Huppert, F.A., & Ruggieri, K., Controversies in wellbeing: Confronting and resolving the challenges. In D. Bhugra, K. Bhul, S. Wong, S. Gillman (in press) Oxford Textbook of Public Mental Health. Oxford University Press, Oxford.

Controversies in Well-being: Confronting and resolving the challenges

Felicia A Huppert, PhD, Director of the Well-being Institute, University of Cambridge, UK and Professor, Institute for Positive Psychology and Education, Australian Catholic University, Sydney, Australia

Kai Ruggeri, PhD, Policy Research Group, Department of Psychology, University of Cambridge, Downing Street, Cambridge, CB2 3EB, United Kingdom

Introduction

There has been a sustained struggle within the public health community to accept and integrate scientifically viable evidence on well-being into policy and practice. Although the term well-being is frequently used as a euphemism for mental illness or ill-being, in this chapter, we use the term in its literal meaning, namely being well. The term well-being is thus synonymous with positive mental health. In this chapter, we confront the reluctance of some members of the psychiatry and public health communities to take well-being seriously, by examining unresolved issues such as how precisely to define and measure well-being in its true sense, and how to address doubts and barriers to accepting the value and public health benefits of improving well-being in the population. To provide a background to understanding these issues, we begin with a very brief history of well-being. After summarising evidence for the psychological and social benefits of well-being interventions, we outline the health economic case for the financial benefits of promoting well-being in the population. Finally, we draw conclusions about the current state of our knowledge, and argue that despite some remaining limitations, there are compelling reasons to recognise and even prioritise well-being as a goal for public policy, and to introduce programs that promote well-being into policy and practice.

We should bear in mind that well-being science is a relatively new endeavour (Huppert, 2014), and like any important new field of science, it needs to be nurtured through constructive criticism of its methods and findings. Simply dismissing the

entire enterprise because its methods have not yet been perfected is counter-productive.

A very brief history of well-being

Happiness and well-being are concepts that have been used for thousands of years to describe how well life is going, but it is only in the last few decades that they have attracted serious empirical research. Philosophers and religious thinkers from many traditions have debated the meaning of happiness and well-being, and their significance in our lives (see review by Schoch, 2008). Within the Western tradition, these debates can be traced back to the ancient Greek philosophers, where one school of thought espoused the hedonic view, defining happiness as leading a pleasurable life, while the opposing, eudaimonic view espoused by Aristotle, defined happiness as leading a meaningful and virtuous life, not merely fulfilling one's desires. Two centuries earlier, Buddhism taught that genuine well-being came about not through pleasurable experiences, external or internal, but through the cultivation of mental balance leading to wisdom and compassion (Wallace and Shapiro, 2006).

Like the eudaimonic and Buddhist perspectives in which happiness was more than individual pleasure, early economic theory adopted the utilitarian ethics that emerged from the 18th century Enlightenment, which regarded the moral worth or 'utility' of an action as the totality of happiness it produced. According to this view, the aim of policy should be to provide 'the greatest happiness for the greatest number' (Bentham, 1789; Mill,1863; Priestley, 1768). To this end, Sinclair (1792), a Scottish statistician, identified the need for "An inquiry into the state of a country for the purposes of ascertaining the quantum of happiness enjoyed by its inhabitants and the means of its future improvement" – but there is no definition of the 'quantum of happiness' in the account, and no prescription for applying the findings of the account in a way that would increase this quantum. Since happiness was evidently hard to measure, generations of economists settled for a proxy measure, namely the satisfaction of preferences or desires, of which consumption was a key indicator. However some leading economists, most notably Layard (2005) and Stiglitz, Sen

and Fitoussi (2009) have challenged the traditional emphasis on preferences and consumption. They argue that we need to return to a utilitarian view of economics, as growing wealth and consumption do not lead to the experience of life going well.

From the mid-20th century, psychologists began to take an interest in positive aspects of well-being, rather than focussing on disorder and dysfunction. Some, like Jahoda (1958), Rogers (1963) and Maslow (1968) used a eudaimonic perspective, characterising very good mental health in terms of being fully functional as individuals and in relationships. Later scholars who also took a eudaimonic perspective include Ryff (1989), Waterman (1993) and Deci and Ryan (1985). On the other hand, Isen and colleagues (1999), Diener (1984), Fredrickson (1998) and Kahnemann et al., (1999) have adopted a hedonic view, regarding positive emotions as the defining feature of well-being.

The historical and philosophical context of the various theories of well-being has influenced the way different scholars define and measure well-being, and their approach to improving well-being, as we describe in later sections.

