

Social Support and Problem-Solving Coping as Moderators of the Relation Between  
Stress and Life Satisfaction

by

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## ABSTRACT

Numerous psychosocial and health factors contribute to perceived stress, social support, and problem-solving coping relating to overall well-being and life satisfaction in older adults. The effect of social support and problem-solving coping, however, remains largely untested as potential moderators. The present study was conducted to test whether social support and problem-solving coping would moderate the relation between perceived stress and life satisfaction in older adults. First, I anticipated that stress will be negatively related to life satisfaction at low levels of social support, while at high social support; stress will be unrelated to life satisfaction. Second, I expected that with low problem-solving coping, stress will be negatively related to life satisfaction, whereas, at levels of high problem-solving coping, stress will be unrelated to life satisfaction. Using an experimental survey and interview design with hierarchical regression analyses, I found no support that social support would moderate the relation between stress and life satisfaction. I found support that problem-solving coping moderated the relation between stress and life satisfaction. For individuals who engage in higher levels of problem-solving coping, higher levels of stress predicted lower levels of life satisfaction. On the other hand, at lower levels of problem-solving coping, more stress predicted lower levels of life satisfaction.

Keywords: stress, coping, life satisfaction, older adults

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## INTRODUCTION

By 2015 older adult Americans would be approximately 15% and by 2030 they will make up almost 20% of the population (Spitzler, Neuman, & Holman, 2004). With an increasing geriatric population (i.e., age range of 50-110 years) in the United States, declines in health associated with aging causes complications for the individuals' overall health and well-being. As individuals age they tend to experience deterioration in physical and psychological well-being. Living with chronic degenerative diseases or illnesses can affect individuals' memory, personality, behavior, and overall quality of life (Vitaliano, Russo, Young, Teri, & Maiuro, 1991). These degenerative processes not only affect the elderly themselves, but also take a toll on their caregivers and families (Ward-Thompson, 2014). Judge, Menne, and Whitlatch (2010) indicated that the severity and stress resulting from these conditions negatively affects family relationships and life satisfaction (i.e. perceived quality of life).

Previous research has indicated that definitions of quality of life are diverse and are dependent upon the factors that individuals themselves find important (Liu, 1976). Felce and Perry (1995) defined life satisfaction as an overall perceived general well-being comprised of objective and subjective descriptors, such as evaluations of physical, material, social, and emotional well-being together with the extent of personal development and purposeful activity weighted by a personal set of values.

Recent research shows that aging individuals who have chronic illnesses or degenerative diseases are typically under the care of medical staff or family members as a system of support. These staff and family members provide social support in addition to physical care. Recent studies have investigated the associations of illness severity,



depressive symptoms, and overall health-related factors to life satisfaction as well as the role of social support in moderating these relations. These studies reported that illness severity and loss-related events were associated with individuals having a different outlook towards coping with stress and social support emerged to be a major influencing factor when predicting life satisfaction. Moreover, more depressive symptoms were associated with lower life satisfaction at lower levels of social support than at high levels of social support (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Couture, Lariviere, & Lefrançois, 2005; Aldwin & Levenson, 2001; Newsom & Schultz, 1996; Adams et al., 2016; Kim & Sok, 2012; Lee, Besthorn, Bolin, & Jun, 2012). There have only been a limited number of studies, however, that have concentrated on relations among older adults` stress, social support, problem-solving coping, and life satisfaction. The present study aims to examine the role of social support as a moderator of the relation between stress and life satisfaction.

### **Conceptualizations of stress**

Previous researchers have conceptualized stress from a highly specific to a general concept (Jones, Bright, & Clow 2001). For example, stress can be as specific as resulting from a loved one getting a chronic illness such as cancer or it can be as general as daily stress. Depending on the number of stressors, the effects of stress can differ for the older adult population. For instance, older adults experience various stressful life events, such as loss of loved ones, relocation, downsizing of residences, and changes in physical, and psychological health; all of which can correspond to higher perceived stress. Furthermore, previous research has established that higher levels of perceived stress predict decreases in cognitive ability (Potter, Hartman, & Ward, 2009; O`Connor et al., 2015).

Lemyre and Tessier (2003) conceptualized stress as the state of “normal” tension, preoccupation, and agitation reported by many people. They have classified stress into the following components: environmental parameters, individual perception, and coping with stress. The environmental parameters primarily emphasize the individuals’ unique representation of their environment predicting the state of stress. The individual perception focuses on the individuals’ unique perception of the psychological phenomena and factual parameters of stress. Finally, the adaptation to the environment and responses to life circumstances can help with minimizing the impact of stress.

Cohen, Kessler, and Gordon (1997) have categorized stress into three different domains: environmental, psychological, and biological. The environmental aspect emphasizes the adaptation to the environment as a result of responding to various events or experiences. The psychological domain of stress focuses on the individual’s judgement and ability to cope with specific events. Finally, the biological aspect focuses on the physiological systems that become active when a stressor or a threat is posed by the physical and psychological conditions. Research has shown that stress is a complex concept, because it consists of different domains, levels of understanding, and requires diverse approaches to address it. In other words, stress should be viewed within the context of individuals’ coping efforts pertaining to the ability of having or not having control over the stressor and whether something constructive can be done.

