

Sense of Coherence in Salutogenic Paradigm

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ABSTRACT

The central concept of the Salutogenic Model is sense of coherence, which is defined as a global orientation that expresses the extent to which one has a feeling of confidence that one's internal and external environments are comprehensible, manageable, and meaningful. Sense of coherence is proposed as a determinant of positive health consequences and successful coping.

The purpose of this article is to review Antonovsky's Salutogenic Model, the concept of sense of coherence, and its central components and sources. For conceptual clarity, sense of coherence is compared and contrasted with the concept of hardiness. The empirical research findings are integrated to better understand sense of coherence and to enhance future implications for nursing research and practice.

The phenomenon of stress and its impact on human health have been the focus of a significant amount of nursing research including various stress-buffering variables. However, it has been pointed out that nursing still struggles to free itself from the disease-oriented paradigm inherited from medical science and is searching a more holistic, health-oriented conceptual framework to guide the discipline (Sullivan, 1989). There is a new perspective, termed salutogenesis, which is a phenomenon of interest within a new paradigm guiding nursing and it reflects an emphasis on health rather than illness (pathogenesis).

Aaron Antonovsky, a medical sociologist, developed a salutogenic theory to explain why people remain healthy during times of extremely stressful conditions. He was intrigued by why some holocaust survivors did well in

their everyday lives while others, exposed to the same conditions, did poorly (Antonovsky, 1979). The sense of coherence (SOC) concept is a key construct of salutogenic orientation that focuses on the predictors of positive health consequences and successful coping rather than on pathogenic etiology and outcome. The question is no longer why people get sick; rather, the salutogenic theory asks what will facilitate one's becoming healthier wherever one is at any given time on the health ease-disease continuum (Antonovsky, 1984). Since nursing needs to remain open to health-oriented and holistic perspectives, then it is necessary to explore the possibilities of useful application of the concept of SOC. However, the impact of SOC on response to stress situation has not been broadly explored yet. Therefore, by reviewing the salutogenic paradigm, the concept of SOC, and previous

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research findings, it is attempted to help understand SOC and facilitate its future implications for nursing research and practice.

Salutogenic Paradigm and Sense of Coherence

The prevailing pathogenic view inherited from medical science is directed at determining which factor causes a particular disease, and it implies that health is best promoted by identifying and preventing determinants of disease. The consequences of the pathogenic paradigm can be summarized as the following: first, it made us to think dichotomously about people, classifying them as either healthy or diseased, normal or deviated. Second, prime attention is given to a specific disease and its cause, not to generalized capacities for coping with them: consequently, "the symptoms of wellness" has not been studied. In addition, we begin to assume that stressors are bad, even though still others may be neutral, tonic, or salutary (Antonovsky, 1979, 1984).

Contrarily, salutogenic paradigm shows the way for a health continuum conceptualization: it deals with the generalized factors involved in movement along the continuum, not just factors specific to disease entity. Assuming that stressors are ubiquitous, it is concerned with the resources that are valuable in coping with a wide range of pathogens and stressors. Instead of seeking cures about stressors, the question becomes "how can we live well with stressors?" Moreover, the focuses and questions are given to not only the deviants but at all points of the continuum. Finally, it broadens the focus on the overall problem of adaptation, which leads to cooperation between all scientists and practitioners (Antonovsky, 1979, 1984).

The key construct within the salutogenic theory is sense of coherence, defined as "a global orientation that expresses the extent to

which one has a pervasive, enduring though dynamic, feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable (comprehensibility); (2) the resources are available to one to meet the demands posed by these stimuli (manageability); and (3) these demands are challenges, worthy of investment and engagement (meaningfulness) (Antonovsky, 1987, p.19)."

The comprehensibility component refers to the extent to which individuals perceive the stimuli that confront them as making cognitive sense, as information that is ordered, consistent, structured, and clear, and hence, as regarding the future as predictable. The manageability component refers to the extent to which people perceive that resources are at their disposal to be adequate in meeting the demands posed by stimuli. The meaningfulness component, as the emotional counterpart to comprehensibility, refers to the extent in which people perceive these demands are worth investing energy, are worthy of commitment and engagement, and are challenges that are welcomed (Antonovsky, 1984, 1987). Therefore, individuals who tend to see their environment as coherent are likely to characterize their life experiences as consistent, take an active role in shaping their outcome, and successfully balance incoming stimuli (Antonovsky & Sagy, 1986). In terms of the relationships among these components, high manageability is strongly contingent on high comprehensibility. However, being high on comprehensibility does not necessarily mean that one believes one can manage well. The direction of movement will be determined by the sense of meaningfulness, the motivational component. Without it, being high on comprehensibility or manageability is likely to be temporary (Antonovsky, 1987).

