keynote article

The Meaning Making Model: A framework for understanding meaning, spirituality, and stress-related growth in health psychology

Research on the topics of meaning, spirituality, and stress-related growth is proliferating, promising to illuminate these essential but relatively ignored aspects of human health and well-being. However, the sheer amount of information coming from disparate areas requires organization and integration. I propose here that the Meaning Making Model (Park, 2010a, 2010b) is a useful theoretical framework for understanding these phenomena and their interrelations within health psychology. In this article, I use this model to frame a brief overview of current theory and research on meaning, spirituality, and growth within health psychology.

The Meaning Making Model

The Meaning Making Model identifies two levels of meaning, global and situational (Park & Folkman, 1997). Global meaning refers to individuals' general orienting systems and view of many situations, while situational meaning refers to meaning regarding a specific instance. Situational meaning comprises initial appraisals of the situation, the revision of global and appraised meanings, and the outcomes of these processes. Components of the Meaning Making Model are illustrated in Figure 1. The Meaning Making Model is discrepancy-based, that is, it people's proposes that perception discrepancies between their appraised meaning of a particular situation and their global meaning (i.e., what they believe and desire) (Park, 2010a) creates distress, which in turn gives rise to efforts to reduce the discrepancy and resultant distress.

Discrepancies can be reduced in many ways, including problem-focused

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coping and emotion-focused coping strategies (Aldwin, 2007). However, in low control situations not amenable to direct repair or problem-solving, such as trauma, loss, and serious illness, meaning-making is often the most adaptive (Park, Folkman, & Bostrom, 2001). Meaning making involves approachoriented intrapsychic efforts discrepancies between appraised and global meaning. Meaning-making involves changing either the very meaning of the stressor (appraised meaning) in a process of assimilation or changing one's global beliefs and goals to improve the fit between the appraised meaning of the stressor and global meaning, akin to accommodation (Park, 2010b). Meaning making typically involves searching for a more favorable understanding of the situation and its implications. Meaning making may also entail reconsidering global beliefs and revising goals (Wrosch, 2010) and questioning or revising one's sense of meaning in life (Park, 2010a). Meaning making comprises both effortful coping to change one's appraised or global meaning and more unconscious processes (e.g., intrusive thoughts; Greenberg, 1995; Lepore, 2001).

This rebuilding process may lead to better adjustment, particularly if adequate meaning is found or created, although protracted and unproductive meaning making efforts may devolve into maladaptive rumination (Segerstrom, Stanton, Alden, & Shortridge, 2003). That is, meaning making is helpful to the

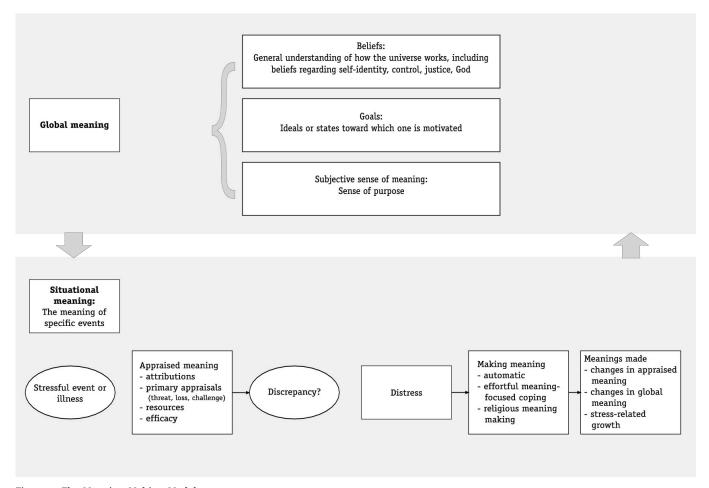


Figure 1: The Meaning Making Model

extent that it produces a satisfactory product, or *meaning made*. Meanings made can include changes in the way one appraises a situation as well as changes in global meaning, such as revised identity, growth, or views of the world (Park, 2010a).

Meaning in the context of health psychology

Global meaning influences individuals' general levels of health and well-being in myriad ways. Further, global meaning plays an essential role in how individuals deal with situations of crisis or serious illness, influencing their adjustment and, some research suggests, even their survival. These two types of influence of global meaning within health psychology are described below, and exemplified with a focus on

the influence of spirituality, a common source of global meaning.

Global meaning and general health

Many global beliefs are related to health and well-being. For example, copious research has linked a sense of control or mastery with physical well-being, including mortality and morbidity (e.g., Lachman & Agrigoroaei, 2010; Matthews et al., 2006). Similarly, goal processes are related to physical health in many ways (Mann, de Ridder, & Fujita, 2013). The third element of global meaning, a general sense of meaning in life, has been associated with better health in many studies as well (e.g., Matthews et al., 2006; Holahan et al., 2008).

