

Working for Wellness:
Defining, Measuring, and Enhancing Employee Well-being

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B.A. Psych. Hons.

Thesis submitted in partial fulfillment of the requirements for the degree of
Doctor of Psychology (Organizational)

School of Psychology and Psychiatry

Monash University, Australia

December, 2010

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Abstract

The focus of this thesis was on the utility of the workplace in promoting employee well-being. The thesis applied principles of positive psychology (PP) to the field of occupational health psychology (OHP). Paper 1 reviewed employee well-being with a focus on both general and work-related dimensions. Paper 2 developed a niche for positive employee well-being programs. It reviewed a number of strategies for improving employee health and well-being, including occupational health and safety legislation, corporate wellness programs, worksite health promotion and disease management programs, and stress prevention. Although important, such programs do not focus on promoting *positive* psychological well-being. The utility of supplementing these approaches with positive employee well-being programs was discussed from an applied ethics perspective. Paper 3 detailed the design and evaluation of the Working for Wellness Program using a mixed method design. Outcomes were tested using a randomized control trial. Participant feedback and field notes were analyzed to determine process and impact effectiveness. Participants were recruited from a government organization ($N = 50$; 73% female, M age = 39.7 years; M tenure = 8.9 years) and randomly allocated to an intervention or control group. Subjective and psychological well-being (SWB, PWB), affective well-being at work (AWB), and workplace well-being (WWB) were assessed at pre-intervention, one week post-intervention, and at three and six month follow-ups. Results showed significant improvements in SWB, PWB and AWB, but not WWB. Program strengths were its positive focus and emphasis on group discussion. Limitations were sample attrition and a lack of mechanisms to support participant change at work. Overall, this thesis supports the importance of PP to fields of research, such as OHP, that seek to improve employee well-being and the quality of work life.

General Declaration

In accordance with Monash University Doctorate Regulation 17/ Doctor of Philosophy, Master of Philosophy (MPhil) and Doctor of Psychology regulations the following declarations are made:

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes one original paper published in a peer reviewed journal, and two unpublished publications. The core theme of the thesis is the development of employee well-being. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the candidate, working within the School of Psychology and Psychiatry under the supervision of Dr Dianne Vella-Brodrick.

The inclusion of co-authors reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.

In the case of chapters 2, 3 and 4, my contribution to the work involved the following:

Thesis chapter	Publication title	Publication status	Nature and extent of candidate's contribution
2	The 'what', 'why' and 'how' of employee well-being: A new model.	Published	Conceptual development, literature review, and primary author.
3	From non-maleficence to beneficence: Key criteria, approaches and ethical issues relating to positive employee health and well-being.	Forthcoming	Conceptual development, literature review, and primary author.
4	The Working for Wellness Program: Examining an employee well-being intervention using RCT.	Submitted	Conceptual development, design, administration, data analysis, and primary author.

I have not renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

Signed:

Date:

List of Publications Included in Thesis

(In order of appearance)

- Page, K. M. &, Vella-Brodrick, D.A. (2009). The ‘what’, ‘why’ and ‘how’ of employee well-being: A new model. *Social Indicators Research*, 90, 441-458.
- Page, K. M. &, Vella-Brodrick, D. A. (forthcoming). From non-malefeasance to beneficence: Key criteria, approaches and ethical issues relating to positive employee health and well-being. In M. Joseph Sirgy, Nora P. Reilly & Charles Gorman (Eds.), *Handbook of Quality-of-Life Programs: Enhancing Ethics and Improving Quality of Life at Work*. Springer Publishers.
- Page, K. M. &, Vella-Brodrick, D.A. (submitted). The Working for Wellness Program: Examining an employee well-being intervention using RCT. *Journal of Occupational Health Psychology*.

List of Other Publications and Presentations Completed During Candidature

(Not included in thesis)

Peer Reviewed Journals and Edited Book Chapters

Härtel, C. E. J. & Page, K. M. (2009). Discrete emotional crossover in the workplace: The role of affect intensity. *Journal of Managerial Psychology*, 24, 237-253.

Vella-Brodrick, D. A. & Page, K. M. (2009). Positive leadership: Accentuating and cultivating human resources (pp. 107-140). In J. Sarros (Ed.), *Contemporary perspectives on leadership: Focus and meaning for ambiguous times*. Prahran: Tilde University Press.

Presentations

Page, K. M. & Vella-Brodrick, D. A. (2010, Mar). *The Working for Wellness Program: Evaluation of an evidence-based employee well-being program using RCT*. Paper presented at the European Academy of Occupational Health Psychology conference, Rome.

Page, K. M. & Vella-Brodrick, D. A. (2010, Jan). *Working for Wellness: Practical and creative strategies for enhancing employee well-being*. Presentation given at the 2nd Australian Positive Psychology conference, Melbourne, VIC.

Page, K. M. & Vella-Brodrick, D. A. (2009, Jun). *The Working for Wellness Program: The malleability of employee well-being*. Poster presented at the World Congress on Positive Psychology, Philadelphia.

Page, K. M. (2008, Nov). *Workplace well-being*. Address given at Monash University's Annual Occupational Health and Safety Conference, Melbourne, VIC.

Page, K. M. (2008, Sept.). *Working for Wellness – an employee and leadership perspective*. Address given at the Happiness and Well-being @ Work Conference, Sydney, NSW.

Awards Received During Candidature

Andre Bussing Memorial Award for Outstanding Early Career Achievement: Awarded by the European Academy of Occupational Health Psychology (EAOHP) at the annual conference, held in Rome, March 2010.

Australian Postgraduate Award (APA): Three year scholarship awarded by the Commonwealth Government of Australia.

Abbreviations Used in Thesis

AI	Appreciative inquiry
AWB	Affective well-being
CHP&DM	Comprehensive health promotion and disease management
CSV	Character strengths and virtues
EAP	Employee assistance program
OHP	Occupational health psychology
OHS	Occupational health and safety
OTH	Orientations to happiness
PANAS	Positive and Negative Affect Schedule
POB	Positive organizational behavior
POS	Positive organizational scholarship
PP	Positive psychology
PPI	Positive psychology intervention
PWB	Psychological well-being
RCT	Randomized controlled trial
SDT	Self-determination theory
SHM	Sustainable happiness model
SPWB	Scales of Psychological Well-being
SWB	Subjective well-being
SWLS	Satisfaction with Life Scale
WHP	Worksite health promotion
WWB	Workplace well-being
WWBI	Workplace Well-being Index

Acknowledgments

My first acknowledgement is to my friend, Jeff McLean who brought me to Monash and introduced me to positive psychology. Thanks for starting me on my journey and being a fantastic friend and boss. Immense thanks to my thesis supervisor, and four-time co-author, Dianne Vella-Brodrick, who provided endless support and encouragement and kept me on the straight and narrow.

Most importantly, thank you to Adrian, Mum, and Reg. Adrian, it has been so special to share this journey with you. Thank you for your unconditional love and infinite belief in me. Mum and Reg, thank you for putting up with me all these years and for your constant flexibility and understanding. Thanks also to Dad, Matt, and Emily Page, and my other family, Marcia and Russell Medhurst and co. I am particularly indebted to my sister for her enviable “tech” abilities.

This thesis could not have happened without the vision and commitment of Medicare Australia, particularly Zoran Ilic, Tony Dulson and the program participants. Thank you for making this project real. Thanks also to Simon Moss, who provided statistical advice and support; Simon Albrecht and the rest of the MOP staff; and finally, to Bill Pappas, Dale Nissen and the WorkSafe crew for putting my thesis into practice.

Last but not least, thank you to my amazing support network and cherished friends: Danijela Mijic, Ashleigh Fleming, my office mate and co-conspirator, Jacolyn Norrish, Fiona Wynn, Adrian Tomy, Mariana Polzella, Kate Murray, Kate Robertson, Karen Shaw, Tammy and Dave Hershan, Jo Mitchell, Adam and Erin Harding, Pat Lee, Aida Sabic, Nathan, Lizzie, and Damian Medhurst and Janelle Morgan.

To M and R, who truly embody happiness.

Chapter 1: General Introduction

The premise of this thesis is that work can be an important source of happiness, well-being and personal fulfillment. Whilst this is an idealistic notion in some ways - not all people live to work and, perhaps, nor should they – it is an interesting and worthwhile topic that has sparked a myriad of both empirical and applied papers in recent years.

I have long been fascinated with psychological (or subjective) well-being, and, more specifically, its relationship to work. Rather than looking at the “dark side” or harmful aspects of work, I have been curious to explore how the workplace can be used to promote employee well-being, both in and beyond work. It is this question that led to my interest in positive psychology (PP) and, a few years later, occupational health psychology (OHP). This thesis represents an amalgamation of these two areas of applied research, with a specific focus on how PP can be applied in the workplace to improve employee well-being.

General Context and Background

The Promotion and Relevance of Mental Health

It is well known that depression is predicted to be the main contributor to the burden of disease by 2030 (WHO, 2008). However, minimizing depression does not guarantee good mental health, as defined by happiness, well-being or satisfaction with life; in fact, the two are only moderately positively correlated (Keyes, 2005). Keyes’ concept of good mental health or *flourishing* recognizes that optimal mental health includes both a low level of mental illness, including depression, and a high level of positive well-being. Only a small proportion of the population, at least in the US, meets this criterion (17%), with the majority of people being only moderately mentally healthy (Keyes, 2005). Mental health promotion is an important area for future

development (Keleher & Armstrong, 2005; WHO, 2005) yet is often overlooked, particularly in comparison to physical health promotion (Sturgeon, 2007). Health promotion is relevant to a broad and diverse or “general” population, and not just those who are at risk of, or already experiencing, illness (Huppert, 2005; WHO, 2009). A key part of health promotion, including mental health promotion, is to help people to have more control over, and thus optimize, their health through education and the development of life skills (WHO, 1986). As such, well-being research, which focuses on strategies that boost happiness and the development of one’s full potential, should be a priority within the health promotion paradigm.

Happiness is a core component of quality of life. Without it, people are likely to experience problems or distress in various aspects of their lives, including their relationships, their work life and their physical health (Huppert & So, 2009; WHO, 2005). The important role that mental health plays in the broader conception of health, which includes social, emotional and physical components, has been captured by the World Health Organization (WHO), which has famously claimed there is “no health without mental health” (e.g., WHO, 2005, p. 6). Even making small upward shifts in the mean level of population happiness will significantly decrease the incidence of mental illness, including depression (Huppert, 2005). Improving levels of mental capital and well-being will also help people to function more effectively, both in their jobs and the community more generally (e.g., the Foresight Project on Mental Capital and Well-being; Dewe & Kompier, 2008). People with higher levels of well-being and mental health achieve superior outcomes including better work performance, better social relationships and better physical health (e.g., Huppert, 2009; Lyubomirsky, King, & Diener, 2005; Richman, et al., 2005). Clearly mental health is an important resource that allows people to lead more successful and subjectively enjoyable lives. For these

reasons, subjective quality of life or happiness has been posited as an important complement to the standard economic metrics that are used to evaluate the development and prosperity of a society (Cummins, Lau, Mellor, & Stokes, 2009; Diener & Seligman, 2004). Projects that aim to better understand, measure and enhance emotional and psychological well-being serve an important role in mental health research – particularly health promotion research - and are a useful complement to research on mental illness.

The Role of Organizations in Mental Health Promotion

The psychosocial and physical environment of an organization plays an important role in the mental health and well-being of its employees. An organization can actively promote employee health through the provision of a healthy organizational climate, including effective leadership practices, positive work relationships, appropriate work hours and high levels of job control (Sparks, Faragher, & Cooper, 2001). Organizations can also positively affect employee health through the provision of employee health and well-being programs and various other health related policies and practices such as worksite health promotion programs and family friendly or flexible work policies. Indeed, the worksite is now recognized to be an effective avenue for promoting health, including mental health (Dewe & Kompier, 2008; LaMontagne, Shaw, Ostry, Louie, & Keegel, 2006; O'Donnell, 2001; WHO, 2000). This new trend suggests that organizations are taking increasing interest in, and responsibility towards, their employees' health. However, to date, less attention has been paid to the promotion of positive feelings and functioning at work, which is a significant omission.

Why Should Organizations Care?

There are important ethical, legal and business reasons why organizations should care about promoting positive employee well-being (Cooper & Cartright, 1994;

Cox, 1997; Macik-Frey, Quick, & Nelson, 2007; Macik-Frey, Quick, Quick, & Nelson, 2009). Firstly, *promoting employee well-being makes good business sense*, both in saving the costs associated with ill-health and injury and accruing the benefits of a healthy, engaged and productive workforce (Macik-Frey, et al., 2007; Macik-Frey, et al., 2009; Shuford, Restrepo, Beaven, & Leigh, 2009).

Secondly, *promoting employee well-being is the right thing to do*: Organizations have an ethical, legal and humanitarian responsibility to protect and promote the health of their employees (Cooper & Cartright, 1994; Greenwood, 2002; Macik-Frey, et al., 2007), which largely stems from their duty of care and the importance of giving back to employees – and not just financially. Contemporary approaches to corporate social responsibility could also encompass the promotion of general health and well-being; that is, providing employees with opportunities to improve their personal health and well-being.

Thirdly, *promoting mental health is everyone's responsibility*: To meet future health and well-being needs, various groups and stakeholders, including organizations, need to collaborate to increase community health awareness and capacity (Cox, 1997; WHO, 2005). A worthwhile goal is to prevent ill-health and increase well-being by enhancing resilience, minimizing or managing risk factors and leveraging the factors that protect health (Diener & Seligman, 2004; Macik-Frey, et al., 2007; Seligman & Csikszentmihalyi, 2000; Tetrick & Quick, 2003). Given the influence that organizational factors, and thus workplaces, can have on employee health (Danna & Griffin, 1999; Warr, 1999) and the amount of time that employees spend at work, workplaces can make a sustainable impact on the health of the community, including mental health, through worksite health promotion (Heaney, 2003).

Organization-Wide versus Individual Approaches

The intervention discussed in this thesis takes an individual level approach to promoting mental health. The focus is on training and motivating employees to engage in strategies that boost well-being. There is some debate as to whether individual or organizational approaches are more effective in enhancing employee well-being. OHP professionals often favour organization level interventions (e.g., Cox, 1997; Heaney, 2003; Noblet & LaMontagne, 2009). This is supported by research on the social and environmental determinants of employee health and the fact that organizational factors can restrict employee behavior (Cox, 1997; Heaney, 2003; Noblet & LaMontagne, 2009). To date, PP research has largely focused on individual level interventions that enhance well-being (Gable & Haidt, 2005). However, there is considerable scope and appetite for more PP-based organization level well-being research (Gable & Haidt, 2005 as per the field of positive organizational scholarship; POS). Whilst there is not yet a favored approach to developing positive workplaces, initial research suggests that positive leadership, meaningful work, and a positive organizational climate are each important for facilitating employee well-being and performance (see Cameron, 2008). The Ottawa Charter of Health Promotion recommends five key levers and/or strategies that relate to effective health promotion (WHO, 1986). These include: the development of healthy policies; the creation of supportive environments; strengthening community action; developing personal skills, and; reorienting health services. The Foresight Mental Health and Well-being project made similar recommendations, with a specific focus on the creation of healthy workplaces (Dewe & Kompier, 2008). Clearly, there is a need for both organization-wide and individual level approaches to employee well-being and health and, in fact, the two should work together. This would be considered a *comprehensive or systems approach* (e.g., see LaMontagne, et al., 2006 regarding a

systems approach to job stress). Thus, whilst this thesis generally deals with individual level strategies, largely because the research area is young, the importance of implementing positive intervention strategies at the organization level is also acknowledged. A useful step for future studies may be to investigate individual and organizational level approaches simultaneously to better understand their relative advantages.

Measuring Organizational Outcomes in Employee Well-being Research

Improving employee and organizational performance is an important area of research for OHP professionals (Schaufeli, 2004; Tetrick & Quick, 2003) and an oft-cited correlate of employee well-being (e.g., Wright & Cropanzano, 2004; Wright, Cropanzano, & Bonett, 2007). As such, investigating the degree to which employee well-being interventions can affect employee and organizational performance, as well as other organizational health and productivity metrics, is a critical issue and an important driver of the business case that supports the use of such programs. However, an important first step is to validate that positively-focused employee well-being programs are effective in meeting more proximal objectives; that is, improving employee well-being. For this reason, and because of the practical limitations associated with testing interventions in applied settings, this thesis primarily examines whether participation in a positive, strength-based employee well-being program is associated with changes in well-being. It does not measure change in performance or related metrics, such as intention to leave and absenteeism. If the program does enhance well-being, the critical next step would be to assess whether change in well-being predicts change in other employee or organizational health and performance outcomes or, conversely, whether participating in such programs directly affects such variables.

Integrating Worksite Mental Health Promotion into a Broader Mental Health System

In addition, it is important to note that work-specific, positive mental health promotion initiatives are not the whole story and should be incorporated back into other existing organizational and community initiatives. This includes: the formation of relevant government policies around positive mental health; improving the general public's mental health literacy and reducing the stigma associated with mental illness; prevention and early intervention strategies for vulnerable and at risk groups in both general and work-specific settings, and; adequate support for those suffering from mental illness and their families (Commonwealth of Australia, 2009). Importantly, improving the mental health of the population also involves strengthening the capacity of current and future mental health professionals, including their understanding of both positive and negative dimensions of mental well-being (Linley, Joseph, Harrington, & Wood, 2006), and a continual investment in best practice mental health research (Commonwealth of Australia, 2009).

Specific Context and Aims

Integrating Positive Psychology into Occupational Health Psychology

This thesis works to further integrate PP and OHP in relation to the promotion of employee well-being. In so doing, it further strengthens OHP's multidisciplinary foundation (Barling & Griffiths, 2003; Macik-Frey, et al., 2007). It also helps to progress and disseminate PP by integrating it with other fields of research (Linley et al., 2006).

Employee well-being is a core concern within the field of OHP, which is dedicated to understanding and improving the quality of work life, including worker health, safety, and well-being (Schaufeli, 2004). Whilst OHP has a dual role, in preventing illness and injury and improving employee health, traditionally, it has been

more focused on the former (Macik-Frey, et al., 2007; Tetrick & Quick, 2003).

However, in recent years, there has been a growing interest in positive approaches to employee well-being and the pursuit of organizational health and vitality (Macik-Frey, et al., 2009). Whilst a primary concern in OHP is the relationship between employee well-being and organizational outcomes, happiness is considered a valuable outcome in and of itself (Schaufeli, 2004; Wright & Quick, 2009a). As such, OHP researchers have recently called for the creation of a more positive, health-focused OHP (e.g., Macik-Frey, et al., 2007; Macik-Frey, et al., 2009; Schaufeli, 2004). Such calls highlight the utility of incorporating more PP principles and findings into OHP.

PP grew from the recognition that psychology, like OHP, had been negatively or pathologically biased (Seligman & Csikszentmihalyi, 2000). The goal of PP is thus to provide more balance to the study and practice of psychology – devoting equitable importance and attention to the positive spectrum of human experience and the alleviation of human suffering (Gable & Haidt, 2005; Linley, et al., 2006). Specifically PP is the scientific study of processes and traits that enable optimal development and well-being and, as such, allow individuals, institutions, and communities to thrive (Gable & Haidt, 2004; Seligman & Csikszentmihalyi, 2000). Linley and colleagues usefully identified four levels of analysis within PP, which include: (1) the *wellsprings* or precursors to well-being (e.g., genetics and early experiences); (2) the psychological *processes* that facilitate well-being or other markers of “the good life” (e.g., character strengths, including gratitude and optimism); (3) extra-psychological *mechanisms* that enable these outcomes (e.g., positive work environments, social relationships), and; (4) the positive *outcomes* themselves (e.g., well-being, happiness, meaning in life, health). Each of these elements is potentially useful to OHP in its quest to improve employee well-being and performance.

Research Aims

Specifically, the aims of this thesis are to:

1. Develop a positive model of employee well-being (Paper 1);
2. Discuss the need for positive employee well-being programs using an applied ethics perspective (Paper 2), and;
3. Design and evaluate a positive employee well-being program in a work setting, with the aim of enhancing both general and work-related well-being (Paper 3).

Summary of Guiding Principles

Five core principles are utilized in the pursuit of these aims, each of which is elaborated throughout:

1. Mental health is more than the absence of disease (Huppert, 2005; Jahoda, 1958; Keyes, 2005; Ryff, 1989).
2. Greater overall gains can be made to improve the mental health of a population by preventing rather than treating mental illness (Cox, 1997; Huppert, 2005).
3. A positive, strength-based approach is effective for developing employee well-being, particularly through the fulfillment of basic psychological needs (Govindji & Linley, 2007; Linley, Nielsen, Wood, Gillett, & Biswas-Diener, 2010; Ryan & Deci, 2000).
4. Ecological validity plays an important role in the development and evaluation of “real-world” intervention research (Flay, et al., 2005).
5. Programs should be evaluated comprehensively. This includes an examination of the outcome, impact, and process of implementation. In other words, researchers should ask “how and to what extent was the intervention

effective?” as well as “did the program achieve its desired objectives?” (Nielsen, Fredslund, Christensen, & Albertsen, 2006; Randall, Cox, & Griffiths, 2007; Steckler & Linnan, 2002).

Key Chapters and Papers

The remainder of this thesis proceeds as follows:

Chapter 2: A positive model of employee well-being (Paper 1; Page & Vella-Brodrick, 2009) explores positive mental health, with reference to both general and work-related well-being. It also reviews the well-being to performance link and the utility of strengths for enhancing well-being.

Chapter 3: The need for positive employee well-being programs (Paper 2) reviews other existing health and well-being approaches and develops a niche for positive employee well-being programs, using an applied ethics lens.

Chapter 4: Design and evaluation of a positive employee well-being program describes the design of the Working for Wellness program, including relevant theory, as part of an expanded methodology. It also outlines the program evaluation strategy. Paper 3 describes and evaluates the Working for Wellness Program using longitudinal data and a randomized controlled trial (RCT). The paper received the Andre Büssing Memorial Prize at the European Academic of Occupational Health Psychology conference (Rome, 2010).

Chapter 5: Integrated Discussion and Conclusion integrates and discusses the three core papers before concluding the thesis.

Chapter 2: Paper 1. A Positive Model of Employee Well-being

Contextual Information

The main aim of this paper was to critically review the construct of employee well-being. At the time, much work-related “well-being” researchers had tended to measure, and thus operationalise, well-being as anxiety, depression, burnout, fatigue, negative affect, and other related states. Whilst the onset of PP had corrected some of this conceptual confusion and encouraged a more positive approach to research in the general psychology literature, progress had been slower in the work domain. This was also observed by Wright and Quick (2009b), both pioneers in promoting positive workplace research, who noted that the positive work agenda was “greater than a trickle, but not yet a deluge” (p. 147). Whilst the number of positive organizational research studies had been increasing, largely within the fields of positive organizational scholarship (POS) and positive organizational behavior (POB), research had tended to focus on the relationship between various positive criteria and well-being rather than workplace well-being itself. Warr’s (e.g., 1987, 1990) research had been one important exception. However, whilst, Warr’s research had been both influential and relevant, it had not yet been integrated into mainstream PP literature.

This paper addressed these gaps by explicating the association between PP and employee well-being and putting forth a new model of employee well-being. Specifically, the implication of Keyes’ (2002, 2005) mental health continuum for the workplace was explored. At the time of writing the paper, Keyes’ model had significantly influenced the general well-being literature, particularly because it had united two previously disparate lines of research – the hedonic and eudaimonic perspectives - with empirical support. Inspired by this new line of research, Keyes’ model of well-being (positive feelings plus positive functioning) was expanded in Paper

1 by incorporating general well-being constructs, such as subjective and psychological well-being (SWB, PWB respectively), with work-specific well-being (Daniels, 2000; Page, 2005; Warr, 1999; Wright & Cropanzano, 2004). This led to the creation of a new, comprehensive model of employee well-being.

A second, more pragmatic, reason for this paper was to ascertain how to measure change in well-being in the core study (Paper 3). As previously noted, the overall research aim was to design and evaluate a PP based-employee well-being program. This required clear targets of change to be set prior to the design of the program. Creating a new model of employee well-being, based on the literature available at the time, also informed the choice and justification of specific measures that would be used to assess the effectiveness of the program and the design of the program itself. In addition to this, the paper makes a case as to why employee well-being is important, exploring its relationship to both performance and intention to leave.

Lastly, the paper includes a brief review of employee strengths as an evidence-based approach for developing employee well-being. The core study is extensively based on Linley and colleagues' work (e.g., Linley, 2008; Linley, et al., 2010; Linley, Woolston, & Biswas-Diener, 2009). However, as a large proportion of Linley's work was not yet (or only recently) available when this paper was written and submitted for publication (late 2007), the paper is based more on earlier models (Buckingham & Clifton, 2004; Peterson & Seligman, 2004). Greater emphasis is given to Linley's work in later chapters.

Declaration for Thesis Chapter 2 (Paper 1)

Declaration by candidate

In the case of Chapter 2 (Paper 1), the nature and extent of my contribution to the work was:

Nature of contribution	Extent of contribution (%)
Initiated paper, instigated key ideas, conducted the literature review, wrote and prepared the manuscript, sourced and decided on measures to be included, and incorporated co-author's feedback into final manuscript.	80%

The following co-author contributed to the work:

Name	Nature of contribution
Dianne Vella-Brodrick	Provided feedback on manuscript drafts, suggested potential measures to be reviewed, made final edits on paper, and submitted for publication.

Candidate's Signature		Date
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Declaration by co-author

The undersigned hereby certifies that:

1. the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of the co-author;
2. they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
3. they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
4. there are no other authors of the publication according to these criteria;
5. potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
6. the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Monash University, School of Psychology and Psychiatry, Caulfield campus
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Signature		Date
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Reprint of the published article

The ‘What’, ‘Why’ and ‘How’ of Employee Well-Being: A New Model

Kathryn M. Page · Dianne A. Vella-Brodrick

Accepted: 27 May 2008 / Published online: 1 July 2008
© Springer Science+Business Media B.V. 2008

Abstract This paper examines the ‘what’, ‘why’ and ‘how’ of employee well-being. Beginning with the ‘what’ of well-being, the construct of mental health was explored with the aim of building a model of employee well-being. It was proposed that employee well-being consists of three core components: (1) subjective well-being; (2) workplace well-being and (3) psychological well-being. Following this, the ‘why’ of employee well-being was investigated; that is, why employee well-being should be an important matter for organisations. It was argued that employee well-being is an important precursor to organisational well-being, as indicated by its links to employee turnover and performance. The next section was concerned with the ‘how’ of employee well-being; that is, how well-being can be reliably enhanced. Drawing on two models of strengths and a practice model of psychological assessment, it was asserted that strength-based development can reliably enhance employee well-being. A solid framework for understanding and measuring employee well-being is offered in the hope that it will foster a more integrated approach to assessing and optimising employee well-being.

Keywords Mental health · Employee well-being · Performance · Turnover · Strengths · Subjective well-being · Psychological well-being · Positive psychology

1 Introduction

Mental health, defined here as the presence of well-being rather than the absence of illness, has become an increasingly important consideration for both researchers and practitioners working in clinical and health contexts over the last several decades. More recently, the positive mental health movement has extended beyond clinical settings and has also found an important place in work settings. Notable developments linking well-being with organisational factors are positive organisational behaviour, which aims to foster positive

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phenomena such as hope and resilience among employees (e.g., Luthans 2002; Luthans and Youssef 2004, 2007), and positive organizational scholarship, which is the study of what is positive, flourishing and life-giving, at the organisational level (e.g., Cameron and Caza 2004; Cameron et al. 2003). However, whilst the study of well-being within the discipline of psychology has been guided by comprehensive, research-based models (e.g., Diener 1984; Keyes 2002; Ryff 1989), research on employee well-being has been limited largely because of its near exclusive focus on the measurement of employee job satisfaction (Wright and Cropanzano 1997). The aim of this paper is to address this shortcoming by examining the ‘what’, ‘why’ and ‘how’ of employee well-being and proposing a model that goes beyond job satisfaction.

Beginning with the ‘what’ of well-being, a comprehensive model of employee well-being will be created by drawing on the mental health and well-being literature. We posit subjective and psychological well-being as key criteria for employee mental health. To apply this model specifically to the domain of work, we add two context-specific constructs; namely work-related positive and negative affect and job satisfaction. Next, the ‘why’ of well-being will be discussed; that is, why employee well-being should be a key consideration for organisations. It is proposed that promoting and preserving employee mental health leads to improvements in employee performance and turnover, which demonstrates the importance of the construct. Finally regarding the ‘how’ of employee well-being, it is argued that strength-based employee development is a reliable strategy for enhancing well-being.

2 The ‘What’ of Well Workers: A Review of the Mental Health Construct

In the 50 years since Jahoda’s (1958) seminal report outlining the complexity of defining mental health, significant progress has been made towards the definition and conceptualisation of this important concept. One noteworthy development was the turn away from definitions of health as the absence of disease (Keyes 2006). Later this was cemented by the work of authors such as Diener (1984), Ryff (1989), Waterman (1993) and Ryff and Keyes (1995). Essentially they argued that mental health should be defined as the presence of wellness rather than the absence of disease.

A comprehensive example of the wellness approach is Keyes’ (2002, 2005, 2007) complete state model of mental health. Keyes’ definition of mental health requires that individuals possess symptoms of both positive feelings and positive functioning. These criteria mirror the symptoms of Major Depressive Episode (MDE), as classified by the Diagnostic Statistical Manual (DSM). To be diagnosed as mentally healthy, individuals must show: (1) symptoms of hedonia, or positive feelings about one’s life (as opposed to *anhedonia* in diagnoses of MDE) and; (2) symptoms of positive psychological functioning in life (as opposed to psychological impairment or *malfunctioning*). Within this model, those who meet the criteria for complete mental health are classified as *flourishing*. Individuals who report an absence of mental health (but not necessarily the presence of mental illness) are classified as *languishing*. Keyes’ model is based on the finding that measures of mental health and mental illness are separate but correlated dimensions. Keyes (2005) tested this hypothesis using nationally representative data drawn from the Midlife in the United States (MIDUS) study (N = 3,032; age range = 25–74 years). Mental illness was measured by the Composite International Diagnostic Interview Short Form (CIDI-SF) which detects symptoms of four clinical disorders; namely: Major Depressive Episode (MDE), generalized anxiety disorder, panic disorder and alcohol dependence during the last 12 months. Four scales were used to indicate the presence

of mental health: (1) positive affect (feeling cheerful, 'in good spirits', extremely happy, calm and peaceful, satisfied and 'full of life'); (2) life satisfaction (when combined, positive affect and life satisfaction created the global construct of hedonia); (3) psychological well-being (self acceptance, positive relations with others, personal growth, purpose in life, environmental mastery and autonomy) and; (4) social well-being (social acceptance, social actualisation, social contribution, social coherence and social integration). Results of structural equation modeling showed that the best fitting model was one where measures of mental health and mental illness were separate but correlated ($-.53$) factors. Keyes interpreted these results to mean that the constructs of mental illness and mental health are not bipolar opposites as had been previously assumed.

Keyes' (2002, 2005, 2007) diagnosis of mental health as both positive feelings and positive functioning unifies two previously disparate streams of well-being research. The first of these streams focuses primarily on the hedonic approach to happiness. According to the hedonic approach, happiness stems from efforts to maximise pleasure and minimise pain (Waterman 1993). The primary focus in this research stream is the construct of subjective well-being. Subjective well-being (SWB), known colloquially as happiness, is described as a positive state of mind that involves the whole life experience. SWB contrasts with the eudaimonic approach to happiness. This latter approach views well-being as a derivative of personal fulfillment and expressiveness (Waterman 1993), self-actualisation (Maslow 1968) and self-determination (Ryan and Deci 2001). A core construct within this approach is Ryff's (1989) notion of psychological well-being (PWB) which identifies positive psychological functioning as the key mark of good mental health. We are proposing that subjective and psychological well-being should be viewed as core components of employee mental health and represent positive feelings and positive functions respectively.

2.1 Mental Health Criteria 1: Positive Feelings

2.1.1 Subjective Well-Being (SWB)

Research suggests that SWB has three core components: high levels of positive affect, low levels of negative affect and a cognitive evaluation of one's satisfaction with their life as a whole (Diener et al. 1999, see also Busseri et al. 2007 for a recent validation of this SWB model).

The set-point theory of happiness which espouses that individual levels of SWB are not free to vary but are held at a 'set-point' has dominated several decades of research (see Headey 2008 for a review). However, recent studies have shown evidence contrary to set-point theory. For example, in a large scale longitudinal study Lucas et al. (2003) found changes in marital status were associated with long-lasting changes in life satisfaction when individual rather than average trends were examined. Similar results were found in relation to unemployment (Lucas et al. 2004). Seligman et al. (2005) and Sheldon and Lyubomirsky (2006a, b) assessed the effectiveness of five positive psychology interventions using a randomly allocated, placebo-controlled design. They collected data using an online assessment centre and a convenience sample of 577 males and females. Results showed two of the five interventions (1) using signature strengths in a new way and (2) being aware of one's blessings, led to increases in happiness and decreases in depression for at least 6 months.¹ The 'gratitude visit' exercise led to large positive changes for one

¹ Note: In this study, 6 months was the final assessment period for participants. Changes in well-being and depression may have lasted beyond this point.

month post-intervention. The two remaining exercises and one placebo control led to positive but transient effects on happiness and depression. Sheldon and Lyubomirsky (2006b) assessed the effect of a four-week happiness intervention ($n = 67$) on positive emotions, also using a randomised controlled trial. Results showed that the exercise of imagining one's best possible self led to lasting increases in positive affect. These latter authors interpreted these results to be supportive of Lyubomirsky et al. (2005) sustainable happiness model. This model asserts that happiness is the result of (a) genetic predisposition; (b) life circumstances and (c) one's intentional activities. It posits that the essential ingredient for achieving sustainable changes in happiness is one's volitional activities and habitual performance of appropriate strategies such as regular exercise, meditation and/or counting one's blessings create sustainable increases in happiness. Indeed, Sheldon and Lyubomirsky (2006a) empirically support this latter assertion. They found that participants adapted much more rapidly to changes in life circumstances (e.g., receiving an unexpected scholarship) than changes in intentional and effortful activity (e.g., taking up piano lessons or regularly working out at the gym).