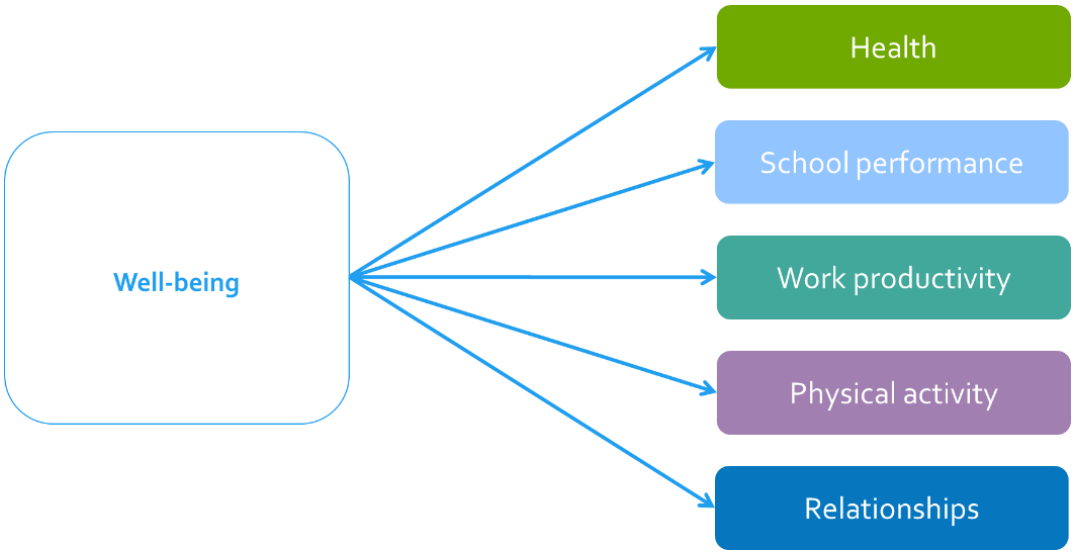
Why well-being matters

Health and well-being are desirable states for individuals, and good for society. As we have seen, generations of philosophers and religious scholars have argued that well-being is the ultimate good, so it follows that well-being should be promoted and nurtured. However, the promotion and nurturing of well-being requires not only a commitment to its central importance in our lives, but the expenditure of financial and other resources. This is why the instrumental benefits of high levels of well-being are frequently cited to persuade politicians and policymakers that the levels of expenditure required are fully justified.

What is the evidence that well-being leads to improvements in more readily quantifiable areas of our lives? A vast body of cross-sectional data, as well as longitudinal data shows that higher levels of subjective well-being are associated with many desirable characteristics, such as better learning and educational

attainment, greater productivity at work, better relationships, more pro-social behaviour, and better health and life expectancy (e.g. Dolan, Peasgood & White 2008; Huppert, 2014). This relationship is illustrated in Figure 1.

Figure 1. Model representing some effects of psychological well-being on other outcomes



Since cross-sectional data shed no light on the direction of causality, we consider here only the evidence from longitudinal and experimental studies. There is compelling evidence from prospective longitudinal studies of normal and clinical populations that various measures of subjective well-being (e.g. positive affect, optimism, self-esteem) predict later physical health and longevity, controlling for baseline health and socioeconomic status (Chida & Steptoe, 2008; Danner et al., 2001; Diener & Chan, 2011). A higher level of well-being increases resistance to developing illness (as seen in experimental studies of the effects of nasal introduction of the common cold virus – Cohen et al., 2003), and provides a protective role in the course of physical illness (Lamers et al., 2012). Mechanisms may include the effects of subjective well-being on reducing the stress response (Fredrickson et al., 2000) and improving immune function (Davidson et al, 2003). Subjective well-being early in life has also been shown to reduce the risk of mental disorder. To our knowledge only one study has specifically addressed this issue. Participants in the nationally representative British 1946 birth cohort study were rated by teachers on their positive mood and behaviour in their early teens, and assessed

on a range of outcomes several decades later. Controlling for sociodemographic factors , cognitive function and personality, high ratings by teachers were associated with a 62% reduction in the risk of a mental health problem later in life (Richards & Huppert, 2011). Other good outcomes later in life associated with high levels of subjective well-being in childhood include higher satisfaction with work, a high frequency of contact with friends or family, engagement in social activities and prosocial behaviour (Olsson et al., 2013; Richards & Huppert, 2011).

Overall, this growing evidence for the positive consequences and impacts of well-being has lent increasing weight to the merit of intervening to enhance well-being, whether through individual or group interventions, or at the social level through public policy.

Although the wide range of instrumental benefits of well-being are frequently cited as the reason for its importance, we reiterate that the instrumental benefits are not the main reason why well-being is important. They are merely a by-product or bonus of a high level of well-being. The real reason well-being matters is that well-being is an end in itself – an ultimate good.

Defining mental health and well-being

One of the biggest challenges in the field is that there is no agreed definition of well-being. This is true even when we disregard the confusing euphemistic use of the term well-being (or mental health) to mean mental disorders. (A striking illustration of euphemism is the peculiar use of the term ‘mental health prevention’– why would anyone wish to prevent mental health?)