### **Interrelations of stress and coping**

There have been different models of stress in the stress and coping literature, each with their own definitions and conceptualization. The conceptual framework for understanding the relation between stress and coping (including the current study) was

guided by the following three theoretical models: 1) The Lazarus model of stress and coping (Lazarus & Folkman, 1984), 2) The Vitaliano, Russo, Young, Teri, and Maiuro (1991) model, and 3) a behavioral self-regulation model (Carver & Scheier, 2001). Although the three models share conceptual similarities with other stress and coping theories, Lazarus and Folkman (1984) have distinguished among several mechanisms involving the recognition of stress, appraisal of its implications for one's well-being, and aspects of coping with it. Vitaliano et al. (1991) have developed their model of stress and coping with regard to caregivers, including the level of burden among those caring for older adult populations with dementia and other neurodegenerative diseases. Finally, the stress and coping theory described by Carver and Scheier (2001) is more recent and is presented with a slightly different approach through its emphasis on the regulative aspects of behavior as a function of coping. It is based on the notion that behavior is goal-directed and regulated by feedback control processes.

#### **The transactional model of stress and coping by Lazarus and Folkman (1984)**

This model includes the following three major concepts: stress, appraisal, and coping. In this model, psychological stress is defined as the outcome of a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being. Lazarus and Folkman (1984), categorized cognitive appraisal into primary and secondary components. In primary appraisal, an individual analyzes the situation in terms of its impact on one's well-being. The individual may ask questions, such as "What does this stressor mean and how can it impact me?" or "is it or is it not important to me?". The interpretation of the situation as a threatening or challenging, or perceived as potentially resulting in harm

or loss comes as a primary part of primary appraisal. When the situation is viewed as challenging, individuals tend to develop a positive appraisal towards stress, because the challenge could result in a better outcome. On the other hand, when the stressor is viewed as threatening harm or loss, it signifies that it could be potentially harmful.

According to Lazarus and Folkman (1984), secondary appraisal occurs simultaneously with primary appraisal. In secondary appraisal, individuals tend to consider how one can best deal with the situation and change undesirable conditions. For example, a positive statement that an individual might consider would be “I can do it if I do my best” or a negative thought would be “I won’t try because my chances are low”. Although primary and secondary appraisals emerge from a stressful situation, stress does not always involve cognitive appraisal. For example, being startled suddenly by a car accident alerts the organism that a danger is occurring but they might not know yet its significance to their well-being. At the initial tremor, he or she may not have time to analyze the situation but it could still feel stressful. Finally, in secondary appraisal, the individual evaluates internal (i.e. inner strength) or external (i.e. professional health) coping options as well as more specific resources to adapt to the situation. Notably, this model does not assume that a positive outcome can or will occur (e.g., coping with a terminal illness).

In his third component, Lazarus defined coping as a process of “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resource of the person” (Lazarus & Folkman, 1984, p. 141). Coping is subdivided into two forms: problem-focused and emotion-focused coping. Problem-focused coping is utilized when individuals feel able to control or otherwise influence the situation and are able to manage it by defining the

problem, developing alternate solutions, learning enhanced skills, and by reappraising the new meaning of the coping outcomes of the event in a positive way. Emotion-focused coping, on the other hand, is used when individuals feel that they are unable to change or alter the problem. They tend to handle the problem by avoiding, distancing, accepting, seeking support, or turning to substances (e.g., drugs or alcohol).

### **The Vitaliano, Russo, Young, Teri, and Maiuro (1991) model of stress and coping**

In this model, the concept of stress and coping is presented with a slightly different approach. With the aging population, Vitaliano et al. (1991) presented a stress and coping theory that has been used to study distress in caregivers, i.e., those taking care of the aging population, as affected by their daily activities, the burdens of caring, and resources for coping with these demands. In addition, research on caregivers using this model has emphasized the role of social support, caregiver burden with respect to vulnerability factors, and resource variables (e.g., family support).

The researchers used the following model,  $\text{distress} = (\text{exposure to stress} + \text{vulnerability}) / (\text{psychological and social resources})$ . Exposure to stress was defined as the care recipient's functional impairment in activities of daily living. Vulnerability was characterized as the caregiver's health problems, anger, and anxiety. Social support, outlook on life, and coping strategies were defined as resources. Finally, burden (i.e., an example of psychological distress) was operationalized as distress in response to caregiver experiences related to providing care (Zarit, Reever, & Bach-Peterson, 1980). Burden is a key concept in the model as previous research has suggested that it is related to many care recipient and caregiver variables.

This model has been utilized to measure stress related to daily demands, burden of caregiving, and family relations because of older adults' health and psychological conditions, such as dementia, Parkinson disease, or Alzheimer disease (Vitaliano et al., 1991). For example, Thommessen et al. (2002) found that caregivers whose spouses had dementia, stroke, and Parkinson's disease, perceived the psychosocial burden at a level similar to the patient, such that perceived burden was reported at a similar level for both, the caregiver and the patient. Vitaliano et al. (1991) showed that caregivers with high vulnerability (i.e., health problems) and low resources (i.e., coping or social support) had higher burden scores than caregivers with low vulnerability and high resources variables.