These more optimistic accounts of the malleability of well-being have led a number of SWB authors to challenge the set-point theory of happiness (e.g. Diener et al. 2006; Headey 2006, 2008; Huppert 2005; Norrish and Vella-Brodrick (2008)). Diener et al. (2006), for example, recommended five key changes to Brickman and Campbell's (1971) adaptation level theory (an analogous set-point theory; Headey 2008). The revisions were: (1) that the set-point of happiness is set at a generally positive rather than neutral level (e.g., Cummins 1995, 1998); (2) there are considerable inter-individual differences in SWB set-points, largely due to genetic influences; (3) different components of well-being (i.e., positive affect, negative affect and life satisfaction) can move in different directions at different times, allowing the possibility of multiple individual set-points; (4) set-points can change under some conditions (e.g., Diener et al. 2006); and (5) inter-individual differences exist in the degree individuals adapt to objective life circumstances with some individuals habituating less than others. Although these post-hoc revisions help explain recent empirical evidence, the necessity of such revisions suggests that the theory is flawed. This point is also made by Headey (2008) on the basis of longitudinal data drawn from a large-scale German (SOEP) panel study. He highlighted a large minority of individuals whose well-being levels had changed significantly during the course of the study (commenced in 1984), some by as much as two standard deviations. On the basis of these substantial 'anomalies', Headey made strong arguments for the replacement of the set-point 'paradigm'. Such suggestions bode favourably for those interested in employee well-being, indicating that individuals, and thus employees, can volitionally achieve long-lasting upward changes in well-being.

2.2 Mental Health Criteria 2: Positive Functioning

The second criteria for mental health, as posited by Keyes' (2002, 2005, 2007) model, is that an individual reports positive psychological functioning. Although his criteria for positive functioning includes facets of both psychological and social well-being (Ryff 1989 and Keyes 1998, respectively) only the six dimensions of psychological well-being are included in the model we propose later in this paper, as Keyes (1998) specific measure on social well-being has shown poor internal consistency (i.e., alpha coefficients $<.70$ for each subscale). However, one dimension of the Scales of Psychological Well-Being, "Positive Relations with Others" assesses social well-being, hence, this important aspect of mental health will not be omitted altogether.

2.2.1 Psychological Well-Being (PWB)

One of the first attempts to explore what is meant by positive psychological functioning was that of Jahoda (1958). Jahoda reviewed and integrated various perspectives, mostly clinical, on well-being and mental health. She unearthed six healthy psychological processes: (1) acceptance of oneself; (2) accurate perception of reality; (3) autonomy; (4) environmental mastery; (5) growth and development; (6) integration of personality. Although Jahoda's conceptualisation of mental health was a significant contribution to the field, the concept was not developed further due to her inability to produce a measure (Peterson 2006). This omission was addressed with Ryff's (1989) work on psychological well-being (PWB).

Ryff's (1995) definition of PWB was heavily influenced by Jahoda's (1958) work. PWB includes six core well-being dimensions: self acceptance, purpose in life, environmental mastery, positive relations with others, autonomy and personal growth. Taken together, these six dimensions "encompass a breadth of wellness that includes positive evaluations of one's self and one's life, a sense of continued growth and development as a person, the belief that life is purposeful and meaningful, the possession of good relationships with other people, the capacity to manage one's life and the surrounding world effectively, and a sense of self-determination" (Ryff 1989, p. 99).

Although there has been some vigorous debate about the validity of the PWB construct as measured by Ryff and Keyes (1995) particularly relating to the abridged scale (e.g., Abbott et al. 2006; Springer and Hauser 2006; Springer et al. 2006), some studies have demonstrated the validity of the PWB construct. For example, Keyes et al. (2002) found that PWB was distinct from the construct of SWB. They modelled the latent structure of the two well-being constructs using a national sample of 3,032 Americans (aged 25–74 years). Factor analysis revealed two correlated (.45) but empirically distinct factors. While none of the SWB facets (life satisfaction, PA and NA) loaded on the PWB factor, three PWB dimensions loaded on both factors (self-acceptance, environmental mastery and positive relations with others). These findings make sense; possessing self acceptance, environmental mastery and positive relations could reasonably be expected to create feelings of both hedonic pleasure and eudemonia. In contrast, the dimensions of purpose in life, autonomy, and personal growth are more existential in nature, thus fitting more closely to the notion of personal fulfilment or eudemonia.

The relationship between subjective and psychological well-being was also assessed by Ring et al. (2007). These authors used a sample of 136 students to assess the relative impact of SWB and PWB on individuals' quality of life (QOL) assessments. An additional aim was to replicate Keyes et al.'s (2002) findings. Their results confirmed Keyes et al.'s model and explained just over 40% of the variance in participant's individual QOL ratings. They also extended Keyes et al.'s results with the finding that SWB mediated the effect of PWB on QOL assessments.

Despite some overlap between the constructs of PWB and SWB, some results support their distinctiveness. This is evidenced through their having differential patterns of correlations with socio-demographic factors (e.g., age, education), and personality. Keyes et al. (2002) found adults with high levels of both SWB and PWB were more likely than adults with low scores on both scales to be highly educated and older. Individuals who were high on SWB but not on PWB were likely to be older, but were not significantly different from those scoring low on both variables in terms of education. In contrast, individuals high on PWB but low on SWB were more likely to be highly educated, but were not necessarily older.

2.3 Additions to Keyes' Complete Health Model: Context-Specific Measurements of Employee Well-Being

Having reviewed what is meant by subjective and psychological well-being, an important question remains: to what degree do such judgements reflect our well-being at work?

2.3.1 *Subjective Well-Being at Work*

The degree to which one's satisfaction with their job contributes to their overall life satisfaction has been an important and well-researched topic within the psychology literature. Some speculation surrounds the causal ordering of these two constructs; some believe life satisfaction is a determinant of job satisfaction (whereby overall life satisfaction 'spills over' into satisfaction with life domains) whilst others believe job satisfaction is one of the determinants of overall life satisfaction (Rode 2004). Although intuition would support the two being strongly and positively related (much like the contentious happy/productive worker thesis which is discussed later), results have generally found only a modest correlation between the two (e.g., Judge and Watanabe 1993; Rode 2004). For example, Rice et al. (1980), in a meta-analysis of 23 studies, found a correlation of .30. Whilst this work may be criticised in terms of its exclusive focus on the cognitive component of SWB (the correlation between the two would perhaps increase if affect was also considered), it lends preliminary support to the assertion that overall happiness is not an adequate representation of happiness at work. Therefore, whilst SWB is likely to contribute unique variance to employee well-being (most probably due to their mutual dependence on positive and negative affect), additional variance may be explained if such scales were partnered with those specifically measuring well-being at work.

The assertion that context-specific measures of well-being are necessary to capture the subtleties, complexities and variation of employees' cognitive and affective experiences at work has been made by several authors (e.g., Daniels 2000; Warr 1990) and aligns with the Abstract-Specific Hypothesis which claims that what respondents attend to when asked questions concerning the quality of their lives is dependent on how abstract or specific the mode of measurement is (Cummins et al. 2002; Davern et al. 2007; Schwarz and Strack 1999). People do not thoroughly evaluate all aspects of their life when answering global or abstract questions such as 'How satisfied are you with your life as a whole?' Instead, they make relatively fast decisions via cognitive short cuts called heuristics (Tversky and Kahneman 1974). For example, Schwarz and Strack found that people tend to rely on their current mood when responding to well-being assessments. As the level of question specificity increases, however, individuals may attend more specifically to the domain in question, such as that of work, and rely less on heuristic judgements, such as current mood. As such, utilising both work-related and general well-being measures is likely to yield more accurate assessments of employee well-being than when using SWB measures alone.

A number of context-specific measures and models exist that specifically assess happiness at work. These models, however, represent competitive rather than complementary measures of the construct. The historical approach, for example, has been to assess employee job satisfaction, either globally, or as a summation of satisfaction with various job domains (see Spector (1997) for a review). However, this approach has recently been criticised as being an inadequate operationalisation of happiness at work (e.g., Wright and Cropanzano 1997, 2004). These latter authors argued that researchers should replace typical job satisfaction measures with measures of dispositional affect. Warr (1987, 1990)

and Daniels (2000) have adopted a similar approach to Wright and Cropanzano (1997, 2004). Rather than measuring employees' general or dispositional affect, however, they assessed employees' work-related affect. They asserted that such a measurement was a more specific assessment of well-being at work than measures of general affect. In recent years, authors such as Cotton and Hart (2003) have employed a multi-measure approach. Cotton and Hart operationalised employee well-being as consisting of both positive and negative affect (termed morale and distress respectively) and cognitive evaluations of job satisfaction.

We therefore argue that employee well-being be measured through SWB (conceptualised as life satisfaction, positive and negative affect), PWB, work-related affect, and job satisfaction. Although a large body of research has not supported job satisfaction as a valuable predictor of positive organisational criterion such as performance (e.g., Judge et al. 2001), a recent study by Wright et al. (2007), who were originally some of the strongest critics of job satisfaction, gives a more optimistic account of its predictive validity. Taking a new approach to the happy/productive worker thesis, these authors found that job satisfaction was a valid predictor of performance. However, this effect was moderated by employee well-being, which they operationalised as context-free affect. Taken together, these results provide preliminary support for the inclusion of job satisfaction as one of the dimensions of employee well-being.

Evidence suggests that work-related affect would also aid the prediction of employee well-being. Two work-specific models of affect have been posed by Warr (1987, 1990) and Daniels (2000). Warr's model of affect describes affective well-being in terms of two diagonal axes of the circumplex model; that is, anxious-content (tense, uneasy, worried, calm, contented, relaxed) and depressed-enthusiastic (depressed, gloomy, miserable, cheerful, enthusiastic, optimistic). The job-related items were preceded by the question: "Thinking of the past few weeks, how much of the time has your job made you feel each of the following?" Warr (1990) argued that his model of affective well-being was more relevant to the context of work than the PANAS due to the specific focus of the preface and the item content. Warr also criticised the PANAS for covering only two of the four circumplex quadrants (this criticism was also subsequently made by other authors, for example, Wright and Cropanzano 1997). Warr tested his model of affective well-being using an occupationally diverse sample of working adults ($n = 1,686$). Patterns of correlations with demographic and occupational factors revealed evidence of construct validity. For example, higher occupational levels were correlated positively with depression-enthusiasm but negatively with anxiety-contentment. That is, higher occupational levels showed more positive and negative arousal, perhaps reflecting the higher level of cognitive requirements for these jobs.

However, we argue that Warr's (1990) model is limited by his decision not to include the arousal dimension of affective well-being. Examining only a subset of employees' affective well-being does not make substantive sense; employees are likely to experience a diverse range of emotions at work, each of which is potentially important for the prediction of valued organisational outcomes. As such, we argue that Warr's model may not have strong predictive validity.

A more comprehensive model of affective well-being is Daniels' (2000) approach to work-related affect. His model depicts five axes on the circumplex model; namely: anxiety-comfort, depression-pleasure, bored-enthusiastic, tiredness-vigour and angry-placid (six-items per axis). Items were prefaced with a similar question to that used by Warr (1987, 1990). However, participants in Daniels' study were asked to report work-related affect from the past week, rather than the past few weeks. Daniels used confirmatory factor

analysis to assess four alternative structures of the scale. Two samples were utilised: social workers ($n = 871$) and university workers ($n = 1915$). Both samples supported a five-factor solution (i.e., one factor per axis). Second-order factor analysis revealed two superordinate factors which corresponded with negative and positive affect. These higher order factors accounted for the relationships amongst the five first-order factors. Internal reliabilities of the subscales ranged from .79 to .88 in the two samples. Therefore, Daniels' model, in addition to job satisfaction, would complement measures of SWB in an employee well-being model. Together, job satisfaction and work-related affect may constitute an employees' workplace well-being (WWB).

2.3.2 Psychological Well-Being at Work

As yet, no comparable scale or construct exists that assesses positive psychological functioning in the workplace. Although it would be useful to tailor Ryff's (1989) PWB scale to apply specifically to the workplace (e.g., sense of purpose at work, positive relations with colleagues etc.), substantial validation would be required. However, intuitively all the domains of PWB could plausibly be filled through work. Therefore it is proposed that PWB may be sensitive to changes in employee well-being. This proposition, however, should be tested in future research.

3 The 'Why' of Well Workers: Employee Well-Being and its Link to Turnover and Performance

It is argued that promoting and preserving employee mental health leads to marked increases in organisational health, as indicated by both performance and turnover. This aligns with Cotton and Hart's (2003) occupational health model which espouses that employee well-being, operationalised as both positive and negative affect, is strongly linked to organisational health via an interaction between individual and contextual variables. The links between well-being and both retention and performance will now be briefly reviewed.

3.1 The Well-Being-Retention Link

Turnover is an important issue for organisations today, largely due to its significant business costs. According to Cascio's (2003) formula, the cost of losing an employee can range between 1.5 and 2.5 times the departing employee's annual salary. Objective measurements of turnover are generally achieved through an assessment of company turnover statistics, with 15% being the generally accepted benchmark (Steel et al. 2002). Retention may also be assessed subjectively by asking employees about their intention to leave an organisation. A large-scale meta-analysis by Steel and Ovalle (1984) found a weighted average correlation of .50 between intentions to and actual turnover. However, irrespective of whether intention to leave predicts actual turnover, employee's who harbour such attitudes are not likely to exhibit high levels of motivation or performance at work. As such, a healthy organisation is likely to be one in which employees intend to continue rather than cease their employment.

A growing body of evidence suggests that employees' intention to turnover is related to the absence of work-related PA (i.e., languishing) rather than the presence of work-related

NA (i.e., ill-being). In a controlled laboratory study, Shoenfelt and Battista (2004) found that positive job satisfaction and mood states reduced turnover intentions in a sample of 154 undergraduate students. This relationship was not observed in relation to neutral or negative mood states/satisfaction. In a sample of police workers, Hart and Cooper (2001) found that employee PA, which they called morale, was negatively and moderately correlated with withdrawal intentions ($r = -.38$). Employee NA, however, which they termed distress, was not related to withdrawal intentions.

In a more recent study, Wright and Bonett (2007) assessed the relationship between job satisfaction, well-being and voluntary turnover in a sample of 112 managers. They hypothesised that well-being, operationalised as employees' general affect, would moderate a relationship between job satisfaction and job performance. Specifically, they expected that individuals with low levels of well-being would be more likely to leave their organisation as a result of job dissatisfaction. This prediction was supported. In addition, both job satisfaction and well-being showed significant main effects on employee turnover ($r = -.25$ and $-.39$ respectively). Similarly, Judge (1993) found that employees' affective disposition moderated the relationship between job satisfaction and voluntary turnover; as was noted earlier, research suggests that well-being is primarily driven by one's dispositional affect. However, in contrast to Wright and Bonett's findings, the relationship between job satisfaction and turnover was strongest for individuals with a positive disposition. That is, employees' who were pre-disposed to view life positively were more likely to quit their job when they were dissatisfied with it. Such findings lend further support to the inclusion of both work-related affect and job satisfaction (WWB) as dimensions of employee well-being.

3.2 The Well-Being-Performance Link

The presumption that happy workers are productive workers, often termed the happy/productive worker thesis, has spanned several decades of organisational psychology research and practice (Staw 1986). Until the late 1990's this hypothesis was operationalised and tested by correlating measures of job satisfaction and performance. Although conceptual evidence seemed to support a relationship between these two constructs, meta-analyses only weakly supported the hypothesis (e.g., Brayfield and Crockett 1955; Iaffaldano and Muchinsky 1985; Judge et al. 2001). The largest and most rigorous meta-analysis on the topic was conducted by Judge et al. (2001). They reviewed correlations from 312 samples ($N = 54,417$), finding a true score correlation of just .30 between job satisfaction and job performance.

The 1990s saw a new wave of happy/productive worker research. This movement contended that researchers had not found correlations between job satisfaction and performance because of the erroneous belief that job satisfaction equates to happiness (Cropanzano and Wright 1999; Wright and Bonett 1997; Wright and Cropanzano, 1997, 2000, 2004; Wright and Staw 1999). Wright and Cropanzano (1997) argued that 'happiness' be assessed through an employees' sense of well-being, as measured by Berkman's (1971) psychological well-being scale (described in more detail shortly). They tested this assertion in two separate samples (study 1: $n = 47$ human service employees; study 2: $n = 49$ public sector professionals). Results supported their hypothesis. Well-being, but not job satisfaction, was correlated with performance in both studies ($r = .32$ and $.44$ for studies 1 and 2 respectively), when demographic variables (e.g., age, gender, tenure) were controlled. In a later study using a sample of human service workers ($n = 47$) and a sample

of juvenile probation officers ($n = 37$), Wright and Cropanzano (2000) also controlled employees' level of job satisfaction. Results showed that SWB contributed unique variance to the prediction of job performance over and above that attributable to job satisfaction and demographic variables ($r = .32$). Job satisfaction was not related to job performance ($r = -.08$). In a subsequent study, the authors also showed that well-being predicted performance up to a year after well-being was reported ($r = .36$).

Although Wright, Cropanzano and colleagues' findings show some support for a relationship between well-being and performance, the reported correlations are not markedly higher than the true score correlation found by Judge et al. (2001) in their meta analysis of the job satisfaction-job performance relationship. This calls into question whether their assessment of the relationship is a significant improvement upon previous conceptualisations of the happy-productive worker thesis. One possibility for the modest correlations found by Wright, Cropanzano and colleagues is that their conceptualisation of happiness at work is still not sufficient. In each of their studies on the happy/productive worker thesis, these authors used Berkman's (1971) eight-item measure of psychological well-being. This measure is thought to assess affective disposition via the unpleasantness-pleasantness dimension of the circumplex model (Wright and Staw 1999). It asks respondent's to report how often they have felt very lonely or remote from other people", "depressed or very unhappy", "bored", "so restless you couldn't sit long in a chair", "vaguely uneasy about something without knowing why", "particularly excited or interested in something", "pleased about having accomplished something", and "on top of the world". This conceptualisation and measure does not align with the vast SWB literature. As discussed earlier, SWB is generally defined as the presence of life satisfaction and positive affect, and the relative absence of negative affect (Diener et al. 1999). In line with this definition, SWB research generally captures SWB through both the Satisfaction with Life Scale (Diener et al. 1985) and the Positive and Negative Affect Schedule (PANAS, Watson et al. (1988)). Whilst they do not directly account for their departure from previous SWB literature, Wright and colleagues do address their decision not to use the PANAS (see Wright and Staw 1999). According to these authors, a fundamental difference between Berkman's measure of psychological well-being and the PANAS is that the two measures assess different dimensions of the circumplex with the PANAS focusing on activation and Berkman's measure focusing on pleasantness. In a study that compared the effectiveness of these two approaches to measuring well-being, they found that the PANAS did not significantly predict job performance. Confirming their previous findings, Berkman's measure did predict job performance (Wright and Staw 1999).

Although Wright, Cropanzano and colleagues have found significant correlations between well-being and performance (e. g., Wright and Staw 1999), we believe correlations would be strengthened if well-being was defined more comprehensively and included both general and work specific indicators. It is proposed that both work-related affect (e.g., Daniels 2000 model) and job satisfaction also be assessed when examining employee well-being. Whilst there are currently no measures of an employee's positive functioning at work, Ryff's (1989) psychological well-being model is likely to be relevant to the workplace. As such, employee happiness at work may be represented by employees' SWB, PWB and WWB (refer back to Fig. 1). In reference to Wright and Staw's (1999) argument that the PANAS does not adequately predict employee performance, readers should be reminded that Daniels' (2000) measure of work-related affect includes all four quadrants of the circumplex. It also assesses the two higher-order factors of positive and negative affect. As such, it is likely to provide a more adequate representation of work-related affect than either the PANAS or Berkman's (1971) scale. Additionally, although evidence has historically not found job satisfaction to be a useful predictor of performance, a recent study by Wright et al. (2007) had shed new insight

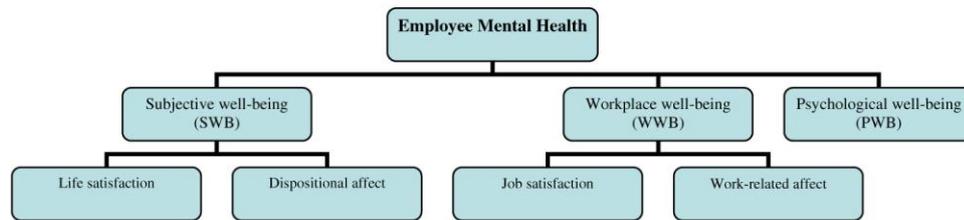


Fig. 1 Model of employee mental health, which consists of three core components: An employee's subjective well-being, workplace well-being and psychological well-being. *Notes:* As per Ryff's (1989) conceptualisation, PWB consists of six dimensions: self acceptance, positive relations with others, environmental mastery, autonomy, personal growth and purpose in life. For simplicity, these dimensions do not appear in the diagram. Both dispositional affect and work-related affect consist of positive and negative components

into this phenomenon. In a study of 109 managers employed by a large customer service company, they found that job satisfaction did predict performance. The key difference from past studies however (and perhaps an explanation for previous non-significant findings) was that job satisfaction only predicted the performance of employee's with high levels of well-being (measured as dispositional affect). That is, employee well-being moderated the relationship between job satisfaction and performance. Although this finding should be interpreted with caution until replicated in a larger sample, it provides additional support for the inclusion of job satisfaction in an employee well-being model.

4 The 'How' of Employee Well-Being: The Strength-based Approach to Enhancing Well-Being

Although much research has been conducted into the causes and correlates of well-being, very little research has focused on ways in which well-being can be reliably enhanced (Sheldon and Lyubomirsky 2006a). Still fewer researchers have specifically investigated how to enhance well-being in the workplace (notable exceptions are research by the Gallup Organization; see Harter et al. (2003) for a review; and Cotton, Hart and colleagues; see Cotton and Hart (2003) for a review). An area that looks particularly promising as a means to enhancing employee well-being is the study of strengths.

4.1 Conceptual Evidence for the Utility of Strengths

Several theories support the conceptual link between strengths and well-being. One such example is Deci and Ryan's (1985) self-determination theory. Research on self-determination theory examines the factors that facilitate intrinsic motivation, self-regulation and well-being. The concept of strengths fits well with this paradigm. Specifically, strength-based employee development may enhance employees' ability to meet their psychological needs for competence, autonomy and relatedness; according to SDT, when behaviour is regulated for the fulfilment of these innate needs, an individual is able to achieve more effective functioning, leading to psychological growth and well-being (Ryan and Deci 2000). Research by Sheldon and Lyubomirsky (2006a, b) on the concept of self-concordant motivation also supports strength-based development as an employee well-being enhancement strategy. These authors assert that one is more motivated to achieve goals that are congruent with one's own values. As such, individuals whom primarily focus their effort on enhancing natural

strengths may be more likely to feel the intervention is self-concordant, leading to better adherence to the intervention, and more positive outcomes. Csikszentmihalyi's (2002) flow theory aligns with this concept. This theory asserts that optimally balancing one's skills with the challenges of a task creates feelings of flow—an innately pleasurable state characterised by intense feelings of involvement.

Predominantly, research into the utility of strengths has been guided by one of two frameworks: the character strengths and virtues (CSV) classification by Peterson and Seligman (2004) and the Gallup Organization's strength framework (Buckingham and Clifton 2001). The CSV classification is based on the tenets of positive psychology; a scientifically-driven field of research and practice that investigates "the study of positive subjective experiences, the study of positive individual traits, and the study of institutions that enable positive experiences and positive traits" (Peterson and Seligman 2004, p. 5). The CSV framework was developed to answer questions relating to the second of these topics: the study of positive character traits. It comprises 24 character strengths such as 'zest, enthusiasm and energy', 'bravery and valour', and 'persistence, perseverance and industriousness'. Strengths are thought to exist ubiquitously across cultures and are associated with feelings of fulfilment and eudemonia.

The Gallup strengths framework (Buckingham and Clifton 2001) is a more concrete model of strengths than the CSV and is believed to represent *situational themes*; that is, "specific habits that lead people to manifest strengths in a given situation" (p. 14) such as work. Hodges and Clifton (2004) defined a strength as "the ability to provide consistent, near perfect performance in a given activity" (p. 218). Strengths, however, are not inborn. Rather, strengths are developed on the basis of the development of talent. Talents are naturally occurring patterns of thought, feeling or behaviour, and are represented via the 34 themes (e.g., 'adaptability', 'command', 'positivity'). For a talent to become a strength, however, it must first be identified and then refined and developed with the appropriate skills and knowledge.

A lesser known model of strengths that may be useful in the current context is Lopez et al.'s (2003) practice model. Rather than setting out a specific strengths framework, these authors put forth a practitioner model which outlines how practitioners can utilise clients' strengths. In contrast to both the CSV and the Gallup strengths framework, these authors posit that practitioners should consider clients' weaknesses as well as strengths. They also assert that behaviour should be context specific as the environment plays a role in how a strength manifests.

Although Snyder et al.'s (2003) model was developed within the context of clinical or counselling psychology, their work is highly relevant to organisational psychology where employees' are equally in need of well-being interventions. Work by Keyes (2002), for example, found that nearly as many adults suffered from the absence of mental health (i.e., *languishing*) as the presence of mental illness (12.1 and 14.1%, respectively). Both groups were related to higher levels of work absenteeism, psychosocial impairment and distress, relative to flourishing individuals (i.e., those with complete mental health). In the same study, just over 17% of the population met the criteria for complete mental health (i.e., positive feelings plus positive functioning). The large majority of adults (52.4%) were considered moderately mentally healthy. These figures were drawn from a nationally representative study of adults aged between 24 and 75 years (N = 3,032), which provides evidence for their robustness. Taken together, these findings highlight the need for well-being interventions to target languishing employees as well as those with mental illnesses. Focusing on employee strengths, as well as problem areas, may prove a very useful means to approach such interventions.

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4.2 Empirical Evidence for the Utility of Strengths

A growing body of empirical evidence supports the use of strengths to facilitate well-being. For example, in their review of the effectiveness of positive psychology interventions, Seligman et al. (2005) found that participants' directed to utilise their character strengths in a new way, every day, for one week experienced increases in well-being and decreases in depression for up to 6 months. This finding is congruent with Peterson and Seligman's (2004) initial expectations that exercising one's character strengths leads to feelings of fulfilment akin to the notion of eudaimonic well-being. As previously described, eudaimonic well-being is thought to stem from feelings of being true to the self (Waterman 1993). Given that one's character strengths are indicative of one's authentic self (Peterson and Seligman 2004) it is intuitive that better understanding and utilisation of one's signature strengths will enhance feelings of psychological well-being. Positive changes in general and work-related affect may also be expected.

The Gallup strengths framework also has empirical support (e.g., Clifton and Harter 2003; Harter et al. 2002, 2003; Hodges and Clifton 2004). These studies show strong links between strengths-based development and employee engagement (which Harter et al. 2003, described as being analogous to the concept of employee well-being). Clifton and Harter (2003), for example, meta-analysed the findings of 65 firms involved in employee engagement interventions. Of these organisations, four had utilised strength-based interventions (study group) whilst the remaining 61 had not (control group). Results showed substantial support for the association between utilising employee strengths and employee engagement with the study group reporting significantly higher levels of engagement than those in the control group from year one to year two ($d = .65$). This effect was further enhanced from year one to year three ($d = 1.15$). Utility analyses showed an increase in annual per employee productivity of more than US\$1000 (i.e. US\$1 million for a company of 1000 employees). Research has also shown that engagement is a significant predictor of employee turnover ($p = -.30$) and business-unit performance ($p = .38$). Again assigning a dollar value to these effects, utility analysis revealed that highly engaged business units accrued \$80–\$120 K more per month than the least engaged business units (i.e., \$960 K per year) (Clifton and Harter 2003).

4.3 An Important Point Regarding Weaknesses in Strength-based Models

Positive psychology is just as focused on human illness, disease and malfunction as it is on strengths, virtues and fulfilment. Rather than replace the illness-focused model of psychology, the positive psychology movement aims to provide a greater balance to research and practice within the field, whereby both health and illness are considered (e.g. Keyes 2002; Lopez et al. 2003; Ryff 1989; Seligman et al. 2005). An important component of the strengths versus weaknesses debate is their roots in positive and negative affect. Whilst focusing on one's strengths is likely to engender positive feelings such as joy or happiness, focusing on one's areas of weakness may engender negative feelings such as frustration, anxiety or irritation. According to research by Fredrickson and Losada (2005), an individual's experience of affective (i.e., emotionally laden) events accrues over time. This 'build up' becomes a *positivity ratio* or a ratio of good to bad events. Their research suggests that a positivity ratio of between 7:1 and 3:1 predicts flourishing, or complete mental health.

The effect of the positivity ratio on team performance indicators has also been investigated. Losada and Heaphy (2004) observed the interactions of teams in team meetings. Sixty teams of employees (eight employees per group) were drawn from a large company.

Speech acts (i.e., phrases or sentences) occurring within each team were observed and coded by the research team along three bipolar dimensions: (1) positivity to negativity (e.g., encouraging versus disparaging remarks amongst team members respectively); (2) inquiry to advocacy (e.g., exploring versus supporting a proposal, respectively); (3) other to self (e.g., speech act of group versus speech act of a speaker). Each team was then independently classified as being high-performers (15 teams), medium performers (26 teams) or low performers (19 teams) on the basis of objective data such as profitability, customer satisfaction and 360 degree evaluations. It was predicted that teams showing higher positivity to negativity ratios, comparable inquiry to advocacy ratios and comparable other to self ratios, would fall into the high performing category. Teams who showed higher negativity to positivity ratios and unequal inquiry to advocacy and other to self ratios, were predicted to fall into the low performing category. All other teams would fall in the medium performer category. These hypotheses were supported. Specifically, results suggested that a 5:1 ratio of positive to negative speech acts characterised high performing teams. Losada and Heaphy inferred that positive speech acts in team interactions broaden emotional space allowing the possibility of action. In contrast, negative emotional acts restrict emotional space and close possibilities for action. These conclusions further support the ideal positivity ratio suggested by Fredrickson and Losada (2005). Together, these studies suggest that an effective well-being intervention may be one in which employees' focus approximately 5:1 on developing strengths and weaknesses, respectively.

5 Summary and Conclusion

The aim of this paper was to expand the mental health literature by reviewing the 'what', 'why' and 'how' of employee well-being. Specifically, three topics were addressed: (1) what it is that constitutes employee well-being; (2) why employee well-being is important for organisations and; (3) how well-being can be reliably enhanced. First it was argued that employee well-being consists of subjective well-being (life satisfaction plus dispositional affect), workplace well-being (job satisfaction plus work-related affect) and psychological well-being (self acceptance, positive relations with others, environmental mastery, autonomy, purpose in life and personal growth). Following this, the 'why' of employee well-being was examined. Two core criteria of organisational well-being were posed: low employee turnover and high employee performance (Cotton and Hart 2003). Strong, negative correlations were found between well-being and turnover. Although moderate, positive correlations were found between well-being and performance, it was argued that these correlations would increase if well-being was conceptualised more comprehensively. Specifically, it was argued that employee well-being should be conceptualised on the basis of the model described here. The next section examined how well-being can be reliably enhanced. It was asserted that strength-based employee development would provide an effective means for fostering well-being. Such an intervention should focus on both strengths and weaknesses with a positivity ratio of 5:1. This comprehensive operationalisation of well-being in the workplace represents an integration and extension of what previous researchers have undertaken in the field. Uniting various streams of research on the topic may allow researchers to progress the area at a more rapid pace. It may also lead to greater agreement regarding the conceptualisation of employee well-being.

Employee well-being is an important academic and practical pursuit due to its links to performance and turnover and may prove to be a valuable tool for demonstrating return on investment (ROI) for employee well-being enhancement programs. Furthermore, such a

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Employee well-being is an important academic and practical pursuit due to its links to performance and turnover and may prove to be a valuable tool for demonstrating return on investment (ROI) for employee well-being enhancement programs. Furthermore, such a

model, and its associated measures, may be used by practitioners to track employee reactions to workplace changes in management or HR policy. Thus, this paper may foster increased recognition of the importance of employee mental health. This should not imply, however, that the construct is not important in and of itself.

In the last several years, the world has seen a trend towards more socially-based indicators. Similarly, social metrics, such as employee well-being, would also complement more dollar-based metrics in the business world. Continual research on the causes, correlates and consequences of employee mental health will lead to additional insight into the factors that may enhance employee well-being. Such a task is socially as well as scientifically valuable.

This paper examined one potentially important means to enhancing employee well-being—employee strengths. However, strength-based development is not necessarily the only means for enhancing employee well-being. Others have also examined the potential utility of expressing kindness and gratitude (e.g., Norrish and Vella-Brodrick (2008)), visualising best possible self (Sheldon and Lyubomirsky 2006b) and savouring (Bryant and Veroff 2007). Authors working on positive organizational behaviour (e.g., Luthans and Youssef 2007; Youssef and Luthans 2007) and positive organizational scholarship (e.g., Cameron and Caza 2004) have also made significant progress in this regard. It is hoped that this paper may add to what is fast becoming an 'upward spiral' of research aiming to improve quality of life by offering a solid framework for understanding and measuring employee well-being.

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Chapter 3: Paper 2. The Need for Positive Employee Well-being Programs

Contextual Information

In the previous paper, the construct of employee well-being was explored from a PP perspective. Building upon Keyes' (2002, 2005) model of complete mental health and earlier approaches to employee well-being, a theoretical model of employee well-being was presented that included both general and work-specific well-being indices. Paper 2 (an edited book chapter)¹ identifies a niche for a PP-based employee well-being program. Part one of the book chapter explores various approaches to improving employee health and well-being, incorporating both physical and psychological/social dimensions of health. This includes a brief look at occupational health and safety legislation, corporate wellness programs, the systems approach to job stress, and comprehensive health promotion and disease management programs. A gap in the area of positive psychological health promotion is identified, and, later, forms the justification for developing and testing the Working for Wellness Program (Paper 3). This leads to a discussion of PP interventions and important explanatory theories, including SDT (Deci & Ryan, 1985; Ryan & Deci, 2000) and the SHM (Lyubomirsky, Sheldon, & Schkade, 2005; Sheldon & Lyubomirsky, 2006). It also provides an opportunity to discuss the core activities used in the Working for Wellness Program, namely: knowing and using strengths, striving for self-concordant goals, getting into flow, and cultivating relationships (note: Wrzesniewski & Dutton's, 2001, notion of *job crafting* was a later addition to the program and thus is not included in Paper 2; more information on job crafting is provided in Paper 3).

¹ The paper was an invited contribution to an edited book on ethics and employee well-being (*Handbook of Quality-of-Life Programs: Enhancing Ethics and Improving Quality of Life at Work*, Nora P. Reilly, Joseph Sirgy and Charles Gorman, Eds. Forthcoming).

Part two of the book chapter makes a case for the importance of positive employee well-being programs from an applied ethics perspective. Given the intrinsic value of well-being and mental health, ethics should play a pertinent role in the discussion of employee well-being programs. In particular, some relevant ethical considerations relating to the provision of workplace well-being programs stem from the issues of duty of care (beneficence versus non-maleficence), fairness, autonomy, and competence. For example, do organizations have a duty of care to improve the health and well-being of their employees or just to prevent employees from harm? If employers are obligated to improve the health of their workers, does this duty pertain to all employees or just to those with more superior roles? Such questions become the foundation of the ethical discussion in the chapter.

