Discourse

The Next Steps in the Promotion and Protection of Positive Mental Health

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Mental illness has always been seen as problematic but it was not seen as a public health issue until 1996, when the World Health Organization (WHO) published the results of the first Global Burden of Disease study (Murray & Lopez, 1996). The WHO study estimated the total contribution of 107 acute and chronic medical conditions and illnesses by including disability in the equation to calculate disability-adjusted life years (DALYs). The DALY reflects the total number of years in a population that were either lived with disability or abbreviated due to a specific physical or mental condition. Depression was the fourth leading cause of disease burden, accounting for 3.7% of DALYs in 1990 and 4.4% in 2000, and is projected to be 15% of DALYs by 2020 (Ustun, 1999; Ustun, Ayuso-Mateos, Chatterji, Mathers, & Murray, 2004). Therefore, the debate is over as to whether mental illness is a serious public health issue — it is.

The biggest issue facing governments is what can and should be done to reduce the number of cases of mental illness and to reduce the number of people suffering because of it. Most governments choose the de facto approach of providing treatment to more individuals (Chisholm, Sanderson, Ayuso–Mateos, & Saxena, 2004). All evidence indicates that the de facto approach is not reducing the prevalence, burden, or early age of onset of mental disorders (Insel & Skolnick, 2006; Kessler et al., 2005). A viable alternative is mental health promotion, which seeks to elevate levels of positive mental health and protect against its loss (Davis, 2002; Jané–Llopis, Barry, Hosman, & Patel, 2005; Keyes, 2007; Secker, 1998). Whereas treatment targets those who have mental illness, and risk reduction and prevention target those who are vulnerable to mental illness, promotion targets those with good mental health and those with less than optimal mental health — that is, all members of a population.

The WHO (2004) recently highlighted the need to promote mental health, defining positive mental health as "a state of well-being 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" (p. 12). This is good news, because it means that the WHO has caught up with science, where positive mental health has been operationalized under the rubric of subjective well-being, or an individual's evaluation of the quality of his or her life.

Subjective well-being consists of two conceptual traditions. The first equates well-being with feeling good about (i.e., positive emotions towards) one's life. The second champions functioning well in life as an individual and as a citizen. The former reflects the hedonic, the latter the eudaimonic, conception of living a good life. As shown in Table 1, the hedonic tradition focuses on *emotional* well-being, where scholars use measures of avowed satisfaction with life and positive affect (Bradburn, 1969; Diener, 1984; Gurin, Veroff, & Feld, 1960). The tradition of eudaimonia is reflected in research on psychological (Ryff, 1989) and social (Keyes, 1998) well-being. Here, scholars use multidimensional scales, asking individuals to evaluate how well they see themselves functioning in life as they strive to achieve secular standards of purpose, contribution, integration, autonomy, intimacy, acceptance, and mastery. When subjective well-being is measured comprehensively, studies support the tripartite model consisting of emotional, psychological, and social well-being in US adults (Gallagher, Lopez, & Preacher, 2009), college students (Robitschek & Keyes, 2009), and adolescents (Keyes, 2005b).

The Mental Health Continuum Short Form (MHC-SF) was developed to address the problem of the diagnostic threshold and to create a version more efficiently administered in epidemiological surveillance. The MHC-SF derives from the long form (MHC-LF) used in the Midlife in the United States (MIDUS) study (Keyes, 2002, 2005a). While the MHC-LF consisted of 40 items, the MHC-SF consists of 14 of the most prototypical items representing the construct definition for each facet of well-being. Three items (happy, interested in life, and satisfied) indicate emotional well-being, six items measure the six dimensions of psychological well-being, and five items represent the five dimensions of social well-being. The response option for the short form was changed to measure the frequency (from "never" to "every day") at which respondents experience each sign of mental health during the past month, which provides a clear standard for the assessment and categorization of levels of mental health similar to the survey assessment of mental Major Depressive Episode according to DSM (Diagnostic and Statistical Manual of Mental Disorders) criteria.

Feeling good about a life in which one is functioning well, I have argued (Keyes, 2002), constitutes the presence of good mental health.