**Social support and life satisfaction.** With respect to social support that is defined in terms of the resources available to an individual, the role of family in assisting an older individual can be crucial for their mental and physical well-being and their ability to cope with stressful experiences. In fact, social support emerges as one of the factors that plays a major role in demonstrating direct associations with overall well-being and life satisfaction in the nonelderly. For example, Adams et al. (2016) have indicated that social support buffered the impact of depressive symptoms on life satisfaction. In addition, receiving support from family members, relatives, support groups, and health care professionals was positively related to caregiver's gains, defined as caregiver's perceived personal growth and positive interpersonal relationships when caring for individuals with schizophrenia (Chen & Greenberg, 2004). In other words, receiving high levels of social support can minimize stress that caregivers experience and increase their overall well-being and satisfaction with life.

With respect to social support research in the geriatric population, Lee et al. (2012) examined the role of stress and social support on psychological well-being of older adults in assisted living. The results revealed that higher stress was associated with higher levels of depression and lower life satisfaction. High levels of social support, however, were significantly related to lower depression and higher life satisfaction. Kim and Sok (2012) examined relations among perceived health status, family support, and life satisfaction in older Korean adults. They found positive correlations between perceived health state, family support and life satisfaction. On the other hand, lower social support has been related to a decrease in life satisfaction and an increase in depressive symptoms among elderly populations (Newsom & Schultz, 1996). Although the research is limited in the older adult literature, the quality of relationships and the nature of social support appear to be a key component of individuals' life satisfaction. Thus, social support may serve as a moderator of the relation between adverse health conditions and overall well-being.

**Coping with stressors.** Moreover, older adults may rely on social support in different ways to cope with different stressors and types of stress. A large and growing body of coping research has focused on specialized populations such as college students or students taking doctoral examinations, and individuals suffering from cancer, dementia, spinal injuries (Folkman & Lazarus, 1980). Less research has explored coping within older adults who experience daily stressful events or the stress and dysphoria associated with loss of a loved one or spouse.

It has also been indicated that coping is an adjustable process, in which a person may rely on one strategy or another during different aspects of the stressful event or stressful events with different characteristics (e.g., controllable or uncontrollable). For

instance, one may rely on defensive strategies (e.g., avoiding or isolating) in situations that are not changeable and at other times, problem solving strategies might be more beneficial when an individual perceives the situation as modifiable (Folkman & Lazarus, 1980). For instance, managing one's diabetes regimen might be much more controllable than a chronic illness such as cancer. Although a person could choose to use problem-solving coping at any time, it is best used, however, when individuals are able to manage some aspects of their illness.

Consistent with this notion, Vitaliano and colleagues (1990) found that emotion-focused coping was positively related to depression when the stressor was appraised as changeable, whereas problem-solving was negatively related when the stressor was appraised as changeable. In their study, a major life event (e.g., "death of a family member") or a daily hassle (e.g., "doing poorly on an exam or a paper") were defined as stressors.

### **A behavioral self- regulation model (Carver & Scheier, 2001)**

Within the third paradigm of stress and coping, Carver and Scheier (2001) have presented their behavioral self-regulatory stress and coping model. The model describes feedback control processes and the notion that behavior-specific information is coded and interpreted in memory with schemas that provide one way of attaining behavioral goals and standards that become salient in a given situation (Carver, Scheier, & Weintraub, 1989). Scheier and Carver (1998) defined stress as an interference in one's attainment of a goal or something that permits one to restrain from achieving a goal, in more behavioral self-regulatory terms. Within their model, they identified two principles of importance in behavioral self-regulation: construing situations and determining goals. The first principle



consists of the information about the consequence of the coping behavior, i.e., whether it leads towards or away from a goal. The second principle involves the idea that goals are organized hierarchically, i.e., whether higher goals are needed to be considered to achieve higher purposes. Both principles incorporate “confidence”, such that if one is doubtful about the efforts needed to achieve a goal, they are more likely to engage in avoidance coping behaviors. Carver and Scheier (2001) have emphasized the concept of role of time (i.e., Lag Time) in the self-regulatory process, such that the influence of the information processing is not instantaneous. For instance, an individual might wait a week to make an effort to achieve a particular goal.

Carver, Scheier, and Weintraub (1989) defined coping as individuals' response to their perception of stress, which occurs as a consequence of a positive or negative appraisal. Similar to Lazarus, Scheier and Carver (1998) define appraisal as the perception of the situation that involves challenge, threat, or loss and the process of selecting strategies, and then carrying out coping responses. As part of self-regulatory behaviors, both problem-focused and emotion-focused coping are included. In their model, they have made a distinction between problem-focused and emotion-focused coping, such that problem-focused coping involves planning, direct action, rationalizing activities, and thinking before acting. On the other hand, emotion-focused coping consists of the reinterpretation of events, denial responses, or seeking social support (Carver, Scheier, & Weintraub, 1989).

### **Problem-Solving Coping, Stress, and Life Satisfaction**

Past research also has indicated that the utilization of problem-focused coping strategies, used when individuals' appraise the situation to be modifiable, contribute to

lower levels of stress, (Mu, Kuo, & Chang, 2005). Furthermore, Schoenmakers, Tilburg, and Fokkema (2015) defined problem-focused coping as “coping that includes all the active efforts to manage stressful situations and alter a troubled person-environment relationship to modify or eliminate the source of stress via individual behavior”. Lazarus and Folkman (1984) defined problem-solving coping as analyzing the situation, evaluating the pros and cons of a problem, generating options, and implementing the steps to resolve the problem and those coping behaviors are the ones that they have generated during secondary appraisal. Different coping options that individuals tend to utilize, whether emotion-focused or problem-solving, depend on the situation and reflects intentions they have for coping with that situation (Schoenmakers, Tilburg, & Fokkema, 2015).