Another key element of Paper 2 is to examine and showcase various best practice workplace health initiatives. The aim is to illustrate that a positive approach to improving employee well-being would fit within an already existing and high performing, health and well-being framework without implying that a positive approach is more important than the traditional, problem-based approach. It is advocated that a comprehensive approach to employee well-being - that is, considering all aspects of both physical and psychological health promotion, prevention, and treatment - is the most ethical and responsible approach that employers can take and, because of links between well-being and performance, well worth the effort of implementation.

Declaration for Thesis Chapter 3 (Paper 2)

Declaration by candidate

In the case of Chapter 3 (Paper 2), the nature and extent of my contribution to the work was:

Nature of contribution	Extent of contribution (%)
Initiated paper, instigated key ideas, conducted the literature review, wrote and prepared the majority of the manuscript, corresponded with editors, made changes requested by editors, provided feedback on co-author's contributions to the paper, incorporated co-author's feedback into final manuscript, formatted and prepared manuscript for publication, and submitted revised manuscript for publication.	70%

The following co-author contributed to the work:

Name	Nature of contribution
Dianne Vella-Brodrick	Contributed to conceptual development, wrote one aspect of the paper, and provided feedback on various drafts of the manuscript.

Candidate's Signature		Date
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Declaration by co-author

The undersigned hereby certifies that:

1. the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of the co-author;
2. they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
3. they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
4. there are no other authors of the publication according to these criteria;
5. potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
6. the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s) Monash University, School of Psychology and Psychiatry, Caulfield campus

Signature		Date
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Reprint of submitted manuscript

From Non-Maleficence to Beneficence:
Key Criteria, Approaches, and Ethical Issues Relating to Positive Employee Health and
Well-being

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Chapter to appear in M. J. Sirgy, N. P. Reilly, and C. Gorman (Eds.), *Handbook of
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Abstract

In this chapter, we look at positive employee health and well-being and why organizations should invest in comprehensive employee well-being programs. We explore the practical steps needed to move from non-maleficence (to “do no harm” to employees) to employee beneficence (to “do good” to employees), using an applied ethics perspective. We draw on the positive health and well-being movement to define a number of positive criteria that are relevant to quality of work life programs. We then review a number of best practice strategies for meeting employee health and well-being needs. We follow with a detailed consideration of positive psychological health programs – a gap in current literature and practice. Our key point is that ethically responsible organizations need to consider the full illness to wellness continuum when meeting employee health and well-being needs, not just to achieve financial return, but because this aligns with both business and ethical imperatives.

Key words: employee well-being, quality of work life, well-being programs, positive psychology, occupational health psychology.

From Non-Maleficence to Beneficence:

Key Criteria, Approaches, and Ethical Issues Relating to Positive Employee Health and Well-being

Employee health and well-being are now high on the agenda for many organizations. Whilst this is likely due, in part, to a greater awareness of the cost of mental and physical illness for organizations, there are also important ethical reasons why organizations should take a proactive approach to facilitating employee health and well-being. Quality of work life affects the overall quality of people's lives. On a practical level, the provision of income through work provides access to goods and services that promote survival (e.g., access to food, health services, education). Income also provides access to enjoyable leisure and vacation activities, which in turn, can enhance happiness, health and quality of life (e.g., Pressman, et al., 2009). Importantly, work can also provide employees with a sense of competence and purpose, providing daily structure and ongoing goals to achieve. It is also often a point of contact with others, fostering a sense of connection and belongingness. Perhaps not surprisingly then, unemployment has been found to be a strong negative predictor of life satisfaction (Lucas, Clark, Georgellis, & Diener, 2004).

However, for a number of people, work is something to be endured rather than enjoyed. Poor quality of life at work can have negative physical, social, and emotional consequences for an individual. The recognition that the workplace can detrimentally affect health is the cornerstone of occupational health and safety laws in many countries, including the US and Australia (OSHA and OHS respectively). Such laws exist to ensure that employees are protected from physical or psychosocial hazards at work, such as noxious gases and chemicals, workplace accidents, ergonomic hazards, violence, bullying, and harmful managerial practices. Given such legislative

requirements, it is generally accepted that employers have a responsibility to “do no harm” to their workers – thus satisfying the ethical principle of non-maleficence. It is less clear, however, whether organizations also have a responsibility to promote employee well-being and resilience; that is, to benefit or “do good” to their workers (beneficence). An affirmative case may be argued on the grounds that employees now invest considerably more of their time and energy into work than in previous years (Dewe & Kompier, 2008; Gavin & Mason, 2004). In many countries, the age of retirement has increased, meaning that people now spend a greater proportion of their lives at work. Research also shows that people are working longer and more demanding hours than before (Dewe & Kompier, 2008; Gavin & Mason, 2004). Many more workers now have emotionally demanding jobs due to the growth of the service industry (Dewe & Kompier, 2008). In addition, perceived job insecurity is now a prevalent employee stressor due to the frequency of organizational restructuring and downsizing (Quinlan, 2007; Sparks, Faragher, & Cooper, 2001). There is also a weakening demarcation between work and home due to globalization, advancing technology (such as the rise of the “smart phone” and the ability to check work email from anywhere) and a trend toward more flexible and/or virtual organizations (Sparks, et al., 2001). Such changes necessitate a broader view of an employer’s “duty of care” regarding employee health and well-being. Whilst legislation addresses physical and psychosocial factors that can be regulated and enforced, ethical standards provide an aspirational view of what is the employer’s responsibility.

In this chapter, we explore the topic of employee well-being from an applied ethics perspective. In any logical ethical decision-making process, all plausible actions need to be evaluated against important pre-determined criteria. This will help to ascertain the course of action that will most likely result in the best (and most ethical)

outcomes. In other words we will include evidence for why meeting a comprehensive range of employee health and well-being needs makes good business and is the right thing to do. We will then present a number of issues relating to best practice health and well-being programs, with specific emphasis on who the recipients should be, who should run the programs, whether the programs should be optional for employees and the content and frequency required to achieve positive outcomes. We conclude with an agenda for future research.

Well-being and Health: More than the Absence of Disease

...to understand the essential features of health – not illness, that is, but health – requires moving beyond the bounds of medicine, built, as it is and should be, around human maladies (Ryff & Singer, 1998, p. 77).

Despite their wide use in the public arena (or perhaps because of), the terms *health* and *well-being* are not well understood or defined, leading to confusion and disparity in both research and practice (Danna & Griffin, 1999). Traditionally, such terms have been used to refer to matters of illness rather than to health and happiness in the positive sense. As a case in point, Schaufeli (2004), in his review of occupational health psychology research, pointed out that over 90% of articles published in the *Journal of Occupational Health Psychology* focused on physical and psychological health *problems* (e.g., burnout, work to home interference and, cardiovascular disease) with little focus on the positive end of the health continuum. Similar observations have been made regarding general psychology (Linley, Joseph, Harrington, & Wood, 2006; Seligman & Csikszentmihalyi, 2000) and physical health research (Seligman, 2008). This reflects the prevailing dominance of the traditional disease model over a genuine health model. The *disease model* defines health and well-being as the absence of illness (Macik-Frey, Quick, & Nelson, 2007; Seligman & Csikszentmihalyi, 2000) and is

concerned with “fixing what is wrong rather than developing what is right” (Schaufeli, 2004, p. 514). In contrast, the *health model* defines health as the presence of wellness. This approach is the cornerstone of the positive health movement, which, whilst spanning back several decades (e.g., Jahoda, 1958; Maslow, 1968), has been reinvigorated and advanced by scholars advocating positive research approaches including positive psychology, positive health, positive organizational behavior, positive organizational scholarship (Cameron, 2008; Cameron & Caza, 2004; Huppert, 2005; Luthans & Youssef, 2007; Ryff & Keyes, 1995; Ryff & Singer, 1998; Seligman, 2008; Seligman & Csikszentmihalyi, 2000). Such authors have called for positive definitions of, and approaches to, health to complement existing disease-based methods. Research demonstrates that wellness and ill-being are separate yet moderately correlated constructs (e.g., $r=-.53$; Keyes, 2005). Thus, positive well-being cannot be directly inferred from the absence of negative well-being; instead, the two should be considered as separate constructs (Ryff & Singer, 1998). Keyes and Grzywacz (2005) demonstrated the utility of viewing health as the presence of the positive in addition to the absence of the negative. Using the *complete health model*, Keyes and Grzywacz categorically assessed the health of individuals in a large US sample ($n=3,032$). *Completely healthy* individuals possessed high levels of physical and psychological well-being and low or no levels of physical and psychological morbidity. *Completely unhealthy* individuals possessed high levels of physical and psychological morbidity coupled with low levels of physical and psychological well-being. *Incompletely healthy* individuals fell in between the two former categories, showing high/low combinations of, or only partial, physical and/or psychological health. It is notable that, whilst the term “complete” may imply unrealistic or unobtainable standards of health, Keyes and Grzywacz defined complete health as satisfying a base level of criteria as opposed to all

criteria. For example, to be categorized as mentally flourishing, a sub-dimension of complete health, an individual must score in the upper range for one of the two emotional well-being scales and 6 of the 11 psychological and social well-being scales. This approach is similar to the approach used to classify mental disorders (Keyes, 2002). Results suggested that 19% of adults were completely healthy, 19% were completely unhealthy, and 62% were incompletely healthy (10% physically healthy but mentally unhealthy, 52% mentally healthy but physically unhealthy). Huppert and Whittington (2003) also showed support for the independence of positive and negative well-being using a UK sample. Over one third of individuals in their sample reported either low scores on both positive and negative well-being measures or high scores on both measures, indicating that a person can simultaneously experience health and ill-health.

Such studies present compelling evidence that health needs to be defined as both the absence of the negative and the presence of the positive. However, this knowledge has not transferred into organizational practice (Keyes & Grzywacz, 2005; Nelson & Simmons, 2003). In order to reach aspirational standards of organizational health and well-being, employers need to monitor and address employee health and well-being as a complete rather than incomplete state. This would take into account physical and psychological ill-being as well as physical and psychological well-being. Because of the extensive volume of research focusing on health risks and adverse health outcomes, our aim, in the following section, is to supplement existing research by looking at definitions and characteristics of positive physical and psychological health and well-being. However, in doing so, we do not discount the importance of ill-health.

Key Criteria Relating to Positive Employee Health and Well-being

Typically positive health and well-being are harder to define than ill-being. However, providing a common language and framework around positive health is important to facilitate the promotion and improvement of health (Keyes, 2005). To provide clarity in this regard, we present a summary of common criteria relating to subjective quality of life and the quality of work life (refer to Table 1). Taken together, this summary suggests a number of core characteristics relating to employee health and well-being.

Firstly, *positive health and well-being are resources to be built and developed rather than risks to be managed or mitigated*. The World Health Organization (WHO) defines mental health as a state “in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2005, p. xix). That is, well-being is adaptive; allowing a person to function effectively in his or her environment, to cope with setbacks and adversity, and to contribute meaningfully to others and the world around them. Similarly, Seligman’s (2008) view of positive physical health illustrates the importance of identifying the areas in which an individual is functioning physically well, as well as the areas in which they are suffering.

Secondly, this classification indicates that *both general (i.e., context free) and work-specific variables are important when assessing employee health and well-being* (e.g., Danna & Griffin, 1999; Warr, 1987, 1990, 1999). Key general health criteria include Seligman’s (2008) positive physical health and well-being dimensions as well as various dimensions of subjective and psychological well-being (e.g., Cummins, 2000; Diener, 1984; Ryff, 1989). Key work-related psychological outcomes include both work-related affective well-being (e.g., Daniels, 2000; Warr, 1987) and job

satisfaction (see Spector, 1997 for a review). Our provision of both general and work-related outcomes follows from the recognition that health and well-being cannot be neatly divided or compartmentalized into work and non-work domains. Instead, an employee's overall health and well-being is determined by both work and non-work factors. For example, a stressor, injury, or health problem incurred within the workplace can significantly impair one's happiness and functioning in other areas of their life. Similarly, activities that a person engages in outside of work such as sporting, creative, or social pursuits can facilitate their well-being and performance at work (Allis & O'Driscoll, 2008; Sonnetag, Binnewies, & Mojza, 2008). Given this connection, it is necessary to consider both work and non-work factors and their interface.

Thirdly, when referring to *psychological aspects of health, well-being can be defined as "positive feelings", "positive functioning" or a combination of the two ("flourishing")*. This approach stems from hedonic and eudaimonic perspectives of well-being, respectively. Until recently, these two perspectives have guided somewhat disparate bodies of research investigating what it means to be well, happy or to live "the good life". The hedonic perspective views well-being in terms of relative pleasure over pain and refers to emotional well-being, happiness, and life satisfaction (i.e., positive thoughts and feelings). The counter perspective - referred to as the eudaimonic approach - refers to the process of a life lived well or virtuously and in line with one's true self (Ryff & Singer, 2008). Key foci within this approach include self-realization, personal expressiveness, and optimal psychological functioning (Ryan & Deci, 2001; Ryff & Singer, 1998, 2008; Waterman, 1993). As shown in Table 1, positive functioning includes both interpersonal and intrapersonal elements (Keyes, 1998; Ryff, 1989; Ryff & Keyes, 1995). Combined approaches to mental health, such as Keyes' (2002, 2005) mental health continuum, unite these two streams of research, recognizing

that both are important for positive mental health. Comparable definitions exist at both the population level (Tennant, et al., 2007) and the work level (Page & Vella-Brodrick, 2009; Warr, 1990).

A fourth characteristic of our classification is that *health and well-being can be measured by both subjective and objective means*. For example, physical health can be indicated through biological data (e.g., blood pressure, cortisol, adrenaline and noradrenalin/epinephrine or nor epinephrine) or functional data (e.g., laboratory tests for speed of gate, strength or reaction time) (e.g., Danna & Griffin, 1999; Seligman, 2008). Health and well-being can also be assessed subjectively, for example, through self-reported health status (e.g., worst possible health [0] to best possible health [10]); self-reported energy, vigor, and vitality (positive physical well-being); or a sense of control over and optimism towards one's current and future health (Grzywacz & Keyes, 2004; Seligman, 2008). Similarly, psychological health can be assessed by asking about emotional experiences such as joy, contentment, anger, or anxiety (at work or in general), their satisfaction with their life or job overall, and/or intra/interpersonal functioning.

Finally, *broader team and organizational level metrics serve as important indicators of employee and organizational health* in addition to specific definitions and measures. These include multidimensional approaches, such as quality of work life inventories (e.g., Martel & Dupuis, 2006) and singular metrics such as: health care utilization (objective or self-reported), number and cost of work compensation claims, employee turnover (both actual and intentions to), employee performance (both self- and manager-reported), and team or organizational climate. Self-reported sickness absenteeism and sickness presenteeism (e.g., work "cut back days"; Grzywacz & Keyes, 2004) are also key indicators of individual and organizational health.

Interestingly, research now suggests that sickness presenteeism may provide a better indication of employee sickness than absenteeism, particularly during times of high work demand, staff shortages, and job insecurity when employees are more compelled to come to work sick (Caverley, Cunningham, & MacGregor, 2007). Measures of a healthy climate and culture are also useful indicators of organizational health (Cotton & Hart, 2003; Crimmins & Halberg, 2009; Griffin, Hart, & Wilson-Evered, 2000).

In summary, the terms health and well-being can refer to the absence of the negative (the disease model) or the presence of the positive (the health model). These approaches are complementary, as reinforced by the complete health approach, and warrant a dual approach to employee health (Wright & Quick, 2009). A comprehensive approach to health and well-being recognizes that employees' health is multidimensional and expands beyond the absence of the negative. Organizations that meet such aspirational standards of employee health and well-being promotion and illness and injury prevention, are likely to be those that meet legislative standards whilst also providing opportunities for employees to fulfill positive physical and psychological health needs. Such an approach should include: (a) regular monitoring of a diverse range of employee health and well-being criteria, including positive health and well-being and (b) taking steps to improve employee health and well-being (Diener & Seligman, 2004). We explore these points in the next section, looking at both general and specific approaches to employee well-being intervention, with a specific focus on positive psychological health promotion.

[Insert Table 1 about here]

Meeting Employee Health and Well-being Needs: Some Best Practice Approaches and New Opportunities

Organizations can take various approaches to meeting employee health and well-being needs. A best practice approach to employee health values prevention over treatment, with prevention being a more effective and cost-efficient means of addressing the burden of chronic disease (Cox, 1997; Huppert, 2009; Quick & Quick, 2004). In this section, we briefly identify three such approaches, noting relative strengths and gaps. We then extend these approaches by reviewing research in the area of positive psychological health promotion, which, until recently, has not been included in employee well-being programs.

Organizational Approaches to Employee Well-being

In organizations, employee health is typically addressed through adherence to OHS/OSHA standards (or equivalent). Many organizations also provide secondary or tertiary well-being management approaches, such as skill building workshops (e.g., stress or conflict management training) or Employee Assistance Programs (EAPs). Whilst these play an important role in managing stress and other psychological injuries, they do not necessarily meet the standards of primary prevention (Cooper & Cartright, 1994; Pandey, Quick, Rossi, Nelson, & Martin, 2009). To promote physical health, many organizations now boast corporate wellness or workplace well-being programs, although there is diversity in what this term can encompass; for some organizations, corporate wellness may refer to just one or two benefits (e.g., discounted gym memberships or flu vaccinations), whilst others may provide a greater number of health initiatives. Although organizations often do not evaluate corporate wellness programs with the necessary rigor (Crowther, Thwaites, & Zhou, 2004; Noblet & LaMontagne, 2009), they illustrate a positive move by employers towards greater responsibility for,

and interest in, employee health and well-being. They also have the potential to engage a high percentage of employees, which is not always achieved in academic research. In order to be effective however, it is necessary that such programs are tailored to an organization's needs, have strong commitment from managers, and high levels of employee involvement and engagement (Crowther, et al., 2004; Noblet & LaMontagne, 2009). WorkSafe Victoria (WSV) provides a positive example of a diverse and well-utilized corporate wellness program. WSV is the government body responsible for enforcing both the OHS and Accident Compensation Acts as well as providing other health and safety initiatives in Victoria, Australia. They also invest considerable time and resources into the health and well-being of their own employees through their Feelingood@work program. The three year old Feelingood@work program is supported by strong management commitment, stakeholder consultation, and employee engagement, the latter of which is enabled by employee "champions" and a multifaceted marketing strategy. The program has a broad range of offerings, integrating primary, secondary, and tertiary prevention strategies. These include: an online wellness site, which provides health-related resources, assessment, and monitoring for employees wishing to maintain or improve their health; onsite employee fitness squads and activities, including yoga; a global program to walk 10,000 steps per day; gym subsidies; flu vaccinations; healthy heart checks; executive health checks; a targeted program to assist "at risk" employees to improve their health and well-being; onsite school holiday care for employees' families and; an employee social club. The organization monitors the use of its services and has set itself a target of 10% increased employee engagement per year to support a culture of continuous improvement.

Although WSV provides a positive reflection of employee engagement and organizational pro-activity, an ongoing challenge in corporate health and well-being

programs is to establish cause-and-effect relationships with key employee and organizational outcomes. A promising new development in this area is the design and evaluation of comprehensive health promotion and disease management programs.

Comprehensive Health Promotion and Disease Management Programs (CHP&DM)

Worksite health promotion (WHP) can take various forms including targeting specific problems or diseases, such as diabetes and obesity (e.g., Wolf, Siadaty, Crowther, & Nadler, 2009), specific health behaviors such as worksite physical activity (Pedersen, Blangsted, Andersen, Jørgensen, & Hansen, 2009), or overall risk reduction and health improvement (see Goetzel & Ozminkowski, 2008 for a comprehensive review). Such programs aim to prevent disease, improve health, and reduce organizational health costs through behavior change and the reduction of health risk factors (Goetzel & Ozminkowski, 2008). Comprehensive health promotion and disease management programs integrate various aspects of health promotion and disease management into an ongoing workplace program. Importantly, such programs are linked with corporate objectives and evaluated in terms of financial and/or clinical criteria (Pelletier, 2001, 2009). A significant innovation in this area is to bridge the gap between organizations and public health agencies by forming strategic partnerships. This collaborative approach recognizes that improving employee health can benefit multiple stakeholders, including the employees themselves, their organization, and the wider community (Goetzel, et al., 2009). Goetzel, et al. reported the results of several such partnerships, which formed between the New York City Department of Health and Mental Hygiene and 10 New York City organizations. Employees from 26 worksites participated in the Department's Wellness at Work program. Aims were to increase the adoption of health behavior (e.g., regular exercise and a healthy diet) and the reduction of health risks (e.g., high blood pressure, high total cholesterol, tobacco smoking).

Health risks were dichotomized (high vs. low) and tracked over time for each participant. The three-year program involved pre- and post- employee health risk assessments and the implementation of both moderate and high intensity interventions. Moderate intensity interventions involved a combination of health risk awareness and behavior change initiatives, as well as changes to the environment to encourage healthier lifestyles. High intensity interventions also included interventions tailored to high risk employees (e.g., personalized health coaching). Results were positive: significant risk reductions were found for both the moderate and high intensity approaches, with no significant differences found between the two approaches.

Another important, evidence-based approach to employee well-being focuses on the management and prevention of employee stress. Employee stress is reported to cost organizations and national economies billions of dollars a year in lost work days, productivity problems, and chronic disease (Dewe & Kompier, 2008). It is thus considered one of the most significant problems facing organizations today (Cooper & Cartright, 1994; LaMontagne, Keegel, & Vallance, 2007). The current, best practice approach to addressing this important problem is to integrate primary, secondary, and primary prevention strategies into an integrated and comprehensive program - known as a system approach to job stress.

A System Approach to Job Stress

Job stress is a psychosocial work hazard associated with significant health problems, such as cardiovascular disease (CVD) and depression as well as organizational health and productivity problems (Belkic, Landsbergis, Schnall, & Baker, 2004; Kawakami, Araki, Kawashima, Masumoto, & Hayashi, 1997; LaMontagne, Keegel, Vallance, Ostry, & Wolfe, 2008). Potential psychosocial stressors can relate to work hours, job insecurity, managerial style, violence, bullying,

and aggression at work, emotional labor/ emotion work, perceived injustice, and organizational politics (Pandey, et al., 2009; Sparks, et al., 2001). The *system approach to job stress* brings together and extends traditional approaches to stress (LaMontagne, et al., 2007). Often, stress interventions target the individual, focusing on how a person can change the situation him or herself (e.g., developing time management skills) or how they respond to it (e.g., relaxation techniques, physical exercise, yoga, diet; Pandey et al., 2009). The provision of EAPs is a common tertiary approach to stress management (Cooper & Cartright, 1994). In contrast, the system approach to job stress – widely considered to be the most effective approach to managing stress - recommends a multifaceted intervention approach (Caulfield, Chang, Dollard, & Elshaug, 2004; Israel, Baker, Goldenhar, & Heaney, 1996; LaMontagne, Shaw, Ostry, Louie, & Keegel, 2006). It focuses on primary prevention - identifying and managing stressors at their source - whilst also integrating secondary and tertiary approaches, including stress reduction techniques and EAPs. The approach is highly participative, involving multiple stakeholders and levels within an organization. The approach thus targets the system as a whole rather than symptomology.

Recently, a primary stress prevention program was implemented at Loddon-Mallee Linen Service (a division of Bendigo Health in Victoria, Australia), resulting in a significant reduction in claims and self-reported stress. Key actions were for managers and employees to work collaboratively, and, in partnership with external stakeholders to identify and manage key psychosocial risk factors. For example, one of the identified risk factors was what employees called “Chinese whispers”. This referred to conversations happening behind closed doors or in corridors resulting in miscommunication and stress. This specific issue was combated through the use of open and safe communication forums where employees and managers freely shared issues

and worked together to solve them. The Lodden-Mallee Linen Stress Prevention Program was awarded the “Best OHS Solution in Public Sector and Community Services” at the 2010 Victorian WorkSafe Awards.

Additional Opportunities

Both comprehensive worksite health promotion and disease management programs and the system approach to job stress represent an increasing level of sophistication in terms of employee well-being interventions. Such approaches complement and extend other important employee health provisions, such as OHS/OSHA and EAPs, and cover a diverse range of health and employee needs. However, whilst their combined reach includes the management of psychological and physical health risks and the promotion of positive physical health, such programs do not necessarily focus on promoting positive psychological health. Table 2 is a diagrammatic representation of several approaches to employee health and well-being. Rather than being a conclusive judgment, the table is intended to indicate *relative* intervention coverage. Consistent with the complete health model, presented earlier, the table considers illness and wellness as separate (but related) constructs. It also includes both physical and psychological health dimensions (and likely flow-over between all four categories). Each approach, and their relative coverage, is presented according to its primary focus. However, categorizing these approaches as such does not preclude their influence on other areas of health. For example, the main focus of the systems approach to job stress is to reduce job strain which in turn may reduce risks for both physical and psychological illness (LaMontagne, et al., 2007). Thus, this approach is emphasized in the psychological and physical risk columns. However it may also contribute to other aspects of well-being.

[Insert Table 2 about here]

As shown in Table 2, the evidence-based approaches to employee health discussed in this chapter focus largely on the management of psychological and physical risk and the promotion of physical health. This highlights an important new opportunity in positive psychological health promotion. The importance of promoting positive mental health, in addition to mental illness, has been shown by Keyes' (2005). Keyes found that *languishing* individuals (individuals with a low level of well-being but no mental disorder) had similarly poor outcomes to those who *were* suffering from mental illness and dysfunction (e.g., anxiety, depression). Further, individuals that were classified as *moderately mentally healthy* - which represents most of the general population - had significantly *poorer* health, performance, and psychosocial outcomes (e.g., work cut back days) than *flourishing* individuals (individuals with both high well-being and low mental ill-being).

In light of such findings, Huppert (2005, 2009) has called for an expansion of the target population for mental health interventions. The inclusion of those who are languishing and/or only moderately well significantly expands the target population that stands to benefit from mental health promotion. Further, promoting employee flourishing amongst all employees, as opposed to subgroups of employees, substantially increases the potential for positive employee and organizational outcomes, including: physical health and longevity, performance, creative problem solving, interpersonal and leadership effectiveness, and reduced turnover (Huppert, 2009; Judge, Thoresen, Bono, & Patton, 2001; Lyubomirsky, King, & Diener, 2005; Seligman, 2008; Wright &

Bonett, 2007; Wright & Cropanzano, 2004; Wright, Cropanzano, & Bonett, 2007; Wright, Cropanzano, Bonett, & Diamond, 2009).

Given their importance, we now provide a more detailed discussion of individual and organizational strategies for promoting positive psychological health, drawing on positive psychology (e.g., Seligman, Steen, Park, & Peterson, 2005), positive organizational behavior (e.g., Luthans, Avey, Avolio, Norman, & Combs, 2006) and positive organizational scholarship (e.g., Cameron, 2008) interventions.

Positive Psychological Health Promotion

The positive approach represents a shift in how we might go about promoting positive employee well-being. This perspective looks at what states, qualities, and outcomes may be *approached* (i.e., how to encourage, develop, and build strengths, capacities, and resilience) rather what should be *avoided* (i.e., how to manage, mitigate, control or reduce ill health and their negative effects; Oades, Crowe, & Nguyen, 2009). Positive psychology (PP) is “the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups and institutions” (Gable & Haidt, 2005, p. 104). Research in this area has empirically validated several simple but effective strategies that can be applied to contribute to positive development, optimal functioning, and well-being. A key finding is that positive psychology interventions (PPIs), defined as “treatment methods or intentional activities aimed at cultivating positive feelings, positive behaviors, or positive cognitions” (Sin & Lyubomirsky, 2009, p. 467), can reliably increase well-being and decrease depression. For example, in their review of 51 PPIs, spanning over 49 independent studies with a total of 4,235 participants, Sin and Lyubomirsky found an adjusted effect size of .29 for well-being. Examining 25 independent studies and a total of 1,812 participants they found an adjusted effect size of .31 for depression. The meta-analysis also found that 96% of the

effect sizes on well-being and 80% of the effect sizes on depression were in a positive direction. The range of effect sizes (r) was from -.31 to .84 for well-being, and -.28 to .81 for depression. Examples of PPIs included in the analysis were mindfulness, goal striving, forgiveness, positive psychotherapy, and optimism. Similarly, research in positive organizational behavior (POB), defined as the study and application of positive and developable strengths and capacities in the workplace (Luthans, 2002), has found that interventions that promote employee psychological capital – namely hope, optimism, resilience and self-efficacy – are effective in terms of promoting proximal (i.e., psychological resources) and distal (i.e., financial) outcomes (Luthans et al., 2006).

Enhancing Well-being by Cultivating Employee Strengths and Resources

In essence, both PP and POB interventions work to promote positive psychological health and resilience by allowing individuals to focus on, and thereby enhance, their existing strengths and resources. As an example of one such strategy, we refer to the Working for Wellness Program (Page & Vella-Brodrick, 2010). The Working for Wellness Program brings together four areas of PP research into an applied, individual level employee well-being intervention. Whilst the intervention itself, a multifaceted approach to employee well-being, is currently under evaluation, it rests on a strong theoretical and empirical foundation: each of its components is associated with elements of positive psychological well-being. These components include: knowing and using strengths, striving for self-concordant goals, getting into flow, and cultivating relationships. We turn to each of these components now. The reader is also referred to Table 2 for an example of tasks relating to each of the elements.

Component 1: Knowing and using one's signature strengths

Living and working in accordance with one's unique strengths – defined as one's authentic self or refined and developed talents - is thought to be linked to feelings of self-concordance, motivation, engagement, and enduring happiness (Clifton & Harter, 2003; Peterson, Ruch, Beermann, Park, & Seligman, 2007). Research suggests that teaching individuals to identify and apply their strengths in novel ways can reliably increase well-being and decrease depressive symptoms (Seligman, et al., 2005). For example, Seligman et al. found increases in well-being and decreases in depression for up to six months for participants who applied their strengths in a new way every day (over a week long intervention), utilizing a randomized, controlled trial (RCT). Similarly, Mitchell, Stanimirovic, Klein, and Vella-Brodrick (2009) found a significant increase in personal well-being amongst participants in a strength-based well-being intervention (in contrast to a problem-based well-being intervention) also utilizing an RCT. Using one's strengths is also reliably linked to work engagement. For example, Clifton and Harter's (2003) meta-analysis indicated that strength-based development contributed meaningfully to work engagement, which in turn contributed positively to work unit performance.

Component 2: Striving for meaningful, enjoyable, and self-concordant goals

Personal goals are highly relevant to well-being (Brunstein, 1993; Emmons, 2003; Linley, Nielsen, Wood, Gillett, & Biswas-Diener, 2010; Sheldon & Elliot, 1999). In particular, research has found that both goal content (intrinsic goals such as growth, contribution, intimacy versus extrinsic goals such as popularity or wealth), and goal motives (autonomous vs. controlled) are important and make independent contributions to psychological well-being (Ryan & Deci, 2000). Further, those individuals who form goals that are associated with their enduring interests, values, and strengths (i.e., self-

concordant goals) are more likely to persist in goal pursuit and thus more likely to attain goals and achieve greater gains in well-being (Sheldon & Elliot, 1999). Goal formation, pathway development, and striving also contribute to hope, which further strengthens its association with well-being (Cheavens, Feldman, Gum, Michael, & Snyder, 2006; Snyder, 1995; Snyder, Rand, & Sigmon, 2002).

Component 3: Flow

Engaging in activities that promote a state of flow is also relevant for well-being. Flow is state of intrinsic motivation and absorption, whereby an individual loses their sense of self and of time passing (Csikszentmihalyi, 1990). Flow is enabled by activities that balance a person's unique skills with the demands of a task and involve clear goals, volitional task engagement, and immediate feedback. Flow can occur in a diverse range of contexts and activities, although is commonly observed in sporting and creative activities (Fritz & Avsec, 2007; Griffiths, 2007; Seifert & Hedderson, 2009) and work (Bakker, 2005; Csikszentmihalyi & LeFevre, 1989; Nielsen & Cleal, 2010). Various studies have supported the link between flow and positive affective states. For example, Csikszentmihalyi and LeFevre (1989) found flow to be associated with a more positive quality of experience for participants, as measured by affect, potency, concentration, creativity, satisfaction, and motivation, compared to non-flow activities. Similarly, Waterman (2005) demonstrated that participants experienced greater eudaimonic well-being, as defined by personal expressiveness and self-realization, when engaged in high effort-liked or flow activities, such as cooking a gourmet meal, as opposed to low effort-liked or non-flow activities, such as catching up with a friend or watching TV.

Component 4: Cultivating relationships

High quality relationships have been shown to be important and necessary for high levels of well-being (Deci, Guardia, Moller, Scheiner, & Ryan, 2006; Demir & Weitekamp, 2006; Diener & Seligman, 2002). Specifically, research has shown that close relationships provide a supportive social environment whereby a person can meet core psychological needs for competence, relatedness, and autonomy, allowing for optimal growth and well-being (Demir & O'zdemir, 2010; La Guardia & Patrick, 2008). Similarly, negative relationships can undermine the fulfillment of needs, thus thwarting individual well-being (La Guardia & Patrick, 2008). In particular, research has shown that both providing and receiving autonomy support - that is, a sense of freedom and volition - in a close relationship is important (Deci, et al., 2006). The provision of autonomy support to a friend was also found to be important to well-being, suggesting that either well-being allowed for pro-social friendship behavior or that pro-social behavior in friendship increased well-being.

[Insert Table 3 about here]

Key Ingredients in Positive Psychology Interventions

A number of “ingredients” help to explain how and why PPIs, such as that just described, can be effective. These include: (a) focusing on the positive, (b) engaging in new activities, and (c) fulfilling core psychological needs.

Focusing on the positive: Engaging in PPI's largely requires participants to focus their attention on what is good or positive about their lives. Focusing on positive experiences is associated with increases in positive emotion and well-being (Bryant, 1989; Gable, Reis, Impett, & Asher, 2004; Langston, 1994). In turn, positive emotions

broaden thought-action repertoires and build psychological and social resources (Fredrickson, 2001; Gable, et al., 2004). They can also facilitate cardio-vascular recovery following acute stress (Tugade & Fredrickson, 2004) and other dimensions of physical health (Richman, et al., 2005). The effects of interventions that focus on the positive are not just transitory but can be sustained over the longer term (Seligman, et al., 2005).

Engaging in new intentional activities

PPI's also encourage participants to engage in new or different activities (see a review of work-relevant activities in Vella-Brodrick & Page, 2009). According to Lyubomirsky, Sheldon, and Schkade's (2005) sustainable happiness model (SHM), intentional activities allow for sustainable improvements in well-being, by thwarting adaptation and overcoming happiness set-points (pre-disposed levels of well-being that can prevent a person from becoming lastingly happier). Within this empirically supported model, activities are likely to boost well-being to the extent that they: (a) align with an individual's enduring interests and values (i.e. are self-concordant); (b) are engaged in frequently; and (c) include a sense of variety, newness, and/or continuous growth and learning (e.g., Sheldon & Lyubomirsky, 2006a, 2006b).