Table 1 Tripartite Structure and Specific Dimensions Reflecting Positive Mental Health

Hedonia (i.e., emotional well-being)

Positive affect: cheerful, interested in life, in good spirits, happy, calm and peaceful, full of life

Avowed quality of life: mostly or highly satisfied with life overall or with domains of life

Positive psychological functioning (i.e., psychological well-being)

Self-acceptance: acknowledges and is accepting of good and bad aspects of self and personality and holds a positive attitude towards self and personality

Personal growth: seeks challenges, has insight into own potential, feels a sense of continued development

Purpose in life: finds own life has direction and meaning

Environmental mastery: exercises ability to select, manage, and mould personal environs to suit needs

Autonomy: is guided by own, socially accepted, internal standards and values Positive relations with others: has, or can form, warm, trusting personal relationships

Positive social functioning (i.e., social well-being)

Social acceptance: holds positive attitudes towards, acknowledges, and is accepting of human differences

Social growth (actualization): believes people, groups, and society have potential to grow

Social contribution: sees own daily activities as useful to and valued by society and others

Social coherence: interested in society and social life and finds them meaningful and somewhat intelligible

Social integration: has a sense of belonging to, and receiving comfort and support from, a community

In the same way that depression requires symptoms of anhedonia, mental health consists of symptoms of hedonia. But feeling good is not sufficient for the diagnosis of a clinical state, just as only feeling sad or losing interest in life is not sufficient. Just as major depression consists of symptoms of malfunctioning, mental health must consist of symptoms of positive functioning. In turn, the mental health continuum (Keyes, 2002) consists of three diagnostic categories, or levels, of positive mental health: flourishing, moderate, and languishing. Individuals with flourishing mental health report feeling at least one measure of hedonic well-being plus six or more of the measures of positive functioning almost every day or

or more of the measures of positive functioning almost every day or every day during the past month. Individuals with languishing mental health report feeling at least one measure of hedonic well-being with six or more measures of positive functioning never or maybe once or twice during the past month; languishing is the absence of mental health — a state of being mentally *un*healthy — which is tantamount to being stuck and stagnant, or feeling empty or feeling that life lacks interest or engagement. Individuals who are neither flourishing nor languishing are diagnosed with moderate mental health.

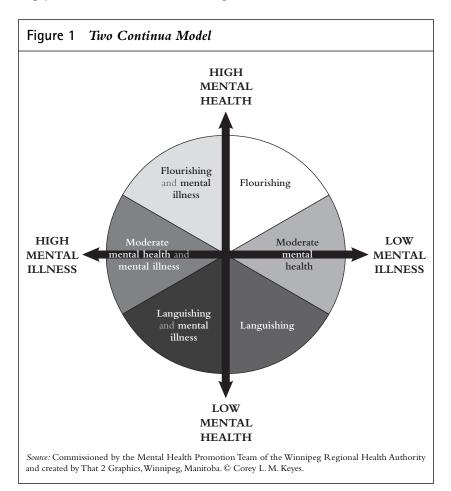
From Measurement to Two Continua

The importance of measuring mental health in the same way as mental illness cannot be overstated, because it allows us to finally adequately test the hypothesis that mental health and mental illness belong to two separate continua. Indeed, mental health promotion and protection is premised on the Two Continua Model, because mental health is presumed to belong to a separate continuum from mental illness (Health and Welfare Canada, 1988). Yet the studies that do exist on the subject measure mental health only emotionally, in terms of life satisfaction or happiness (Greenspoon & Saklofske, 2001; Headey, Kelley, & Wearing, 1993; Huppert & Whittington, 2003; Masse et al., 1998; Suldo & Shaffer, 2008; Veit & Ware, 1983). Numerous studies in mainstream psychology of emotion have shown that positive and negative emotions belong to separate continua (e.g., Bradburn, 1969; Watson & Clark, 1997), but, as discussed above, emotional disturbance or emotional vitality does not in itself constitute a state of mental illness or mental health.

Findings based MHC-LF in the MIDUS study (Keyes, 2005a) support the Two Continua Model, one continuum indicating the presence and absence of positive mental health and the other indicating the presence and absence of mental illness symptoms. For example, the latent factors of mental illness and mental health correlate (r = -.53) but only 28.1% of their variance is shared in the MIDUS data (Keyes, 2005a). The Two Continua Model has been replicated in a nationally representative sample of US adolescents (age 12 to 18) with data from the Child Development Supplement of the Panel Study of Income Dynamics (Keyes, 2009), in a national study of Dutch adults (Westerhof & Keyes, 2008, 2010), and in Setswana-speaking South African adults using the MHC-SF (Keyes et al., 2008).

Based on the Two Continua Model shown in Figure 1, individuals can be categorized according to their recent mental illness status and according to their level of mental health — whether languishing, moderate, or flourishing. One implication of the Two Continua Model is that

health. In the American adult population between the ages of 25 and 74, just over 75% were free of three common mental disorders during the preceding year: major depressive episode (MDE), panic disorder (PD), and generalized anxiety (GAD). However, while just over three quarters were free of mental illness, only about 20% were flourishing. A second implication of the Two Continua Model is that the presence of mental illness does not imply the absence of mental health. Of the 23% of adults with some mental illness, 14.5% had moderate and 1.5% flourishing mental health. Thus, almost 7 of every 10 adults with a recent mental illness (MDE, PD, or GAD) had moderate or flourishing mental health. While the absence of mental illness does not mean the presence of good mental health (i.e., flourishing), the presence of mental illness does not imply the absence of some level of good mental health.