Moreover, individuals' coping options and intentions appear to change with age. Folkman, Lazarus, Pimley and Novacek (1987) investigated differences in stress and coping strategies. They found that younger individuals used more active and interpersonal problem- solving coping and older people tended to use more intrapersonal emotion-focused coping, because elderly tend to deal with more uncontrollable stressors. Similarly, Felton and Revenson (1987) examined age- related differences in coping strategies in adults and found that emotionally expressive coping strategies declined with age and changed depending on the type of the stress. The differences in the utilization of coping strategies, whether problem- focused or emotion- focused, was attributed to stress relating to daily hassles, life experiences, and situations whether they are controllable. Although, it has been an unresolved area of research related to the reasons of coping strategy choices among elderly, individuals chose coping regardless of type of stressor; and some cope well and others do not regardless of type of stressor (i.e., controllable or uncontrollable).

## **Rationale for the Current Study**

In summary, this review of the literature revealed gaps in research on stress and coping. Due to an increase in the geriatric population and health demands associated with aging, it is important to understand the relations among factors that influence health declines and improve overall quality of life. Specifically, social support and problem-solving coping appear to be indicators of overall perceived quality of life in the geriatric population. Multiple studies were found that addressed ways in which seeking social support and coping reduced stress or was associated with increased life satisfaction. Little research, however, has focused on social support resources and problem-solving coping as moderators of the relation between stress and life satisfaction. Moreover, even though the study of problem-focused coping as a moderator have been researched somewhat with various samples (i.e., college students, children and their families), limited research has been conducted with elderly. Lastly, the findings of the current study may aid in developing interventions that utilize social support resources and coping strategies among the elderly.

## **Overview of Current Study and Hypotheses**

Specifically, the focus of the current study was to examine whether 1) social support and 2) problem solving coping will moderate the relation between stress and life satisfaction in older adults. Accordingly, it was anticipated stress would be negatively related to life satisfaction at low levels of social support, while at high social support; stress will be unrelated to life satisfaction. Similarly, we expected that with low problem- solving coping, stress would be negatively related to life satisfaction, whereas, at levels of high problem- solving coping, stress would be unrelated to life satisfaction.

## **Methods**

### **Study Sample**

Participants in this sample were 928 community dwelling individuals (30% males, 70 % female) 50 years of age or older ( $M = 80.96$ ,  $SD = 10.91$ ) from the Longevity Study: Learning from our Elders, conducted at the Center for Healthy Aging at the Banner Sun Health Research Institute. The ethnic composition of the sample was 95.4% White, 1% Hispanic or Latino, .5% African American, and 2.4 % other. Most of the subjects were married (44.8%), 35.6% widowed, 12.3% divorced, and 1.8% never married. Participants who were living independently, living with a caregiver, or in retirement community were recruited from the Phoenix and Sun City, Arizona metropolitan area through advertisements, community talks, and referrals from individuals already in the study (O'Connor et al., 2015). All participants signed an informed consent form prior to participating. Although longitudinal data were collected since 2007, data were analyzed cross-sectionally from the first annual visit as this was when data were collected on the variables examined in this study. The study was approved by the Arizona State University and the Western Institutional Review Boards. This was a non-invasive study that included previously validated self-reported measures (described below).

### **Procedure**

Individuals were contacted via phone to schedule interview appointments for each year. Interviews were conducted in-person by trained staff and volunteers at the research institute. For participants who did not drive or lived in assisted retirement communities,

the staff and volunteers conducted the interviews at their site of stay. Participants were excluded if they had an inability to communicate adequately due to hearing, speaking, cognitive impairments, difficulty concentrating or lack of tracking information as determined during the initial phone screening and/ or during the first visit were excluded from participating in the study. Participants completed the self-reported measures prior to the in-person interview, during which data were collected on participants' cognition, perceived stress, mental state, and functional status.

## **Measures**

All questionnaires used in the study can be found in Appendix A.

**Perceived Stress.** Individuals' general perception of stress and stressful situations was measured using the Perceived Stress Scale (PSS; Cohen et al., 1993). It includes 10-items and assesses individuals' feelings and thoughts regarding the extent to which his or her life has been unpredictable or uncontrollable in the past month on a 5-point scale, ranging from "never" (0), "almost never" (1), "sometimes" (2), "fairly often" (3), and "very often" (4). An example of an item included in this scale is the following: "In the last month, how often have you been upset because of something that happened unexpectedly?". The reliability of the PSS was  $\alpha = .84$  for this study.

**Life Satisfaction.** The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to measure overall life satisfaction throughout the course of life. The scale consisted of 6 items, such as "I am satisfied with my life". Participants rated each item on a 7-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7). The reliability of SWLS was  $\alpha = .88$  for this study.

**Social Support.** Social support was assessed using the Social Support Scale developed by REACH (Resources for Enhancing Alzheimer's Caregiver Health) (Barrera, Sandler, & Ramsey, 1981; Lubben, 1988; Krause & Markides, 1990; Krause, 1995). The scale contained 16- items, which were taken from numerous established scales and assessed the following four domains of support: received support (emotional, informational, tangible), satisfaction with support, social network (family, friends, confidants), and negative interactions. The reliability of SWLS was  $\alpha = .79$  in this study.