This formulation was based on the

assumption that after early adulthood, individuals develop a generalized way of looking at the world, a way of perceiving the stimuli that bombard them (Antonovsky, 1984) which can be changed in both temporary and permanent ways. The SOC has its basis on individual's personal historical and sociocultural context, and is developed through an individual's way of understanding one's life experiences.

Sources of Sense of Coherence

The adequacy of available resources is of crucial importance in determining whether the stress will lead a person to health or disease on the continuum. There are broad categories of resources that promote successful tension management in any stressful situation. These categories are called generalized resistance resources (GRRs). The GRRs include such factors as material resources: knowledge and intelligence; ego strength: mastery of flexible, rational, and farsighted coping strategies; social supports: commitment to one's social group; cultural stability: a stable system of values and beliefs derived from one's philosophy or religion; a preventive health orientation; and genetic or constitutional strengths (Antonovsky, 1979). The primary functions of GRRs are that they enable one to make sense of the stimuli which constantly attacks that individual, and helps interpret the ways one's responses are perceived by others. The individual's perception of available GRRs enhances the development of a SOC, and in turn, a strong SOC enables the individual to mobilize whatever GRRs are at his or her disposal (Antonovsky, 1979; Sullivan, 1993).

In addition, individual's life experiences also provide sources to format one's SOC, which are identified by three characteristics: consistency, underload-overload balance, and participation in decision-making. These characteristics are internalized and eventually shape SOC. First,

consistency refers to the extent to which a given life experience fits other previous or contemporary life experiences. From one's earliest childhood through the end of the life, all life experiences can be characterized as being to some degree consistent with one another. The greater the consistency of life experiences, the more the one's life is predictable (Antonovsky, 1984, 1987). Here, consistency is closely linked to the comprehensibility component of SOC. Second, the underload-overload balance refers to the extent to which the life experiences one undergoes, which always involve some demand, are appropriate to one's capacities. When one experiences a greater or lesser degree of success through the confronting tasks that call on to exert energies, skills, knowledge, abilities, and potentials, then one's SOC is strengthening. So, the underload-overload balance is closely linked to the manageability component of SOC (Antonovsky, 1984, 1987). Finally, life experiences can be seen as having a third major dimension. What is crucial is that people approve of the tasks set before them, that people have considerable performance responsibility, and that what people do or not do has an effect on the outcome of the experience. It is important to stress that the dimension is not a sense of control but a matter of participation in decision-making. Repeated experience of this kind of participation provides the basis for the meaningfulness component of SOC (Antonovsky, 1984, 1987).

Clarification of Sense of Coherence with Hardiness

Studies have indicated that personal resistance resources such as self-esteem, mastery, and hardiness enable people to be less vulnerable to the negative effects of stress on physical and emotional health. Among these various resources, hardiness has the greatest affinity with SOC (Antonovsky, 1993). Hardiness and

SOC are both known to attenuate the relationship between stressful situations and healthy outcomes. In order to enhance conceptual clarity, a distinction must be made between these two concepts.

Kobasa's (1979) initial work on hardiness examined stressful life events, personality, and health based on a stress adaptation framework. Kobasa (1979) hypothesized that persons who believe that they can control events, who are deeply committed to the activities in which they are involved, and who accept change as challenge tend to remain healthier under stress. Pollock (1986) extended hardiness into the health-related domain, then studies of hardiness have focused on several specific areas: hardiness as a moderator in the stress-illness relationship, hardiness and health promotion, and hardiness in chronic illness (Nicholas & Leuner, 1999).