Another important implication of the Two Continua Model is that level of mental health differentiates level of functioning among individuals who are free of mental illness and those who have a mental illness. Put differently, anything less than flourishing mental health is associated with impaired functioning for both those with and those without a mental illness. Findings consistently show that adults and adolescents who are diagnosed with anything less than flourishing mental health have a lower level of functioning in terms of physical health, health-care utilization, missed days of work, and psychosocial issues (Keyes, 2002, 2005a, 2006, 2007, 2009). Overall outcomes to date indicate that individuals who are flourishing function better (e.g., have fewer missed days of work) than those with moderate mental health, who in turn function better than languishing individuals — and this is true for individuals with and without a recent mental illness.

From What to How: Towards Promotion and Protection

Progress has been slow in bringing mental health promotion and protection (MHPP) into the mainstream debates about how to address the problem of mental illness. Admittedly, there has been a deficit of scientific evidence supporting the "promotion" and "protection" axioms of MHPP. Central to the argument behind *promotion* is the hypothesis that gains in level of mental health should decrease the risk of mental illness over time. Central to the argument behind *protection* is the hypothesis that losses of mental health increase the risk of mental illness over time, and therefore efforts should be made to prevent, and respond to, any loss of mental health. Recently published findings (Keyes, Dhingra, & Simoes, in press) from a 10-year follow-up of the MIDUS national sample strongly support the promotion and protection hypotheses.

In 1995 and in the 2005 follow-up of the MIDUS sample, adults completed the Mental Health Continuum Long Form (MHC-LF; Keyes, 2002, 2005a) and the Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998). Studies have shown that the CIDI-SF has excellent diagnostic sensitivity and diagnostic specificity as compared to diagnoses based on the full CIDI in the National Comorbidity Study (Kessler, DuPont, Berglund, & Wittchen, 1999). During a telephone interview, the CIDI-SF was used to assess whether respondents exhibited symptoms indicative of MDE, GAD, and PD during the preceding 12 months.

We found that the prevalent levels of mental health and illness in 1995 and 2005 were similar, suggesting stability. The prevalence of mental illness was about the same in 1995 (18.5%) as in 2005 (17.5%); approximately 8 out of every 10 adults were free of any mental illness in both

1995 and 2005. The prevalence of any mental illness and the absence of mental illness appeared to be stable over time. However, of the 17.5% with a mental illness in 2005, just over half (52%) were "new cases" of mental illness insofar as these adults did not have any of the three mental disorders in 1995. Thus, mental illness is dynamic over time, with about half recovering and being replaced by new cases of mental illness.

The prevalence of flourishing was 3.2% higher in 2005, up from 19.2% in 1995. The prevalence of moderate mental health was 3.7% lower in 2005, down from 64.1% in 1995. The prevalence of languishing was 0.5% higher in 2005, slightly up from 16.7% in 1995. Compared to mental illness, levels of mental health, particularly moderate and flourishing, appear slightly more dynamic at the population level — that is, there was a slight decline in moderate mental health and a slight increase in flourishing mental health at the level of the population. Overall, mental health appears to be relatively stable at the population level. However, only 45% of those languishing in 1995 were languishing in 2005; 51% improved to moderate and 4% improved to flourishing mental health in 2005. Only 51% of those flourishing in 1995 were flourishing in 2005 — 46% declined to moderate and 3% declined to languishing mental health. Two thirds of those with moderate mental health in 1995 had moderate mental health in 2005. Of those with moderate mental health in 1995, about 19% improved to flourishing and 14% declined to languishing in 2005. Like mental illness, level of mental health is dynamic over time.

The Promotion and Protection Hypotheses

The changes in mental health level were strongly predictive of future mental illness. First, the findings support the protection hypothesis. Those who declined to moderate mental health were nearly four times (adjusted¹ odds ratio [OR] = 3.7) more likely to have a mental illness in 2005 as those who stayed flourishing. Thus, the first loss of mental health — from flourishing to moderate — results in a rise in the risk of future mental illness. Adults whose mental health stayed moderate were more than four times (OR = 4.4) as likely to have a mental illness in 2005 as adults whose mental health stayed flourishing. Compared to those who stayed at moderate mental health, those who declined to languishing — almost all of whom had moderate mental health in 1995 — represented an 86% increase in the odds ratio for mental illness in 2005 (i.e., 8.2–4.4

¹All regression models controlled for whether respondents had any mental illness in 1995; their age, sex, race, education, marital status, and employment status in 2005; and whether they had any of 25 physical health ailments in 1995.