**Problem- Solving coping.** Coon Coping Inventory, derived from Coon, Thompson, Steffen, Sorocco, and Gallagher-Thompson (2003) was used to measure problem-focused coping. The scale is comprised of 6- items, with a response format ranging from "I usually don't do this at all" (1), "I usually do this a little bit" (2), "I usually do this a medium amount" (3), and "I usually do this a lot" (4). Each question assessed one type of coping (i.e., spiritual, avoidant, resignation, emotion-focused, and problem-focused). For the purpose of this study, only item number 4, problem- solving coping, was used.

## **Results**

### **Preliminary Analyses**

Correlation analyses of all the study variables were conducted (see Table 1). Due to the fact that some age differences have been previously found in stress and coping research, age was included in the preliminary analyses. The results showed that age was significantly negatively related to perceived stress and problem-solving coping. Age was not significantly correlated with social support or life satisfaction. Problem-solving coping was significantly positively correlated with perceived stress. Life satisfaction was

significantly negatively correlated with perceived stress. Social support and life satisfaction were significantly positively correlated with problem-solving coping. Social support was not significantly correlated with perceived stress but it was significantly positively correlated with life satisfaction. All variables were normally distributed.

### **Tests of Hypotheses**

Due to the significant relation of age, perceived stress, and problem-solving coping, preliminary regression analyses were conducted to assess its potential role as a moderator of the relation between stress and life satisfaction. In these analyses, age was categorized into the following groups: young-old (65-74 years), middle-old (75-84 years), and oldest-old ( $\geq 85$  years) (Zizza, Ellison, & Wernette, 2009; Saka, Kaya, Ozturk, Erten, & Karan, 2010). In this model, perceived stress was entered as a predictor, age was entered as a moderator, and life satisfaction was the outcome variable. The results indicated that the interaction effect was not significant,  $\Delta R^2 = .002$ ,  $B_0 = .06$ ,  $SE_0 = .04$ ,  $t(924) = 1.41$ ,  $p = .16$ . However, there was a significant main effect of perceived stress predicting life satisfaction, controlling for age,  $B_0 = -.31$ ,  $SE_0 = .11$ ,  $t(924) = -2.92$ ,  $p = .004$ , see Table 2.

To test whether social support resources moderated the relation between stress and life satisfaction, regression analyses were performed using Hayes' PROCESS Macro (2013). In this model, perceived stress was entered as the predictor, life satisfaction was entered as the outcome, and social support was the moderator variable. These variables were standardized. Main effects for perceived stress and social support on life satisfaction emerged. Higher levels of stress predicted lower levels of life satisfaction,  $B_0 = -.50$ ,  $SE_0 = .12$ ,  $t(924) = -4.17$ ,  $p < .001$ , and higher social support predicted greater levels of life

satisfaction,  $B_0 = .15$ ,  $SE_0 = .02$ ,  $t(924) = 9.48$ ,  $p < .001$ . However, there was no significant interaction between perceived stress and social support.  $\Delta R^2 = .002$ ,  $B_0 = .02$ ,  $SE_0 = .01$ ,  $t(924) = 1.52$ ,  $p = .13$ , see Table 3. To further test the relation between the predictor (i.e., perceived stress) and social support, a linear regression analysis was conducted, which indicated that perceived stress was significantly negatively related to social support,  $R^2 = .008$ ,  $B_0 = -.05$ ,  $SE_0 = .02$ ,  $t(927) = -2.7$ ,  $p = .006$ , see Figure 1. Although there was not a significant negative relation between stress and life satisfaction at each of the three levels of social support, there was an overall trend towards significance.

To test the second hypothesis whether problem-solving coping moderated the relation between stress and life satisfaction, another regression analysis was performed using Hayes' PROCESS Macro (2013). In this model, perceived stress was entered as the predictor, life satisfaction was entered as the outcome, and problem-solving coping was the moderator variable. These variables were standardized. There was a significant main effect of perceived stress on life satisfaction, such that lower levels of stress predicted greater levels of life satisfaction,  $B_0 = -.70$ ,  $SE_0 = .13$ ,  $t(924) = -5.31$ ,  $p < .001$ . There was also a significant main effect of problem-solving coping on life satisfaction, such that higher amounts of problem-solving coping predicted greater life satisfaction,  $B_0 = .96$ ,  $SE_0 = .13$ ,  $t(924) = 7.50$ ,  $p < .001$ .

There was a significant interaction between perceived stress and problem-solving coping,  $\Delta R^2 = .004$ ,  $B_0 = .20$ ,  $SE_0 = .10$ ,  $t(924) = 2.11$ ,  $p = .02$ , see Table 4. To probe this effect, simple slopes analyses were conducted. For individuals who engaged in lower levels of problem-solving (1 SD below the mean), more stress significantly predicted



lower levels of life satisfaction,  $B_0 = -.91$ ,  $SE_0 = .13$ ,  $t(924) = -6.77$ ,  $p < .001$ . At average levels of problem-solving coping (at the mean), higher levels of stress predicted lower levels of life satisfaction,  $B_0 = -.70$ ,  $SE_0 = .13$ ,  $t(924) = -5.31$ ,  $p < .001$ . For individuals who engaged in higher amounts of problem solving coping (1 SD above the mean), higher levels of stress significantly predicted lower levels of life satisfaction,  $B_0 = -.54$ ,  $SE_0 = .17$ ,  $t(924) = -3.09$ ,  $p = .002$ , see Figure 2. Although there was a significant negative relation between stress and life satisfaction at all three levels of problem-solving coping, the magnitude of these relations was relatively weak.