One approach to defining well-being is called ‘objective list theory’, whereby an expert lists the objective conditions deemed necessary for individuals to experience well-being. Some influential bodies such as the OECD (2015) and the UK Office for National Statistics (ONS, 2015) define well-being primarily in objective terms, the combination of factors such as health, education, income, quality of housing, and quality of relationships. This approach confuses contextual aspects of well-being

with well-being itself, and downplays the centrality of people's lived experience, i.e. their subjective well-being. There can be no doubt that many people whose lives can be considered as fortunate by objective criteria may be deeply unhappy, unfulfilled, isolated, and perceive their functioning to be impaired. In contrast, there are many people whose objective circumstances may be poor, who nevertheless lead happy and fulfilled lives. Although individual and population well-being is influenced by objective circumstances, at its core, well-being is a subjective state – it is how well a person perceives their life to be going.

Even when we put aside definitions that focus on objective circumstances that may be related to well-being and consider only definitions that are concerned with subjective aspects of well-being or the behaviours that characterise it, there is as yet no agreement on how broadly or narrowly such experience should be defined. For instance the WHO definition of mental health describes it as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2001). This definition focusses on some aspects of high level functioning, but it is not clear how this list was derived.

As outlined in the brief history section, some scholars regard positive emotion such as happiness as a sufficient definition of well-being (hedonic perspective e.g. Kahneman et al., 1999; Layard, 2005; Fredrickson, 2009), while others insist that the essence of well-being is perceived functional ability, sense of meaning, and positive relationships (eudaimonic perspective e.g. , Deci & Ryan, 1985; Ryff, 1989). Still others define well-being as the combination of feeling good and functioning well, believing that both are necessary for the experience of well-being (e.g. Huppert & So, 2013; Keyes, 2003; Seligman, 2011). This lack of a cohesive, consensus-driven, and widely applied definition has undoubtedly slowed progress in both scientific work on well-being and general appreciation for its value amongst the medical community. However, this is not a sufficient basis for withholding efforts to establish well-being as a primary outcome of interest rather than simply the reduction of disease across populations (Stewart Brown, 2015).

What is the way forward towards developing a consensus on the definition of well-being or positive mental health? First, there needs to be agreement that mental health is multi-dimensional, and cannot be defined in terms of a single construct such as happiness or life satisfaction. However, to date, most lists of well-being dimensions are based either on the author's theoretical background or personal preferences (e.g. Ryff based her list on psychodynamic theory and developmental psychology.), and since theories and preferences vary, it is unlikely that there would be agreement on this basis. But perhaps a more systematic approach to identifying the relevant dimensions may gain more traction. For example, a systematic approach based on the nature of the relationship between mental health and mental illness might have a greater chance of gaining widespread acceptance.

One such attempt has been made by Huppert & So (2013), based on the idea that positive mental health lies at the opposite end of a continuum to mental illness as represented by the common mental disorders (depression and generalised anxiety). These disorders are common both in the sense that they are highly prevalent in the population, and that they may afflict any member of the population at some point in their life. Acknowledging that there are internationally recognised criteria and lists of symptoms for the diagnosis of these common mental disorders (DSM, ICD), these investigators systematically defined the opposite of each symptom. For example, they suggest that the opposite of the loss of interest and pleasure, and the sense of hopelessness that characterise major depressive episodes, is interest/engagement, positive emotions, and optimism. Using this systematic approach, they identify 10 dimensions which appear to define the positive end of the mental health spectrum. These are: sense of competence, emotional stability, engagement, sense of meaning, optimism, positive emotions, positive relationships, resilience, self-esteem, and vitality. There is considerable overlap between these dimensions and the dimensions specified in other lists, such as Seligman's PERMA (positive emotion, engagement, relationships, meaning, accomplishment) or Ryff's six dimensions of Psychological Well-Being (autonomy, environmental mastery, personal growth, positive relationships, purpose in life, self-acceptance), but the systematic way in which the 10 Huppert and So dimensions were derived perhaps puts them on a more solid footing. Future psychometric and longitudinal research will establish the extent

to which these 10 dimensions are independent of one another. But at this relatively early stage in the science of well-being, it may be useful to accept these as a provisional list, and measure all of these dimensions wherever possible when undertaking a mental health/well-being survey.

Measuring mental health and well-being

Innumerable studies which purport to measure well-being use scales which are designed to measure symptoms of mental illness or distress. Even if an individual does not endorse a single symptom on such a scale, we cannot conclude that they have a high level of subjective well-being – all we can conclude is that they do not have symptoms of disorder. In order to measure positive well-being, we need questions that ask about positive experiences. It is entirely possible for an individual to endorse neither symptoms nor positive experiences. It is the extent of endorsement of positive experiences that indicates the level of subjective well-being. Therefore, questions designed to measure well-being need to be positively worded, i.e. the content of the question needs to be about positive features.

Some measures of distress or disorder include questions about positive feelings or functioning. A good example is the General Health Questionnaire (Goldberg & Williams, 1988), most versions of which have equal numbers of negatively and positively focused items. It has been shown that insights into well-being, its determinants and impacts, can be achieved by comparing responses to the positive and negative items (Huppert & Whittington, 2003). For example, although the literature, based largely on measures of symptomatology, suggests that depressive symptoms are associated with adverse events such as unemployment and mortality, Huppert & Whittington (2003) have shown that these are better predicted by the absence of positive features than by the presence of depressive symptoms. In other words, a low level of well-being may be more strongly associated than the presence of mental disorder, with adverse outcomes. Such a finding has profound implications for policy and practice, suggesting that the promotion of well-being may be at least as important as the treatment and prevention of disorder.