= $3.2 \div 4.4$ = .864). Thus, protection against the loss of moderate mental health can mitigate the risk of future mental illness.

The findings also support the promotion hypothesis. Individuals who stayed languishing were more than six times (OR = 6.6) and those who improved to moderate mental health were more than three times (OR = 3.4) as likely to have a mental illness in 2005 as those who stayed flourishing. Compared to staying languishing, improving to moderate mental health cuts the risk of future mental illness by nearly half (i.e., $6.6-3.4 = 3.2 \div 6.6 = .484$). Individuals who improved to flourishing — most of whom had moderate mental health in 1995 — had no greater risk of future mental illness than those who stayed flourishing.

Individuals who had any of the three mental illnesses in 1995 were five times (OR = 5.0) more likely than those who stayed flourishing to have one of the same three illnesses in 2005. Our findings illustrate that the absence of flourishing mental health is as great a risk factor for future mental illness as starting with one of the mental illnesses. Almost half of the sample who were free of mental illness in 1995 but had moderate mental health in 2005 (i.e., 7.8% declined + 35.5% stayed + 4.7% improved = 48% with moderate mental health in 2005) had nearly the odds of having a mental illness in 2005 as the 18.5% who had a mental illness in 1995. Moreover, 1 in 10 of the sample free of any mental illness in 1995 but with languishing mental health in 2005 (i.e., 3.9% stayed + 6.5% declined = 10.4% with languishing in 2005) had greater odds of having a mental illness in 2005 than the 18.5% who had a mental illness in 1995. In short, nearly 6 in every 10 American adults (i.e., 48% with moderate + 10.4% with languishing mental health = 58.4%) otherwise free of MDE, GAD, or PD are at the same or even greater risk for a future mental illness as individuals who had one of those mental disorders to start with.

Conclusion

Research supports the two fundamental axioms of MHPP for addressing the mental illness and mental health needs of the population. First, gains in mental health resulted in decreasing odds of mental illness over time, which suggests that promoting mental health could reduce the incidence and prevalence of mental illness. Second, losses of mental health served to increase the odds of developing mental illness over time, which suggests that protecting against loss of mental health could reduce the incidence and prevalence of mental illness. Third, mental health is dynamic over time, although the point prevalence estimates of any mental illness and level of mental health appear stable from 1995 to 2005. The reason for this apparent stability is that approximately half of the mental illness

in 2005 represents new cases, while half of those flourishing in 2005 were new cases and over half of those languishing in 2005 were new cases.

Further, research suggests that governments should invest in MHPP to keep pace with the rise in mental illness — that is, to prevent new cases. While having had a mental illness in the past is a good predictor of future mental illness, the absence of mental health is an equally good and in some cases better predictor of future mental illness. Nearly 60% of the US adult population free of mental illness but with less than optimal mental health are at the same or greater risk of a future mental illness as individuals who already have a mental illness. Failure to address the absence of positive mental health in populations runs the risk of failing to attack the problem of mental illness.

Ultimately, the results summarized here raise questions for (1) national public mental health goals, and (2) the development of effective techniques and interventions for MHPP. Governments and public health officials can no longer blithely announce that they seek to promote the mental health of their population while investing mainly in the treatment and study of mental illness. The Two Continua Model reveals this to be a "wanting-doing gap" in public health policy, where policies proclaim national efforts to seek health but foster activities directed primarily or solely at illness. If we want better mental health, we must focus on positive mental health — promote flourishing and protect against its loss. Governments cannot promote mental health solely by reducing mental illness, and no amount of wishful thinking will make it so. Nations can ignore the science supporting the Two Continua Model, but this will serve only to sacrifice more lives to the recurrent, chronic, and currently incurable condition of mental illness. The alternative, and complementary, approach to treatment is public mental health promotion and protection.

The question is no longer whether mental illness is a public health issue and whether we have an alternative to reduce mental illness. It is a public health issue and we do have an alternative. Research has shown where members of the public and governments *should* want to be. The debate, then, is not about where we want to be — we want to be flourishing.

The next step for researchers and practitioners is to determine how to get more people to stay flourishing or to become flourishing. Those in public health and government who expect immediate answers as to how best to promote and protect are not being fair or realistic. It takes time and financial support. The National Institute of Mental Health in the United States was created by an act of Congress in 1946 and set to work in earnest in 1949. Today, billions of taxpayer dollars are spent annually by well-intentioned leaders for the study and treatment of

mental illness (National Institute of Mental Health, 2010). If it wants good mental health in the population, the government must provide the same realistic time-frame and financial support to MHPP. Imagine where we in the United States might be today had we begun the war on mental illness 50 years ago by promoting and protecting mental health — fewer mentally ill because more people are flourishing in life.

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