, and increased physical activity—are likely to make them self-sustaining. With luck they provide beacons for others to adopt and improve.

Macroeconomics

There are two main ways in which SWB research has suggested alternative approaches to macroeconomic policies. The first is the use of SWB equations

to replace the empirically unfounded "misery index," which presumed that the welfare cost of one percentage point increase in the unemployment rate was assumed to equal that of an inflation rate 1% higher. The early results (Di Tella, MacCulloch, & Oswald, 2001) suggested that the welfare weight for the unemployment rate should be almost twice that for inflation. Updated results (Di Tella & MacCulloch, 2009) suggest something more like 1.6 times. Another important feature of this research is that the SWB effects of unemployment and inflation are both high in terms of GDP equivalence. Using large samples of U.S. data, Helliwell and Huang (2011) found very large negative regional spillover effects of unemployment on the SWB of those still employed. And for the unemployed themselves, the SWB effects of unemployment are much larger than can be explained by the effects of unemployment on their household incomes. The total effects on the unemployed, plus the total spillover effects on those who are not unemployed amount to 15 times the income loss to the unemployed (Helliwell & Huang, 2011). The U.S. analysis does not permit any comparable estimates of the SWB costs of inflation, but if they are half or more as great as those of unemployment, as suggested by the international evidence of Di Tella and MacCulloch (2009), then they are very large indeed. Thus unemployment and inflation, often treated as the two main proxy objectives of macroeconomics, are both very important to SWB.

The second way in which SWB research can influence macroeconomic policies and outcomes is by using research results to influence policy strategies. South Korean macroeconomic policy responses to the post-2008 global recession provide perhaps the most successful example. Korea had the largest and most integrated set of monetary and fiscal policy changes, was able to keep employment growing throughout the crisis, and yet is still on track to achieve a public debt/GDP ratio that in 2012 is expected to be the third lowest in the OECD (OECD, 2010b, figure 1.14). How could such an exceptional policy be so successful, and how did the government come to choose policies that diverged so much from its own past policies, and from what other countries were doing?

In 1997–1998, facing a similarly large drop in the external value of the Won, South Korea instituted very tight monetary and fiscal policies, leading to sharp drops in consumption and employment. This was a conventional package, at the time, for a country with a currency under external pressure. Between then and 2008, it was recognized that the predominantly growth-oriented economic policies were not producing correspondingly better lives. Per capita incomes had indeed increased several-fold over the preceding

20 years but reported satisfaction with life was declining. When the 2008 crisis hit, a new strategy was constructed. It had features that could be taken straight from an SWB playbook. Recognizing the high SWB costs of unemployment, the government acted to encourage both public and private employers to maintain employment, and to use their temporarily spare capacity to design and implement industrial changes for a green Korea.[5] "The 'grand social compact' which was agreed to in February 2009 set a guideline according to which the social partners should negotiate employment retention as a quid-pro-quo for wage concessions" (OECD, 2010c, p. 2).

In budget terms, the policy package involved expenditure increases equal to 3.2% of GDP and tax cuts equal to 2.8%, for a combined fiscal stimulus larger than that in any other OECD country (OECD, 2010a, p. 50). Expenditures to support the green employment strategy included additional public investment of 1.2% of GDP, and job support transfers to local governments and enterprises (1% of GDP for the latter), particularly of small and medium size, and transfers to public financial institutions to keep the loan taps open for SMEs (OECD, 2010a, p. 51). The tax cuts were equally for households and businesses, the latter targeted to green-related R&D and investment.

Whatever their macroeconomic consequences, the elements of the Korean package were likely to have sustained SWB very well. To keep productive groups of employees together during a temporary lull, and to provide them the capacity to move towards highly valued longer term goals at the same time, looks like a pretty sound wellbeing strategy. Did it work? It seems to have worked remarkably well. Aggregate employment, which fell 10% during the 1997–1998 crisis, grew steadily during the latest crisis, being 2% higher in early 2009 than in mid-2007. As indicated by the employment-creating features of the policy package, the Korean unemployment rate was held almost constant from peak to trough, despite a drop of more than 4% in the level of GDP, quite in contrast with the rest of the OECD (OECD, 2010c, figure 2).