Antonovsky (1987) and Sullivan (1993) analyzed and compared constructs of hardiness and SOC. Three subconcepts of Kobasa's hardiness, i.e., commitment, challenge, and control, can be compared to meaningfulness, comprehensibility, and manageability in SOC, respectively. Commitment is defined as the ability to believe in the truth, importance, and interest value of who one is and what one is doing, and thereby the tendency to involve oneself fully in the many situations of life (Kobasa, Maddi, & Kahn, 1982). This concept seems to explicitly represent the same idea as the meaningfulness of SOC (Antonovsky, 1987). Challenge is described as a positive attitude toward changes as experienced by those who seek interesting, stimulating experiences, who develop flexible coping styles, endurance, and are catalysts in their environment (Kobasa et al., 1982). However, challenge also seems to be a function of the meaningfulness rather than comprehensibility, because changes and the direction of movement are determined by the motivational component of meaningfulness in

SOC. The greatest difference between the SOC construct and the hardiness model would be in the manageability component. Kobasa et al. (1982) uses the term "control" in the same sense that it is used in Rotter's theory of internal-external locus of control. The individual who possesses an internal locus of control, like the empowered person, perceives a certain contingency between his actions and external events (Sullivan, 1993). However, Antonovsky (1984, 1987) argued that, since "at one's disposal" may refer to resources under one's own control but it may also refer to resources controlled by legitimate others -friends, colleagues, God, history- upon whom one can count, Kobasa's control concept is distinct from the manageability of SOC. Consequently, the comprehensibility component would still be missing from the hardiness model, which makes a distinction along with the scope of manageability from the hardiness model.

Along with these distinct constructs, previous studies demonstrated that SOC was a stronger mediator of stress than hardiness (Williams, 1990). Moreover, SOC had a moderate and positive relationship with hardiness but was independent of hardiness with stronger predictive capabilities (Newton, 1999). While hardiness was sensitive to the source of stress to contribute as a buffer, SOC seemed to have a global and significant impact on health. This clarification provides a greater understanding to use these concepts, and further facilitates research to utilize the strong personal resources to explain the relationship between stress and human health.

Empirical findings of Sense of Coherence

Sense of coherence has been explored in various populations with different life stress in relation to coping and health. In this section, functions of SOC in relation to appraisal, coping, and social support were described, and the

impact of SOC on physical and psychological health, including well-being, life satisfaction, hope, and quality of life were examined. It was considered to be useful to review the research findings of SOC to facilitate further inquiries and to broaden research perspectives.

Functions of SOC: Antonovsky (1987) originally theorized that SOC operates through primary appraisal, so that persons with strong SOC are less likely to perceive events as stressful, less likely to appraise stressors as threatening to their well-being, and more likely to manage problems successfully. This point was clearly verified in women at risk for HIV infection that women strong in coherence reported less negative appraisals of threat and emotional distress, and fewer high-risk behaviors than those with weak coherence (Nyamathi, 1993). In addition, SOC was found to be a mediator between spiritual resources and family strengths, and psychological stress in cancer patients and their spouses (Mullen, Smith & Hill, 1993).

Consistent with Antonovsky's notion regarding SOC and coping, SOC was an important resource for avoiding the effect of recent life events and for coping with psychological distress and functional limitations after experiencing such events in a healthy population (Anson, Carmel, Levenson, Bonne, & Maoz, 1993). SOC was also a significant factor to successful emotional coping with the demands of the disease in insulin-dependent diabetic patients (Lundman & Norberg, 1993). Moreover, it appeared to have a protective effect on the understanding of the situation, the selection of realistic coping strategies, and the avoidance of potentially maladaptive or unhealthy behaviors in primary caregivers to dementing patients (Gallagher, Wagenfeld, Baro, & Haepers, 1994). The mechanism of SOC related to appraisal and coping has been found to be apparent throughout the previous research.

Social support is another important

concept that buffers the impact of stress on health or well-being. The possible relationship between SOC and social support was based on the recognition that the SOC and social support constructs overlap as a "stress-resistance resource" associated with positive mental and physical health (Hart, Hittner, & Paras, 1991). In fact, intrapersonal resource of SOC and interpersonal resource of social support were positively correlated (Wolff & Ratner, 1999). While SOC was strongly negatively related to levels of anxiety, it was unrelated to the perceived availability of social support in a sample of undergraduate students (Hart et al., 1991). The results show that SOC is a personality-based stress-resistance resource that functions independently of socially based stress-resistance resources. Therefore, it is noted that these two resources have different buffering effects on health, however, there are only a limited number of studies available on the relationships between SOC and social support, which suggests more investigations are needed further to facilitate proper use of these personal resources.