Fulfilling core psychological needs

The finding that intentional activities, such as goal striving and applying strengths, lead to sustainable changes in well-being is consistent with self-determination theory (SDT; Ryan & Deci, 2000). SDT has been posited as a PP macro-theory; that is, a fundamental theoretical underpinning for the field (Deci & Vansteenkiste, 2004). These authors assert that engaging in personally interesting and meaningful activities, such as

those included in PPIs, leads to personal growth, development, and well-being through the fulfillment of needs for competence, relatedness, and autonomy.

Crossing the Work-Home Divide

Interestingly, research has shown that the types of activities people engage in during non-work time can also benefit their well-being at work (Allis & O'Driscoll, 2008). For example, Sonnetag and colleagues (2008) examined whether recovery experiences (psychological detachment, mastery experience, and relaxation) experienced in the evening predicted employees' sleep and next-day affect, using a sample of public administration employees ($n=166$). Results suggested that those employees who did not detach from work during the evening experienced greater negative activation and fatigue in the following work day. In contrast, those who engaged in activities that allowed for mastery experience or relaxation experienced more positive activation and serenity in the following day, respectively. Studies have also shown that recovery activities can positively impact next day proactive behavior (personal initiative and pursuit of learning) through increases in work engagement (Sonnetag, 2003). An important implication of Sonnetag and colleagues' work is that employee well-being programs need not be limited to work activities alone, but may also focus on improving leisure activities to facilitate well-being and performance at work. This is also supported by research on home to work facilitation (e.g., Allis & O'Driscoll, 2008) and spill over between work and family domains (Crouter, 1984; Demerouti, Bakker, & Schaufeli, 2005; Demerouti, Bakker, & Voydanoff, 2010).

Organizational Approaches that Complement PPIs

Individual level intervention approaches represent a useful way of promoting employee mental health through the development of both positive well-being and

resilience. However, employee and organizational outcomes may be optimized by implementing individual level interventions within a positive, health embracing environment. Recently, the UK Foresight project on Mental Capital and Well-being put forth five general organizational level interventions that, if applied, would help organizations to meet the future challenges of obtaining and maintaining a healthy and well workforce (Dewe & Kompier, 2008). These included: (a) monitoring the impact of the work environment on mental capital and well-being through *annual well-being audits* with reference to specific well-being and stress-related key performance indicators, (b) optimizing *diagnosis and modification* of factors that create work-related stress (including better partnerships between primary care and occupational health services), (c) improving *workplace flexibility* for all employees (but particularly for those employees with children), (d) *equipping managers* with the skills needed to provide healthy work environments for employees, and (e) *promoting the importance of health and well-being* in the workplace. Whilst this project focused on mental health and well-being, such interventions could also be expanded to include physical health (e.g., monitor both physical health and psychological well-being).

A number of broader, organizational level employee well-being interventions have also been recommended in the applied research field of positive organizational scholarship (POS; Cameron, Dutton, & Quinn, 2003). POS is concerned with the interpersonal and structural processes that elevate and give life to an organization (Cameron & Caza, 2004). Positive leadership is an important application of POS due to its influence on how employees' experience the workplace day-to-day. POS has identified at least four ways in which leaders can positively impact employees and, in turn, drive organizational success (Cameron, 2008). These include: (a) enabling a *positive climate*, defined as a the predominance of positive emotion over negative

emotion in the workplace by, for example, fostering compassionate, forgiving, and grateful employee attitudes (see Cameron, Bright & Caza, 2004); (b) fostering *positive and productive employee and organizational relationships*; (c) encouraging and engaging in *positive communication* with employees and; (d) helping employees to find *fulfillment, meaning, and purpose* in their work (see also Wrzesniewski, 2003). The importance of positive, authentic, emotionally competent (i.e., healthy) leadership for employee well-being has also been emphasized by other authors (Ilies, Morgeson, & Nahrgang, 2005; Quick, Macik-Frey, & Cooper, 2007; Vella-Brodrick & Page, 2009).

WSV, again, provides a good case in point for an organization that is committed to promoting positive employee well-being, at both the individual and organizational level. Building upon the success of its corporate wellness program, WSV is currently planning a methodology and foundation for implementing a positive organizational approach to employee well-being. The approach will explore a multi-level approach to promoting positive employee well-being, including regular well-being audits, the development of positive and authentic leaders, employee training and development according to PP principles (e.g., the identification and use of employee strengths through on boarding and employee development systems and processes), as well as the general promotion of PP and well-being principles and strategies through online material and presentations. The program will also leverage the strengths and momentum cultivated by its corporate wellness program; that is, strong management commitment, stakeholder consultation, and employee engagement, with the long-term aim of increasing employee well-being and preventing stress.

Summary

In summary, there are several approaches to managing employee health and well-being matters. We have briefly reviewed four such approaches, with a specific

focus on positive psychological health promotion. A comprehensive approach to health and well-being would be to continue to research and apply strategies and interventions that adhere to the “do no harm” principle (OHS/OSHA, job stress interventions etc.). To be ethically responsible, it is also important that organizations engage in strategies that “do good” to employees; that is, invest in interventions that address both sides of the illness to wellness continuum.

Ethical Considerations Relating to Employee Well-being

In this section we explore the utility of taking a comprehensive or *complete* approach to employee health and well-being, which includes positive psychological health, through an applied ethics lens. Although both individual and organizational factors can contribute to the positive psychological well-being of employees, in this section, we will focus predominantly on how employers can contribute to fostering employee well-being. Specifically, we utilize both deontological and consequentialist perspectives and a range of well established ethical principles to examine whether or not employers are responsible for addressing employee well-being. We will also discuss a number of factors that could influence the effectiveness of well-being programs. We conclude with some ethical strategies for progressing and optimizing the benefits of employee well-being initiatives.

Should Organizations Incorporate Psychological Well-being Interventions into Workplace Well-being Programs? A Discussion of Deontological and Consequentialist Perspectives

The *deontological approach* espouses that the moral rightness or wrongness of behavior depends on its intrinsic qualities and not on the outcomes to be derived from the behavior. Rather, behavior should conform to a set of rules, standards or principles

such as non-maleficence, beneficence, justice, autonomy, competence, caring and compassion, and dignity (Koocher & Keith-Spiegel, 2008) which reflect the “right” way to behave. While the deontological approach provides a useful framework, it is equally important to integrate the *consequentialist approach* to sound ethical decision making. Such an approach emphasizes the importance of attaining desirable outcomes when determining a course of action. In the work context, desirable outcomes include individual health and well-being, vitality, work engagement, flow, creativity, work/family/life balance, positive relationships, autonomy, competency, increased productivity, customer satisfaction, decreased sick days and workplace injury, and higher employee retention rates. Subsequently in the sections to follow, we will use a deontological framework to examine the question about whether employers should provide employee well-being programs whilst also considering the plausible consequences associated with both the affirmative and negative approaches to this question.

Non-Maleficence (to “do no harm”)

First we start by examining whether or not workplace well-being programs conform to the *do no harm* principle. Employers are required to take all the necessary measures to ensure that no harm comes to their employees as a result of undertaking their work. If harm does occur, then employers are responsible for providing appropriate services to ameliorate the damaging effects. Most of these strategies are reactive measures. For example, if an individual has injured their back at work due to lifting excessive loads, then the organization is obligated to arrange and pay for rehabilitation and to adjust the employee’s work tasks accordingly. Moreover, the effects of physical injuries and work role adjustment can also impinge on the individual’s psychological state. Consequently employers also need to respond to the

situation by offering employees psychological services such as those provided by an EAP.

Non-adherence to minimal standards can become salient and can significantly tarnish the reputation and sustainability of an organization. The negative consequences can be numerous and include health insurance costs, low productivity and high absenteeism, compensable disorders and litigation (Danna & Griffin, 1999). James Hardie is a case in point. James Hardie was involved in the manufacturing, distribution and mining of asbestos and products containing asbestos (e.g., insulation and pipes). Many employees who were exposed to products containing the “Fibro material, developed serious medical conditions such as asbestosis and mesothelioma” (Jackson, 2004, p. 9). What is most alarming was James Hardie’s lack of appropriate action to protect employees, despite having insight into the dangers of asbestos prior to these incidents. A large number of these employees sued James Hardie and were provided with financial compensation. The case received considerable media attention and public criticism and the company has subsequently ceased operations in Australia.

Given the repercussions of doing harm, organizational leaders have tended to direct considerable attention towards avoiding disrepute and harm by meeting OHS/OSHA standards and legislation (or equivalent) and by developing risk management strategies. It is noteworthy however, that compliance to the ethical standard of non-maleficence without consideration of the principle of beneficence does not necessarily demonstrate best practice and is by no means exceptional and commendable. However, it is a necessary starting point. Even within services such as EAPs, one can question whether only minimal standards have been reached. There is now empirical evidence to support the inclusion of positive interventions to help minimize any psychological harm experienced at work, particularly since positive

interventions not only increase well-being but also decrease depression (e.g., Seligman et al., 2005; Sin & Lyubomirsky, 2009). So while it is essential for organizations to adhere to OHS/OSHA legislation, to avoid liability and legal ramifications, there is no upper limit as to what an organization can offer.

A more preventative, resource based approach, which fosters well-being and resilience, may complement OHS/OSHA approaches. Workplace well-being programs can prevent harm from actually occurring in the first place. For example, promoting physical exercise can strengthen the body and minimize the likelihood of physical strain. Cultivating employee relationships can strengthen social support and ameliorate psychological distress.

Although there is a clear case that the implementation of workplace well-being programs can minimize harm, it is also possible that they can cause harm if they are not grounded in evidence-based practices and delivered competently. Adequately trained staff may need to be employed to assist with the selection and competent delivery of workplace well-being programs and to educate employees about the importance of health and well-being. This may take the burden off less skilled supervisors to deliver such programs and may enable a more equitable distribution of services among employees by independent staff. However, given the innocuous nature of psychological well-being interventions (e.g., identifying and using strengths, expressing gratitude, identifying goals and developing pathways for achieving these goals) the likelihood of causing harm to recipients is remote. Moreover some psychological well-being interventions can be self-administered using on-line programs, therefore negating the need to have specialist staff (e.g., Mitchell et al., 2009).

In sum workplace well-being programs, such as those discussed here, have the potential to avert risk and minimize harm particularly if activities selected have

supporting evidence regarding their efficacy and are delivered competently by sufficiently trained staff or through effective mediums such as on-line programs. The likelihood of mitigating harm appears to be substantially greater than the likelihood of causing harm; hence the implementation of workplace well-being programs is in accordance with the basic premise of doing no harm.

Beneficence (to “do good”)

If an organization aspires to adopt best practice standards then they should be looking to not only avoid doing harm but to enhance the health and well-being of their employees. This comes back to the notion of not just striving to eliminate disease but striving to foster well-being. This means that the organization should be prepared to go beyond offering secondary and tertiary (reactive) approaches to health, to include a primary approach whereby employee well-being is deliberately and strategically targeted. In addition to providing for physical health and well-being needs, research supports the utility of providing psychological well-being programs.

Evidence supporting the benefits of workplace well-being programs is steadily accumulating as was presented earlier. In particular, a meta-analysis by Sin and Lyubomirsky (2009) provides a compelling case for including positive interventions based on their ability to increase well-being and decrease depression. Previously cited research by Keyes and Grzywacz (2005) also demonstrates that employees who are flourishing and well are generally more effective in meeting organizational targets relating to reduced sick days, increased creativity, and work engagement. Research on strategic business teams by Losada (1999) and Losada and Heaphy (2004) has found that individuals from high performing teams, according to profit and loss statements, customer satisfaction feedback and 360° evaluations, employed predominantly positive communication styles with their work colleagues relative to individuals from low

performing teams. Clearly, encouraging a culture of positivity and wellness in the workplace can concurrently benefit the individual and the employer. However, more research is needed to determine the longevity of these positive effects to be gained from well-being interventions as it is possible that individuals may discontinue participating in, or adapt to, the intervention and subsequently will no longer reap the benefits. Hence, it is likely that workplace well-being programs need to be on-going and regularly varied to counter both boredom and adaptation. Similarly to OHS/OSHA mechanisms within an organization, workplace well-being should be a long standing agenda item which needs to be embedded within the organizational culture and regularly monitored, reviewed, updated, and promoted.

Moreover, integrating programs for enhancing psychological well-being and physical health with programs aimed at reducing mental illness and physical adversity enables a comprehensive approach to be adopted. Consistent with research on comprehensive health promotion programs, this is more likely to lead to sustained employee and organizational benefits (see Pelletier, 2001, 2009). However, in addition to looking solely at risk management, such approaches could take into account a complete state of physical and psychological health. Keyes and Grzywacz's (2005) research, for example has shown pursuing a complete state of physical and psychological health is likely to be associated with superior benefits (e.g., higher employee productivity and lower health care use).

The highly desirable outcomes of healthy, happy and productive workers are at times perceived to be competing but as presented earlier in this chapter, there is considerable evidence in support of their positive relationship. Ultimately it is the *practice* of humanitarianism and the respect for human health and well-being which allures and retains high caliber employees and gains the respect of consumers and

associated parties such as shareholders – all of which are antecedents of profitability. Google, which was rated fourth in FORTUNE Magazine’s “100 Best Companies to Work For”, is one example of an organization that respects and cares for its employees whilst also achieving desirable business outcomes related to economic and physical growth. Google supply staff with free healthy food for breakfast, lunch and dinner. They also provide onsite medical/dental and leisure facilities such as shoreline running tracks and yoga. Google’s goal is “to cultivate employee satisfaction every step of the way” (Google, 2010). Despite their substantial investment in the well-being of their staff, they are experiencing healthy financial returns and organizational growth. In sum, well-being interventions can be beneficial but for the benefits to accrue, they require a long term investment on the part of the organization and the employee.

Justice and Autonomy.

It is also important that such programs be implemented in accordance with the principles of justice and autonomy. The notion of *justice* means to treat people fairly and equitably and in a way that we would want to be treated under similar circumstances. *Autonomy* refers to the right to decide how to live your own life as long as it does not conflict with the rights and welfare of others (Koocher & Keith-Spiegel, 2008). Typically organizations have responsibilities towards multiple parties, including consumers, clients, shareholders, stakeholders, employees, and communities at large. It can be argued that organizations typically have a strong focus on servicing the consumer. This raises the question about whether employers should also extend this goal of “servicing” to their employees. Consistency in behavior is important, particularly with regard to forming a positive public image. Organizations gain more respect if their behaviors align with their espoused values and if this behavior is consistent across all parties. If for example, employers claim to value philanthropic and

humanitarian causes, ethical standards or the well-being of their consumers, it will appear contradictory if they are not applying the same standards to their employees. Stakeholder theory (Freeman, 1984) asserts that managers are morally obliged to attend to the needs of all parties reasonably associated with the organization and cautions against using employees as a just means to an end. Hence, attending to the needs of employees is an important task for employers.

The question then turns to whether the same level of care should apply to all employees. Many companies invest greater capital into their top executive employees, whom, it may be argued, have a greater impact on the overall performance of a company. Such investments need not focus solely on the thickness of pay packets but also on opportunities for health and development. Often top executives are given access to “perks” such as executive coaching. This may give select employees more opportunity to engage in activities that promote well-being as coaches often utilize goal and strength-based methodologies which have been associated with gains in psychological well-being (e.g., Grant, Curtayne, & Burton, 2009; Green, Oades & Grant, 2006). Similarly, middle and lower level employees should also have opportunities for improved health and development at work. Such initiatives need not just be provided through executive coaching (which can be expensive) but can also be provided through more cost effective group interventions, such as the Working for Wellness Program, which was introduced earlier. While jobs undertaken by employees vary, it can be argued that all employees play a valuable role and that the success of the organization is dependent on the fulfillment of the various tasks undertaken by employees. Given the instrumental role of employees in developing products or providing services, it can be argued that all employees are equally valuable and should be afforded similar opportunities and high regard for their personal well-being. This not

only meets the standard of justice but also the principles of treating others with *caring* and *compassion* and *dignity*. Hence, all employees should be provided with similar opportunities to participate in a range of health and well-being workplace initiatives through both formal and informal systems. Performance appraisal interviews could ideally include, as standard practice across all supervisors, some discussion and future planning around workplace well-being opportunities for the staff member (see Vella-Brodrick & Page, 2009 for several example strategies). Such a process enables some flexibility and tailoring for individual needs within a more uniform structure that applies to all employees. It thus balances formality and discretion in the delivery of such initiatives.

Another important health and well-being strategy is to provide employees with the opportunity to exercise *autonomy* (choice and self-determination) - a fundamental component of psychological well-being. Google, for example, encourage their employees to use 20% of their work time on projects of their choice. This is an example of a positive initiative that can apply to all employees, enables freedom of choice, the opportunity for employees to feel engaged and energized by their work and demonstrates respect for the worker and their capabilities. While it is conceivable that some of the projects selected by employees may not be beneficial for the organization, based on social exchange and reciprocity theories, employees are more likely to want to return the goodwill shown by the organization through higher effort and commitment (e.g., low absenteeism, higher performance of in role and extra role behaviors) (see Aselage & Eisenberger, 2003).

Individuals also have the right to live a healthy lifestyle and they should be able to apply this positive approach to every domain of their life, particularly ones where they spend a significant amount of time, such as work. Restricting opportunities for

health and well-being at work would be a major obstacle for individuals who are seeking to be fit and healthy. This would adversely impact the autonomy and health of the individual as well as society at large. Organizations, particularly large ones, are often in a position to influence the health of communities, and collectively they can reduce the burden on health care systems. While this is not an immediate and compulsory concern for organizations, it is an aspirational standard that reflects the pursuit of excellence and an attitude of going beyond the basic requirements. It demonstrates a form of corporate citizenship (an extension of the organizational citizenship behavior construct), which is a highly regarded characteristic when delivered with genuine intent.

Similarly it should not be compulsory for employees to participate in employee well-being programs. Although employers can provide opportunities for well-being, ultimately it is the individual's right to choose whether or not to participate. To encourage participation, employers should also aim to educate staff about the potential benefits of such programs and to actively promote the programs.

Summary

In summary, our review of both deontological and consequential perspectives suggests that organizations have some responsibility to not only prevent ill-health but also to promote good health, first because it is the ethical thing to do and second because it aligns with the mission of profitability, and other desirable organizational outcomes. Specifically, our review suggests that employee well-being programs would be an asset to organizations in addition to other commonly utilized or best practice approaches (e.g., EAPs, OHS/OSHA, stress prevention and management, comprehensive health promotion and disease management). Failing to offer workplace well-being programs can be equated with failing to strive for excellence. This half

hearted attitude by employers can quickly transfer to employees and can ultimately result in a stagnant and negative work culture.

In order to maximize the potential benefits that can be derived from workplace well-being programs, we end this section with some strategies and recommendations:

1. Comprehensive health and well-being programs, including those that improve positive psychological health, deserve continued *commitment* from management and should be embedded within the organization's culture and structure.
2. In line with the principle of *justice*, a broad range of health and well-being programs should be available to all employees across an organization, regardless of their job type or level.
3. *Competent* staff and evidence-based approaches are needed to deliver high quality employee well-being programs that provide optimal benefit to employees and reduce the possibility of harm.
4. Whilst formal methods are more likely to ensure standardization of opportunities among employees, employees should be able to *choose* whether or not they wish to engage in such programs or have a variety of programs from which to select. All staff including management should be active participants (Heaney, 2003; Noblet & LaMontagne, 2009).

Summary, Agenda for Future Research and Conclusions

Overarching Summary

In this chapter we have explored the key role that employers play in meeting employee health and well-being needs. Whilst traditionally, employee health and well-being has been viewed from an illness-based perspective - where an individual is assumed to be well upon the alleviation of illness or injury— we have utilized the

contemporary and evidence-based complete health perspective. Within this framework, completely healthy individuals are those that meet certain criteria for positive psychological and physical health whilst also being relatively free of psychological and physical morbidity. Such employees have been shown to be more of a resource and less of a liability than either incompletely healthy or completely unhealthy employees (e.g., Keyes & Grzywacz, 2005). A more positive, and thus comprehensive, wellness approach is also supported by research showing the numerous individual and organizational benefits associated with positive well-being (e.g., Lyubomirsky et al., 2005).

Given its benefits, and also its relative absence in the literature, we then explored and categorized relevant positive health and well-being criteria that are useful in a quality of life and work life context. We argued that organizations that meet aspirational standards of employee health and well-being care would (a) monitor a diverse range of employee health and well-being criteria, including those relating to positive health and well-being and (b) take steps to improve the quality of work life through the implementation of comprehensive wellness interventions (see also Diener & Seligman, 2004). We then expanded on these recommendations, exploring various methods for enhancing employee health and well-being. This included organizational and applied research approaches, namely: corporate wellness programs, the system approach to job stress and comprehensive health promotion and disease management programs. Next we identified a gap in the area of positive psychological health promotion. Given this gap, and the benefits associated with psychological health for both individual and organizational health, we then devoted time to explore some best practice individual and organizational approaches to promoting positive psychological health. In particular, we drew on three related areas of study: positive psychology,

positive organizational behavior and positive organizational scholarship. We ended our chapter with a discussion of employee well-being interventions from an applied ethics perspective. This approach recognizes the importance of ethics to matters of quality of life and quality of work life and the notion of “good business” (Csikszentmihalyi, 2003). We deduced that comprehensive approaches to employee well-being that include positive psychological health promotion are in line with both ethical and organizational imperatives. In particular, we applied deontological and consequentialist perspectives to the decision making process and emerged with a clear response supporting the affirmative course of action; that is to promote the case for workplace well-being programs.

Agenda for Future Research

Our agenda for future research aligns with other contemporary perspectives in calling for more positive definitions and approaches to organizational health research (Barling, 2005; Macik-Frey, et al., 2007; Quick & Quick, 2004; Schaufeli, 2004; Wright & Quick, 2009). In particular, there is a need for well-controlled intervention research that utilizes evidence-based theories and gold standard designs (e.g., RCTs). Such research will add to a gradually growing literature on employee strengths and resources and factors that give life to an organization (e.g., Cameron & Caza, 2004; Luthans et al., 2006). Such approaches may be integrated with existing best practice research examining how to manage and mitigate the deleterious effects of stress and the promotion of physical health. Indeed, authors have already pointed out the utility of integrating job stress research with comprehensive WHP programs (e.g., LaMontagne et al., 2007). Applied research of this nature would add both theoretical and practical value to existing literature, addressing long-lamented issues relating to the “scientist-practitioner gap”. In particular, it will be of critical value to evaluate evidence-based

well-being interventions effectively, with a dual focus on both well-being and productivity/performance outcomes. It is crucial that research finds solid links between employee well-being programs and relevant organizational outcomes (e.g., absenteeism, presenteeism, performance, health care costs, turnover, consumer satisfaction etc.) if employers (who foot the bill for such programs) are to view such programs as a viable and sustainable addition to their business.

Conclusion

Promoting and preserving health and quality of life has been emphasized as “the greatest challenge facing society in the next century” (Cox, 1997, p. 1). Organizations have a key role to play in meeting this challenge (Cox, 1997; Diener & Seligman, 2004; Tetrick & Quick, 2003). Given that work represents a significant burden on employees in terms of time, energy, and other resources, ethical organizations would be those that give back to their employees. “Giving back” should involve access to health promoting services and interventions in addition to standard remuneration and benefits. However, taking an aspirational approach to employee well-being need not just be motivated by ethics; indeed, improving the health and well-being of employees is also likely to contribute favorably to the financial health of an organization. Ultimately, the ideal situation is likely to be one in which both employees and employers stand to benefit; that is, developing programs that improve both well-being and productivity (Bennett, Cook, & Pelletier, 2003). However, to achieve such an aim requires a genuine commitment to the health of employees, and not just a utilitarian view in which employees are seen as means to an end (Schaufeli, 2004). The goal of creating healthier, safer and more productive communities benefits everyone, and thus warrants a genuine and cooperative commitment from all stakeholders. Most importantly though, an organization needs to first identify the principles by which practice will be guided and

then it needs to draw on resources that will actualize these principles. If the principles are good, then the returns should also be good. As illustrated in this chapter, workplace well-being programs align with highly valued ethical principles and if they are adequately resourced and promoted will provide numerous desirable returns.

Table 1

Key Positive Health and Well-being Criteria Relating to Quality of Life/Quality of Work Life of Employees

Construct	Definition and/ sub-scales	Measures and reading
Positive health	“A combination of excellent status on <i>biological, subjective</i> and <i>functional</i> measures” (Seligman, 2008, p. 3). Note: Positive health indicated by high ends of spectrum. Ill-health indicated by low ends of spectrum.	See Danna & Griffin (1999) and Seligman (2008).
SWB	“People’s multidimensional evaluations of their lives, including cognitive judgments of life satisfaction as well as affective evaluations of moods and emotions” (Eid & Diener, 2004, p. 245).	Satisfaction with Life scale (Diener, Emmons, Larsen & Griffin, 1985); The Personal Well-being Index (International Wellbeing Group, 2005); The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).
AWB	General experience of positive and negative affect at work (anxiety-comfort; depression-pleasure; bored-enthusiastic; tiredness-vigor, and angry-placid; Daniels, 2000).	The Affective Well-being scale (Daniels, 2000). Also see Warr (1987, 1990).
JS	An affective state arising from the cognitive evaluation of one’s job as a whole or facets of one’s job (Locke, 1976).	See Spector (1997).
PWB	A person’s ability to function fully and fruitfully in life, including self-acceptance, personal growth, positive interpersonal relationships, purpose in life, environmental mastery, and autonomy (Ryff & Singer, 1995).	Scales of Psychological Well-being (Ryff, 1989).
ScWB	“The appraisal of one’s circumstances and functioning in society” including social integration, social acceptance, social contribution, social actualization, and social coherence (Keyes, 1998, p. 122).	Social Well-being scale (Keyes, 1998).
Flourishing	The presence of emotional, social, and psychological well-being (Keyes, 2005).	The Mental Health Continuum-Short Form (MHC-SF; Keyes

		et al., 2008).
Positive mental health	Defines well-being in terms of both hedonic and eudaimonic components, including cognitive-evaluative and affective-emotional aspects as well as positive psychological functioning.	The Warwick-Edinburgh Mental Well-being Scale (WEMWBS).
Employee mental health	Work-related AWB including pleasure and arousal dimensions as well as competence, autonomy, aspiration and integrated functioning (Warr, 1987, 1990).	See Warr (1987, 1990). See also Page & Vella-Brodrick (2009) for an integrated model of employee mental health, which includes both general and work-related indices.
QWL	Includes 33 dimensions including elements of the job itself, the physical work environment psychosocial context and the organizational context (Martel & Dupuis, 2006).	Quality of Work Life Systemic Inventory (QWLSI; Martel & Dupuis, 2006).
Organizational health	Broader term that can be used to reflect team or organizational level metrics (including contextual factors).	Examples include: Health care utilization, number and cost of work compensation claims, turnover (actual and intended), performance, self-reported sickness absenteeism and sickness presenteeism (e.g., work cut back days; Grzywacz & Keyes, 2004), a “healthy” organizational climate (e.g., Griffin, Hart & Wilson-Evered, 2000), culture of health (e.g., Crimmins, 2009).

Note. SWB = subjective well-being. AWB = affective well-being. JS = job satisfaction. PWB = psychological well-being. ScWB = social well-being. QWL = quality of work life

Table 2

Representation of Various Approaches to Employee Well-being, Utilizing the Complete Health Model

	Physical health and well-being		Psychological health and well-being	
	Illness/injury	Wellness	Illness/injury	Wellness
OHS/ OSHA	✓✓	-	✓✓	-
EAP	✓	-	✓✓	✓
CCWP	✓✓	✓✓	✓	-
WHP&DM	✓✓	✓✓	✓	-
STRESS	✓✓	✓	✓✓	-

Note. This table provides estimation only and should not be considered as a definitive assessment. Actual coverage/benefits are likely to vary. There is also potential flow-over between categories. *Illness/injury* denotes a risk-management approach. *Wellness* denotes the cultivation of resources. OHS/ OSHA = occupational health and safety legislation in Australia and the US, respectively. EAP = employee assistance program. CCWP = comprehensive corporate wellness programs. WHP&DM = worksite health promotion and disease management programs. STRESS = a system approach to job stress.

✓✓ = a primary focus; ✓ = possible other benefits; - = limited, no or unknown coverage.

Table 3

An Example of an Individual Level Approach to Positive Psychological Well-being Promotion - The Working for Wellness Program

Week	Topic	Session objective	Example task/ activity from session
1	What is Workplace Well-being?	Introduce the program and key well-being theories to participants.	Using the pictures and colored pencils provided, create a personal representation of what it means to be well at work.
2	Knowing and Using Strengths	Identify character strengths; explore job crafting as a method for using strengths at work.	Craft three of your work tasks/ activities so that they are more in line with your signature strengths.
3	Goal Striving	Explore relevance of goal striving for well-being and how to set/pursue authentic and enjoyable (i.e., strength-based) goals.	Set three meaningful and enjoyable short to medium term goals that you could pursue to help you to achieve your best possible self.
4	Flow	Discuss how to cultivate flow at and outside of work and the relationship between strengths and flow.	Drawing on your past experiences of flow, what three things can you do more of to increase the amount of time you spend in flow by 5% each week (a) at home and (b) at work?
5	Relationships	Devise strategies for optimizing relationships at and outside of work, including the use of strengths.	What are three specific things you can do more of to strengthen your relationships at work (e.g., relationships with colleagues, customers, subordinates, manager etc.).
6	Consolidation of Learning	Review and reflect on program content and set action plans to continue progress after program.	What are one or two new rituals - informed by your learning in the program – that you can build into your everyday life? What will you implement moving forward? Create a personal action plan.

Note. This evidence-based program was developed, implemented and tested by Page & Vella-Brodrick (2010). Each session was delivered in an hour long, group-based, interactive workshop over six consecutive weeks.

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Chapter 4: Paper 3. Program Design and Evaluation

Contextual Information

This last and final paper details the design and evaluation of the Working for Wellness Program. Implementing a program in real world settings whilst maintaining control of potentially confounding variables is a challenging task, and a few obstacles occurred prior to its delivery. These obstacles were the result of unexpected organizational changes and a restructure that occurred at the host organization - a large, government health organization - prior to program implementation. The organizational changes - incited by a change in Australian government - led to a series of budget cuts, employee redundancies, and subsequently, staff shortages. As a result, many managers became concerned that the program would require their staff, particularly those in the intervention group, to be “off the floor” for too long in order to participate in the workshops and/or complete surveys. To ease these concerns and promote manager buy-in, the study design underwent some minor alterations. These included the removal of the placebo control condition, which led to a drop in the target sample size (from 90 to 60), a shortening of the program from six, 90 minute sessions to six, 60 minute sessions, and the removal of some potentially mediating and moderating variables, such as strengths use, need fulfillment, and managerial style from the outcome evaluation survey. The program was also delivered over six weeks, rather than 12 weeks, as had been originally planned, so the program would not carry into Christmas.

This scenario highlights the necessity of conducting process and impact evaluations alongside outcome evaluations in intervention research (discussed in detail shortly). Process evaluations can help researchers to identify any process related factors or changes that may have increased or decreased its effect on desired outcomes (Nielsen, et al., 2006; Steckler & Linnan, 2002). Impact evaluations assess the extent to

which a program made the desired impact (Steckler & Linnan, 2002). The process and impact evaluation, presented in Paper 3, indicated that the changes made to the intervention process prior to delivery did not significantly affect the internal validity of the study. It also did not appear to hamper the quality of the intervention. In fact, these minor alterations added to the ecological validity of the study; organizational change is realistic and common in the business world and would also likely affect other real world implementations. Given that one of the core principles guiding this thesis was the importance of ecological validity, the changes were interpreted to be an advantage rather than a disadvantage. These matters will be discussed in the expanded methodology.

Expanded Methodology

About the Working for Wellness Program

The Working for Wellness Program is described in Paper 3. However, due to journal word constraints, the description is kept necessarily succinct. This section includes relevant supplementary information regarding the design and evaluation of the program. In short, the Working for Wellness Program is a PP-based employee well-being program. It was developed as a novel way for participants to learn how to apply their strengths, as has been called for by other researchers (e.g., Govindji & Linley, 2007; Linley, et al., 2010). Strengths were defined as both the specific character strengths captured by Peterson and Seligman (2004) in their character, strengths, and virtues (CSV) classification. However, rather than adhering just to this one framework, participants were also able to discuss their strengths and resources more broadly. For example, the character strength of *kindness* was viewed as a strength that could be used in the service of others, thus cultivating positive relationships. In addition, participants discussed their best or most *positive relationships* as being a source of personal strength

which in turn contributed to their happiness. This approach is consistent with Linley and colleagues' more flexible view of strengths (Linley, 2008; Linley & Harrington, 2006; Wood, Linley, Maltby, Kashdan, & Hurling, in press). The idea was to encourage participants to feel comfortable discussing their strengths, operating from whichever definition fit them best. In brief, the program encapsulated four PP activities that: (a) had strong theoretical and empirical relationships to one or more facets of well-being (e.g., PWB, WWB and/or SWB), (b) were plausible mechanisms for applying strengths, and (c) were relevant for application in both work and non-work domains. These included: strength-based job crafting, striving for self-concordant (strength-based) goals, getting into flow (the optimal balance between skills/strengths and challenge in any given activity); and cultivating positive and altruistic relationships. The program consisted of six, one hour, small group-based sessions (six to eight participants per group), which participants attended weekly (see Paper 3 for an overview of each session and Appendix C for program learning objectives).

Description of Design Principles and Theories

As shown in Table 1, program design was guided by several theoretically-derived principles. Theory has an important role to play in the design of health and well-being interventions (Heaney, 2003; Noblet & LaMontagne, 2009). Specifically, theory can be used to facilitate participant learning and change (i.e., the process of intervention) as well as specific program activities and content (Heaney, 2003). The process and delivery of the Working for Wellness Program was informed by four core theories, including: Vella's (2000, 2002) adult learning theory and design principles, appreciative inquiry (AI; Cooperrider, 1986; Cooperrider, et al., 2008), SDT (Deci & Ryan, 1985), and the SHM (Lyubomirsky, Sheldon, et al., 2005).

Vella's adult learning theory and design principles

Adult learning theories specify tactics for expediting the adult learning process, the latter of which plays a critical role in many health behavior change methodologies (e.g., DiMatteo & DiNicola, 1982). In line with Vella's (2000, 2002) adult learning approach, each session included four sequential components. Component one, *inductive work*, encouraged participants to reflect on what they already knew of the session topic (e.g., reflecting on what usually gives them well-being at work; session 1). Component two, *input*, introduced participants to new information about the topic (e.g., key components of well-being, strengths, flow). This component was where activity-specific theories, which will be discussed shortly, were utilized. Component three, *implement*, involved participants engaging with the new material through discussion and various individual or group activities. The final component, *integration*, required participants to turn what they had learnt into specific strategies to apply during the week, thus integrating new knowledge into real life. The design of the program was also informed by Vella's (2002) adult learning principles. These principles, and their application, are detailed in Table 2.