### **Discussion**

The purpose of the present study was to identify the moderating effect of social support resources and problem-solving coping on the relation between stress and life satisfaction. In past research, social support has been found to buffer the impact of depressive symptoms on life satisfaction, such that receiving high levels of social support can minimize stress and increase life satisfaction (Adams et al., 2016; Chen & Greenberg, 2004). In the current study, although social support resources were not found to moderate the relation between stress and life satisfaction at each of the three levels of social support, there was an overall trend towards significance.

Increased levels of stress predicted lower levels of life satisfaction and social support, suggesting that stress is significantly related to individuals' sources of support and their overall well-being and satisfaction with life. Additionally, Lee et al., 2012 indicated that higher levels of social support were significantly related to lower levels of depression and higher life satisfaction. The current findings appear to partially support the conceptualizations of social support as a significant factor in individuals' life

satisfaction as proposed by Adams et al. (2016), Chen and Greenberg (2004), Lee et al. (2012), and Newsom and Schultz (1996), such that, only main effect of social support to life satisfaction was found. A potential explanation for this unexpected finding could be due to social support being analyzed as a total score, rather than assessing the four areas of support separately (i.e., received support, satisfaction with support, social network, and negative interactions).

There was support, however, for the hypothesis that the relation between perceived stress and life satisfaction would be moderated by problem-solving coping. Specifically, at higher levels of problem-solving coping, higher levels of stress predicted lower levels of life satisfaction. At average levels of problem-solving coping, higher levels of stress predicted lower levels of life satisfaction. Finally, individuals who engage in low levels of problem-solving, more stress significantly predicted lower levels of life satisfaction. Although a significant negative relation was found at these three levels of problem-solving coping, the magnitude of this negative relation between stress and life satisfaction was relatively weak.

The findings also could be interpreted as consistent with Lazarus et al., Vitaliano et al., and Carver and Scheier (2001) models, in which it was indicated that problem-focused coping is utilized when in control of the situation and helps reappraise the meaning of the stressor. Their models provide support of the importance of understanding why individuals utilize problem-solving coping to deal with different types of stressors, such that they tend to engage in more efforts to deal with their illnesses or other stressors that are controllable (i.e., diabetes regimen), which improves their overall life satisfaction. For example, one could interpret these findings to mean that seeking

information is a component of a problem-focused approach to coping (Ayers, Sandler & Twohey, 1998). This might be expected from individuals who are oriented toward controlling their situation through their own efforts and resources. Thus, problem-solving coping was used as a moderator in the present study.

### **Limitations and Future Directions**

There were several limitations in the study that need to be addressed. First, the sample was not diverse. It was consisting of predominantly Caucasian men and women. Moreover, women were 70 % of the sample, which limits the generalizability of the results. Previous research has indicated that there are age and gender differences in the use of defense and coping strategies, suggesting that men and women may face different developmental tasks in the process toward maturity in older age (Diehl, Coyle, & Labouvie-Vief, 1996). Second, the mean age for the sample was 80 years-old. Thus, these results may have been different if the age was divided into a more age-diverse group of elderly, such as, young-old, middle-old, and oldest-olds. Along with gender and age differences, research has shown that there are ethnic differences in the coping strategies. It has been previously indicated that spiritual coping strategies are more often utilized by minority communities, because of the belief in prayer and support from believers when faced with an uncontrollable stressor, such as cancer or HIV/AIDS (Weaver & Flannelly, 2004; Hodge & Roby, 2010). The advantage of having a diverse sample is that the study may have found possible ethnic differences or that the model would have been the same regardless of ethnicity.

Another limitation of the current study pertains to the results for the second hypothesis. Although the interaction was significant, the effect size was small. Thus, the

significant effect may have been due to the large sample size. Moreover, the measure used to assess problem-solving coping from the Coon Coping Inventory was limited to one item. This was problematic because it is possible that one item might not be a strong indicator of the usage of problem-solving strategy, even though it did moderate the relation between perceived stress and life satisfaction. Lastly, another potential limitation is that the hypotheses were tested using retrospective self-reports of stress, which, like most retrospective self-reports, may be prone to bias.

In future research, including different age groups, ethnic groups, establishing ranges of intensity of stressors (e.g., daily hassles or stress resulting from a terminal illness), and including other types of coping styles (i.e., spiritual coping, emotion-focused coping) is recommended. Problem-solving coping can be helpful in managing stress and problems that are solvable. On the other hand, emotion-focused or spiritual coping can be used when the stressor is uncontrollable, such as cancer (Folkman & Lazarus, 1980; Vitaliano & colleagues, 1990). The investigation of the relations among different coping strategies may provide a better understanding of the factors that influence coping mechanisms and overall quality of life in older adult samples.

Additionally, along with analyzing the amount of social support resources, future studies can investigate various domains of support separately, such as received family support, tangible support, satisfaction with support, social network, or negative interactions. Commonly in the literature, it is usually reported that social support (Adams et al., 2016) has a buffering effect when studied in interaction with stress or depressive symptomology on life satisfaction. However, based on the data used for the present study, support for the buffering effect of social support, which was obtained by combining the

score of all 16 items, was not found. Future studies can examine if individual types of social support would have an effect on stress when predicting life satisfaction.