Perhaps the best example of the misalignment between measures of mental health and mental illness comes from the WHO5, which was first published in 1998 and has since been used globally, becoming the focus of systematic reviews, policies, and major international strategies (Topp et al., 2015). Although the measure itself has been constructed as an instrument to assess psychological well-being, and all five questions concern positive feelings and functioning, much of the literature on it has focused on its application as a screening tool for depression. Leaving aside arguments that measuring positive features offers more insight into mental illness than measuring negative features, this ironic application is another illustration of the interchangeable use of mental health and mental illness. Given this mind set, it is unsurprising that there is confusion about how to measure mental health as distinct from mental illness.

If we accept that subjective well-being can only be measured using questions about positive features, we now discuss what are the most widely used measures, and how effectively they measure subjective well-being or positive mental health. By far the most commonly used metric for population well-being is life satisfaction, usually assessed by a single question. In many cases, this is the primary or even sole measure of well-being, resulting in a single mean applied to a particular group with further analyses to identify determinants and cvariates. However, while there is already debate around the value of life satisfaction as a measure of well-being (Krueger & Schkade, 2008), it is very evidently *not* a measure of mental health. Equating a general evaluation of life – which integrates current attitudes, future expectations, and past experiences in a dynamic and ever-changing way – to well-being has impeded research, since such a measure is both extremely difficult to interpret and clearly an inadequate proxy for mental health.

A single-item measure of happiness is also widely used in population studies to assess subjective well-being. Usually it is asked about a person's general level of happiness, but in some recent applications it assesses the momentary or recent experience of happiness. The Office for National Statistics in the UK now routinely asks "How happy were you yesterday?" Even if it can be argued that this is an adequate way to assess subjective well-being, either in its general or

momentary/recent formulation, it is clearly an inadequate proxy for evaluating mental health.

Mental health, like mental illness is multi-dimensional, and an acceptable measure of mental health needs to assess the relevant dimensions. There are a number of widely-used multi-dimensional measures of well-being/mental health, and although the universal adoption of a single measure is not a requirement for scientific progress (for instance there are numerous scales measuring depression and anxiety) there should be agreement which dimensions need to be measured. Unfortunately this is not the case in relation to measures of well-being. For example, Ryff's Scales of Psychological Well-being measure six dimensions of well-being, based on psychodynamic theory and developmental psychology: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. For Deci and Ryan (1985) the key dimensions are autonomy, competence and relatedness, which they describe as basic psychological needs, while Seligman's list comprises PERMA – positive emotions, engagement, relationships, meaning, and accomplishment (2011). The corresponding scales can be used to yield a total score as well as information about each of these dimensions.

In a pragmatic rather than theory-driven exercise, some national and international bodies that undertake population surveys, such as ONS, and the OECD 'How's Life?' survey are using a combination of questions, which include life satisfaction to measure a person's global evaluation of well-being, recent feelings of happiness and anxiety y to measure mood, and a question about sense of meaning as an indicator of eudaimonic well-being. In two other widely used measures (Warwick-Edinburgh Mental Well-being Scale - Tennant et al., 2007; Flourishing Scale – Diener et al., 2010) each scale incorporates several dimensions of well-being, but only a total score is derived rather than scores on each individual dimension.

As described in the Definition section, the only multi-dimensional approach that is solidly and explicitly rooted in the mental health/illness literature is that of Huppert and So (2013). Defining positive mental health (a.k.a. well-being or flourishing) as the opposite of the common mental disorders (depression, generalised anxiety) they identified 10 dimensions of well-being, and suggested that all needed to be

measured in order to fully capture the construct of positive mental health. Using a set of 10 indicator items, one for each dimension, which had been administered in the European Social Survey, they developed a method of both combining the items to measure overall well-being, and examining the separate profiles of the 10 dimensions to gain an understanding of how these profiles varied across population subgroups and nations (Huppert & So, 2013; Ruggeri et al., 2016). This approach is invaluable for policymakers, since it identifies where strengths and weaknesses lie, and accordingly which dimensions need to be targeted for particular groups. Although the framework used in these studies is very promising, there is not yet a corresponding, psychometrically validated scale which includes multiple items to accurately measure each of the 10 dimensions. Research on the development of such a scale is almost completed, and should go some way towards allaying concerns about whether we have a high quality, appropriate scale for measuring positive mental health.

When evaluating findings from studies of well-being, we need always to bear in mind how exactly well-being was conceptualised in the particular investigation, and how exactly it was measured, since this can greatly influence the interpretation and implications of the findings. A useful step towards greater rigour would be for publishers, editors and reviewers to insist on authors being very precise in how the term well-being is being used.