Impact of SOC on Health: Many of the studies on SOC have shown consistent results indicating that SOC affects physical and psychological health in various conditions. SOC was highly correlated with anxiety, depression, and physical symptoms ($r = -.43$ through $-.71$) (Holm, Ehde, Lamberty, Dix, & Thompson, 1988; McSherry, Holm, & Poppinga, 1991). In another study, SOC was more strongly related to general well-being and psychological symptoms than to overall physical health and somatic symptoms (Larsson & Kallenberg, 1996). HIV affected adults who had a greater SOC reported higher self-esteem and lower anxiety, while the stage of HIV illness neither affected subjects' SOC nor their anxiety or self-esteem (Linn, Lewis, Cain, & Kimbrough, 1993). Similarly, reduced psychological energy had no correlation with physical problems, but

did correlate with a low SOC in patients with acute leukemia or malignant lymphoma (Persson, Hallberg, & Ohlsson, 1997). Along with the findings in patient populations, low SOC was one of the factors attributing to emotional exhaustion among nurses (Lewis, Bonner, Campbell, Cooper & Willard, 1994).

SOC has also been found to be consistently associated with perceived health status. In older women with chronic health problems, the women with a stronger SOC reported a better subjective health and less physical health limitations (Nesbitt, 1995). SOC also had a positive direct effect on perceived health status and performance of health-promoting behaviors in employed adults (Johnsen, 1992). The patients with a weak SOC perceived their health as poorer than those with a strong SOC in predialysis uremic patients (Klang, Bjorvell, & Clyne, 1996), and had difficulty in performing activities of daily living and poor health status in patients with rheumatoid arthritis (Callahan & Pincus, 1995).

As a predictor of health, SOC has proven its relationship with well-being, quality of life, hope, and life satisfaction. Forsberg, Bjorvell, and Cedemark (1996) determined that cancer patients with a strong SOC perceived their well-being as better than patients with a weaker SOC. Interestingly, in cancer patients, hope was not significantly related to quality of life or spirituality, but SOC was highly correlated with hope and quality of life (Post-White et al., 1996). SOC also predicted quality of life in persons with coronary heart disease (Motzer & Stewart, 1996). In addition, SOC was found to be positively associated with life satisfaction both in students (Branholm, Fugl-Meyer, & Frolunde, 1998) and in retirees (Sagy, Antonovsky, & Andler, 1990).

In conclusion, it was verified that the previous empirical evidence proved the premise of SOC as a strong independent predictor of physical and psychological health and also as an

important factor to successful coping. Nevertheless, it is recommended that there are still various effects and functions of the phenomenon of SOC to be examined including the assumption that SOC might be strengthened by nursing interventions. Therefore, nurses should strive to explore SOC in different populations and settings.

Critiques on Use of Sense of Coherence

To explore SOC in the future research, it is needed to point out limitations of Antonovsky's model. First, Antonovsky demonstrated three roles of the SOC for coping in his model (1979, p.184). By mobilizing the GRRs, a strong SOC can *avoid* stressors, or *define* stressors as nonstressors, or *manage* them through holding action and overcoming. These are quite comparable with the three functions of coping responses, to modify situations, to control meaning of situations, and to control the stress (Pearlin & Schooler, 1978). However, considering the fact that coping patterns and responses should be explored as more situation-specific (Folkman, Lazarus, Gruen, & DeLongis, 1986), his notion can not resolve the previous limitation of a general pattern of coping. In using his salutogenic model, coping needs to be explained in specific situations for various populations regarding how people manage their stimuli.

Secondly, although Antonovsky (1979, 1984) proposed SOC as having both stability as a personal orientation and changeability through life, it has not been examined yet whether people with a strong SOC are able to reduce exposure to life events, or that the recent experience of several stressful life events negatively affects SOC. Most of the studies were confined to either cross-sectional or correlational design in which neither premise can be answered. Therefore, a longitudinal study and a causal model are needed to

examine the stability or changeability of the construct of SOC.

Thirdly, it seems that Antonovsky (1979, p.184) did not clearly explain the outcome of coping. He referred different indicators of health such as, state of tension, state of stress, and health ease/dis-ease continuum in his model. This lack of clarity needs to be simplified and developed in the future study so that nurses can incorporate and utilize the salutogenic idea in the fields of theory, research, and practice.

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