Spirituality provides a useful illustration of the many ways in which global meaning is theorized to influence general health. Much of spirituality/health research has been conducted in the United States, where people generally report fairly high levels of spirituality (e.g., U.S. Religious Landscape Survey, 2008). People in other countries report lower levels of spirituality than those in the US, but these reports are still fairly high (e.g., Hank & Schaan, 2008; WHOQOL SRPB Group, 2006; Williams & Sternthal, 2007). Worldwide, about 85% of people report having some form of religious belief, with only 15% describing themselves as atheist, agnostic, or nonreligious (Zuckerman, 2005). While not all individuals are spiritual, spirituality appears to be central in the meaning systems of many individuals (Park, in press).

Spirituality can inform all aspects of global meaning, informing beliefs (e.g., the nature of God and humanity, control, destiny, karma) and providing ultimate motivation and primary goals for living and guidelines for achieving those goals, along with a deep sense of purpose and

mattering (Park, in press). Spirituality has been associated with many aspects of general health, including mortality and morbidity, cardiovascular and immune system functioning, pain, and health behaviors, including screening and adherence (see Koenig, King, & Carson, 2012, for a review). These effects are thought to be exerted through many different pathways (Figure 2, upper panel). (For reviews, see Aldwin, Park, Jeong, & Nath, in press; Masters & Hooker, in press).

Meaning in the context of illness

Pervasive as the effects of global meaning are on general aspects of health, its effects may be even more potent in the context of illness. Being diagnosed with serious illness can violate important global beliefs, including the fairness, benevolence and predictability of the world and one's sense of invulnerability and personal control (Jim & Jacobsen, 2008; Holland & Reznik, 2005). Further, serious illness almost invariably violates individuals' goals for their current lives and their plans for the future (Carver, 2005; Maes & Karoly, 2005). People

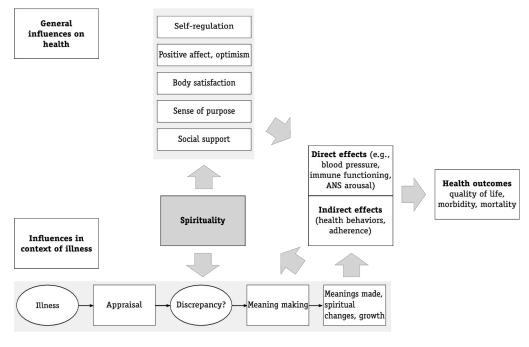


Figure 2: Influences of spirituality on health

appraise the meaning of their illness based on information they receive from sources such as their healthcare providers (Leventhal, Weinman, Leventhal, & Phillips, 2008), their appraisals of their ability to manage the illness and its anticipated impact on their future (Leventhal et al., 2008), and their general sense of control over their lives (Weinstein & Quigley, 2006). Research indicates that the meanings that survivors assign to their illness predict their coping and subsequent adjustment. For example, in a sample of CHF patients, we found that threat appraisals predicted higher subsequent of depression, although challenge appraisals were unrelated (Park, Fenster, Suresh & Bliss, 2006).

According to the Meaning Making Model, the degree to which one perceives one's illness as discrepant from one's global beliefs, such as those regarding identity (e.g., I live a healthy life style) and health (e.g., living a healthy lifestyle protects people from illness), and global goals (e.g., desire to live a long time with robust health) determines the extent to which the illness is distressing. For example, in our longitudinal study of survivors of various cancers, the extent to which they appraised their cancer as violating their beliefs in a just world predicted poorer psychological well-being over the course of a year (Park et al., 2008).

The meaning making model posits that efforts at meaning making are essential to adjustment to serious illness by helping patients either assimilate the illness into their pre-illness global meaning or helping them to change their global meaning to accommodate it (Lepore, 2001). Making meaning of illness involves attempts to integrate one's understanding (appraisal) of the illness together with one's global meaning to reduce the discrepancy between them (Park & Folkman, 1997). For example, people may gradually shift their views

of their illness in a more positive direction (e.g., Maliski, Heilemann, & McCorkle, 2002) or they may gradually reconsider their life goals or life meaning in light of the illness (see Park, 2010b)

As noted earlier, meaning making per se is thought to be helpful when it results in meanings made, reducing the discrepancy between situational and global meaning. For example, a longitudinal study of people with spinal cord injury found that those who continued to search for meaning over time were worse off, but those who increasingly reported found meaning over time had better adjustment (Davis & Novoa, 2013). These meaning making processes help people to change understanding of their illness (changed appraised meaning, such as its cause or implications for their lives or their ability to handle it). For example, in our study of young to middle-aged cancer survivors, we found that meaning making in the form of positive reappraisal led to increases in perceived growth and life meaning, which led to reduced perceptions of the cancer as discrepant from a just world belief. This process was related to better psychological adjustment (Park et al., 2008). People may also make changes in their global goal and beliefs, such as shifting their life goals to be more realistic in light of their illness (e.g., Garnefski & Kraaj, 2010) or holding a new identity that integrates their illness experience (e.g., Zebrack, 2000). For example, when asked about their post-cancer identities, 83% of our sample of young to middle aged cancer survivors endorsed "survivor" identity, 81% the identity of "person who has had cancer", 58% "patient", and 18% "victim" (Park, Zlateva, & Blank, 2009). Endorsement of survivor identity correlated with better psychological well-being and victim identity with poorer well-being.