Evidence for the effectiveness of interventions to improve well-being

There is a rapidly growing body of research that uses a variety of programs across different population groups and contexts to enhance well-being – that is, where well-being (measured in a variety of ways) is the main outcome, or at least one of the primary outcomes. The quality of the research is also improving, going from basic pre-post study designs to randomised controlled trials, some with active control groups. There is also a growing number of systematic reviews and meta-analyses of interventions to enhance well-being, including the impressive series of reviews commissioned by DataPrev in 2011. However, caution must be urged in taking these publications at face value, since many publications that purport to provide

evidence of improved well-being in fact use outcomes that demonstrate symptom reduction rather than improvements on well-being measures.

Many of the intervention programs provide behavioural training such as teaching the skills that are known to be associated with high levels of well-being. One set of programs is derived from positive psychology, and targets skills such as resilience, gratitude, positive affect, and character building (see reviews by Bolier et al., 2013; Gander et al., 2013; Sin & Lyubomirsky, 2009; Weiss, Westerhof, & Bohlmeijer, 2016; Wood, Froh & Adam, 2010). Another set of programs emanates from the mindfulness literature, and targets skills such as attention and awareness, emotion regulation, curiosity, non-judgement and self-kindness (see Keng et al., 2011; Kuyken et al., 2013; Sedlmeier et al., 2012).

Physical exercise programmes have also been linked to psychological well-being. While the extensive research in this area is almost exclusively focussed on association studies, there is some evidence of a causal relationship between physical activity interventions and psychological well-being, as seen in experimental trials which show that moderate exercise increases positive affect and self-esteem (Biddle & Mutrie, 2007; Spence, McGannon & Poon, 2005).

While most of these well-being interventions use group-based training, some are one-to-one, and an increasing number are self-help programs, including an escalating number of web-based programs or apps, disturbingly few of which have been properly evaluated. One notable exception is Powell et al. (2013), who undertook an RCT using a web-based intervention teaching cognitive behavioural principles in a general population sample. Well-being, assessed by the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS -Tennant et al., 2007), was measured at baseline, after six weeks of training, and again six weeks later. Significant improvements were found at both six and twelve weeks in the intervention group compared to the control group. Web-based interventions and e-learning clearly have the potential to reach large sectors of the population at low cost, although improvements in their design are needed to avoid the high rates of failure to complete the program.

Other interventions to enhance well-being focus on changing the context or the environment, rather than individual skills training. Examples are changing a school's ethos, changing workplace structures or practices, or encouraging social connection among older people to reduce isolation (see below). A growing number of studies examines the effect on psychological well-being of making changes to the urban environment or the natural environment (Anderson et al., 2016, 2017; Bjork et al., 2008; Bowler, 2010; Gidlow et al., 2016; Hartig, Mang & Evans, 1991).

A recent review of the effectiveness of interventions to enhance well-being at different stages in the life course has been undertaken by Wahlbeck (2015). Results are grouped according to the different contexts in which the intervention was provided – parenting and early years, schools, workplaces, and for older people. Most of the programs described below are universal, and some clinicians and policy makers are sceptical about the benefit of this approach, preferring to target interventions to those with the greatest need. However, one of the most important findings from a public mental health perspective, is that these universal programs have their greatest effect on those with the greatest need. A further advantage of these universal programs is that they normalise the intervention procedure and thereby avoid stigma.

Parenting interventions, including early parent-child interaction and approaches to fostering positive behaviours are regarded as an important target for mental health promotion. Promoting a nurturing early interaction between parents and children increases the child's resilience in the face of adverse life events and promotes lifelong mental health and well-being. Parenting programs also improve the well-being of parents and the relationship between parents, which would likely further increase the well-being of the child. Intervention approaches include one- to- one training, programs targeted to families where children are showing early signs of mental health problems, and universal programs delivered to all parents in schools,, community settings, antenatal classes or via the internet (Stewart-Brown, 2014; Stewart-Brown & Schrader-McMillan, 2011). Programs that use trained home visitors to strengthen parent-child interaction and provide counselling, have been shown to

be effective when delivered by trained nurses in developed countries (Olds, 2002) or by trained lay women in developing countries (Cooper et al., 2009). Such programs have been found to improve maternal sensitivity, to reduce criticism and harsh upbringing and to improve child attachment.

Mental health promotion in schools has grown rapidly in recent decades, and there are many good research studies (see reviews by Adi et al., 2007; Durlak et al., 2011; Weare & Nind, 2011; 2014). Interventions focus on teaching students skills such as resilience, behaviour regulation, social skills, and mindfulness, as well as teacher education, peer support or a whole school approach including work on school leadership and ethos. While many studies show beneficial impacts on the reduction of depressive symptoms and problem behaviours, many also show increases in well-being and behaviours conducive to well-being, such as social and emotional skills, increased problem solving ability, co-operation, empathy, and a positive and realistic self-concept.