Appreciative inquiry

AI is a technique for discovering and developing the best in people, their organizations, and the world around them (e.g., Cooperrider, 1986; Cooperrider, et al., 2008). It is based on the proposition that people experience greater learning and growth when they start from a place of strength. Focusing on what has or is going well – one's best or peak experiences - can tap into valuable sources of motivation that an individual (or organization) can then leverage to move towards a desired outcome. The unconditional positive question, referring to "questions that strengthen a system's capability to apprehend, anticipate and heighten positive potential" (Cooperrider,

Whitney & Stavros, 2008, p. 3), is a key mechanism in this change process. This methodology was used as a basis for many of the program activities. Participants were often directed to think about times when they had been doing exceptionally well (e.g., times when they had been in flow) or their best examples of certain phenomenon (e.g., recalling their best relationships). Participants then used this information to form personally relevant success strategies. For example, analyzing what had helped them to get into flow in the past assisted participants to plan for more flow in the future; analyzing their best relationships helped participants to form strategies to further improve their relationships.

Self-determination theory and the sustainable happiness model

These two theories have been discussed in both papers 1 and 2; they are referred to again in Paper 3. As such, they are not elaborated further here. The application of these theories, and the two preceding theories, can be seen in Table 1.

Table 1

Key Program Characteristics and Associated Design Principles and Theoretical Origins

Program characteristic	Design principles	Theoretical origins
Program focused on various mechanisms for applying character (or general) strengths.	<ul style="list-style-type: none"> • Focus on strengths and peak experiences; • Engage in new intentional activities; • Learn by doing. 	<ul style="list-style-type: none"> • Strengths theory and AI; • SHM; • Adult learning theory (see Table 2).
Participants devised success strategies based on what already works.	<ul style="list-style-type: none"> • What is focused on will grow (learn from the best and apply it to the rest). 	<ul style="list-style-type: none"> • AI; • General principle of PP.
Participants chose where they applied activities (i.e., at work or at home).	<ul style="list-style-type: none"> • Allow for autonomy and volition (choice); • Respect learners as decisions makers; • Focus on both work and home domains (mutually beneficial). 	<ul style="list-style-type: none"> • SDT (autonomy); • Adult learning theory; • Facilitation, recovery, and spill-over research (see Paper 2).
Delivery of program in small groups; emphasis on group discussion.	<ul style="list-style-type: none"> • Positive relationships are important for well-being; • Dialogic learning. 	<ul style="list-style-type: none"> • SDT (relatedness); • Adult learning theory (Table 2).
Delivered over several weeks.	<ul style="list-style-type: none"> • Application and reflection is important for adult learning and change. 	<ul style="list-style-type: none"> • Adult learning theory (Table 2).
Multi-faceted program, that provided a variety of activities.	<ul style="list-style-type: none"> • Provide ongoing variety to participants; • Respect learners as decisions makers (choice over activities); • Allow for autonomy and volition (choice). 	<ul style="list-style-type: none"> • SHM (variety is important for sustainable changes in well-being); • SDT (autonomy); • Adult learning theory (Table 2).
Delivery in normal work hours and settings.	<ul style="list-style-type: none"> • Design an ecologically valid intervention; • Allow for learning transfer. 	<ul style="list-style-type: none"> • Flay et al.'s (2005) standards for effectiveness; • Adult learning theory.
Creation of a safe, positive learning environment.	<ul style="list-style-type: none"> • Unconditional positive regard is important for developing well-being; • Psychological safety is important for learning. 	<ul style="list-style-type: none"> • SDT (competence); • Adult learning theory (Table 2).

Notes. PP = positive psychology; AI = appreciative inquiry; SDT = self-determination theory; SHM = sustainable happiness model

Table 2

Description and use of Vella's (2002) Adult Learning Principles

Principles and description	Application
<p><i>Principle 1: Needs Assessment</i> Involving participants in naming what needs to be learned.</p>	<p>Allowed group discussions to focus on participants own needs and wants. Highlighted how key PP theories and wisdom were related to these needs and wants.</p>
<p><i>Principle 2: Safety</i> Creating a safe environment and process that facilitates open discussion and effective learning.</p>	<p>Designed learning tasks and methodology to facilitate psychological safety (e.g., use of 5 x small groups to deliver intervention rather than one large group to create a more intimate and personal environment that was conducive to emotional sharing). Facilitator was clear about professional qualifications and experience, the purpose of the intervention, and that the program was evidence-based (facilitating trust in the intervention design and facilitator; Vella, 2002). Set out clear learning objectives for each session so participants understood what was to come each week. Allowed participants to “find their voices” (Vella, 2002, p. 9) early in the intervention. Started the intervention with an easy, fun, and creative activity that allowed participants to express themselves creatively (low risk) and then verbally (higher risk). This helped to create trust in the order of learning activities. Interacted with learners in a non-judgmental, supportive, and affirmative way, modeling unconditional positive regard for participants.</p>
<p><i>Principle 3: Sound Relationships</i> Promoting positive peer to peer and facilitator to learner relationships.</p>	<p>Asked participants to set up their own “rules of conduct” for peer to peer relationships were monitored. Encouraged sharing of personal stories amongst peers to facilitate intimacy and to help participants to normalize experiences. Facilitator affirmed each person’s comments and contributions in a positive and supportive way. Peer to peer relationships monitored to ensure everyone had a chance to speak and that all viewpoints were listened to and respected. Designed learning activities that promoted peer to peer and facilitator to learner dialogue (dialogic learning; Vella, 2000, 2002). Encouraged participants to be their own best experts, using an open and inquisitive facilitation style (using an asking rather than telling approach). Empowered participants as decision makers (see Principle 6).</p>
<p><i>Principle 4: Sequence and Reinforcement</i> Sequencing learning activities in a logical and non-threatening way - from simple to complex. Ensuring key messages are reinforced effectively through learning process to maximize learning.</p>	<p>Ordered each session so that each learning activity was built upon the last, applying Vella’s (2000) four Is (inductive work, input, implementation, and integration). Initial activities were also non-complex and non-confrontational; learners invited to start thinking about the session topic, and reflect on their own experiences. Activities gradually advanced in complexity, adding new knowledge, and encouraging employees to form and then act on their own success principles (see also Principle 5). Key messages (PP knowledge, skills, or attitudes) were continually reinforced through the intervention to ensure effective learning, and the integration of material.</p>

Principle 5: Praxis

Allowing participants to apply and then reflect upon new knowledge. Learning by doing.

Each session was designed to move participants towards the development of their own success strategies, which stemmed from their own peak experiences (see also Principles 4, 6 and 7). They were then required to act (and then reflect) on their success strategies before the next session.

Principle 6: Respect for learners as decision makers

Involving participants as active decision makers in the learning process. Providing opportunities for choice in the learning process.

Participants were treated as their own best experts (see also Principles 2, 3 and 5). Participants had the freedom to develop and/or choose their own activities in each session. They also had the freedom to decide whether to focus on work on non-work related activities and strategies.

Application was not enforced (although it was monitored at the beginning of each session). Learners were responsible for their own development.

Learners engaged in tasks that required both the generation of ideas (having “a consultative voice”; Vella, 2002, p. 16). Learners then decided what they would do between each session (having a “deliberative voice”; Vella, 2002, p. 16). This helped to engage learners as subjects in, rather than objectives of the learning process.

Principle 7: Involve ideas, feelings, and actions in the learning process

Engage learners thoughts, feelings, and actions in the learning process

Designed learning tasks that included cognitive (i.e., thinking about/ analyzing new knowledge), affective (e.g., remembering positive experiences and emotions from the past; painting a positive picture of the future; inciting positive emotion through positive, strength-based discussions), and psychomotor components (i.e., acting on success strategies; see also Principle 5).

Principle 8: Immediacy and relevance

Adult learners need to find new skills, knowledge, or attitudes immediately useful and relevant

Designed learning activities that required learners to develop success strategies that could be used immediately following the session.

Principle 9: Clear roles and role development

Establish clear roles for both learner and teacher/facilitator, and provide equality in the learning process.

Facilitator was a guide rather than an instructor. Employees were empowered as active participators and decision makers in the learning process. Participants (rather than the facilitator) were considered subject matter experts (each person as his or her own best expert). Promoted an atmosphere of equality in dialogue (e.g., taking an asking rather than telling approach – guiding learners’ questions back to their own wisdom e.g., “what do you think?”; “what do others think?”).

Principle 10: Teamwork and the use of small groups

Engage participants in group-based dialogue and learning.

Delivered intervention in small groups to encourage disclosure, a sense of intimacy, and psychological safety (see also Principles 2 and 3).

Principle 11: Engagement

Promote active engagement in the learning activities.

Engaged participants in active discussion around PP topics. Used a variety of methods to ensure sessions did not become stagnant (e.g., creative tasks, verbal tasks, writing tasks, talking tasks).

Principle 12: Accountability

Ensure both learner and teacher/facilitator understand respective accountabilities

Empowered learners to be accountable for their own development; that is, participants were responsible for improving their own well-being by: (a) devising their own relevant and immediate success strategies, (b) continually acting on and applying strategies, and (c) reflecting on actions. Facilitator was accountable for implementing the intervention as intended and in accordance with the aforementioned learning principles (e.g., always tailoring it to the needs of the learners-checking in along the process; designing and delivering appropriate activities).

Theories used to design program activities

In addition to the aforementioned theories, which informed the design and process of the intervention, several theories were used to design the program activities. These theories were discussed in the previous two papers and are mentioned in Paper 3. However, in summary, the program's theoretical foundation is as follows:

Session one (Introduction): Session one introduced participants to two simple models of well-being and well-being improvement, namely Lyubomirsky and colleagues' (2005) SHM, described earlier, and the Orientations to Happiness Model (Peterson, Park, & Seligman, 2005; Peterson, Ruch, Beermann, Park, & Seligman, 2007). The latter model, OTH, depicts pleasure, engagement, and meaning as the three paths that lead to well-being. These two models, when used together, helped participants to understand the foundation of the program and prepare them for the ensuing sessions.

Session two (Knowing and Using Strengths): The character strengths and virtues classification and other strength theories (Buckingham & Clifton, 2004; Linley, 2008; Peterson & Seligman, 2004) provided the foundation of session two and were referred to throughout the program. Job crafting, which refers to changes that employees can make to their jobs to enhance meaning, enjoyment, and satisfaction (Wrzesniewski & Dutton, 2001), was discussed as a method for applying strengths at home and at work.

Session three (Goal Striving): Session three was guided by several theories including Locke and Latham's (1990) goal setting theory, regarding the mechanics of goal setting (e.g., SMART goals); hope theory (Snyder, Rand, & Sigmon, 2002), regarding the importance of willpower (energy for goals) and way power (pathways to goals); and the motivating potential of self-concordant goals (Sheldon & Elliot, 1999).

Session four (Flow): Session four was primarily informed by the work of Csikszentmihalyi (1990). In particular, the session drew on the defining and enabling properties of flow, including intrinsic motivation, loss of self, loss of time, present mindedness, clear goals, immediate feedback, choice, and the balance between skills and challenge (Csikszentmihalyi, 1990).

Session five (Relationships): Session five was based on research about the importance of relationships for well-being (e.g., Demir, Ozdemir, & Weitekamp, 2007; Demir & Weitekamp, 2006; Diener & Seligman, 2002) and the fulfillment of needs through relationships (e.g., Patrick, Knee, Canevello, & Lonsbary, 2007). The session also drew on methods for cultivating relationships, including the use of specific strengths, such as kindness, gratitude, and forgiveness (Emmons & McCullough, 2003; Karremans, Van Lange, Ouwkerk, & Kluwer, 2003; McCullough, 2000; Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006); active-constructive responding (Gable, Gonzaga, & Strachman, 2006; Gable, Reis, Impett, & Asher, 2004); and the importance of altruism, “giving” and pro-social behavior for relationships and well-being (Deci, Guardia, Moller, Scheiner, & Ryan, 2006; Post, 2005; Steger, Kashdan, & Oishi, 2008).

Session six (Consolidation of Learning): Session six drew further on the goal setting theories discussed in session three. It provided an opportunity for participants to review what they had learnt, to plan new habits, and to set ongoing goals to achieve post-intervention.

Designing a Multifaceted Evaluation Model: Using Outcome, Process and Impact Evaluation in Intervention Research

A multi-disciplinary approach was taken to formulate an appropriate evaluation model. The research and models came from the public and organizational health

literatures as well as the clinical psychology literature (Linnan & Steckler, 2002; Murta, Sanderson, & Oldenburg, 2007; Nelson & Steele, 2006; Nielsen, et al., 2006; Randall, et al., 2007).

Background

Intervention research that evaluates the outcome of an intervention without considering *how* and *why* the intervention was or was not successful can be significantly limited (Linnan & Steckler, 2002; Nielsen, et al., 2006; Randall, et al., 2007; Steckler & Linnan, 2002). Outcome evaluations assess whether a program met pre-determined objectives and are necessary for determining program efficacy and/or effectiveness (Flay, et al., 2005; Nelson & Steele, 2006). However, whilst important, using this approach alone does not provide insight into the quality of implementation nor the practical significance of an intervention. A comprehensive approach to program evaluation integrates a high quality outcome evaluation, such as an RCT, with an evaluation of the process and impact of an intervention (Steckler & Linnan, 2002). The following section provides further detail around these important methods and how they were utilized in the core study.

Outcome evaluation

Outcome evaluation is traditionally concerned with whether or not a program was efficacious and/or effective; that is, did the intervention produce the desired outcomes? (Flay et al., 2005; Nelson & Steele, 2006). The efficacy – effectiveness debate is longstanding. Efficacy refers to whether a “treatment” works in controlled settings, whilst effectiveness refers to whether a treatment is effective in real world or applied settings (Flay et al., 2005; Nelson & Steele, 2006). Contemporary research is moving away from “either/or” thinking to “and” thinking and toward a hybrid approach to program or treatment evaluation (Nelson & Steele, 2006). Thus, this approach

recognizes that both internal and external validity are important in experimental research (Nelson & Steele, 2006). The proceeding study (Paper 3) is consistent with this thinking. The intention was to deliver and evaluate the program under real world, ecologically valid conditions, whilst still maintaining acceptable levels of internal validity. To facilitate a high standard of internal validity, the program was evaluated rigorously, using a randomized controlled trial (RCT). RCTs include random allocation of participants into either an intervention or control group and are considered best practice in a range of health-related settings, including PP and OHP (Flay, et al., 2005; Schaufeli, 2004; Seligman, et al., 2005). They have clear benefits over quasi- or non-experimental designs. In particular, the use of a randomized control group allows for more confidence in making assertions that the treatment “caused” any observed changes in the outcome variables, by managing confounding variables such as self-selection bias and differences due to other non-related individual and contextual factors (Flay, et al., 2005; Pelletier, 2009; Wolf, Siadaty, Crowther, & Nadler, 2009). Longitudinal evaluation is also favourable to short-term evaluation periods and controls for the possibility of transitory effects (Avey, Luthans, & Mhatre, 2008). It also allows researchers to investigate patterns of change over time. According to Flay et al., (2005), best practice standard in experimental research is to include one measurement at least six months post-intervention to assess for variance in or decay of effects over time. To meet this standard in this study, three post-intervention evaluations were included: one week, three months, and six months post-intervention.

The choice of research design was also tailored specifically to the two contexts under specific examination: PP and OHP. Providing evidence for the sustainability of change is particularly important in PP research where there is a strong possibility that the positive nature of an intervention could cause only a temporary uplift in positive

affect (Boehm & Lyubomirsky, in press; Sin & Lyubomirsky, 2009). This pattern of effects is known as the hedonic treadmill (Brickman & Campbell, 1971). Designing and testing interventions that lead to enduring upward changes in happiness via experimental and longitudinal designs is thus of both practical and theoretical importance to PP and the linchpin of PP intervention research (Sin & Lyubomirsky, 2009). The need for rigorously designed intervention research, particularly those with a positive focus, has also been highlighted by OHP researchers (Barling, 2005; Macik-Frey, et al., 2007; Schaufeli, 2004; Tetrick, 2006; Wright & Quick, 2009b).

Despite their importance, “true” experimental designs are often overlooked in favour of quasi and non-experimental designs in workplace health initiatives, mostly due to their practical complexity and expense (Pelletier, 2009). There are also potential ethical issues regarding the use of control groups, who often do not stand to benefit personally from the intervention. To address the latter issue, the current study made provisions for those in the control group: all control group participants were provided with the intervention material at the conclusion of the study as well as the opportunity to discuss the material with the facilitator.

A number of other key decisions were made in the construction of a robust outcome evaluation method, including the identification and measurement of desired outcomes and the formation of success criteria.

Identification and measurement of desired outcomes: In order to determine whether an intervention is effective it is necessary to set up desired outcomes a priori and to measure key outcomes with valid and reliable measures (Flay et al., 2005). Employee well-being was the key outcome of interest in the current study. To ensure best practice conceptualization and measurement of employee well-being, a conceptual review and measurement paper was conducted prior to designing the method of Paper 3

(i.e., Paper 1). This led to the selection of five key measures of well-being. The measures corresponded to three different facets or conceptualizations of well-being: SWB (trait affect plus satisfaction with life), PWB and work-related well-being (affective well-being plus workplace well-being/ domain satisfaction). Each of the instruments corresponding to these facets had been shown to be both valid and reliable and all were commonly used by key figures in the well-being literature (see papers 1 and 3).

Formation of success criteria: Program success criteria were also established a priori. Program effectiveness would be shown by significant time by group interactions (as revealed by a series of mixed method analysis of variances or ANOVAs) for PWB and at least one of the other facets of well-being (either SWB or WWB). PWB was chosen as the primary variable of interest as eudaimonic theories featured strongly in the design of the intervention. PWB is conceptually similar to SDT and both PWB and SDT are considered to be eudaimonic in origin (Ryan & Deci, 2001; Ryff & Singer, 2008). Thus, PWB was considered to be a more proximal variable than either SWB or WWB. As SWB and WWB were not specifically referred to in the design of the intervention, they were considered more distal and thus secondary outcomes. However, as general well-being and satisfaction are associated with eudaimonic activities (Steger, et al., 2008), and because affect-based measures are associated with PWB (Keyes, 2005), it was likely that the intervention would affect these hedonic-based measures as well as the more eudaimonic measure. For the intervention to be effective, the group by time interactions needed to favour the intervention group participants; that is reveal improvements in well-being for intervention but not control group participants over time. It would also be necessary to find effect sizes of at least .20 for each of the ANOVAs, as shown by the partial eta square statistic or, η^2 (Pallant, 2001). According

to Cohen (1988), an effect size of .20 or more, using this statistic, would be a moderate effect. Given that this study employed a smaller sample to accommodate its practical difficulty, statistical power was reduced. Thus, a moderate to large effect size would have been needed to reach significance.

Impact and process evaluation

An *impact evaluation* measures the degree to which an intervention affects the individuals involved and/or the health issue under examination (Steckler & Linnan, 2002). It also provides insight into the meaningfulness of results from a practical perspective. As such, subjective success indicators were set alongside objective success criteria. Specifically, it was reasoned that, if the intervention had been effective, participants would perceive improvements in their personal well-being as a direct result of the program². Participants would also observe at least a moderate level of change in either their general or workplace well-being³. It was reasoned that such information would provide valuable insight into the perceived impact of the program on participants and, thus, would provide additional support regarding the effectiveness of the program. Given that happiness is a subjective state, a happiness intervention that led to significant changes in happiness but where participants did not perceive a meaningful or noticeable improvement in their happiness, would not be considered a meaningful or practical effect. However, these results in isolation, that is, in combination with non-significant interactions, would not be enough to indicate an effective intervention. This is due to the possible influence of demand characteristics, where participants try to “please” the

² Specifically, participants were asked to respond *yes* or *no* to the question: “Do you feel happier as a result of the Working for Wellness Program?”

³ Specifically, participants were asked: [after answering *yes* to the preceding question] “How much do you feel your general well-being has changed *as a result* of the Program” and “How much do you feel your workplace well-being has changed as a result of the Program?”. For both items, 1 = *no positive change*; 3 = *moderate positive change*; and 5 = *much positive change*.

experimenter with an affirmative response (Flay, et al., 2005). Given that effective learning underpins behavior change (Heaney, 2003; Vella, 2002), participants were also asked to assess how much they had learnt about their well-being during the program, using a seven-point Likert scale.

Process evaluations provide insight into the quality of the intervention in terms of both design and implementation. There are two forms of process evaluation: *formative approaches*, which determine any changes that need to be made to improve program effectiveness and *summative process evaluation*, which examine the extent to which a program was implemented as planned (Steckler & Linnan, 2002). As such, process evaluation can aid in the assessment and improvement of both internal and external validity. For example, such evaluations can help researchers to determine whether experimental conditions were effectively controlled (which is important for efficacy) and to assess and/or improve implementation in real world settings (which is important for effectiveness). Other benefits of process evaluation, when used in combination with best practice outcome evaluations, are that they:

- Provide a source of information to other researchers who may be interested in implementing the same or similar programs (e.g., tips and lessons learned; Steckler & Linnan, 2002);
- Help researchers and practitioners to replicate findings in other empirical studies or initiatives;
- Facilitate the development of success strategies for groups of similar interventions;
- Provide insight into why one intervention is effective in some but not other contexts (Murta, et al., 2007).

As such, conducting both process and outcome evaluations, including an assessment of impact, and the connections between them, is of empirical, theoretical and practical importance.

The process evaluation approach used in this study was adapted from Murta, et al. (2007), Nelson and Steele (2006), and Steckler and Linnan (2002). The approach, detailed in Paper 3, was largely conducted through the analysis of facilitator field notes and both qualitative and quantitative participant feedback. Participant feedback has been identified as a critical tool for evaluating process, outcome, and impact in intervention research (Randall, et al., 2007). Essentially the process evaluation model monitored: (a) the degree to which participants were *recruited* and *maintained* (included any issues in these areas such as attrition rates; (b) the degree of *reach* achieved by the program, that is, the percentage of the organization that participated in the program and the comparability of the sample to the population in terms of important demographic variables and program attendance rates; (c) the quality of the intervention and implementation process, or program *fidelity*, which included the degree to which the program was delivered as planned and in the spirit originally intended; (d) the *dose delivered* and *dose received*, that is, the total amount of the program delivered (how many of the program activities were actually delivered each session), and the extent to which participants engaged in the intervention; and (e) *participants' attitudes* towards the program in terms of its content and process and any general comments or issues they had whilst participating. Paper 3 provides specifics as to how each of these dimensions was actualized as well as details of the outcome and impact evaluations. However, in summary, the main sources of data were: (a) the outcome evaluation survey, (b) the program evaluation survey, (c) the process evaluation surveys, and (d) participant focus groups (all surveys in Appendix D). The *outcome evaluation survey*

included the standard outcome variables and relevant demographic items. The *program evaluation survey* included a series of quantitative and qualitative questions that applied specifically to the impact and process dimensions. Both of these surveys were completed by participants. The *process evaluation survey* was completed by the facilitator at the end of each session and assessed the quality and fidelity of program delivery. The facilitator also recorded participant attendance. The *focus groups* were held one year after the program and dealt, largely, with process and impact evaluation.

Declaration for Thesis Chapter 4 (Paper 3)

Declaration by candidate

In the case of Chapter 4 (Paper 3), the nature and extent of my contribution to the work was:

Nature of contribution	Extent of contribution (%)
Designed project methodology, researched and designed intervention, sourced and designed measures, liaised with host organisation and participants, facilitated intervention, collected and analysed data, conducted focus groups and participant de-briefing sessions, initiated publication, instigated key ideas, conducted the literature review, wrote the manuscript, incorporated co-author's feedback into final manuscript, prepared, and submitted manuscript for publication.	80%

The following co-author contributed to the work:

Name	Nature of contribution
Dianne Vella-Brodrick	Helped source host organisation, contributed to conceptual and methodological development including measures, and provided feedback on draft manuscript.

Candidate's Signature		Date
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Declaration by co-author

The undersigned hereby certifies that:

1. the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of the co-author;
2. they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
3. they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
4. there are no other authors of the publication according to these criteria;
5. potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
6. the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s) Monash University, School of Psychology and Psychiatry, Caulfield campus

Signature		Date
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Reprint of submitted manuscript

The Working for Wellness Program:

Examining an Employee Well-being Intervention using RCT

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Abstract

The promotion of positive employee well-being in the workplace has not been extensively explored in OHP research. This paper details the design and evaluation of a positive psychology based employee well-being program using a randomized, controlled trial (RCT). Participants were drawn from a large, government health organization ($N=50$; 73% female, M age=39.7 years; M tenure=8.9 years). Participants were randomly allocated to an intervention or a control group. The intervention group participated in the six-week Working for Wellness Program. They also completed questionnaires assessing subjective and psychological well-being (SWB, PWB), work-related affective well-being (AWB), and workplace well-being (WWB) at pre-intervention, one week post-intervention, and at three and six month follow-ups. The control group completed the four questionnaires only. Mixed ANOVAs revealed significant time by group interactions for SWB and PWB, suggesting improvements relative to controls. There was a main effect of group on AWB but no effect on WWB. Participant feedback regarding the process and impact of the program suggested that the focus on strengths and group delivery were instrumental to the program's effectiveness. Key issues related to attrition and a lack of job and organizational resources to support learning (e.g., low autonomy and no on-the-job support). Findings suggest that employees can learn effective strategies for sustainably increasing well-being. This finding is encouraging for organizations and health professionals striving to promote employee well-being as a positive psychological phenomenon as well as the mitigation of psychological or physical risk.

Key words: Employee well-being, positive psychology, strengths, well-being intervention, occupational health psychology.

The Working for Wellness Program:

Examining an Employee Well-being Intervention using RCT

The study of employee well-being as a positive, psychological phenomenon is still in its infancy. Although well-being is instrumental in the definition of occupational health psychology (OHP), researchers have generally taken a stress-and-strain approach to its development, “fixing what is wrong” rather than “developing what is right” (Schaufeli, 2004) p. 514). Whilst it is important to manage and mitigate the deleterious aspects of work, there is considerable opportunity for OHP to also examine positive organizational and employee outcomes and how the workplace can be used to enhance well-being (Schaufeli, 2004; Wright & Quick, 2009). In support of this, there has been an increase in OHP research investigating positive aspects of work (e.g., Macik-Frey, Quick, & Nelson, 2007; Nielsen & Cleal, 2010; Rego, Souto, & Cunha, 2009) and calls for more positive research, particularly those that evaluate interventions and use experimental, longitudinal designs (e.g., Avey, Luthans, & Mhatre, 2008; Macik-Frey, et al., 2007; Schaufeli, 2004). This paper will address these needs by describing and evaluating a strength-based employee well-being program called the Working for Wellness Program, utilizing longitudinal data and a randomized, controlled trial (RCT).

The Need for Positive Well-Being Programs at Work

Well-being is relevant to OHP researchers because of its association with performance and other organizational outcomes such as absenteeism, presenteeism and turnover (e.g., Keyes & Grzywacz, 2005; Wright & Bonett, 2007; Wright, Cropanzano, & Bonett, 2007). It is also an important outcome in and of itself (Wright & Cropanzano, 2004; Wright & Quick, 2009). Well-being is an important personal and organizational resource, helping people to work productively, relate well to others and

to strive for and attain goals (Lyubomirsky, King, & Diener, 2005). It also predicts physical health and well-being (e.g., Richman, et al., 2005). Interventions that improve well-being are an important complement to those that focus on minimizing or treating psychopathology. Keyes' (2005) research, for example, found individuals with high levels of subjective, psychological and social well-being in combination with low levels of mental illness (generalized anxiety disorder, panic disorder, depression, alcohol dependence) achieved significantly better outcomes (e.g., goal formation, resilience, fewer lost work days) than those with low levels of well-being (but not high levels of mental illness). Most workplaces do not focus on promoting positive psychological well-being and those that do commit to health and well-being programs, tend to focus on preventing illness and injury at work (e.g., worksite health promotion, occupational health and safety initiatives), preventing (or managing) employee stress, or promoting physical health (Page & Vella-Brodrick, forthcoming). There is an opportunity for organizations to also invest in programs that cultivate employee strengths and optimize positive capacities and experiences. This is the cornerstone of positive psychology (PP), which promotes the optimal functioning of people, groups and institutions (Gable & Haidt, 2005).

What is Well-being?

Well-being is a “positive and sustainable state that allows individuals, groups and nations to thrive” (Huppert, Bayliss, & Keverne, 2004, p. 1331). The term can include personal, physical and social elements (e.g., happiness, vitality and rewarding social connections, respectively) as well as resilience (Huppert, et al., 2004). Although subjective and multi-faceted, well-being can be operationalized and measured effectively. In this study, Keyes' (2005) operationalization, which defines well-being as the presence of positive feelings and positive functioning, is employed. ‘Positive

feelings' are examined through the measurement of *subjective well-being (SWB)* - the affective and cognitive judgment one makes about his or her life (Diener, 1984; Diener, Suh, Lucas, & Smith, 1999). Due to a focus on the workplace and the work-home interface, *work-specific affect* and *workplace well-being* (Daniels, 2000; Page, 2005; Warr, 1990) are also included. Measuring the positive, affective component of well-being aligns with the hedonic well-being tradition, which views well-being as the relative pursuit of pleasure over pain (Waterman, 1993). Positive functioning can represent the eudaimonic well-being tradition, which refers to the process of functioning or living "well" (Ryff & Singer, 1998, 2008). In line with Keyes' (2005), positive functioning is captured in this study through Ryff's (1989) *psychological well-being (PWB)*, which includes a positive self-view, continued growth and learning, purpose and meaning in life, positive relationships, and a sense of autonomy and mastery. Although stemming from separate philosophical and empirical origins, subjective and psychological well-being should be seen as complementary and related constructs rather than phenomenologically distinct "types" of happiness (Kashdan, Biswas-Diener, & King, 2008; Keyes, 2005). This multi-faceted approach is adopted for this study by including multiple measures of well-being – corresponding to subjective, psychological and workplace well-being (Page & Vella-Brodrick, 2009) - to examine the effect of the Working for Wellness Program on employee well-being.

*Using Strengths to Foster Well-being: Foundations of the Working for Wellness
Program*

Identifying and developing strengths differentiates PP research from the more traditional deficit approach to psychology. In this study, the concept of *strengths* is used in two ways: (a) as the specific, positive interpersonal character traits classified in the character strengths and virtues framework (CSV; e.g., gratitude, love of learning,

curiosity, fairness; Peterson & Seligman, 2004); and (b) Linley and colleagues' broader view of strengths as natural ways of thinking, feeling or behaving that are "authentic and energizing to the user [and that enable] optimal functioning, development and performance" (Linley, 2008, p. 9.). This expands the realm of strengths to include both the specific character strengths defined by the CSV as well as any other positive capacities or processes deemed by the individual as personal strengths (e.g., Wood, Linley, Maltby, Kashdan, & Hurling, in press).

Strengths, however defined, are valuable in and of themselves and as a means to other outcomes. Simply possessing certain character strengths (gratitude, curiosity, love, hope and zest) is positively associated with well-being (e.g., Brdar & Kashdan, 2010; Park, Peterson, & Seligman, 2004). Further, the degree to which a person uses his or her strengths is temporally related to well-being. For example, Wood et al. (in press) used a newly developed measure of strength-use to show that using strengths at time one led to lower stress, greater self-esteem, vitality and positive affect at three and six month follow-ups. Similarly, encouraging individuals to apply their strengths in novel ways can lastingly increase well-being (Mitchell, Stanimirovic, Klein, & Vella-Brodrick, 2009; Seligman, Steen, Park, & Peterson, 2005) and reduce depressive symptoms (Seligman, et al., 2005) over and above the effects of alternative conditions, such as problem-solving (Mitchell, et al., 2009), strength identification, expressing gratitude, and writing about early memories (Seligman, et al., 2005). Finally, individuals who have the opportunity to use their strengths at work are more likely to be engaged, which in turn predicts valued organizational outcomes such as employee turnover and business unit productivity (Harter, Schmidt, & Hayes, 2002).

The next logical step in the study of strengths is to ascertain *how* people can use their strengths to fulfill psychological needs and enhance personal well-being (Linley,

Nielsen, Wood, Gillett & Biswas-Diener, 2010). One already established route is through the *pursuit of self-concordant goals* (Govindji & Linley, 2007; Linley, Nielsen, Wood, Gillett, & Biswas-Diener, 2010). Three other plausible routes, which are empirically related to well-being and theoretically related to strengths, include *crafting* one's job to be more in line with one's strengths, balancing one's skills and strengths with optimal levels of challenge to facilitate *flow*, and using one's strengths in *relationships*.

Pursing *self-concordant goals* (i.e., goals that are personally interesting and meaningful) is important for well-being (Sheldon & Elliot, 1999). For example, Sheldon and Houser-Marko (2001) found that striving for self-concordant goals had a positive impact on well-being, which in turn predicted greater goal-directed motivation, goal attainment and self-reported personal growth in the following semester (i.e., producing an upward spiral). Because strengths represent a person's authentic self and are, in themselves, intrinsically motivating (Peterson & Seligman, 2004), goals that are congruent with one's strengths are more motivating and enjoyable. They can also facilitate the fulfillment of competence, relatedness and autonomy needs (Linley, et al., 2010), which in turn is associated with optimal functioning (self-determination theory, SDT; Deci & Ryan, 1985; Ryan & Deci, 2000). Linley et al. (2010), for example, found that using strengths facilitated participants' progress towards goals, which in turn, predicted psychological need satisfaction and higher levels of SWB. Similarly, Govindji and Linley (2007) found strength-based goals facilitated both SWB and PWB. These findings are congruent with the sustainable happiness model (Lyubomirsky, Sheldon, & Schkade, 2005). SHM purports that well-being can be enhanced when people intentionally engage in certain cognitive, behavioral or volitional activities, particularly when those activities are personally meaningful and interesting (i.e.,

strength-based or self-concordant) and applied with enough variety to enable continued growth and development. In doing so, such activities allow one to fulfill psychological needs and overcome factors that thwart gains in happiness, such as dispositional happiness set-points and hedonic adaptation (Sheldon & Lyubomirsky, 2004).

Job crafting refers to efforts by employees to change the way they do their job (in terms of both what they do and who they do it with) or how they perceive their job (e.g., as more or less in line with their values; Wrzesniewski & Dutton, 2001).