The most common meaning made among people with serious illness is stress-related

growth, which refers to the positive changes people report experiencing as the result of stressful encounters such as serious illness (Park, 2009). Stress-related growth has been of increasing research interest in recent years (Park, 2009; Sumalla, Ochoa, & Blanco, 2009). Stress-related growth is also referred to as "posttraumatic growth," "perceived benefits" "adversarial growth," and "benefit-finding" (Sumalla et al., 2009). Stress-related growth is commonly reported in studies of people with health problems such as cancer, heart disease, and HIV (Leung et al., 2010). Reported positive changes may occur in one's social relationships (e.g., becoming closer to family or friends), personal resources (e.g., developing patience or persistence), life philosophies (e.g., rethinking one's priorities), spirituality (e.g., feeling closer to God), coping skills (e.g., learning better ways to handle problems or manage emotions), and health behaviors or lifestyles (e.g., lessening stress and taking better care of one's self) (Park, 2009). Stress-related growth is thought to arise as people attempt to make meaning of their illness (Rajandram, Jenewein, McGrath, Zwahlen. 2011). However, perhaps growth is counterintuitively, stress-related inconsistently related to well-being. example, a study examining reported growth in cancer survivors from pre-surgery to one year later found it unrelated to well-being at any point cross-sectionally, although increased growth over time predicted higher levels of well-(Schwarzer, Luszczynska, being Boehmer, Taubert, & Knoll, 2006).

Spirituality often figures heavily in individuals' efforts to deal with serious illness (Cummings & Pargament, 2010; Koenig et al., 2012) and, as shown in Figure 2 (lower panel), can influence many aspects of this process. At diagnosis, individuals' pre-illness spirituality may influence the situational meaning they assign to their illness. For example, a study of

patients in treatment for a variety of cancers found that although religious beliefs (e.g., "I believe that God will not give me a burden I cannot carry") did not directly relate to psychological adjustment, those with higher religious beliefs had a higher sense of efficacy in coping with their cancer, which predicted better adjustment (Howsepian & Merluzzi, 2009). In our above-mentioned study of cancer survivors, we found that attributing cancer to an angry or punishing God predicted poorer subsequent adjustment (Exline et al., 2011).

Meaning making often involves spiritual methods. For example, survivors may try to reappraise their illness as an opportunity for spiritual growth or come to see God's purpose in it. They may also actively question whether God has control in their lives or even whether God exists, often termed "negative religious coping" (Cummings & Pargament, 2010).

Finally, meanings made can be changes in spiritual appraisals of one's illness, such as seeing it as an opportunity to grow closer to God or to become more compassionate and patient. Meanings made can also involve global spiritual transformation of one's beliefs and goals. For example, many cancer survivors report feeling closer to God, more certain of their faith, and more committed to their religion. Many also report behaving more compassionately and finding more spiritual meaning in their relationships with others and themselves (e.g., Cole, Hopkins, Tisak, Steel, & Carr, 2008). Less survivors may report spiritual commonly, decrements as well, such as a diminished spiritual life and a loss of spiritual meaning as a result of their cancer experience (Cole et al., 2008).

The notion that transformation can arise from suffering is an idea common to many religions including Buddhism, Judaism, and

Christianity (Aldwin, 2007). Not surprisingly, then, spirituality and spiritual coping are among the strongest and most consistent predictors of reports of growth (Shaw, Joseph, & Linley, 2005). For example, in our sample of cancer survivors, the effects of spirituality and spiritual coping strongly predicted growth Edmondson, & Blank, 2009). Spirituality can also lead to other aspects of stress-related growth, such as changes toward a healthier lifestyle. For example, in this same sample of cancer survivors, spirituality was linked to greater adherence to doctor's advice as well as to more exercise, while religious struggle was related to greater alcohol use (Park, Edmondson, Hale-Smith, & Blank, 2009).

Conclusions and Future Directions

This brief overview highlights the ways that the Meaning Making Model can serve as a useful framework for considering how global meaning relates to health psychology. A growing body of research demonstrates that all three aspects of global meaning—beliefs, goals, and subjective sense of purpose—are related to general indices of health and well-being. Further, global meaning is pervasively involved in coping with serious illness. In addition, the meaning making model demonstrates how spirituality, a core aspect of global meaning for many, is related to health and involved in dealing with serious illness. However, many of the extant studies are suggestive rather than conclusive, given that the research is nearly all cross-sectional and correlational.

At this point, research linking meaning and health is strongly suggestive, but much work remains to be done. Several particularly promising research directions involve prospective studies that examine global meaning in people prior to (or at the very least, shortly after) diagnosis and track their global and appraised meanings over time and phases of the

illness. Such studies would allow researchers to examine the processes of meaning making as they unfold and the determinants of changes in those meanings over time. The multidimensional nature of many meaning-related constructs, particularly spirituality, warrants attention as well. For example, negative religious meanings may be particularly detrimental to health (Exline & Rose, in press), yet we do not understand how or why negative meanings are formed and change over time. The Meaning Making Model identifies the elements important to be examined in future research to illuminate central processes of health and adjustment to illness and to inform more effective interventions for promoting health and wellbeing.

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