Korean aggregate GDP fell by less, and grew faster after the trough, than was the case in 1997 (OECD 2010a, 45). For the OECD as a whole, growth merely paused during the 1998 crisis, while it fell by about 5% from peak to trough in the current crisis. Korean growth is the highest in the OECD, while its debt/GDP ratio remains among the lowest. This illustrates that a wellbeing-oriented policy need not come at the expense of economic outcomes. In this case Korea chose policies that could be

argued to enhance subjective wellbeing, above and beyond any economic consequences, but still left Korea at the top of the international league table for crisis and post-crisis economic outcomes. Thus more recognition of what motivates behavior, and what delivers better lives, can lead to policies that simultaneously deliver better economic and non-economic outcomes.

Conclusion

There seems to be sufficient evidence already in hand to encourage policy field trials and policy experiments implementing what is already known from SWB research. If this is so, why has so little changed? The relatively slow progress from accumulating evidence to changes in opinions, and hence to different policies and procedures, is partly due to the human predilection, evident in medicine and all sciences (Nickerson, 1998), to adhere to old ways despite the arrival of contrary evidence. Even chess masters unconsciously stop looking effectively for better strategies once they have something plausible in hand, enough so to drag the quality of their play down by three standard deviations in the skill distribution (Bilalić, McLeod, & Gobet, 2008, p. 654). This effect is pervasive, and is so hard to dislodge because decision makers are generally unaware of their subconscious biases in favor of evidence supporting the view that they already hold.

Caution may have its own rewards, however, as the inherent conservatism of science can at least reduce the likelihood of running off in all directions. But if taking SWB more seriously has the potential for increasing the quality of lives while reducing pressures on available resources, should there not at least be a stronger commitment to broaden the range of policy alternatives to include those with a strong chance of improving SWB?

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Notes

1. Stone, Schiffman, Schwartz, Broderick, and Hufford (2002) find other differences between at-the-moment assessments and subsequent diary reports.
2. The exact WVS wording is: "Taking all things together, would you say you are—Very happy, Quite happy, Not very happy, or Not at all happy."
3. This case is made more fully, with the matching references to Aristotle, in Helliwell (2003) and as applied to modern SWB measurement in Hall, Barrington-Leigh, and Helliwell (2010).
4. The results are reported at http://www.victoriafoundation.bc.ca/web/node/353.
5. "The Republic of Korea has placed the utmost priority on improving the quality of life here in Korea and first to be more effective we are first developing an index that will accurately access the level of happiness and the effects on our economy. I hope that what you discuss here at the Forum will be applicable to all countries aspiring to improve the lives of their people. And I hope that it will contribute to improving the quality of life all around the world. . . . Based on our experience, I believe that Korea can contribute to helping the Global community achieve the advancement of their economies and the quality of life. Korea has already proposed a new way forward from the global crisis. We call this the sharing of jobs and a new vision for the future called low carbon green growth. As the economy worsened many economies opted to lay off workers in massive numbers in order to survive and of course in a market economy this may be considered as something very natural but our companies in Korea chose a different path. We decided to share the burden. Employees chose to sacrifice a cut in their own salaries and companies accepted to take cuts in their own profits because they wanted to save their employees and co-workers from losing their jobs. As a result, Korea's unemployment rate is a modest 3.4% and as the forecast and the results of the third quarter show–as released yesterday–compared to the previous quarter we had a 2.9% GDP growth which is very unexpected. As you can see Korea is recovering more quickly than expected and is one of the fastest recovering economies in the world. I believe one of the reasons for this is the cooperation between management and labour. Also the Korean government is set to invest a large portion of its fiscal policy into realising our green growth vision." (excerpted from a transcription of the simultaneous translation of the opening remarks by President Lee to the OECD Third Global Forum, Busan Korea, October 24, 2009. Original text in Korean is available on request.)

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