Research has found that employees who craft their job to be more in line with their passions, interests and values find more meaning, enjoyment and satisfaction in their work (Berg, Grant, & Johnson, 2010; Wrzesniewski, 2003; Wrzesniewski & Dutton, 2001) – all fundamental aspects of well-being. Given that strengths, as defined by Peterson and Seligman (2004), are highly value-dependent, crafting a job to better fit with a person's strengths is likely to lead one to experience a higher sense of competence, relatedness and autonomy at work, which may subsequently explain its effect on well-being. Interestingly, Wrzesniewski and Dutton posit that employees' are more inclined to craft when they perceive low opportunities for autonomy, connection and a positive self-view in their role, which are comparable to the needs espoused by SDT.

Applying strengths incites feelings of invigoration and excitement, a yearning for the activity to continue and a sense that the activity is worth doing for its own sake (Buckingham & Clifton, 2004; Linley, 2008; Peterson & Seligman, 2004). These properties are also markers of the highly enjoyable, absorbing and intrinsically motivating state of flow (Bakker, 2005; Csikszentmihalyi, 1990; Nielsen & Cleal, 2010). *Flow* is associated with positive affect and satisfaction (e.g., Csikszentmihalyi & LeFevre, 1989; Fritz & Avsec, 2007) and represents the optimal balance between one's

unique skills (akin to strengths) and the amount of challenge in a given activity.

Waterman's (2005) research found that flow-inciting activities (high liked-high effort activities) facilitated feelings of enjoyment and personal expressiveness (i.e., "this is the real me"), both of which define a character strength (Peterson & Seligman, 2004).

Although not yet investigated, flow may be another important means of applying strengths (Seligman, 2002).

Relationships – particularly where one has the opportunity to help another - may represent a fourth avenue for applying strengths. Close relationships provide a supportive social environment whereby a person can meet their competence, relatedness and autonomy needs, allowing for optimal growth and well-being (Demir & O'zdemir, 2010; La Guardia & Patrick, 2008). Many strengths of character are other-focused, for example, the character strengths of love, forgiveness, gratitude and kindness are often (or predominantly) actualized through interactions with others, which can facilitate well-being (e.g., Emmons & McCullough, 2003; McCullough, 2000). For example, Otake, Shimae, Tanaka-Matsumi, Otsui and Fredrickson (2006) found that subjective happiness increased when participants counted their own acts of kindness (use of a character strength) throughout one week. Karremans, Van Lange, Ouwerkerk and Kluwer (2003) found practicing forgiveness in relationships was associated with greater PWB, particularly in highly committed relationships. Steger, Kashdan and Oishi (2008) found that eudaimonic, other-focused behaviors, such as volunteering, giving money to a person in need, expressing gratitude, listening carefully to another's point of view (which are associated with such character strengths as kindness and gratitude), were more strongly related to well-being than hedonic behaviors (e.g., loveless sex), further supporting the use of strengths in relationships.

The Current Study

The current study builds on the aforementioned research to develop a positive, strength-based employee well-being program. The aim of the program was to teach participants to identify and apply their strengths, through the four avenues just described, in order to cultivate subjective, psychological and work-related well-being. Each activity has already been reliably associated with various well-being outcomes and likely represent intentional and effortful activities that allow participants to overcome the SWB set-point (hedonic perspective) and experience greater personal fulfillment (eudaimonic perspective). However, research has not extensively evaluated these strategies in a workplace setting using a multifaceted approach. There is evidence to suggest that multifaceted well-being programs can effectively increase well-being and related phenomena (e.g., Fordyce, 1977; Fordyce, 1983; Luthans, Avey, Avolio, Norman, & Combs, 2006). A multifaceted program may be effective because it includes a breadth of activities, thus providing more opportunities for participants to meet competence, autonomy, and relatedness needs (relevant to SDT; Deci & Ryan, 2000). Engaging in multiple activities may also provide opportunities for continued growth and richer, more varied experiences (relevant to SHM; Lyubomirsky, Sheldon, et al., 2005). Another novel feature of this study is that it allowed participants to pursue activities both at work and at home. This is based on research showing that activities pursued outside of work can facilitate workplace well-being and recovery from work demands (Allis & O'Driscoll, 2008; Mojza & Sonnentag, 2010; Sonnetag, Binnewies, & Mojza, 2008). Finally, as well as evaluating the outcome of the intervention, the process and impact of the intervention was evaluated using qualitative and quantitative data drawn from participants and facilitator field notes. This comprehensive approach allows researchers to explore how, and to what extent, a program is effective. This is

seldom included in intervention research (Nelson & Steele, 2006; Randall, Cox, & Griffiths, 2007; Steckler & Linnan, 2002).

Aims, Hypotheses and Design

The aim was to investigate the effect of the Working for Wellness Program on employee well-being. The program was evaluated using a mixed method design comprising of: (a) an RCT to assess outcome effectiveness, and (b) participant feedback and facilitator field notes to assess process and impact effectiveness. It was hypothesized that those who participated in the program would experience significant increases in both general well-being (SWB, PWB) and work-related well-being (AWB, WWB) over time, in comparison to a control group, as shown by four significant group by time interactions. No hypotheses were set for the process or impact evaluations, which were of an exploratory nature only.

Method

Participants

The study was conducted in a large government health agency in Melbourne, which had approximately 950 employees at the time of the study. The sample ($N=50$) represented the diversity of the organization, including both customer service and processing employees (e.g., call centre, branch staff) and corporate employees (e.g., HR, marketing and communications). Employees were located in either the metropolitan state headquarters (51.5%) or suburban branch offices (48.3%). The majority of the sample were female (73%), with a mean age of 39.7 years ($SD = 10.0$ years; range = 21-57 years). Over half of the sample were either married (37.8%) or in a de facto relationship (16.2%). The sample was diversely educated: 40.5% with secondary education and the remainder holding an undergraduate or postgraduate

degree (18.9%, 24.3%) or a TAFE course/apprenticeship (16.2%). Participants were permanently employed, working mostly full-time (94.6%), on average, 38.8 ($SD=5.8$) hours per week, with a mean tenure of 8.9 ($SD=10.6$) years. Sample characteristics were very similar to the population of the organization.

Figure 1 illustrates participants' flow through the study and the research procedure. As shown, 11 of the 61 initial volunteers did not complete the time 1 survey. Thirteen employees (26%) did not complete the time 2 survey. Of these, four did not complete the survey due to their resignation from the organization prior to the second wave of data collection (all from state headquarters; two from each experimental group). Eight were branch staff and five (one, excluding those who resigned) were state headquarters employees. Informal discussions with branch managers indicated that branch staff had been too busy to complete the time 2 survey. Twenty-nine intervention group participants completed the program successfully (attending at least 4 of the 6 sessions). Of these, 19 completed the program evaluation survey, one week following the outcome evaluation survey. Only minimal attrition occurred at times 3 and 4. However, due to the losses at time 2, only 23 participants completed all four outcome evaluation surveys (10 control group; 13 intervention group). t-tests showed no significant differences between completers and non-completers in terms of either baseline well-being or demographics. Eighteen employees participated in the focus group sessions, held one year after the program to debrief participants and collect additional feedback.

[Insert Figure 1 about here]

Measures

In line with Page and Vella-Brodrick's (2009) theoretical model of employee well-being, the following measures were selected for the study:

Scales of Psychological Well-being (SPWB)

PWB was measured by the 42-item SPWB (Ryff, 1989). The SPWB contains six dimensions (self-acceptance, personal growth, environmental mastery, autonomy, purpose in life, and positive relations with others). Agreement was recorded on a seven-point Likert scale from *strongly disagree* to *strongly agree*. Although Ryff (1989) reported good internal consistency and test-retest validity for each of the sub-scales, some have questioned the reliability of the factor structure (e.g., Abbott, et al., 2006; Springer & Hauser, 2006; Springer, Hauser, & Freese, 2006). This was also a problem in the current study: few of the sub-scales showed acceptable levels of reliability (i.e., $>.70$). As such, a composite PWB score was utilized to obtain a more reliable indication of PWB (Springer, Hauser & Freese, 2006). This was supported by principal components analysis (PCA), which confirms the presence of a single factor in the data. The factor explained 52.86% of the variance and correlated acceptably with the sub-scales (all loadings $>.30$). The total scale was more internally consistent than the individual subscales (average $\alpha=.90$ across time for the single scale compared to e.g., $\alpha=.52$ personal growth and $\alpha=.69$ for environmental mastery). Example items were: "In general, I feel I am in charge of the situation in which I live" and "I have a sense of direction and purpose in life".

Satisfaction with Life scale (SWLS)

The five-item SWLS is a measure of satisfaction with life and represents the cognitive component of SWB (Diener, Emmons, Larsen, & Griffin, 1985; Diener, et al.,

1999). The SWLS has acceptable levels of internal reliability, temporal stability and discriminant validity (Diener, et al., 1985; Pavot & Diener, 1993). The scale correlates positively with other measures of SWB, and negatively with measures of psychopathology (Diener, et al., 1985; Pavot & Diener, 1993). An example item is “I am satisfied with my life”. Agreement was recorded on a seven-point Likert scale from *strongly disagree* to *strongly agree*. In the current sample, average internal reliability was .90 across time.

Positive and Negative Affect Schedule (PANAS)

The affective component of SWB was measured using the 20-item PANAS (Watson, Clark, & Tellegen, 1988). The PANAS can be used to measure trait affect - a core component of SWB (Davern, Cummins, & Stokes, 2007; Diener, et al., 1999). Example PA and NA items, respectively, are “Excited”/“Enthusiastic” and “Irritable”/“Jittery”. To assess trait affect, participants were instructed to rate each item according to how they generally feel (Watson et al., 1988). Responses were recorded on a five-point Likert scale from *very slightly or not at all* to *extremely*. Watson et al. (1988) reported excellent internal consistency for both the PA and NA scales (PA α range = .86-.90; NA α range = .84-.87). In the current sample, average internal consistency was .89 across time for both PA and NA.

Together, the SWLS, PA and NA have often been used as an aggregate measure of Diener’s (1984) SWB by summing SWLS and PA, and subtracting NA (e.g., Linley, et al., 2010; Sheldon & Elliot, 1999; Sheldon & Lyubomirsky, 2006). Prior to forming a composite SWB measure, the validity of this approach was checked using PCA (as per Sheldon & Lyubomirsky, 2006). All three variables loaded on a single factor with a one factor solution accounting for 57.5%, 65.0%, 61.0% and 73.8% of the variance over the

four time points respectively (loadings > .70). This justified the use of a composite SWB measure.

The Workplace Well-being Index (WWBI)

Workplace well-being, or satisfaction with work domains, was measured using the WWBI (Page, 2005). Page (2005) reported excellent levels of internal consistency ($\alpha=.90$). Example items are “How satisfied are you that your work allows you to use your abilities and knowledge?” “How satisfied are you with the meaningfulness of your work?”. Responses were recorded on an 11-point Likert scale from *completely dissatisfied* to *completely satisfied*. Items were averaged to create an overall WWBI score (Page, 2005). The WWBI has been utilized several times in coaching research, and found to be valid, reliable, and sensitive to change pre- and post-intervention (e.g., Grant, Curtayne, & Burton, 2009). Average internal consistency for WWBI in this study was .94 across time.

The Affective Well-being (AWB) scale

Work-specific or state affect was measured using the 35-item AWB scale (Daniels, 2000). The AWB scale depicts five axes on the circumplex model: anxiety-comfort (e.g. “anxious”, “relaxed”), depression-pleasure (e.g., “miserable”, “happy”) bored-enthusiastic (e.g., “sluggish”, “motivated”), tiredness-vigor (e.g., “fatigued”, “alert”), and angry-placid (e.g., “annoyed”, “at ease”). The scale has been applied specifically in a work setting (Daniels, 2000; Rego, et al., 2009). Daniels’ (2000) found support for the five-factor solution using confirmatory factor analysis in two separate validation samples. Internal reliabilities of the subscales ranged from .79 to .88 in the two samples. To assess state affect, participants were asked to think about their affect in relation to the last week. A composite AWB scale was utilized to minimize the

number of variables in the study, thus minimizing the likelihood of Type I error. An average AWB score has been used in other studies with acceptable reliability (e.g., Rego et al., 2009). In the current study, average internal consistency for AWB was .94 across time.

Demographics

Demographic variables included age, marital status, gender, education level, work location (branch or state headquarters), employment and contract status (permanent/temporary; full-time/part-time), number of hours worked per week, and tenure.

Procedure

The study was approved by Monash University's Human Research Committee and then advertised in the company newsletter. Interested employees were emailed the explanatory statement and consent form. Consenting employees were randomly allocated to a control or an intervention group using an online random allocation system (random.org). They then completed baseline (time 1) measures online. Participants who could not access the internet at work (branch, call centre, and processing employees) completed a paper-and-pencil survey. The intervention group participated in the six-week Working for Wellness Program (Sept to Dec 2008; one hour session per week during their normal working week). State headquarters employees participated during the work day; branch employees participated after work. Control group participants did not receive an intervention and completed the four questionnaires only. Three sets of post-intervention outcome evaluation data were collected. Process and impact evaluation data were collected from intervention group participants one week after the time 2 outcome evaluation survey, using a program evaluation survey. The slight time

delay was intended to reduce the effect of common method variance and social desirability responding. Data were collected anonymously and paired at each time point using participants' anonymous, self-selected identifiers.

The intervention

The Working for Wellness Program is a PP-based employee well-being intervention. Table 1 provides a Program overview including example activities.

[Insert Table 1 about here]

The program consisted of six, one hour, small group-based sessions. Each session was facilitated by the first author according to a set training manual. This enabled consistency across groups. Participants focused on strengths and learnt from their best (or peak) experiences (Cooperrider, 1986; Cooperrider, Whitney, & Stavros, 2008). Care was taken to optimize well-being and learning outcomes for participants by facilitating sessions in a positive, supportive and affirming environment (e.g., Joseph & Linley, 2006). Participants were also provided opportunities for autonomy, decision making, group discussion (Ryan & Deci, 2000; Vella, 2002), and a psychologically safe climate (Vella, 2002). The facilitator recorded adherence to this approach using field notes and ratings (five-point Likert scale where 1 = poor adherence and 5 = strong adherence), which was completed at the end of each session. Notes and ratings were also taken regarding other elements of delivery, including fidelity and participant attendance. This data formed part of the process evaluation. Implementation was much like typical workplace training and thus had ecological validity (Flay, et al., 2005). The program was delivered over six consecutive weeks rather than as a single day to allow

participants the opportunity to apply what they learnt in between sessions. This is known as learning transfer and is critical to the change process (Vella, 2000, 2002).

Training materials

Training materials were an activity book and resource pack, which included the program activities and relevant background information (e.g., theories, tips, resources), respectively. Intervention group participants received the training materials in their first session. Control group participants received the materials when the study had concluded.

Pilot session

An abbreviated version of the program was presented to the Positive Psychology Network (PPNet) group at Monash University (24th July 2008), to pilot the concepts and solicit peer feedback. The PPnet is a group of PP professionals and academics from the wider Melbourne area. Feedback and input obtained was used to make final revisions to the program prior to implementation.

Feedback and debriefing session

Participants were invited to a debriefing and feedback session one year after the program had commenced. The session was conducted as a focus group by the first author at state headquarters. It included a brief presentation of results, an opportunity for both groups to reflect on their experiences with their peers, and the collection of additional participant feedback. Focus group data were captured by a trained observer in the form of written notes and analyzed as part of the process evaluation.

Results

Data Screening and Preliminary Analyses

Table 2 presents correlations between all variables. Hypotheses were tested using a 2 by 4 mixed ANOVA design, which included group (intervention versus control) and time (pre-intervention and one week, three-month, and six-month follow-up). SPSS version 16 was used to screen and analyze data. Prior to running analyses, data were checked to confirm ANOVA assumptions. To facilitate comparison between scales, all items were converted to composite scores, and standardized to Percentage of Scale Maximum (%SM). This approach has been used in other Australian well-being studies (e.g., Tomy & Cummins, 2010). For any scale that is rated 0-x, %SM is calculated through the formula: $\frac{X - k^{\min}}{k^{\max} - k^{\min}} \times 100$ (where X=the score or mean to be converted; k^{\min} =the minimum score possible on the scale and k^{\max} =the maximum score possible on the scale).

A series of independent sample t-tests conducted on all baseline measures confirmed random group assignment - there were no pre-existing well-being differences between groups. There was no significant difference between participants who completed the two versions of the survey (paper-and-pencil versus online) for any of the variables. Chi Square and t-tests showed that there were no differences between survey completers ($n=23$) and non-completers ($n=27$) in terms of their assigned group or demographics except that those who dropped out were more likely to work in a branch office than state headquarters ($\chi^2 = 12.24, df = 1, p = .00$). Informal branch manager reports indicated that branch staff, who all dealt directly with customers, had been too busy to fill out some of the surveys.

[Insert Table 2 about here]

Outcome Evaluation: Did the Program Affect Employee Well-being?

Means and standard deviations for groups over time are presented in Table 3.

Psychological Well-being

The 2 x 4 mixed method ANOVA revealed a significant group by time interaction for PWB, Wilks' Lambda=.85, $F(3, 17) = 1.03$, $p < .05$, partial $\eta^2 = .39$, which according to Cohen (1988), is a large effect. This indicated that the degree of change from time one to time four in these variables was dependent on group (intervention or control group). Specifically, participants in the intervention group experienced significant improvements in PWB across time compared to controls.

[Insert Table 3 about here]

[Insert Figure 2 about here]

Subjective Well-being

A mixed method ANOVA revealed a significant time by group interaction on the composite SWB variable, Wilks' Lambda=.55, $F(3, 18) = 4.87$, $p = .01$; partial $\eta^2 = .45$, which is a large effect (Cohen, 1988). Specifically, the intervention group experienced significant improvements in SWB across time compared to controls.

[Insert Figure 3 about here]

Work-Related Well-being

A mixed method ANOVA revealed no significant time by group interaction for WWB. The main effects for time and group were also non-significant. The group by time interaction for AWB was not significant. There was no significant main effect for time. However, the main effect of group on AWB was significant, $F(1) = 7.96, p=.01$, partial $\eta^2=.33$, and also a large effect (Cohen, 1988). Participants in the intervention group experienced significantly more positive work-related AWB than those in the control group, across time. Preliminary analyses, reported earlier, indicated that the two groups did not differ in AWB at baseline.

[Insert Figure 4 about here]

Pattern of Results

As shown in Figures 2, 3 and 4, the pattern of change was not linear. Instead, the well-being of both groups fluctuated over time. As might be expected in a well-being-intervention, there was an immediate upward shift in well-being for the intervention group. This effect tapered off at time 3. This pattern is consistent with hedonic adaptation theory, which suggest that initial gains in well-being will gradually dissipate as a person adapts to new phenomena (i.e., the "hedonic treadmill"; Brickman & Campbell, 1971). However, contrary to adaptation theory, the intervention group experienced another slight upward shift in well-being at time 4 – six months after the

intervention. This suggests a spontaneous recovery of effects. In contrast, the control group generally showed a downward well-being trend.

*Process and Impact Evaluation: How and to What Extent did the Program Affect
Employee Well-being?*

In addition to the standard outcome evaluation, a process and impact evaluation was conducted, adapted from the recommendations and procedures of Murta, Sanderson, and Oldenburg (2007), Steckler and Linnan (2002), and Randall et al., (2007). Evaluation data were drawn from facilitator field notes and both quantitative and qualitative participant feedback. Table 4 summarizes key elements of the evaluation approach, together with results. The quantitative process evaluation data, which measured, for example, degree of learning, participant motivation, degree of application and activity “fit”, were subjected to descriptive analysis using SPSS. Qualitative data were collected through a combination of open ended survey and focus group questions (e.g., what was most liked about the program). Patterns and themes in the qualitative data were identified deductively, interpreted at the latent level, and described using Braun and Clarke’s (2006) thematic analysis approach. A latent approach was taken due to the structured nature of the program evaluation survey, which did not allow for follow up questioning. Although latent interpretation is somewhat subjective, it can capture the richness of a dataset (Braun & Clarke, 2006). The themes were independently coded and confirmed by a post-graduate student who was not involved in the study.

Tables 4 and 5 report the key quantitative and qualitative findings, respectively. Participants indicated that they learnt a great deal about their well-being during the program. All but two of the respondents considered themselves to be happier as a result of the program. This aligns with the statistical outcome evaluation. Interestingly,

participants perceived slightly more change in terms of their general well-being than their work-specific well-being. This also concurs with the outcome evaluation, which showed significant interactions for the two general well-being variables, a main effect of group for AWB, and no significant change in WWB. Interestingly, focus group data indicated that some spillover may have occurred; activity changes outside of work were reported to benefit general well-being. This, in turn, improved how participants felt at work.

[Insert Table 4 about here]

Interpretation of the qualitative data suggested that the program had a positive effect on employees in terms of improved self-awareness and self-acceptance, goal pursuit and attainment (which in itself was satisfying), better employee relationships and general positive feelings, and more positive states of mind (e.g., feeling happier, more confident, enjoying work more). Interestingly, some participants reported that the rise in self-awareness challenged their well-being to some extent, appearing to set up discrepancies between what was and could be (see Table 5 for specific comments). For a select few, this led to feelings of frustration or disappointment, particularly when they felt that they could not apply what they learnt at work.

[Insert Table 5 about here]

According to the process evaluation data, the intervention was delivered as planned, encouraged participants to engage in PP activities, focused on their strengths,

and used a positive, affirming facilitation style. Slightly more emphasis was given to applying activities outside of work; this is what most participants tended to prefer (note: this preference was not quantitatively assessed but appeared in the field notes). The facilitator delivered all program activities with a high level of consistency across groups. Participants indicated high levels of both motivation and application during the program. There was also a high rate of attendance within and across sessions. Therefore it can be deduced that participants were exposed effectively to, and quite engaged in, the program. Taken together, data indicate satisfactory levels of internal and external validity, which is important for program effectiveness (Flay, et al., 2005).

Data also showed that the program was a good fit with participants' interests, values, and needs. This suggests that participants felt a high degree of concordance with the program – self-concordant motivation plays a key role in enhancing well-being according to the SHM (Lyubomirsky et al., 2005). Participants reported *knowing and using strengths* and *relationships* to be the best fit with their interests and needs, and were the most liked components of the program overall. The *flow* session fit least with participants, although was still a good fit overall. The pattern of fit tracked similarly with patterns of motivation and application. It was evidenced from the data that participants felt quite motivated to continue applying the activities. Participants enjoyed the program immensely, overall, and perceived the program to be only a minimal burden on their time. Every participant said they would recommend the program to others and, hypothetically, participate again if asked.

Strengths of the program included its content as a whole as well as the specific, strength-based activities. The style and format of the program (e.g., facilitation style) was also appreciated, particularly the opportunities for group discussion and peer to peer sharing. This further supports that the program was delivered in the spirit and style

intended (i.e., indicating acceptable levels of fidelity). Key recommendations for improvement included providing more sessions in total and more time within each session. Participants felt this would have enabled more in-depth learning and discussion (note: a longer program was originally planned but had not been possible due to organizational factors).

Focus group data, conducted one year post-program, indicated that intervention group participants experienced a number of limitations in applying what they learnt at work. This included a lack of role clarity and autonomy support. Focus group participants also suggested a number of next steps, in terms of implementation, including the provision of various mechanisms to support learning and growth such as manager training and peer-support groups.

Discussion

There are very few OHP interventions available that focus specifically on enhancing positive employee well-being through the identification and application of individual strengths. The need for such interventions follows a change in emphasis in psychology towards understanding and promoting positive individual (and organizational) capacities. Validating positive approaches to employee well-being is an important area of future research for OHP.

In the current study, a positive, strength-based employee well-being program was designed and evaluated using a mixed method design. The aim of the program was to enhance subjective, psychological and work-specific well-being. This included the identification of employee strengths and the application of strengths through a variety of intentional activities including job crafting, self-concordant goals, flow and fostering relationships. The program did not focus on identifying or treating specific work-

related health or well-being problems. Instead, employees focused on (and appreciated) the ways in which they were already doing well and developed methods for further enhancing their natural strengths by analyzing peak experiences. Results were very positive overall: the predicted effects for both general well-being variables and one of the work-specific variables were revealed. Specifically, employees who participated in the program experienced significant gains in SWB, PWB and work-specific AWB over time. Control group participants did not experience these increases but showed a general downward trend in well-being. It is notable that the program appeared to affect multiple aspects of well-being; that is, improving both positive feelings (SWB and work-specific AWB) and positive functioning (PWB). Previous research has suggested that both positive feelings and positive functioning are important markers of well-being (e.g., Kashdan et al., 2008; Keyes, 2005).

Implications for the Malleability of Well-being

A key question in well-being intervention research is whether or not well-being is amenable to change (Boehm & Lyubomirsky, in press). The positive results in this study add to a growing body of research suggesting that well-being can be increased through intentional, individual effort (e.g., Seligman, Steen, Park & Peterson, 2005; Sheldon & Lyubomirsky, 2006). Set-point theory posits that people can only experience short-term gains in happiness due to hedonic adaptation (Brickman & Campbell, 1971; Suh, Diener, & Fujita, 1996). Adaptation is a bitter-sweet phenomenon: whilst helpful in the face of major life adversities, it poses a challenge for happiness researchers who look to lastingly enhance well-being. Results support the SHM in showing that the set-point can be overcome when participants engage in proactive and intentional activities. However, as in any successful well-being intervention, results need to be interpreted cautiously. For example, results do not refute

the existence of a happiness set point or, indeed, a set range. Instead, results may support the view that well-being interventions can help individuals move to the upper limit of their set range (i.e., a few standard deviations above or below their set-point) but cannot necessarily overcome the upper limits of such a range (Cummins, 2003; Sheldon, Boehm, & Lyubomirsky, in press). Thus, those that do experience long-term changes in well-being may do so to the extent that they began an intervention with very low levels of well-being (i.e., functioning well below their genetic baseline or its upper limits). Regardless of this, it is evident that improving well-being involves effort and may only sustain to the extent that such effort continues (Boehm & Lyubomirsky, in press; Lyubomirsky, Sheldon, et al., 2005; Sheldon, et al., in press). It is also worth noting that the notion of hedonic adaptation is not generally used in reference to PWB. It may be that PWB, which is more eudaimonic than hedonic in origin (Ryff & Singer, 1998, 2008), is less prone to adaptation and thus more malleable to intervention. This matter is worthy of further exploration.

How and Why was the Program Effective?

Applying Strengths through Intentional Activity

The multifaceted program involved participants applying their strengths (including both character strengths; Peterson & Seligman, 2004, and broader conceptualizations of strengths and best (or peak) experiences; Cooperrider, 1986, 2008; Linley & Harrington, 2006) within a variety of intentional activities. Specifically, it was proposed that strengths can be applied through job crafting, flow and relationships as well as self-concordant goal striving, the latter of which is already supported (e.g., Linley et al., 2010; Sheldon & Elliot, 1999). The current study specifically supports and extends past research showing that using character strengths, striving for self-concordant goals, getting into flow and cultivating positive

relationships can enhance well-being and that, specifically, strengths can be mobilized through these various mechanisms. The results also support research and theory indicating that intentional activities, particularly those that are effortful, self-concordant and continuously applied, can lastingly improve well-being (Sheldon, et al., in press; Sheldon & Lyubomirsky, 2006). SHM, the Hedonic Adaptation Prevention model (HAP) (Sheldon et al., in press) and self-concordant motivation theories assert that people will be more intrinsically motivated to engage in activities that align with their interests, values and needs. In turn, such motivation encourages more sustained effort to apply activities which ultimately benefits well-being. Participants reported a high level of fit, motivation and application with each of the program activities, which may explain the positive results found here. Although not directly tested in this study, SDT suggests that pursuing intentional activities, such as those described here, may have provided participants with opportunities to fill inherent competence, relatedness and autonomy needs, which subsequently fosters well-being. Qualitative data supported this to some extent - participants reported changes in self-esteem and self-acceptance, and pleasure in identifying and using strengths, pursuing and achieving goals (competence) and satisfaction in sharing experiences with and getting to know their work colleagues (relatedness).

The current study was different from much PP research in that it adopted a multi-faceted intervention. Fordyce (1977, 1983) and Luthans et al., (2006) also had success with multifaceted approaches. In this instance, a multifaceted program may have been effective because it exposed participants to multiple activities that they could engage in, thus providing a sense of variety and choice (autonomy) – both of which are important according to SHM and SDT. Variety is also a key factor moderating the

activity to well-being relationship in the HAP model, particularly in facilitating long term changes in well-being (e.g., Sheldon et al., in press).

Group Delivery and Discussion

The delivery of the program in small groups may also explain its success. Participants reported that sharing experiences and peer-to-peer discussion was a strength of the program. The positive group dynamics may have enlivened a *spirit of camaraderie*, defined as relationships “the degree to which interpersonal relationships in the organization are characterized by friendship, team spirit, and mutual concern”, which has been found important for AWB, strengthened by employees’ need to belong (Rego, et al., 2009, p. 149). Talking with others is also an important vehicle for capitalizing on and savoring positive experiences (Bryant, 1989; Gable, Reis, Impett, & Asher, 2004; Langston, 1994). Talking about positive experiences – which generally entails the expression of positive emotion - may also benefit other people in the group through the process of emotional contagion and crossover (Bakker, 2005; Hartel & Page, 2009; Hatfield, Cacciopo, & Rapson, 1994). The emphasis on group discussion also allowed participants to provide support to others, thus engendering the benefits of giving (see Post, 2005). The fact that discussions were focused on strengths rather than stress or weaknesses may also have been an important factor. Beehr, Bowling and Bennett (2010) found that social support can harm psychological and physical health when it draws a person’s attention to stress in the workplace. Together with the positive and affirming facilitation style, positive peer discussion likely contributed to a climate of psychological safety in the group. Psychological safety is essential in adult learning interventions, particularly when the focus of the program is sensitive or poses a potential threat to learners’ self-image (Vella, 2002).

General versus Work-Specific Changes in Well-being

The program appeared to have more of an impact on general well-being than work-specific well-being. This was evident in both statistical testing and process evaluation data. Assuming that WWB is tied to opportunities to apply activities at work, the lesser impact may be because participants tended to apply activities in leisure time, having perceived less opportunities or interest in applying them at work. The lesser effect may also be because WWB is influenced by organizational factors (e.g., climate, role flexibility) as well as personal factors. However, the program did have some impact on positive work-related AWB. This may suggest participants did have some opportunities to apply activities at work. Alternatively, the activities that participants pursued outside of the workplace may have benefited their well-being at work through the process of spill-over (where feelings in one domain cross over into another; e.g., Bakker, 2005), home to work facilitation (Allis & O'Driscoll, 2008) or effort-recovery (Mojza & Sonnentag, 2010; Sonnetag, et al., 2008), which was suggested in the focus groups. Alternatively, what opportunities participants did have to apply activities at work may have been enough to create some change in general mood at work but not enough to change their overall WWB, again due to contextual factors. This provides some support for providing flexibility around where participants applied what they learnt. Those who could not apply what they learnt from the program at work were then able to utilize the strategies in other areas, which, subsequently appeared to positively affect their general well-being. Further, allowing participants this flexibility supported their need for self-determination, which, as already discussed, is also important to well-being (Deci & Ryan, 1985; Deci & Vansteenkiste, 2004).

Patterns of Change

Although there were significant gains made in well-being, the pattern of change was not linear. They also did not follow the pattern that might be expected by hedonic adaptation (i.e., a general drop off of initially positive effects; Brickman & Campbell, 1971; Sheldon, et al., in press). Individuals experienced an immediate increase in well-being after the intervention, a sharp decrease in the three months following and a spontaneous recovery six months after the intervention (although not as high as initial effects). This reinforces the importance of employing longitudinal designs when testing interventions to study effects over time (Avey, et al., 2008). It is possible that participation in the program raised employees' expectations as to what was possible, thus causing short-term discrepancies and thus dissatisfaction with the status quo. Participant feedback supports this hypothesis to some extent. Multiple Discrepancy Theory (MDT; Michalos, 1985) poses that "net satisfaction is a function of perceived discrepancies between what one has and wants, relevant others have, the best one has had in the past, expected to have three years ago, expects to have after five years, deserves and needs" (p. 347). As the program worked to increase participants' understanding of their strengths and other positive capacities and to develop well-being strategies based on peak experiences, this may have led to short-term feelings of dissatisfaction, particularly if the discrepancy between their current state and ideal state was large, and if efforts to apply strengths and well-being strategies were thwarted by the organization (or other barriers). This feeling may have been somewhat like cognitive dissonance (Festinger, 1957) often noted in relation to health behavior change. The recovery of well-being may indicate that such discrepancies were later resolved (either by moving to the ideal state, or reducing one's dissatisfaction with the current state).

Work autonomy defined as “freedom from others’ influence and freedom to act” (Berg, Wrzesniewski, & Dutton, 2010p. 160), appeared to play a role in this study. Wrzesniewski and Dutton (2001) noted that autonomy likely plays a role in the degree to which employees can actively craft (or make changes to) their jobs, as was required in this study. Berg et al. examined whether the amount of power and autonomy a person has at work influences their perceived opportunities to job craft. Interestingly, perceived limitations were noted by employees of both high and low power and autonomy, although the exact nature of this differed across the two employee types. However, Berg et al. revealed that participants can overcome such limitations through a process of creative problem solving. It is possible that similar mechanisms were at work in the current study: the return of positive effects may indicate participants were initially limited but then found ways to craft – both their jobs and their lives outside of work – in line with what they learnt in the program. Future studies may need to test this hypothesis, and if supported, facilitate the job crafting process through various support mechanisms. Relevant options would be to provide peer support or “buddy” programs, (which could focus on both work and home application), manager training or toolkits (to facilitate application at work) or group coaching. These options would also leverage one of the key strengths of the intervention, namely: fostering relationships. The process evaluation data supports both of these recommendations. Participants also felt the process would have been supported by providing both more sessions (e.g., two sessions per topic) and more time within each session (e.g., 90 or 120 minutes) to improve depth of learning.

Practical Significance

Findings suggest that employees can learn effective strategies for sustainably increasing their well-being. This finding is encouraging for organizations and health

professionals striving to promote employee well-being as a positive psychological phenomenon in addition to the mitigation of psychological or physical risk. The results are also important from a practical point of view and suggest that individual-level interventions, delivered in the workplace, can have positive effects on both general and work-related well-being. For many organizations that are affected by budget constraints, as was the organization in this study, individual-level interventions may be more cost-effective than large-scale organizational well-being initiatives. The increases in well-being found in this study are also practically important. Research shows that high levels of well-being can buffer against stress and prevent disease; that is, promoting well-being at work can improve employee resilience. This is also important for organizations: many now recognize that preventative health strategies are more effective, both in terms of cost and overall impact, than corrective, tertiary interventions (i.e., band aid approaches). It also supports public health research and practice purporting the utility of the workplace in delivering health promotion initiatives (e.g., Heaney, 2003). This study occurs in a context where mental health promotion is high on the agenda. It complements and extends health promotion projects that target risk factors and focus on preventing mental illness and paves the way for further mental health promotion projects that take a positive approach. Positive health promotion programs are also a preventative strategy and thus, improving employee mental health outcomes, has positive flow on effects for the general community, as well as within workplaces.