The workplace is an important setting for mental health promotion in the adult population. Psycho-social interventions, including skills training, relaxation and structuring employment to create good working conditions have all been shown to bring well-being benefits to the individual (e.g. mental health improvement, stress reduction, increased job satisfaction) and to social relationships and performance in the workplace (see reviews by Czabala & Charzyńska, 2014; Czabala, Charyńska & Mroziak, 2011; Good et al., 2015; Robertson et al., 2015). There are also completed and ongoing studies of the effects of interventions to improve well-being or decrease stress in very specific settings, such as in prisons (Auty, Cope & Liebling, 2015; Dunn, 2010), and among military personnel (Harms et al., 2013; Stanley et al., 2011).

Psychosocial interventions that aim to increase the social connectedness of older people have been shown to improve psychological well-being and reduce feelings of loneliness. A review and meta-analysis has shown that social activities among older people significantly improve positive mental health, life satisfaction and quality of life

and reduce depressive symptoms when compared to no-intervention (Forsman, Nordmyr & Wahlbeck 2011; Forsman, Stengard & Wahlbeck, 2014).

While the above studies provide ample evidence that well-being interventions can be effective, they are often brief (days or weeks) so they may have only short-term benefits, though little research has been done on duration of effect. Maybe like some medications that are taken lifelong, well-being interventions need to be repeated regularly. Or like exercise, the skills that have been learned need to be practised regularly. Detailed investigation of such issues will inform policy and identify best practice.

As sample sizes and study quality continue to improve, it will become possible to address the time-honoured question: 'which interventions work best for whom, for which outcomes, and for how long? For instance, if we compare different forms of skills training, some people may respond better to meditation-based learning while others may respond better to the more cognitive, goal-focussed skills training offered by typical positive psychology interventions. Or perhaps the best results might arise from learning several different approaches to enhancing well-being, and the effects of program length and program order on well-being outcomes could be investigated.

In addition, as was described above, there are two main approaches to improving well-being - programs designed to change individual attitudes and behaviours, and programs designed to change the context or environment. Little is known about the relative benefits of change at the individual level versus the contextual level. Further research is needed to establish whether providing opportunities for people to learn and cultivate the skills of well-being may be more or less effective than changing the context in which people live or work. It may be that learning the skills that underpin well-being will enable people to experience greater well-being across diverse areas of their life, whereas changes in specific contexts (e.g. school or workplace) may be needed to support and sustain individual change. A new generation of public health field trials will yield answers to these questions, providing a firm evidence base for promoting the most effective public mental health policies and progtams.

The financial case for improving well-being

Cooper and McDaid state “It is not enough to know what factors contribute to wellbeing, we then need to carefully evaluate the cost-effectiveness of actions to promote better wellbeing in society” (p. 5, 2014). While well-being is itself the ultimate outcome, there may be concerns that financial investment toward study and intervention may take away from other areas of public mental health and psychiatry. However, there are a number of examples demonstrating that investment in improving mental health yields major returns, which should relieve such concerns. The DataPrev project reviewed 47 studies of varying quality, which looked either at promotion of mental health and well-being and/or primary prevention of poor mental health. It concluded that there were significant economic benefits from investing in improving well-being (McDaid & La Park, 2011). One example is an estimated annual cost saving of 30% when mental health promotion programs are administered in the workplace. This study also estimated the benefit to cost ratio of positive parenting interventions, reporting a ranges from 1.26:1 to 28.42:1. Additionally, Knapp et al., (2011) have undertaken some analyses of the cost-effectiveness of a multi-component well-being intervention in a workplace setting, and calculated an annual return on investment of 9 to 1. Such approaches are critical given the finite resources available for population mental health programs (Luyten et al., 2016).

With these points stated, it is important to raise the question: if economic gain must be visible to invest in the promotion of mental health and well-being, what would be the implication if this return was not shown? In other words, if improved mental health meant greater financial costs than returns, or if improved population well-being coincided with decreasing GDP, what do we choose as a society to prioritise? Such considerations may be, on some level, directly related to the ‘controversy’ of well-being within all policy.

Overcoming barriers to accepting the importance of well-being

Probably the biggest barrier among clinicians to accepting the importance of well-being, is the persistence of the medical model, in which there are just two states:

disease and normality. Medical training emphasises that diseases need to be understood, treated and prevented, and clinicians often regard this to be enough to produce health. Yet since 1948, the WHO has made it clear that "health is more than the absence of disease or infirmity". Furthermore, patients do not regard it as enough to be relieved of their symptoms; what they want is to be restored to a fully functional state where they can enjoy life to the full (Oades et al., 2005). Recovery from mental illness has been defined as the process of building a meaningful and satisfying life, as defined by the person themselves, which has been shown to include finding and maintaining hope, re-establishment of a positive identity, building a meaningful life, and taking responsibility and control (Andresen et al., 2003; Shepherd, Boardman & Slade, 2008). Patient-centred medical care therefore needs to recognise the key role of well-being in the recovery process.