Limitations

As in many intervention studies, the current study was affected by high rates of participant attrition. This significantly reduced the amount of power in the study, which prevented additional analyses from being conducted. The statistical results found in this

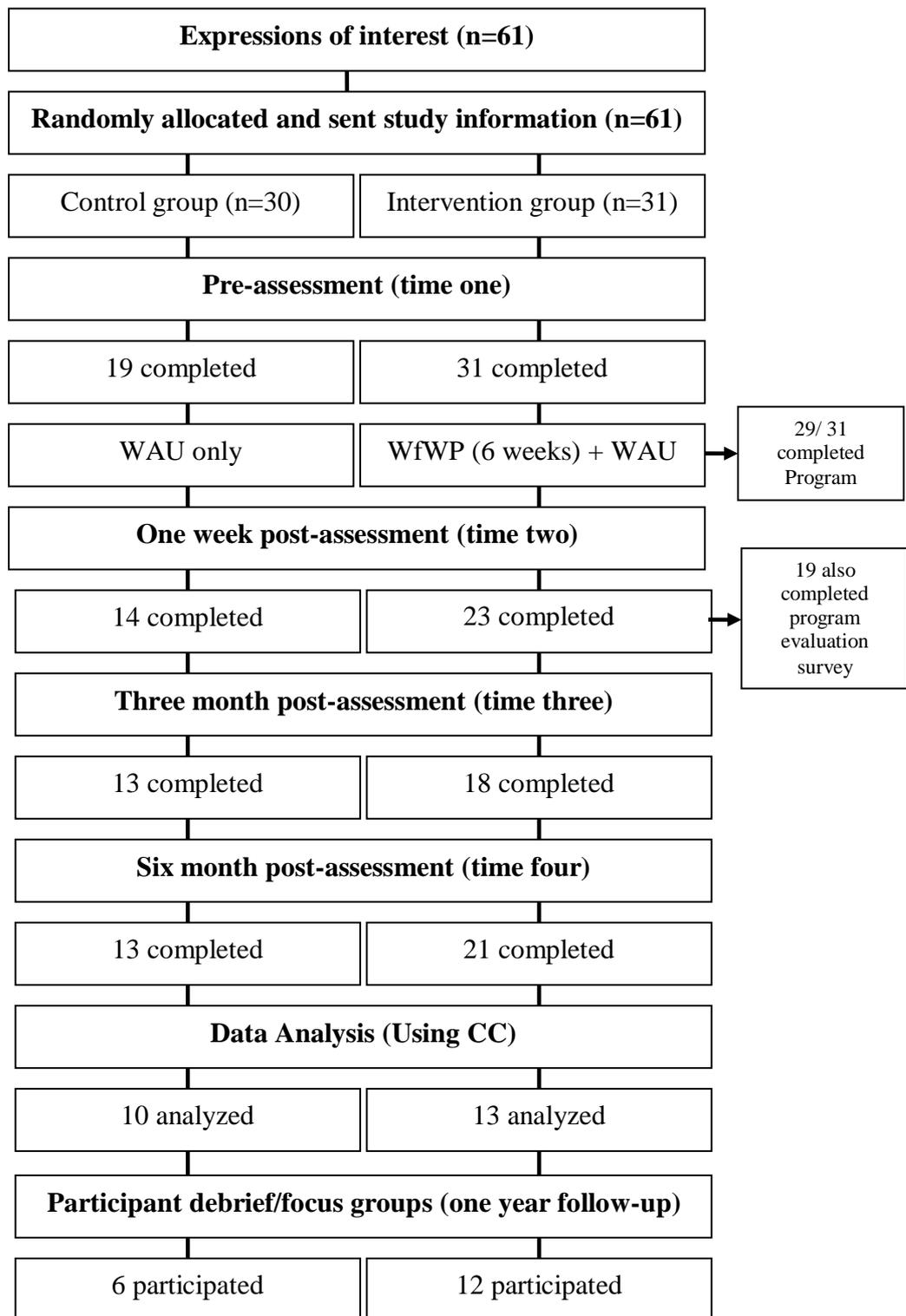
study are testament to the relatively large effect sizes. The long survey that participants were asked to complete over an extended period of time may have contributed to this problem. Multiple measures of well-being were included to capture a comprehensive picture of change in well-being (Keyes, 2005; Page & Vella-Brodrick, 2009). Tools now exist that combine hedonic and eudaimonic conceptions of happiness (e.g., positive feelings plus positive functioning) into single, parsimonious measures (e.g., Keyes, et al., 2008; Tennant, et al., 2007). A further limitation was that, because of the already long survey, potentially mediating and moderating variables such as strengths use (e.g., the newly developed measure by Wood, et al., in press), need fulfillment, increases in flow, strength use, role autonomy and managerial effectiveness were not included in the study.

Avenues for Future Research

Future studies should include these potentially important mediating and moderating variables to further ascertain the factors that help or hinder workplace well-being programs. Given that the efficacy of such programs now has some support, it is important to replicate the findings and also include other potentially important outcome variables (e.g., the effect on performance or intention to leave). Future studies could also look more at specific relationships. For example, does applying activities outside of work affect just general well-being or also work-specific well-being? Similarly, does application at work benefit both general and work-specific well-being? Further, what roles do effort-recovery and spill-over play in the relationship between work and home in employee well-being interventions?

Conclusion

OHP professionals recognize the importance of fostering positive employee mental health. However, research to date has tended to define employee well-being from an illness rather than a health perspective. Designing and testing methods that can reliably and sustainably increase employee well-being has been highlighted as a key area for future OHP research. This study describes the results of one such study, utilizing longitudinal data and an experimental design. It is hoped that future studies replicate, extend and build upon these results and guide the development of effective workplace well-being programs with the aim of creating safe, healthy and well workplaces for current and future generations.



Note. WAU = work as usual; WfWP = Working for Wellness Program; CC = complete case analysis
Figure 1. Participant Flow through the Study.

Table 1

The Working for Wellness Program: Session by Session overview

	Topic	Brief overview of session content	Homework
1	What is Workplace Well-being?	Introduced to program content. Discussed nature of well-being and rated their current level of well-being at work. Introduced to importance of intentional activities in enhancing happiness (SHM).	Completed VIA signature strengths test
2	Knowing and Using Strengths	Explored top 10 character strengths, looking for real life evidence. Discussed current levels of application. Employed job crafting as a method for applying strengths at work.	Acted and reflected on strength-based job crafting strategies
3	Goal Striving	Explored the relationship between goal striving and well-being. Set self-concordant (strength-based) goals and action plans. Action plans drew on hope theory (goals, agency thinking, pathway thinking; Snyder, 2000)	Acted and reflected on strength-based goal striving plan
4	Flow	Discussed how to cultivate flow at and outside of work, including the relationship between flow and strengths. Set specific strategies for increasing time spent in flow.	Acted and reflected on strength-based flow strategies
5	Relationships and Altruism	Discussed strength-based strategies for optimizing relationships at and outside of work, drawing on peak experiences.	Acted and reflected on strength-based relationship strategies
6	Consolidation of Learning	Reviewed the program content and reflected on experiences associated with the program. Created personal action plans to continue progress after program (based on program insights).	Acted on personal action plans.

Note. SHM = sustainable happiness model; VIA = values in action. Each session was one hour in duration and delivered to small groups (6-8 participants per group).

Table 2

Correlations Between Variables at Four Points across Time

Measure	SWB2	SWB3	SWB4	PWB1	PWB2	PWB3	PWB4	WWB1	WWB2	WWB3	WWB4	AWB1	AWB2	AWB3	AWB4
SWB1	.66**	.13	.59**	.82**	.64**	.15	.57**	.47**	.13	-.16	.23	.58**	-.11	-.17	.26
SWB2		.35*	.60**	.63**	.78**	.29	.50**	.25	.39*	.13	.35*	.22	.49**	.06	.42*
SWB3			.18	.09	.16	.82**	.01	.16	.36*	.30	.32	.03	.16	.40*	.17
SWB4				.64**	.54**	.24	.84**	.33*	.26	.17	.34*	.31	.04	.07	.43**
PWB1					.79**	.27	.70**	.43**	.025	-.19	.13	.63**	-.05	-.12	.23
PWB2						.30	.58**	.31	.25	.06	.24	.25	.26	-.01	.30
PWB3							.22	.25	.41*	.24	.22	.06	.13	.34*	.06
PWB4								.49**	.29	.00	.28	.47**	.09	-.05	.43**
WWB1									.42**	-.12	.55**	.48**	-.05	-.08	.24
WWB2										.35*	.56**	-.06	.55**	.20	.29
WWB3											.52**	-.30	.23	.71**	.46**
WWB4												-.01	.15	.29	.58**
AWB1													.15	-.13	.31
AWB2														.30	.39*
AWB3															.51**

Note. SWB = subjective well-being; PWB = psychological well-being; WWB = workplace well-being; AWB = work-related affective well-being.

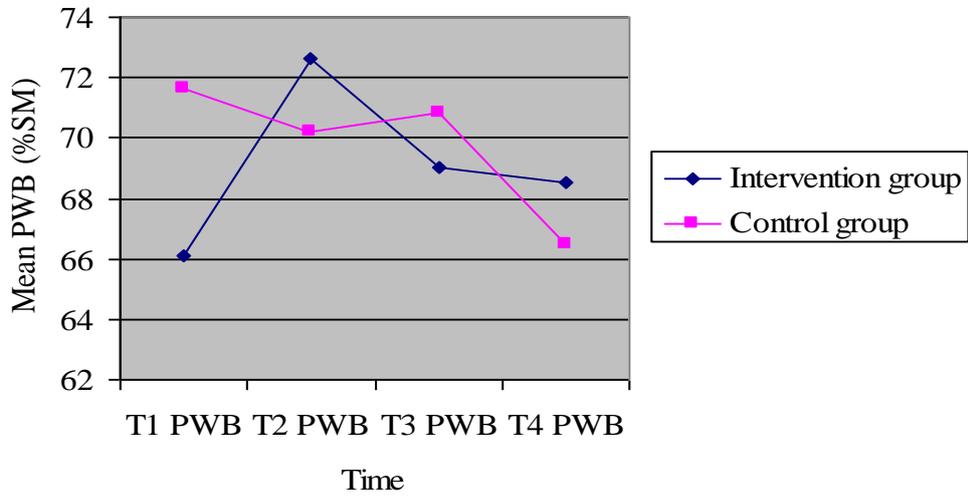
** = $p < .01$; * = $p < .05$.

Table 3

Estimated Marginal Means for Both Groups Showing Well-being across Time

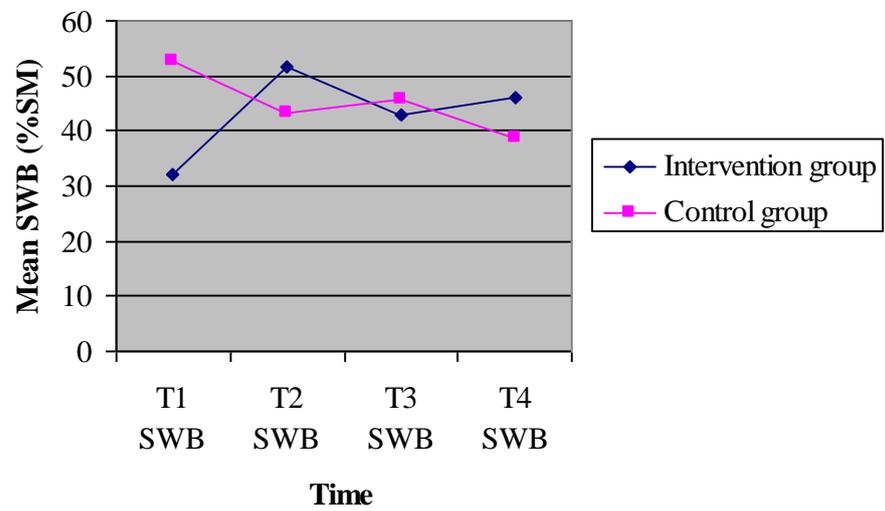
	Time 1		Time 2		Time 3		Time 4	
	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>
PWB	66.10 (12.73)	71.61 (13.82)	72.60 (9.52)	70.19 (13.12)	69.01 (12.57)	70.81 (10.97)	68.52 (14.33)	66.45 (12.25)
SWB	32.19 (28.00)	52.69 (20.92)	51.68 (25.36)	43.21 (24.80)	42.83 (34.28)	45.77 (23.62)	46.11 (38.85)	38.71 (39.56)
WWB	61.73 (23.36)	71.14 (15.43)	61.28 (16.45)	65.29 (20.54)	59.78 (19.00)	50.10 (25.56)	57.56 (18.03)	58.75 (30.60)
AWB	66.38 (14.85)	66.51 (6.8)	74.09 (8.34)	56.59 (17.03)	64.68 (12.94)	52.27 (18.11)	70.21 (14.763)	54.82 (16.02)

Note. All data has been converted to %SM. All numbers represent group means (standard deviation in brackets).



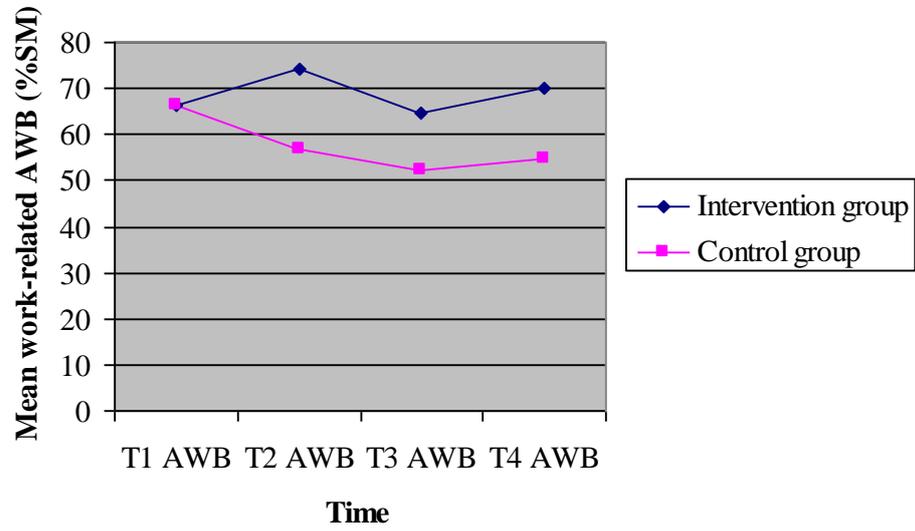
Note. PWB = psychological well-being; %SM is percentage of scale maximum.

Figure 2. Psychological Well-being over Time for Intervention and Control Groups.



Note. SWB = subjective well-being; %SM is percentage of scale maximum.

Figure 3. Subjective Well-being over Time for Intervention and Control Groups.



Note. AWB = affective well-being; %SM is percentage of scale maximum.

Figure 4. Work-related Affective Well-being over Time for Intervention and Control Groups.

Table 4

Outcome, Process and Impact Evaluation: Summary of Key Elements, Method and Results (Quantitative)

Elements	Description/ key questions	Measurement and analysis	Quantitative results
Outcome Evaluation	Was the program effective?	Outcome evaluation survey: PWB, SWB, AWB, WWB Mixed method analysis of variance (ANOVA).	Signification time by group interactions for PWB and SWB Significant main effect of group on AWB No significant effects for WWB
Impact Evaluation	What was the impact of the program on participants in terms of learning and well-being outcomes?	Program evaluation survey: <ul style="list-style-type: none"> • How much have you learnt about your workplace well-being as a result of the program? (<i>Nothing</i> [1] to <i>A great deal</i> [7])# • Do you feel happier as a result of the program? # (1=<i>Yes</i>; 2 = <i>No</i> plus open comment box) • How much do you feel your (a) workplace well-being and (b) general well-being has changed as a result of the program? # (Both: <i>No positive change</i> [1] to <i>Much positive change</i> [5]) 	Degree of learning: $M=72.2\%SM$ 17/19 (94.4%) respondents felt happier as a result of the program. Workplace well-being change: $M=52.75\%SM$ General well-being change: $M=58.3\%SM$ See Table 5 for results of thematic analysis
Process Evaluation Participant recruitment and maintenance	How were participants recruited? To what degree were participants maintained in the study?	<ul style="list-style-type: none"> • Field notes • Survey response rates# and field notes 	See Method.

			Population	Sample	TOTAL
Reach	What % of the population participated in the program? What % of the sample attended the intervention?	<ul style="list-style-type: none"> % of target population reached# Attendance rates# (each session/person) 	SHQ	31 (51.67%)	7.76%
			Branch	29 (48.33%)	5.23%
			TOTAL	60	6.29%
					<ul style="list-style-type: none"> Population and sample comparable M=80% participant attendance
Fidelity	Was the program delivered as planned (i.e., the quality and spirit intended)?	<p>Field notes: 1 to 5 ratings given by facilitator in each session in relation to#:</p> <ul style="list-style-type: none"> Focus on strengths and peak experiences; Positive, affirming facilitation style that supported participants' autonomy; Focus on both work and home experiences 			<ul style="list-style-type: none"> Focus on strengths (M=5/5) Facilitation style (M=5/5) Work and home focus (M=3.5/5): Less emphasis on work experiences than planned (participant preferences: role autonomy issues limited application at work and participants more interested in application at home).
Dose delivered and received	What dose was delivered (i.e., were all the activities within the program delivered?) To what extent did participants engage in the program?	<p>Field notes (dose delivered) #</p> <p>Program evaluation survey</p> <ul style="list-style-type: none"> Motivation: (a) How motivated were you to apply the exercises and/or what you learnt in each session? (b) How motivated are you to CONTINUE applying the exercises and/or what you learnt in each session? (Both <i>Not at all</i>[1] to <i>Extremely</i> [7])# Retrospective application: How much did you apply the exercises and/ or what you learnt in each session during the program? (<i>Did not apply</i> [1] to <i>A great deal</i> [7]) # 			<p>100% of activities delivered within and across each session (one facilitator)</p> <p>Motivation during program: M=75.3% SM (Strengths=75% SM; Goals=80.07% SM; Flow=71.3% SM; Relationships=78.7% SM)</p> <p>Motivation to continue application post-program: M=72.2% SM (Strengths=71.3% SM; Goals=78.7% SM; Flow=67.7% SM; Relationships=76.8% SM).</p> <p>Application during program: M=71.5% SM (Strengths=75% SM; Goals=75% SM; Flow=65.7% SM; Relationships=77.8% SM).</p>

Participant attitudes	What were participants' attitudes towards the program (content, process and general)?	<p>Program evaluation survey:</p> <ul style="list-style-type: none"> • How much did [each activity] fit with your interests, values etc.? (one item for each of the four PP activities) # • How much did [each activity] meet your needs? (one item for each of the four PP activities) # • What did you like/dislike about the program? What could be added or removed next time? What was hardest/easiest to apply? (open ended questions)* • Was participation a burden on you time wise? (<i>No burden</i> [1] to <i>A huge burden</i> [7]) # • Did you enjoy participating overall? (<i>Not at all</i> [1] to <i>A great deal</i> [7]) # • Would you recommend the program to others? (<i>Yes/No</i>); # • Hypothetically, would you participate again if asked? (<i>Yes/No</i>). # <p>Specific focus group feedback:</p> <ul style="list-style-type: none"> • Why was there more change in terms of general well-being than work-specific well-being?* • What would you like to see happen next?* 	<p>Fit with interests/values: $M=73.8\%SM$ (Strengths=$81.5\%SM$; Goals=$71.3\%SM$; Flow=$67.7\%SM$; Relationships=$77.8\%SM$).</p> <p>Fit with needs: $M=76.7\%SM$ (Strengths=$82.3\%SM$; Goals=$82.3\%SM$; Flow=$71.3\%SM$; Relationships=$75.0\%SM$).</p> <p>Burden on time: $M=9.33\%SM$</p> <p>Enjoyment: $M=93.5\%SM$</p> <p>100% of respondents would recommend the program to others and (hypothetically) would participate again if asked.</p> <p>See Table 5 for results of thematic analysis</p>
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Note. This evaluation model was adapted from Nelson and Steele (2006), Murta, Sanderson & Oldenburg (2007), and Steckler & Linnan (2002). All items marked with # were subjected to descriptive analysis; items marked with * were subjected to thematic analysis. The program evaluation survey was completed at time 2 only; the outcome evaluation survey was completed at all four time points. Field notes were recorded by the facilitator at the end of each session. SHQ = state headquarters staff; Branch = branch staff; PWB = psychological well-being; SWB = subjective well-being; AWB = work-specific affective well-being; WWB = workplace well-being; PP = positive psychology; M = average score; %SM = percentage scale maximum.

Table 5

Qualitative Themes, Descriptions and Example Comments from Open Ended Questions

Core themes	Sub-themes	Description	Example comment/s
Perceived impact of the program	Better self-awareness/ self-acceptance	Improvements in self-awareness, understanding strengths; greater self acceptance, more positive self-view; benefits associated with more self-awareness (e.g., better decisions, better “fit”)	As a result of the program I am "more conscious of my well-being and what I can do to positively influence it - both at work and generally. I am more aware of my strengths and activities I enjoy (from flow activities) and consequently am conscious of trying to incorporate this into what I do." (P14) “[The program] gave me a chance to recognize the things I do really well and to be proud of myself and try to be less critical of myself. It has helped with my confidence and self esteem and I am gradually feeling more assertive at work and less upset, or emotional”. (P19)
	Building relationships	Improvements in relationships, getting to know others better	The well-being program helped me to "learn more about my co-workers outside of workplace." (P3) “As a result of this course I stopped and took time to evaluate my relationships; I listened more and responded to what people had to say and how they behaved. This course has also made me look at people’s body language, something I really took for granted before”. (P17)
	Goal achievement	Striving for or achieving goals	The well-being program helped me to "set goals and actually achieve them" (P3) “At the moment I am applying for a position in the Training and Development pool and I have successfully completed a 3 month assessment at work”. (P18)
	Positive feelings/ state of mind	Positive changes in feelings or state of mind (e.g., feeling happier, enjoying work more, more confident or motivated)	"The course has given me a new frame of mind on a daily basis. I feel more confident and enjoy coming to work." (P11) I liked "the overall message of striving for well-being at work and at home. I think sometimes people forget to aim for happiness and well-being. It is good to put well-being at the forefront of your mind, and this is what the program did." (P13) “Overall I do feel much happier at work now.” (P19)
	Program challenged well-being	Program challenged well-being (e.g., setting up discrepancies	"While working to enhance your ability to improve your well-being in your work and home life, the introduction of topics also worked to highlight what attributes/ skills you were not using already. So, the course forces you to strongly self-evaluate, something that I didn't feel ready to do at the time. Of

	between what is and could be)	course, now the negatives have begun to turn positive." (P12) "When I was working on utilizing my strengths and goal striving during the program I did feel a bit depressed and down as I was not able to put them into practice at that time". (P19) "Using my strengths while still working in my current position [was challenging].[Also], how I feel, or think when something occurs that I do not agree with, i.e. trying to change the way I view change, and to talk or think more positively and less negatively". (P19) "The hardest thing has been flow. It has been difficult to get into flow in my current position". (P13)
	No impact on well-being	Program had no impact on well-being "I was already happy with my overall work and life circumstances; the program did not make a significant difference to that.... As a result of participating I have taken some time to assess my general situation but I will not make any major change as a result."(P15)
Evaluation of the program content and format	Positive comments about the program as a whole	General positive comments about the program as a whole "I really enjoyed the program and thoroughly enjoyed participating. It was nice to have a bit of 'time out' from work, and to reflect on what I was doing, and where I was going." (p15) "I found all aspects of the program useful. Having had the time to reflect on this workshop I am so pleased that I was given the opportunity to participate... All of the learnings were easy to apply. I enjoy taking on new things [and] having abilities highlighted to me enabled me to run with them." (P17)
	Positive comments about the PP activities	Strengths was most liked, most useful or easiest to apply "Analysis of strengths" was most useful as "this gave me a basis for deciding what activities will use my strengths more effectively." (P14) "Knowing and using strengths" was most useful... "Because it felt good to know I was doing something right". (P16) Goal striving activities were most liked, most useful or easiest to apply "Goal striving was very useful and I will continue to use the methods I have learnt". (P13) "Goal striving was hardest to write but once [goals were] chosen, [goal striving] was the most useful and easiest to incorporate as I was happy with my plan/ timeline". (P15)
	Relationships activities were most liked, most useful or	"Developing closer friendships with co-workers" was easiest to apply (p3) "Relationships and altruism" was most liked, most useful and easiest to apply (P11)

	easiest to apply	
	Flow activities were least liked, least useful or hardest to apply	"The hardest thing has been flow. It has been difficult to get into flow in my current position". (P13) "Flow" was hardest to apply but "only at work I guess because other staff have needed to be attended to and they are not conducive to flow." (P16)
Group interaction/ discussion	Interacting with others, group discussions, sharing experiences with others was liked or helpful	"Participating in well-being workshops and sharing experiences with other participants" was most liked about the program (P3) "Being able to discuss my feelings and experiences with the group. Also listening to how the program was helping others". (P10)
Facilitator	Positive comments about the facilitator	"Loved [the facilitator's] easy listening approach." (P17) "I found the person who ran the workshops...highly motivating, excellent people skills, very approachable and a good public speaker." (P18)
Not enough time	Not enough time in each session	I would have liked to have "more time for group discussion as I felt we were on the clock all the time." (P10) It was "hard to find the time to complete the 'at home' tasks around everything else that was happening. Saying that however, they were very useful and I'm glad I made the time to complete them." (P15)
Not enough sessions	Not enough sessions	"I think six, hour long sessions wasn't enough. It is a long process and I think I needed more coaching to change my way of thinking." (P12) "I personally feel that we could have done with at least another four to six sessions, so that some of the concepts/ models could have been further explored." (P16) "I think I would have preferred it if [the program] was eight to 10 weeks long as I felt that I needed more time to understand my situation and others. I also felt that we were just getting somewhere and then it ended."(P18)

Focus group feedback	More change in GWB than WWB	Why was there more change in terms of GWB than WWB?	<p>Autonomy, control and clarity: More opportunities/ autonomy/ flexibility to apply findings outside of work than at work; Not enough autonomy or clarity in work role to know when and how they could work strengths into their jobs (a key component of program).</p> <p>Personal choice: More responsibility and interest in applying activities outside of work (which was more important to them)</p> <p>Home to work facilitation: Improving well-being outside of work then had a positive spill-over effect – benefiting how one felt and behaved at work.</p>
	Next steps	What would you like to see happen next?	<p>Broader roll out (e.g., compulsory for all staff; control group staff); Include well-being modules and life skills workshop as part of training and development suite (to complement technical skills)</p> <p>Put support/ learning transfer mechanisms in place: (1) Manager training/ tool kits (both to support staff and so managers can enhance their own well-being); (2) Refresher courses; (3) Peer support networks and working groups to teach others, refresh skills, continue tackling goals; support change.</p>

Note. P = participant; GWB = general well-being; WWB = workplace well-being.

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Chapter 5: General Discussion

The purpose of this chapter is to identify and integrate the three papers presented in this thesis, highlighting key points, issues, practical applications, and future research needs.

Positive, Strength-Based Approaches to Employee Well-being

The central tenet of this thesis was to argue for, and evaluate, a positive approach to employee well-being. In a work setting, this positive approach can be applied by focusing on and developing employee strengths (Linley & Harrington, 2006; Linley, et al., 2009). The importance of this approach was explored extensively in Paper 1, with an emphasis on eudaimonic and hedonic perspectives of employee well-being. One definition of eudaimonia is to know and be oneself, that is, to live authentically (Ryan & Deci, 2001; Ryff & Singer, 2008). Employee strengths, whether defined personally (Wood, et al., in press) or through one of the various strengths frameworks now readily available (Buckingham & Clifton, 2004; Linley, 2008; Peterson & Seligman, 2004) essentially represent what one can, and loves, to do well. Developing strengths thus fits well within a eudaimonic frame of reference. Strengths are also exciting, pleasurable, and invigorating to use (Buckingham & Clifton, 2004; Linley, 2008; Peterson & Seligman, 2004), thus also lending themselves to a hedonic perspective, that is, the pursuit of pleasure over pain (Waterman, 1993). Given strength-use is important for both employee well-being and performance, and thus a “win” for both employees and employers, studying and applying strengths is relevant for OHP professionals alongside other psychologists. However, until now, OHP has predominantly focused on deficits or weaknesses as a means of easing the economic and human costs of morbidity and mortality in the workplace (i.e., the disease model; Macik-Frey, et al., 2007; Seligman & Csikszentmihalyi, 2000). Although the strengths

approach involves focusing on the positive, developing strengths does not run counter to these aims. In fact, as has been repeatedly expressed throughout this thesis, cultivating positive emotions and strengths may actually buffer against, and thus prevent, physical and psychological disease (Richman, et al., 2005; Seligman, 2008).

It is hoped that this collection of papers will encourage OHP researchers to study and apply the strengths approach, alongside PP researchers. Given the readily expanding evidence supporting the utility of strengths, it is particularly important for researchers to explore avenues through which employees can use their strengths at work. This thesis contributed towards these ends by: (a) replicating the important association between strength-use and well-being (both hedonic and eudaimonic indicators) and; (b) identifying and supporting four mechanisms for applying strengths, namely: the pursuit of self-concordant goals (already supported by Linley & colleagues, e.g., Govindji & Linley, 2007; Linley, et al., 2010); job crafting (Wrzesniewski & Dutton, 2001); flow (Csikszentmihalyi, 1990) and positive relationships (Demir & O'zdemir, 2010; Demir & Weitekamp, 2006; Diener & Seligman, 2002). Another novel contribution was the implication that applying strengths both at and outside of work can be beneficial to employee well-being. The latter should be investigated further, particularly by those interested in spill-over, home-to-work facilitation and/or effort recovery (e.g., Allis & O'Driscoll, 2008; Bakker, 2005; Sonnetag, 2003; Sonnetag, Binnewies, & Mojza, 2008). Although important, the effect of strength-use on performance was not directly assessed in this thesis. Now that there is some support for the utility of the four abovementioned mechanisms to enhance well-being through the application of strengths, a critical next step would be to investigate their relationship to performance (note: strength-use has been linked to performance through engagement e.g., Harter, Schmidt, & Hayes, 2002 but not necessarily through the above four

mechanisms). Given the positive effect of strength-use on employee well-being, it is ethically as well as theoretically important that such research flows into practice.

Employees are not simply a means to an end, as posited by a utilitarian perspective, but important ends in and of themselves (Macik-Frey, et al., 2007; Wright & Cropanzano, 2004). As such, employers may be seen to be ethically obliged to consider means of production that promote and protect the health and well-being of their employees, as was discussed in Paper 2. Using strengths may be one such mutually beneficial mechanism.

Focusing on Strengths = Ignoring Weaknesses?

Focusing on and developing employee strengths does not necessarily mean that weaknesses should be ignored. Indeed, Linley et al. (2009) emphasize the importance of “owning” one’s weaknesses. Instead, it is useful to give, at least, equal attention to what an employee does well (and what they love to do) as to their limitations. It is also worthy to consider the origin of a weakness. For example, does the weakness or gap exist simply because an employee has not had an opportunity to do well in the area, thus impairing their self-efficacy (as per Bandura, 1977), or because they genuinely have tried and failed? Mastering a skill in an area where one previously (incorrectly) perceived a weakness, due simply to insufficient experience or guidance, could be as important for well-being as success in an area that was already perceived to be a strength. Considering both realized and unrealized strengths, as well as weaknesses and learned behaviors, needs to become the norm in organizations, particularly for supervisor-supervisee interactions (Linley, et al., 2009). For example, strengths could be considered when on-boarding new employees to facilitate person/environment fit and/or create a strength-based role; that is, making subtle changes to a role to make the best use of a person’s strengths (Berg, Wrzesniewski, & Dutton, 2010; Wrzesniewski &

Dutton, 2001). Employees could also be developed and performance-managed according to their strengths. For example, employees could be encouraged to pursue strength-based goals as part of a development pathway within the organization (Govindji & Linley, 2007; Hodges & Clifton, 2004; Linley, et al., 2010; Vella-Brodrick & Page, 2009). Strength coaching with leaders, that is, helping managers to both understand and use their strengths, would be a useful mechanism in regard to each of these applications (Linley, et al., 2009; Vella-Brodrick & Page, 2009). Again, there are important ethical imperatives for this to occur. A manager that unduly focuses his or her employees' attention on areas of weakness without considering areas of strength could thwart that employee's need for competence and a positive self-view, thus posing a threat to well-being (Ryan & Deci, 2000; Ryff & Keyes, 1995). As was shown in Paper 3, being given the opportunity to identify, discuss and use one's strengths has important consequences in terms of how an employee sees him or herself.

Autonomy and Performance Issues when Using Strengths

Two other important issues in using strengths at work relate to an employee's role, including, role-based autonomy and the pursuit of goals. As shown in Paper 3 (and noted by Wrzesniewski & Dutton, 2001, in relation to job crafting) low levels of autonomy or flexibility in an employee's role can limit the degree to which he or she is able to use his or her strengths at work. Indeed, teaching an employee about his or her strengths could be counterproductive if he or she is not provided opportunities for application. Another important issue, particularly from an employer or manager's perspective, is that employees need to use their strengths productively towards organizationally-valued outcomes, that is, to meet specific objectives of the role. It may not be appropriate for an employee to "craft" their role to such an extent that they no longer meet the objectives for which they were hired. This juxtaposes employees' needs

with the business' needs. Finding the right level of flexibility so that employees can apply their strengths and satisfy their need for autonomy, whilst also providing enough structure for employees to achieve role-specific goals and fulfill competence needs, is likely to be a fine line. Again, this emphasizes the need for regular, open and authentic communication between a manager and his or her employee.