Another barrier to accepting the importance of studying and promoting well-being is the problem of limited resources. The argument is that if the limited resources available are spent on improvement of well-being, this takes away from resources for treatment (and possibly prevention) of mental disorder. This is a fair concern, because even improving population well-being will not eliminate mental disorders, and as long as major underfunding continues in the mental health sector we will need to ensure adequate resources for treatment and prevention because of the extremely damaging effect that mental disorders have on individuals and those around them. Clearly, as has been cogently argued by Layard (2015) the mental health sector needs a much larger slice of the pie that represents how health funds are allocated between physical and mental health/illness. In order to decide what percentage of the (augmented) mental health budget should go to the promotion of well-being, we need to understand more about the extent of population shift following interventions that promote or increase well-being.

Perhaps the most convincing way to demonstrate the impoverishment of the medical model and the value of promoting positive well-being, is to provide evidence that by improving the average level of well-being in the population, we can reduce the burden of common mental disorders. Evidence might include reducing the severity or duration of a disorder, or better still, lowering the probability of a disorder

occurring. Various lines of evidence suggest that this may indeed be the case. In this chapter we have already shown a high level of well-being early in life produces a large reduction in the likelihood of a mental disorder later in life (Richards & Huppert, 2010), adjusting for baseline socio-economic factors, cognitive function and personality. Further, the majority of well-being interventions described in an earlier section have been shown to decrease depression, anxiety and stress, as well as increasing psychological well-being (e.g. Bolier et al., 2013; Gander et al., 2013; Keng et al., 2011; Kuyken et al., 2013; Sin & Lyubomirsky, 2009). At present, however the intervention studies have been undertaken on relatively small groups, and what is needed is a large-scale demonstration that a well-being intervention can both shift the population curve towards well-being, and reduce the prevalence of common mental disorders. In other words, we seek evidence at the population level that is congruent with the Rose hypothesis (Rose, 2008).

According to this model, the prevalence of any common health condition is directly related to the population mean of the underlying risk factors. The key insight from this model is that the most effective way to reduce the prevalence of a common disorder is to shift the mean of the population in a positive direction. The effectiveness of this approach has been demonstrated in diverse conditions such as alcohol abuse disease (Colhoun et al., 1997) and heart (Puska et al., 1998). The question we address here is whether the model applies to mental illness and mental health. To answer this question, we must ask if common mental disorders fulfil certain criteria. First, we need to establish whether the prevalence of common mental disorders is related to the average level of well-being in the population. The answer is yes. A study by Anderson, Huppert and Rose (1993) showed a close relationship between mean scores on a measure of mental health and the prevalence of clinically significant disorder in sub-groups of the population. Second, we need to establish whether there is a reduction in common mental disorders if the population mean shifts in a positive direction. Again, the answer is yes. In a 7-year longitudinal study of a representative population sample, Huppert & Whittington (1996) confirmed that a small positive shift in the population mean on a measure of mental health was associated with a large reduction in the prevalence of common mental disorders. They found a 6% reduction in clinically significant mental disorder

for every 1-point increase on their measure of mental health, and this compared favourably with their Rose model prediction of a 7% decrease. The study was an observational one, but had it been an intervention study, a 6% decrease in population mental disorder would represent not only huge cost benefits, but also a very substantial reduction in personal suffering and its impact on families and the wider community. A similar association has been reported more recently in a study of adolescents (Goodman & Goodman, 2011).

What remains to be established is whether a well-being *intervention* can decrease the prevalence of common mental disorders in the population by shifting the population mean towards higher well-being. We urge researchers who are undertaking large-scale well-being interventions to test this model of population shift.

Implications for policy

Though there is as yet no agreement on a single definition or best measure ofwell-being, and more research is required on whether and how the population curve shifts following well-being interventions, it is very encouraging that there is almost universal agreement amongst governments and international organisations about the importance of subjective well-being. For example, the WHO advocates that there should be ‘health in all policies’, including ‘mental health in all policies’, in a manner that integrates the work across sectors to improve population health and health equity (WHO, 2013, 2016; European Union, 2015). Further, it has been stated that “there is no health without mental health” (Finnish Ministry of Social Affairs and Health, 2001). Finally, the CDC and Mental Health Europe endorse the specific need to “promote positive mental health and wellbeing in all policies” (Kottke et al., 2015; Mental Health Europe, 2016).