Conducting Well-Controlled Interventions in Real World Settings

Another core theme in this thesis was the importance of testing interventions in real world or applied settings, whilst also providing experimental controls. The intention of Paper 3 was to evaluate theoretically and practically important hypotheses in both ecologically and internally valid conditions. Both PP and OHP are applied sciences - as well as testing the plausibility of theories for academic value, both disciplines strive to improve quality of life (Linley, et al., 2006; Schaufeli, 2004; Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001; Tetrick & Quick, 2003). Whilst previously the efficacy and effectiveness debate has been dictated by either/or sentiments, it now seems more widely accepted that the two can be addressed together (Nelson & Steele, 2006). This idea was supported in Paper 3. The intervention was applied within employees' own workplaces (and during work time) in order to capture "normal" training conditions. However, internal validity was enhanced through the use of an RCT to control for pre-existing differences and confounding organizational influences, thus allowing for causal inferences. The study was also built on sound empirical and theoretical foundations and employed a strong methodology. In so doing, the study was consistent with Flay et al.'s (2005) standards for efficacy (although it would need to be followed up by at least one RCT that replicates results; Flay et al., 2005). Importantly, the study integrated this solid outcome evaluation with an evaluation of both the process and impact of implementation. This involved measuring

both the extent and quality of implementation and the level of participant engagement. This provides support for the program's effectiveness as well as its efficacy (Flay et al., 2005). If the results are replicated, the next step would be to supplement the program material with more detailed facilitation and training guides so that the intervention can be implemented by others (Flay et al., 2005). Conducting RCTs in real world settings can be logistically complex. This is particularly true in business settings, which are prone to upheaval and change. As was shown in Paper 3 (and argued by others, e.g., Murta, et al., 2007; Nielsen, et al., 2006; Steckler & Linnan, 2002) conducting a process evaluation is crucial for investigating whether any changes in the design, such as those imposed by an organization, threaten the internal validity of a study. Impact evaluations are also important for evaluating the degree to which participants, or a health issue at large, was meaningfully affected by an intervention - and in the desired direction. Such data - particularly when involving participant feedback (e.g., Randall, et al., 2007) - can also add richness to an outcome evaluation by, for example, providing insight into how and why an intervention was effective. This is particularly useful when the number of variables included in a study is limited by low sample size, which is a common problem in intervention research (Mitchell, et al., 2009). Future studies would be recommended to also assess return-on-investment (e.g., cost savings or increases) as well as effects on employee performance, as was mentioned earlier. Measuring both financial and health-related outcomes is important to build the business case for worksite health promotion, including employee well-being programs (e.g., Goetzel & Ozminkowski, 2008).

Longitudinal Follow-up

The RCT study presented in this thesis also showed the importance of using longitudinal data to monitor change over time and to infer program efficacy (Avey, et

al., 2008; Flay, et al., 2005). Longer evaluation periods may be less feasible to some researchers because they demand more of a participant's time, which can lead to attrition and, subsequently, limited power. However, in this study, the longitudinal assessment period, although challenging, allowed for the interesting finding that participant change post-intervention is not necessarily linear. This had important practical and theoretical implications, as was discussed in Paper 3. One possible way that researchers or practitioners could make more use of longitudinal data would be to identify points of vulnerability for participants (i.e., low scores) throughout the course of evaluation and build in maintenance or follow-up interventions. This could help to motivate and support employees, which may bolster employee and organizational well-being outcomes. To reduce the incidence of drop-out, future studies could build in mechanisms that foster study adherence including follow up phone calls, a peer to peer buddy system, or attractive incentives.

The Importance of Program Evaluation for Organizations

Evaluating workplace well-being programs is also important from a business point of view, yet often remised. Investing funds into programs that have no, limited or short-term effects on health and/or productivity is a wasteful use of organizational resources. Public-private partnerships, now taken up by some organizations in relation to worksite health promotion (Goetzel, et al., 2009), may represent a cost-effective means of program application and evaluation. Such relationships could be formed between public health institutions and corporate businesses (as was the case in Goetzel, et al., 2009) or between organizations and universities. Approaching interventions in this way could be considered a win-win whereby the strengths of each organization (academic vs. applied) could be leveraged to enable optimal health outcomes, whilst also generating scientific knowledge. Forming partnerships in this way could also be

cost-effective, particularly if financial and human resources are shared. As was shown in this thesis, implementing and evaluating interventions is possible, even in organizations that are experiencing significant change. If organizations place sufficient importance on the implementation and evaluation of such programs, the logistics can be overcome to achieve good standards of both experimental efficacy and real world effectiveness.

A Systems Approach to Promoting Employee Well-being

This thesis adopted an individual approach to improving employee well-being. The individual level approach is often negated in favour of organizational approaches, particularly where employee health is concerned (e.g., Cox, 1997; Nielsen, et al., 2006; Noblet & LaMontagne, 2009). Paper 3 suggested that an individual approach can be effective, possibly because participants also had the opportunity to apply the strength-based activities outside of work. However, there was also reason to suggest that the program could have been more effective if implemented in combination with interventions at other levels; for example, coaching managers to use and develop employee strengths (see Hodges & Clifton, 2004; Linley, et al., 2009). Implementing the intervention within a more flexible, strength-based organization and/ or targeting organizational culture and climate may produce more pronounced well-being effects. Taking a systematic approach to employee well-being entails an examination of multiple levels within an organization, including the individual, the team and the overall organization (see LaMontagne, Keegel, & Vallance, 2007 in relation to a system approach to job stress). Subsequently, this approach could involve an even greater level of practical difficulty. Given that the intervention evaluated in this thesis is somewhat new - although built on a tried-and-tested foundation - it is important to start small. This would allow an organization to incite a series of short-term wins and gather momentum

towards a more comprehensive approach. This is the cornerstone of most organizational change models (e.g., Kotter, 1996; Noblet & LaMontagne, 2009). Future studies should also investigate the role of various individual factors that optimize an intervention of this type; that is, key mediators and moderators. Looking at leadership factors, including healthy or authentic leadership or high quality leader-member exchange would also be important, particularly given the key role that leaders play in the climate of an organization (Cotton & Hart, 2003; Griffin, Hart, & Wilson-Evered, 2000; Linley, et al., 2010; Quick, Macik-Frey, & Cooper, 2007).

Tying into Public Health and Individual Behavior Change Approaches

Another exciting area of applied research could be to embed individual level employee well-being programs into existing worksite health promotion programs. As reviewed in Paper 2, there is currently a gap in terms of promoting positive mental health programs at work. Given the new trend towards comprehensive worksite health promotion and disease management programs, which target multiple health factors (see Pelletier, 2009) there could be considerable opportunity to expand the focus to also include positive well-being interventions, such as the one examined here. It could also prove beneficial to integrate other behavior change strategies at the individual level – for example, follow-up phone calls to encourage behavior modification, motivational interviewing to overcome ambivalence towards change (Rollnick & Miller, 1995) or one-on-one coaching with participants to encourage goal setting and achievement (Grant, 2003; Grant, Curtayne, & Burton, 2009).

Conclusion

This thesis was devoted to the promotion of well-being and mental health at work. Integrating evidence-based employee well-being programs into common organizational practice can be challenging, as was discussed here. However,

researchers and practitioners should not shy away from tackling such challenges. An integrated and highly involved approach may be what is required to meet the health and well-being needs of future generations and should not be remised in fear of practical complexity. The reward of greater well-being, for individuals, organizations, and the population at large, should outweigh any perceived difficulties that, with commitment and foresight, can most likely be mitigated.

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Appendices

- Appendix A Human Ethics Certificate of Approval
- Appendix B Advertising, Correspondence, Explanatory Statement and Consent Form
- Appendix C Program Summary and Learning Objectives
- Appendix D Outcome, Program, and Process Evaluation Measures

Appendix A: Human Ethics Certificate of Approval



MONASH University

Standing Committee on Ethics in Research Involving Humans (SCERH)
Research Office

Human Ethics Certificate of Approval

Date: 15 May 2008

Project Number: CF08/0660 - 2008000301

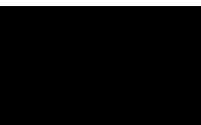
Project Title: Working for wellness: The effectiveness of employee wellbeing programs

Chief Investigator: Dr Dianne Vella-Brodrick

Approved: From: 15 May 2008 to 15 May 2013

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained and a copy forwarded to SCERH before any data collection can occur at the specified organisation. **Failure to provide permission letters to SCERH before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by SCERH.
4. You should notify SCERH immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project including changes in investigators:** Require the submission of a Request for Amendment form to SCERH and must not begin without written approval from SCERH. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. SCERH should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by SCERH at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.



Professor Ben Canny
Chair, SCERH

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Newsletter Advertisement

The Working for Wellness Program

ABOUT THE RESEARCH PROJECT

The Working for Wellness Program is an evidence-based employee well-being program designed to increase employee well-being.

This study, conducted by Monash University, aims to test the effectiveness of the program, with the help of Medicare Australia employees.

We're currently seeking volunteers for the project. Those who volunteer will be randomly allocated into **one of two groups**. One of the groups will participate in the intervention. The other group will not participate in the intervention but will act as our baseline or control group. Both groups will fill in 4 brief surveys (online or hardcopy). Please note: BOTH groups of employees will have access to the program content and activities in hardcopy format. The control group, however, will not receive the material until the **end of the study**.

WHAT DO WE MEAN BY 'WELL-BEING'?

When we talk about well-being, we don't mean ecstatic happiness or the complete absence of negative emotions at work. For many of us, it is not realistic to experience this kind of happiness all of the time.

We define well-being as a sense of fulfillment and purpose in life, the kind of fulfillment that comes from pursuing meaningful goals, positive relationships and personal growth.

With this definition in mind, this program is designed to help employees to feel more engaged and fulfilled by their work for more of the time. We hope participating employees will find more enjoyment in both their work life and their life more generally.

ABOUT THE INTERVENTION

The Working for Wellness Program is based on the latest psychological research on well-being and its causes. It includes six one-hour sessions spaced over 12 weeks. Each session will be group-based and involve engaging discussions around six different topics (see session outline below). Each session builds on the one before it. Between sessions, attendees will be encouraged to apply what they have learnt to their work and non-work life.

Each session will be held during work hours at Medicare Head Office (Collins St Melbourne). Efforts will be made to hold workshops at times that best suit participants (i.e., non peak-times).

The intervention focuses on the important role of intentional activities in life. Whilst we can't always control our circumstances (e.g., some aspects of our work environment), we can control how we see our environments and the types of activities we choose to engage in. This can make a huge difference to our well-being both inside and outside of work.

IS THE PROGRAM RELEVANT TO EVERYONE?

Yes. The Working for Wellness Program is relevant to all Medicare employees, whether you're happy or unhappy at work, interested in well-being or just enjoy continuous learning, growth and development.

SESSION BY SESSION BREAKDOWN

Note: some elements of the program may change slightly prior to delivery.

Session 1: The nature of well-being

The first session will introduce attendees to the general content of the program. Following this, attendees will engage in a discussion about the nature of well-being and their present level of well-being at work.

Session 2: Identifying and applying strengths

Until recently, workplaces have been primarily concerned with developing employees in relation to their 'gaps' or weaknesses. In this session, we talk about the benefits of also knowing and using your strengths. Attendees will identify their character strengths and create ways to 'craft' their jobs to make better use of their skills and strengths at work.

Session 3: Goal striving

People with goals and direction in life describe their lives as being meaningful and full of purpose. Session 3 will explore the relationship between goal striving and well-being. Attendees will learn to set and work towards more authentic and enjoyable goals.

Session 4: Finding flow

Feeling 'in flow' or 'in the zone' is a feel good side effect of using our strengths and setting meaningful goals. In this session, attendees will learn how to bring more engagement and flow into their lives.

Session 5: Cultivating positive relationships

Positive relationships, whether with co-workers, bosses, customers, family or friends, are recognized as the single most important contributor to well-being. This fifth session will help attendees to optimize the relationships in their work and non-work lives.

Session 6: Consolidation of learning

In this final session, attendees will review what they have learnt and decide on the key habits or activities they will continue to use in their life.

If you are interested in participating, please contact Zoran Ilic.

Email Correspondence with Volunteers

19th September 2008

Re: Your role in the Working for Wellness Program

Hi. Thank you for signing up to the Working for Wellness Program. I know you have been going through a very busy period at Medicare and I appreciate your interest in the project. We have received and registered your interest in participating and genuinely appreciate your patience thus far. By participating you will be contributing to cutting edge research regarding the causes and consequences of workplace well-being.

As you may be aware, we are still circulating advertising material for the program to Medicare employees. Tony Dulson and I have decided to set a recruitment deadline for the last week of September. This will allow us to commence the program in the first or second week of October.

Slight change to the process: Originally we advertised the program to run over 12 weeks. Given that we are now drawing closer to Christmas, Tony and I have discussed the option of my delivering the program over six weeks instead. This will mean that I will hold one, 60 minute session per week for just six weeks. The advantage of this is that the program will be wrapped up by November and not eat into any of your time in December. I understand that December is already a very busy month for all of you. If you have any concerns with or comments about this change please let us know by replying to this email. The change is not yet set in stone and will depend on whether you, as our participants, will be comfortable with it.

Reminder: Also, we remind you that half of you will be allocated to the program whilst the other half will form our baseline or control group. The first group will participate in the Working for Wellness Program. The 2nd group will not participate in the program. Both groups will fill in four short surveys spaced out over several months. Surveys may be completed either online or in hard copy format (whichever is easiest for you).

What's next? Over the next week or so, we ask that you please email your mailing address to Zoran Ilic. This will allow me to post you your participation pack. The participation pack will include:

- A formal letter to explain the ins and outs of the process;
- A survey for you to complete anonymously (we will ask you to come up with a unique code that only you will know to protect your privacy), and;
- A participant consent form for you to sign;
- A reply paid envelope for you to post the survey and consent form back to me.

Thanks again for your interest in the program. I'm excited to get the ball rolling in October. Please do not hesitate to call or email me with any questions or comments that you may have.

Regards, Kathryn Page

School of Psychology, Monash University, Caulfield; Email: kathryn.page@monash.edu; Phone: [REDACTED]

Explanatory Statement

Project title: Working for Wellness: The Effectiveness of an Employee Well-being Program

Introduction

My name is Kathryn Page. I am conducting a research project in the School of Psychology at Monash University towards a Doctor of Organizational Psychology degree title. This involves my writing a thesis and several research articles in the area of organizational psychology. This research project is being conducted in conjunction with Dr. Dianne Vella-Brodrick a Senior Lecturer and researcher in the same school.

Why is this research being conducted?

The aim of this study is to examine the effectiveness of an employee well-being program. We are also interested in testing the saying that ‘happy workers are productive workers’. That is, does employee happiness affect performance at work? Additionally, are happy employees more likely to want to stay with their organization? To explore these topics, we have designed an intervention which aims to increase employees’ psychological well-being and positive emotion at work, and reduce negative emotion at work. We hope this research will highlight the importance of employees’ workplace well-being. We also hope this study will help organizations, such as Medicare Australia, understand how they can contribute to their employees’ happiness.

What will your participation involve?

This project requires the participation of male and female Medicare employees aged 18 years or over. If you volunteer for this project, you will be randomly assigned into **one** of two groups. If you are assigned to Group 1 (the Workshop Group) you will be invited to attend our well-being workshop. The workshop consists of six, one-hour group sessions over the space of 6 weeks. Medicare has given permission for you attend these sessions during work hours if you are assigned to Group 1. If you are assigned to Group 2 (the Baseline Group), you will NOT need to attend a well-being workshop. Instead, you will only be required to complete some questionnaires. Participants in Group 1 will also need to complete these questionnaires.

Both groups will also be invited to share their view of workplace well-being either during the workshops (Group 1) or via email (Group 2).

About the questionnaires

Each questionnaire will take you about 15-20 minutes to complete and include questions about your happiness, well-being and emotion. They will also ask you to reflect on your behavior at work, and whether or not you intend to remain at your organization. Please note that all information you provide will be kept strictly confidential. The timing of the questionnaires is as follows: (1) before the first workshop, (2) after the last workshop, (3) one month after the last workshop and (4) six months after the last workshop. You may complete these online surveys either at work or at home.

If you are not assigned to one of the workshops, all of the workshop slides, resources and activities can be provided to you if you are interested. This is so you also have the chance to benefit from the study.

Is there any chance of discomfort?

Participation in this study will require you to spend time reflecting on your emotions and your well-being at work. It is possible that this may lead some participants to feel uncomfortable at times. This discomfort however is likely to be minor as the aim of the intervention is to improve rather than harm your well-being!

However, if you do feel uncomfortable at any point during the intervention, or wish to speak to someone about your feelings, you may like to talk to one of Medicare's Human Resource personnel. We have ensured the HR department are fully informed about the study. They are happy to meet with you at any time, if needed.

Can you withdraw from the research?

Taking part in this study is voluntary. You are under no obligation to consent to participation. However, if you do consent to participate, you withdraw at any time. There are no negative consequences to you if you choose to withdraw from the study.

Confidentiality

Any information you provide will be kept in the strictest confidence. Medicare will NOT have access to your individual responses. When completing assessments, participants will use an anonymous code instead of their name. Whilst a report of the study may be submitted for publication in a psychology research journal, only group, and not individual, data will be used.

Storage of data

Storage of the data collected will adhere to the University regulations and be kept on University premises in a locked cupboard/filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results

If you would like to be informed of the aggregate research findings or have any questions about this study, please feel free to contact either myself (Kathryn) or my supervisor (Dianne) using the details provided below.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research CF08/0660 – 2008000301 is being conducted, please contact:
Chief Investigator: Kathryn Page Tel: [REDACTED] Email: kathryn.page@monash.edu Supervisor: Dr. Dianne Vella-Brodrick Tel: +61 3 9903 2542 Email: dianne.vella-brodrick@monash.edu	Human Ethics Officer Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 1420 Email: scerh@adm.monash.edu.au

Thank you.
Kathryn Page

Consent Form

Project title: Working for Wellness: The Effectiveness of an Employee Well-being Program

I agree to take part in the Monash University research project specified above. I have read the Explanatory Statement, which I keep for my records. I understand that participating in the program means that I consent to:

1. Complete four online (or printed) assessments regarding my personal well-being, work role behavior and other work-related data;
2. Complete one short answer exercise regarding workplace well-being.

In addition, if I am randomly assigned to the well-being workshop, I consent to:

3. Attend six 1-hour well-being workshops, weekly for 6 weeks which involve various well-being related activities;
4. Complete a five-minute checklist regarding my emotions at work at the end of each work day for the duration of the program (i.e., 6 weeks).

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalized or disadvantaged in any way.

I understand that any data that the researcher extracts from the intervention for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

I understand that I will be notified of the report of published findings that results from this study.

Name:

Signature:

Date:

Your Unique Code

To preserve your privacy during the program, you will not be asked for your name when you complete the surveys. Instead, we ask that you create a unique code for yourself. To help you to remember the code, the first three letters of your code should be the first three letters of your mother's maiden name. The last three letters of your code should be the first three letters of your father's Christian name. For example, if your mother's maiden name was 'Smith' and your father's first name was 'Andrew', then your unique code would be 'S-M-I-A-N-D'. Please record your unique code in the space provided below. You will use this code for the duration of the study.

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Kathryn Page

Email: kathryn.page@monash.edu

Address: Building F (level 6), School of Psychology, Monash University, Caulfield campus

Phone: [REDACTED]

Appendix C: Program Summary and Learning Objectives⁴

Session 1: What is Workplace Well-being?

LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Introduction	<p><i>Discussed</i> your hopes, fears and expectations for the program.</p> <p><i>Heard</i> an outline of the program and asked questions.</p> <p><i>Formed</i> a learning partnership.</p> <p><i>Established</i> group norms.</p>	30
What is workplace well-being?	<i>Explored</i> your own understanding of workplace well-being.	20
Changing workplace well-being	<i>Discussed</i> the importance of intentional activities and conscious effort in improving well-being at work.	10

Session 2: Knowing and using strengths

LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Reflection	<p><i>Reflected</i> on the previous session and 'at home' progress or developments.</p> <p><i>Identified</i> whether activity affected pleasure, meaning or engagement paths.</p>	10
Identifying strengths	<p><i>Explored</i> and <i>discussed</i> your signature strengths.</p> <p><i>Examined</i> evidence of your strengths in your life so far.</p> <p><i>Examined</i> the degree to which you are currently using your strengths at work.</p>	20
Applying strengths	<p><i>Examined</i> the notion of job crafting and strength-based job crafting as a way of applying strengths.</p> <p><i>Re-designed</i> three work tasks - or your job more generally - to be more in line with your strengths.</p>	25

⁴ Note. The full program materials, including an activity book and resource pack, can be obtained by contacting the author: kathryn.page@monash.edu or [REDACTED]

Session 3: Goal Striving
LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Reflection	<i>Reflected</i> on the previous session and 'at home' progress or developments. <i>Identified</i> whether activity affected pleasure, meaning or engagement paths.	10
The importance of goals	<i>Discussed</i> the importance and benefits of pursuing goals.	5
Best possible self	<i>Written about</i> your best possible self.	10
Properties of meaningful and enjoyable goals	<i>Identified</i> properties of meaningful and enjoyable goals. <i>Further explored</i> your strengths and how to form authentic, strength-based goals.	15
Setting goals	<i>Brainstormed</i> a list of meaningful or enjoyable short-term goals that point you in the direction of your Best Possible Self. <i>Chosen and specified</i> one goal. <i>Created</i> a Goal Striving Plan.	20

Session 4: Flow
LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Reflection	<i>Reflected</i> on the previous session and 'at home' progress or developments. <i>Identified</i> whether activity affected pleasure, meaning or engagement paths.	10
Experiencing flow	<i>Engaged</i> in a flow activity. <i>Described and discussed</i> past flow experiences OR <i>drawn</i> the experience of being in flow.	25
Increasing flow	<i>Discussed</i> optimal conditions for achieving flow. <i>Identified</i> role of strengths in flow. <i>Created</i> strategies for enhancing flow.	25

Session 5: Relationships
LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Reflection	<p><i>Reflected</i> on the previous session and 'at home' progress or developments.</p> <p><i>Identified</i> whether activity affected pleasure, meaning or engagement paths.</p>	10
Identifying effective strategies	<p><i>Reflected</i> on your best relationships at work; <i>identified</i> relationship strategies that have worked in the past.</p> <p><i>Discussed</i> seven evidence-based relationship strategies</p> <p><i>Discussed</i> the role of your strengths in your relationships.</p>	30
Applying effective strategies	<p><i>Planned</i> ways to build on your past successes and strengths to strengthen your present and future relationships.</p>	20

Session 6: Consolidation of Learning
LEARNING OBJECTIVES

What	By the end of the session you'll have:	Timing
Reflection	<p><i>Reflected</i> on the previous session and 'at home' progress or developments.</p> <p><i>Identified</i> whether activity affected pleasure, meaning or engagement paths.</p>	10
Review	<p><i>Reviewed</i> the content of the Working for Wellness program.</p> <p><i>Clarified</i> information and asked questions.</p> <p><i>Reflected</i> on your experience in the program.</p> <p><i>Rated</i> your current level of workplace well-being.</p> <p><i>Discussed</i> any change (or lack of change) as a result of the program.</p>	20
Continual learning and development	<p><i>Drawn</i> on your new knowledge to <i>create</i> Personal Action Plans.</p> <p><i>Set</i> one new ritual on the basis of what you have learnt in the program.</p>	20

Appendix D: Outcome, Program, and Process Evaluation Measures

Summary of all measures

Measure	Abbreviation	Author (s)	Assessment point
Positive and Negative Affect Schedule	PANAS	Watson, Clark, & Tellegen, 1988	T1, 2, 3 and 4
Satisfaction with Life Scale	SWLS	Diener, Emmons, Larsen, & Griffin, 1985	T1, 2, 3 and 4
Scales of Psychological Well-being	SPWB	Ryff, 1989	T1, 2, 3 and 4
Affective Well-being Scale	AWB	Daniels, 2000	T1, 2, 3 and 4
Workplace Well-being Index	WWBI	Page, 2005	T1, 2, 3 and 4
Demographic Questionnaire		Constructed for RCT	T1 only
Program Evaluation Survey		Constructed for RCT	T2
Process Evaluation Survey		Constructed for RCT	At end of each session
Focus group schedule		Constructed for participant debriefing and feedback session	One year post-intervention.

Note. T = Time.

Outcomes Evaluation Measures

Positive and Negative Affect Schedule

This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer in the space next to the word.

Indicate to what extent you generally feel this way, that is, how you feel on average.

1= Very slightly or not at all

2 = A little

3 = Moderately

4 = Quite a bit

5 = Extremely

Circle the number that best describes your present agreement or disagreement with each statement.					
Interested	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5
Afraid	1	2	3	4	5

The Satisfaction with Life Scale

The following items are concerned with how satisfied you are with your life. Please indicate how much you agree with each of the statements.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither agree nor disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

In most ways my life is close to my ideal	1	2	3	4	5	6	7
The conditions of my life are excellent	1	2	3	4	5	6	7
I am satisfied with my life	1	2	3	4	5	6	7
So far I have gotten the important things I want in my life	1	2	3	4	5	6	7
If I could live my life over, I would change almost nothing	1	2	3	4	5	6	7

Scales of Psychological Well-Being

The following set of questions deals with how you feel about yourself. There are no right or wrong answers. Circle the number that best describes your present agreement or disagreement with each statement.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither agree nor disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

1. Most people see me as loving and affectionate	1	2	3	4	5	6	7
2. Sometimes I change the way I act or think to be more like those around me.	1	2	3	4	5	6	7
3. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6	7
4. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6	7
5. I feel good when I think of what I've done in the past and what I hope to do in the future.	1	2	3	4	5	6	7
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6	7
7. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6	7
8. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.	1	2	3	4	5	6	7
9. The demands of everyday life often get me down.	1	2	3	4	5	6	7
10. In general, I feel that I continue to learn more about myself as time goes by.	1	2	3	4	5	6	7
11. I live life one day at a time and don't really think about the future	1	2	3	4	5	6	7

12. In general, I feel confident and positive about myself.	1	2	3	4	5	6	7
13. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6	7
14. My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6	7
15. I do not fit very well with the people and the community around me.	1	2	3	4	5	6	7
16. I am the kind of person who likes to give new things a try.	1	2	3	4	5	6	7
17. I tend to focus on the present, because the future nearly always brings me problems.	1	2	3	4	5	6	7
18. I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6	7
19. I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6	7
20. I tend to worry about what other people think of me.	1	2	3	4	5	6	7
21. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6	7
22. I don't want to try new ways of doing things – my life is fine the way it is.	1	2	3	4	5	6	7
23. I have a sense of direction and purpose in life.	1	2	3	4	5	6	7
24. Given the opportunity, there are many things about myself that I would change.	1	2	3	4	5	6	7
25. It is important to me to be a good listener when close friends talk to me about their problems.	1	2	3	4	5	6	7
26. Being happy with myself is more important to me than having others approve of me.	1	2	3	4	5	6	7
27. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6	7

28. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6	7
29. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6	7
30. I like most aspects of my personality.	1	2	3	4	5	6	7
31. I don't have many people who want to listen when I need to talk.	1	2	3	4	5	6	7
32. I tend to be influenced by people with strong opinions.	1	2	3	4	5	6	7
33. If I were unhappy with my living situation, I would take effective steps to change it.	1	2	3	4	5	6	7
34. When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6	7
35. I don't have a good sense of what it is I'm trying to accomplish in life.	1	2	3	4	5	6	7
36. I made some mistakes in the past but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6	7
37. I feel like I get a lot out of my friendships.	1	2	3	4	5	6	7
38. People rarely talk me into doing things I don't want to do.	1	2	3	4	5	6	7
39. I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6	7
40. In my view, people of every age are able to continue growing and developing.	1	2	3	4	5	6	7
41. I used to set goals for myself, but that now seems like a waste of time.	1	2	3	4	5	6	7
42. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6	7

Affective Well-being Scale

This scale refers to your job at [name of organization]. Thinking of the past few weeks, how much of the time has your job made you feel each of the following?

	Never	Occasionally	Some of the time	Much of the time	Most of the time	All of the time
Anxious	1	2	3	4	5	6
Worried	1	2	3	4	5	6
Tense	1	2	3	4	5	6
Relaxed	1	2	3	4	5	6
Comfortable	1	2	3	4	5	6
Calm	1	2	3	4	5	6
Depressed	1	2	3	4	5	6
Miserable	1	2	3	4	5	6
Gloomy	1	2	3	4	5	6
Happy	1	2	3	4	5	6
Pleased	1	2	3	4	5	6
Sluggish	1	2	3	4	5	6
Dull	1	2	3	4	5	6
Enthusiastic	1	2	3	4	5	6
Optimistic	1	2	3	4	5	6
Motivated	1	2	3	4	5	6
Tired	1	2	3	4	5	6
Fatigued	1	2	3	4	5	6
Sleepy	1	2	3	4	5	6
Active	1	2	3	4	5	6
Alert	1	2	3	4	5	6
Full of energy	1	2	3	4	5	6
Angry	1	2	3	4	5	6
Annoyed	1	2	3	4	5	6
Aggressive	1	2	3	4	5	6
Placid	1	2	3	4	5	6
Patient	1	2	3	4	5	6
At ease	1	2	3	4	5	6

The Workplace Well-being Index

The following questions ask how satisfied you feel, on a scale from zero to 10. Zero means you feel completely dissatisfied. 10 means you feel completely satisfied. And the middle of the scale is 5, which means you feel neutral, neither satisfied nor dissatisfied.

Part 1: Work as a Whole

1. How satisfied are you with your job as a whole?

Part 2: Domains of Workplace Well-being

1. How satisfied are you with how much responsibility you have at work?
2. How satisfied are you with how meaningful your work is?
3. How satisfied are you with your independence at work?
4. How satisfied are you that your work allows you to use your abilities and knowledge?
5. How satisfied are you with the sense of achievement your work gives you?
6. How satisfied are you with the work itself?
7. How satisfied are you with being valued as a person at work?
8. How satisfied are you with the recognition you receive for good work?
9. How satisfied are you with your level of influence at work?
10. How satisfied are you with your pay at work?
11. How satisfied are you with your job security?
12. How satisfied are you with the convenience of your work hours?
13. How satisfied are you with your working conditions?
14. How satisfied are you with your supervisors at work?
15. How satisfied are you with your co-workers?
16. How satisfied are you with your promotional opportunities at work?

Demographics Questionnaire

General details

1. What is your gender?
 - a. Male
 - b. Female
2. How old are you?
3. What is your native country?
4. What is your marital status?
 - a. Single, never married
 - b. Married
 - c. Defacto
 - d. Divorced or separated
 - e. Widowed
5. What is your highest level of education?
 - a. None
 - b. Primary school
 - c. Secondary college
 - d. TAFE/ Apprenticeship
 - e. Undergraduate
 - f. Postgraduate

Employment details

The following questions refer to your job at [name of organization]

1. Are you a permanent employee?
 - a. Yes
 - b. No
2. How many years have you worked at [name of organization]?
3. On average, how many hours do you work per week?
4. What is your contract basis?
 - a. Full time
 - b. Part time
 - c. Casual
 - d. Contract
 - e. Volunteer.

Program Evaluation Survey (participants)

The following questions refer to your experience in the Working for Wellness Program. Please answer as honestly as you can. There is no right or wrong answer.

How motivated were you to apply the exercises and/or what you learnt in each session?								
Session	Topic	Not at all	A little bit	Modestly	Moderately	Quite a bit	A lot	Extremely
Session 1	What is workplace well-being? (Refer to pages 6-12 of your Book)	1	2	3	4	5	6	7
Session 2	Knowing and Using Strengths (Refer to pages 15-26 of your Book)	1	2	3	4	5	6	7
Session 3	Goal Striving (Refer to pages 29-40 of your Book)	1	2	3	4	5	6	7
Session 4	Flow (Refer to pages 43-49 of your Book)	1	2	3	4	5	6	7
Session 5	Relationships and Altruism (Refer to pages 52-58 of your Book)	1	2	3	4	5	6	7
How motivated are you to CONTINUE applying the exercises and/or what you learnt in each session?								
Session	Topic	Not at all	A little bit	Modestly	Moderately	Quite a bit	A lot	Extremely
Session 1	What is workplace well-being? (Refer to pages 6-12 of your Book)	1	2	3	4	5	6	7
Session 2	Knowing and Using Strengths (Refer to pages 15-26 of your Book)	1	2	3	4	5	6	7
Session 3	Goal Striving (Refer to pages 29-40 of your Book)	1	2	3	4	5	6	7
Session 4	Flow (Refer to pages 43-49 of your Book)	1	2	3	4	5	6	7
Session 5	Relationships and Altruism (Refer to pages 52-58 of your Book)	1	2	3	4	5	6	7

How much did you apply the exercises and/ or what you learnt in each session DURING the program?								
Session	Topic	Did not apply			Moderately			A great deal
Session 1	What is workplace well-being? (Refer to pages 6-12 of your Book)	1	2	3	4	5	6	7
Session 2	Knowing and Using Strengths (Refer to pages 15-26 of your Book)	1	2	3	4	5	6	7
Session 3	Goal Striving (Refer to pages 29-40 of your Book)	1	2	3	4	5	6	7
Session 4	Flow (Refer to pages 43-49 of your Book)	1	2	3	4	5	6	7
Session 5	Relationships and Altruism (Refer to pages 52-58 of your Book)	1	2	3	4	5	6	7
Do you feel happier as a result of the program?								
Yes	No	Comment:						
How much do you feel your <i>workplace well-being</i> has changed as a result of this program?								
No positive change	Slight positive change	Moderate positive change	Quite a lot of positive change	Much positive change				
1	2	3	4	5				
How much do you feel your <i>general well-being</i> has changed as a result of this program?								
No positive change	Slight positive change	Moderate positive change	Quite a lot of positive change	Much positive change				
1	2	3	4	5				
Did the program have any negative influences on your well-being?								
Yes	No							
Comment:								

Which aspects of the program did you find most/least useful?						
Most useful:			Least useful:			
What was the easiest/ hardest to apply?						
Easiest:			Hardest:			
What did you like/ dislike about the program?						
Liked:			Disliked:			
What could be added or removed next time?						
Added:			Removed:			
How much was participating in the program a burden on you time-wise?						
No burden			Moderate burden			A huge burden
1	2	3	4	5	6	7
How much did you enjoy participating overall?						
Not at all			Moderately			A great deal
1	2	3	4	5	6	7
Would you recommend the program to others?						
Yes	No					
(Hypothetically), would you participate again if asked?						
Yes	No					

THANK YOU!

Process Evaluation Survey (facilitator field notes)

This survey is to be completed by the facilitator at the end of each session.

Session date:	
Session number:	
Facilitator name:	
Group number:	
Total number of attendees: (Note: the attendance sheet must also be completed)	

Has the attendance of every intervention group member been recorded? Please tick.

	Yes
	No

Program fidelity

To what extent was the session recorded above facilitated in the style and quality intended?

Program element	Rating*
Focus on strengths and peak experiences	
Positive, affirming facilitation style that supported participants' autonomy	
Focus on both work and home experiences	

*out of five, where 1=poor adherence; 3=moderate adherence; 5=strong adherence.

Dose delivered

How many units within each session were delivered as planned? Note: Score should be given as a % out of total number of units planned (e.g., delivering 5 units delivered out of a total of 6 planned units would = 83% total delivery).

% Delivery	%
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Please note any activities not delivered and the reason why (e.g., ran out of time).

Program activity	Reason for non-delivery

Focus Group Schedule

1. What was valuable about participating in the Working for Wellness Program?
2. What was challenging about the program?
3. Why do you think there was more change in terms of general well-being than in workplace well-being?
4. Why do you think there was a slump in well-being at time 3 (three months after the program)?
5. What would you like to see happen next?