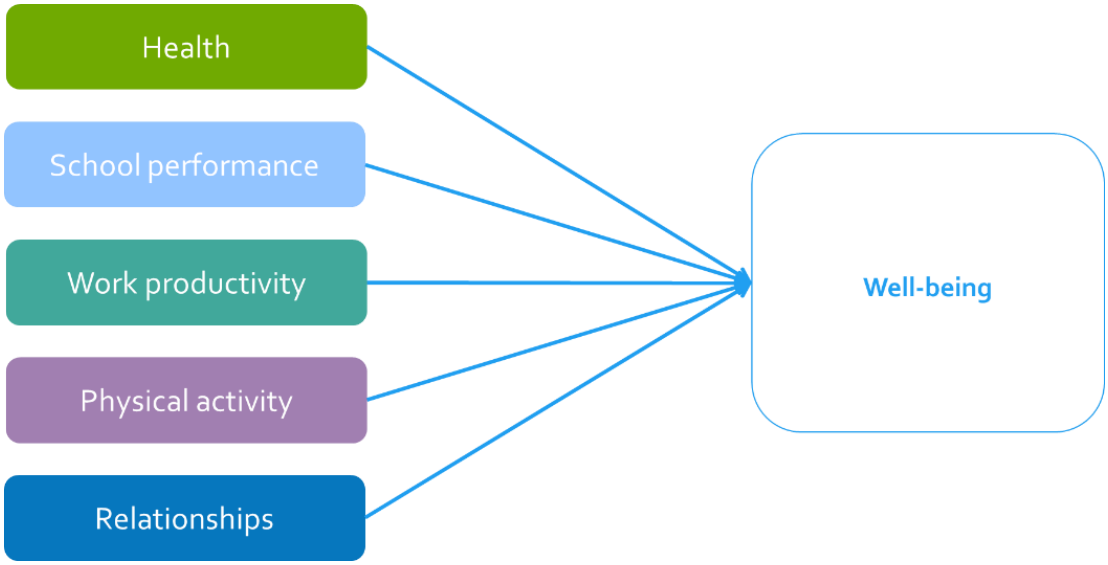
In an economic context, one example of the commitment to well-being is the Millennium Development Goals (MDGs), which were established by the United Nations in 2000 and replaced by the Sustainable Development Goals (SDGs) in 2015. In the MDGs, there was no mention of mental health nor was there any scientific approach to understanding or improving well-being. In response to the

growing evidence, the SDGs have as the third goal “Ensure healthy lives and promote well-being for all at all ages” (UN, 2015).

McDaid (2014) highlights that well-being has indeed become a major commitment for governments globally, but this is of little use unless research on wellbeing is actually used to inform policy and practice. As demonstrated in the previous section, there seems to be sufficient evidence to initiate policy field trials and policy experiments implementing what is already known from subjective well-being (SWB) research. Asking why this change has not already taken place, the distinguished economist John Helliwell (2014) argues that the relatively slow progress from accumulating evidence to changes in policies and practices is partly due to the human predilection to adhere to old ways despite the arrival of contradictory evidence. This pervasive effect is hard to dislodge because decision makers are generally unaware of their subconscious biases in favour of evidence supporting the view they already hold. Helliwell concludes that if taking SWB more seriously has the potential for increasing the quality of lives while reducing pressures on available resources, there should be a stronger commitment to broadening the range of policy alternatives to include those with a strong chance of improving SWB (p. 626).

Critically, though, the most significant implication for policy – which will have direct ramifications for research on the topic – will be the shift in thinking about well-being as an outcome as opposed to a mechanism by which other outcomes are achieved. This is depicted in Figure 2, which simply but crucially alters the paradigm described earlier and visualised in Figure 1. This implies that for valid and sustained impacts to be recognised within public mental health, well-being must not be treated as a footnote or superficially recognised policy outcome. Instead, it should be on a par with other impacts sought within a given policy, or even as the pinnacle impact of all policy, with relevant underlying initiatives resourced appropriately to achieve desired effects.

Figure 2. Making well-being the outcome of interest.



Conclusion

Regardless of where anyone sits on views of well-being, it remains important: if you believe treatment is most important, then well-being is critical in recovery; if you believe prevention is important, well-being can reduce risks of illness; if you believe well-being is ultimately what everyone wants from life, then it should be *the* target and indicator of ultimate interest.

We've gone from ignoring, mis-defining, measuring it poorly, improving measures, now debating on global scales how *best* to measure. We've gone from a focus on interventions to alleviate symptoms, to interventions to reduce the risk of illness, to interventions to optimise flourishing. In short, we've come a long way: what needs to happen next?

The most critical thing has to be that – if we genuinely care about good public mental health – we have appropriate definitions (though it is not mandatory to have only one) for well-being that emphasise rigidly that it is the positive end of the spectrum *and* that it is multidimensional. These must become the way we measure well-being as *the* outcome of interest for public mental health (and all policies), by whatever name is deemed most accurate.

As has been argued, such progress is only possible with sufficient investment in understanding well-being, its underlying factors, and how interventions do (or do not) improve it across populations. There is no implication in doing this – and certainly not for the authors – that this requires forsaking investment in the treatment of mental illness or the prevention of disease. On the contrary, to overcome the controversial discussion of well-being, there must be appreciation for the entire spectrum of mental health with appropriate investment made at each stage.

Once this whole population perspective is in place, the focus can shift toward discussions of the best interventions to create the highest well-being for the largest number of people. Doing this will put well-being as the ultimate aim of policy within and beyond mental health programmes, and not simply a footnote in major public programs. It will ultimately promote positive outcomes for most individuals within a population, putting well-being ahead of focusing on incomes, illness, or other objective indications of how life is going. Instead, it will recognise what is most important to populations and thereby promote systematic attempts to facilitate improvement on those dimensions in a meaningful and sustainable way.

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