### **Conclusion**

Perceived stress, social support, and problem-solving coping play a role in demonstrating direct associations with the related constructs of overall well-being and life satisfaction. The current study interestingly found that social support was not found to moderate the relation between stress and life satisfaction, but problem-solving coping did. This study adds to the literature on relations among these variables that may influence overall satisfaction with life. It also provides a more recent study of stress, social support, and problem-solving coping among the geriatric population. Thus, it is important that researchers continue to investigate how the relations among these factors can influence the reaction to stress and life satisfaction in elderly samples.

## References

- Adams, T. R., Rabin, L. A., Da Silva, V. G., Katz, M. J., Fogel, J., & Lipton, R. B. (2016). Social support buffers the impact of depressive symptoms on life satisfaction in old age. *Clinical Gerontologist: Clinical Gerontologist*, *39*(2), 139-157.
- Aldwin, C. M., & Levenson, M. R. (2001). Stress, coping, and health at mid-life. *The handbook of midlife development*, 188-214.
- Ayers, T. S., Sandler, I. N., & Twohey, J. L. (1998). Conceptualization and measurement of coping in children and adolescents. *Advances in clinical child psychology*.
- Barrera, M., Sandler, I. N., & Ramsey, T. B. (1981). Preliminary Development of a Scale of Social Support: Studies on College Students. *American Journal of community Psychology*, *9*(4), 435-447.
- Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkley, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: Cross-sectional and longitudinal analyses. *Psychology and Aging*, *21*(1), 140-151.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology: Personality Processes and Individual Differences*, *56*(2), 267-283.  
doi:<http://dx.doi.org.ezproxy1.lib.asu.edu/10.1037/0022-3514.56.2.267>
- Carver, C. S., Scheier, M. F. (2001). *On the self-regulation of behavior*. New York: Cambridge.
- Chen, F. P., & Greenberg, J. S. (2004). A positive aspect of caregiving: The influence of social support on caregiving gains for family members of relatives with schizophrenia. *Community mental health journal*, *40*(5), 423-435.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1993). Perceived stress scale. *Measuring stress: A guide for health and social scientists*.
- Cohen, S., Kessler, R. C., & Gordon, L. U. (1997). *Measuring stress: A guide for health and social scientists*. Oxford University Press on Demand.
- Coon, D. W., Thompson, L., Steffen, A., Sorocco, K., & Gallagher-Thompson, D. (2003). Anger and depression management: psychoeducational skill training interventions for women caregivers of a relative with dementia. *The Gerontologist*, *43*(5), 678-689.

- Couture, M., Larivière, N., & Lefrançois, R. (2005). Psychological distress in older adults with low functional independence: A multidimensional perspective. *Archives of gerontology and geriatrics, 41*(1), 101-111.
- Diehl, M., Coyle, N., & Labouvie-Vief, G. (1996). Age and sex differences in strategies of coping and defense across the life span. *Psychology and aging, 11*(1), 127.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). *The satisfaction with life scale. Journal of personality assessment, 49*(1), 71-75.
- Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities, 16*(1), 51-74. doi:10.1016/0891-4222(94)00028-8.
- Felton, B. J., & Revenson, T. A. (1987). Age differences in coping with chronic illness. *Psychology and Aging, 2*(2), 164-170. doi:10.1037//0882-7974.2.2.164.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*(3), 219-239.
- Folkman, S., Lazarus, R. S., Pimley, S., & Novacek, J. (1987). *Age differences in stress and coping processes. Psychology and aging, 2*(2), 171.
- Hodge, D. R., & Roby, J. L. (2010). Sub-Saharan African women living with HIV/AIDS: an exploration of general and spiritual coping strategies. *Social work, 55*(1), 27-37.
- Jones, F., Bright, J., & Clow, A. (2001). *Stress: Myth, theory and research*. Pearson Education.
- Judge, K. S., Menne, H. L., & Whitlatch, C. J. (2010). Stress process model for individuals with dementia. *The Gerontologist, 50*(3), 294-302. doi:10.1093/geront/gnp162.
- Kim, S., & Sok, S. R. (2012). Relationships among the perceived health status, family support and life satisfaction of older korean adults. *International Journal of Nursing Practice, 18*(4), 325-331.
- Krause, N., & Markides, K. (1990). Measuring social support among older adults. *The International Journal of Aging and Human Development, 30*(1), 37-53.
- Krause, N. (1995). Negative interaction and satisfaction with social support among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 50*(2), P59-P73.

- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- Lee, K. H., Besthorn, F. H., Bolin, B. L., & Jun, J. S. (2012). Stress, spiritual, and support coping, and psychological well-being among older adults in assisted living. *Journal of Religion & Spirituality in Social Work: Social Thought*, 31(4), 328-347.
- Lemyre, L., & Tessier, R. (2003). Measuring psychological stress. Concept, model, and measurement instrument in primary care research. *Canadian Family Physician*, 49(9), 1159.
- Liu, B. C. (1976). *Quality of life indicators in US metropolitan areas*. Praeger.
- Lubben, J. E. (1988). Assessing social networks among elderly populations. *Family & Community Health*, 11(3), 42-52.
- Mu, P., Kuo, H., & Chang, K. (2005). Boundary ambiguity, coping patterns and depression in mothers caring for children with epilepsy in Taiwan. *International Journal of Nursing Studies*, 42(3), 273-282.
- Newsom, J. T., & Schulz, R. (1996). Social support as a mediator in the relation between functional status and quality of life in older adults. *Psychology and Aging*, 11(1), 34-44.
- O'Connor, K., Coon, D. W., Malek-Ahmadi, M., Dugger, B. N., Schofield, S., & Nieri, W. (2015). Description and cohort characterization of the Longevity Study: learning from our elders. *Aging clinical and experimental research*, 1-7.
- Potter, G. G., Hartman, M., & Ward, T. (2009). Perceived stress and everyday memory complaints among older adult women. *Anxiety, Stress, & Coping*, 22(4), 475-481.
- Saka, B., Kaya, O., Ozturk, G. B., Erten, N., & Karan, M. A. (2010). Malnutrition in the elderly and its relationship with other geriatric syndromes. *Clinical nutrition*, 29(6), 745-748.
- Scheier, M. F., & Carver, C. S. (1988). A model of behavioral self-regulation: Translating intention into action. *Advances in experimental social psychology*, 21, 303-346.
- Schoenmakers, E., van Tilburg, T., & Fokkema, T. (2015). Problem-focused and emotion-focused coping options and loneliness: How are they related? *European Journal of Ageing*, 12(2), 153-161. doi:10.1007/s10433-015-0336-1.



- Spitzer, W. J., Neuman, K. and Holden, G. 2004. The coming of age for assisted living care: New options for senior housing and social work practice. *Social Work in Health Care*, 38(3): 21–45.
- Thommessen, B., Aarsland, D., Braekhus, A., Oksengaard, A. R., Engedal, K., & Laake, K. (2002). The psychosocial burden on spouses of the elderly with stroke, dementia and Parkinson's disease. *International journal of geriatric psychiatry*, 17(1), 78-84.
- Vitaliano, P. P., DeWolfe, D. J., Maiuro, R. D., Russo, J., & Katon, W. (1990). Appraised changeability of a stressor as a modifier of the relationship between coping and depression: A test of the hypothesis of fit. *Journal of Personality and Social Psychology: Personality Processes and Individual Differences*, 59(3), 582-592.
- Vitaliano, P. P., Russo, J., Young, H. M., Teri, L., & Maiuro, R. D. (1991). Predictors of burden in spouse caregivers of individuals with Alzheimer's disease. *Psychology and aging*, 6(3), 392.
- Ward-Thompson, M. C. (2014). *Understanding the changes that occur with spousal caregivers as primary caregivers of partners with Alzheimer's disease: A phenomenological study* (Doctoral dissertation, Capella University).
- Weaver, A. J., & Flannelly, K. J. (2004). The role of religion/spirituality for cancer patients and their caregivers. *Southern Medical Journal*, 97(12), 1210-1214.
- Zarit, S. H., Reever, K. E., & Bach-Peterson, J. (1980). Relatives of the impaired elderly: correlates of feelings of burden. *The gerontologist*, 20(6), 649-655.
- Zizza, C. A., Ellison, K. J., & Wernette, C. M. (2009). Total water intakes of community-living middle-old and oldest-old adults. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences*, 64(4), 481-486.

Table 1

*Means, Standard Deviations, and Pearson Correlations Among Perceived Stress, Problem- Solving Coping, Social Support, Life Satisfaction, and Age (N = 928)*

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Perceived Stress	18.44	3.93	--				
2. Problem-solving coping	3.25	.94	.19**	--			
3. Social Support	39.10	7.27	-.03	.20**	--		
4. Life Satisfaction	19.59	3.86	-.16**	.19**	.29**	--	
5. Age	80.96	10.91	-.13**	-.17**	-.06	.02	--

*Note.* \*\*. indicates correlation is significant at the .01 level (2-tailed).

Table 2

*Summary of Regression Model with Perceived Stress and Age  
Predicting Life Satisfaction (N = 928)*

Variable	<i>B</i>	<i>SE B</i>	<i>LLCI</i>	<i>ULCI</i>
Perceived Stress	-.31*	.11	-.51	-.10
Age	-.01	.04	-.09	.07
Perceived Stress x Age	.06	.04	-.02	.15

*Note.* \*indicates a p-value at  $p = .004$ .  $R^2 = .03$ ,  $\Delta R^2 = < .01$

Table 3  
*Summary of Regression Model with Perceived Stress and Social Support  
Predicting Life Satisfaction (N = 928)*

Variable	<i>B</i>	<i>SE B</i>	<i>LLCI</i>	<i>ULCI</i>
Social Support	.14*	.12	.12	.18
Perceived Stress	-.50*	.12	-.74	-.27
Social Support x Perceived stress	.02	.01	-.01	.05

*Note.* \*indicates a p-value at  $p < .001$ .  $R^2 = .12$ ,  $\Delta R^2 = < .01$

Table 4

*Summary of Regression Model with Perceived Stress and Problem-Solving Coping Predicting Life Satisfaction (N = 928)*

Variable	<i>B</i>	SE <i>B</i>	<i>LLCI</i>	<i>ULCI</i>
Perceived Stress	-.70*	.13	-.96	-.44
Problem-solving coping	.96*	.13	.70	1.21
Perceived stress x Problem-solving coping	.20*	.10	.01	.39

*Note.* \*indicates a p-value at  $p < .001$ .  $R^2 = .08$ ,  $\Delta R^2 = < .01$

Figure 1

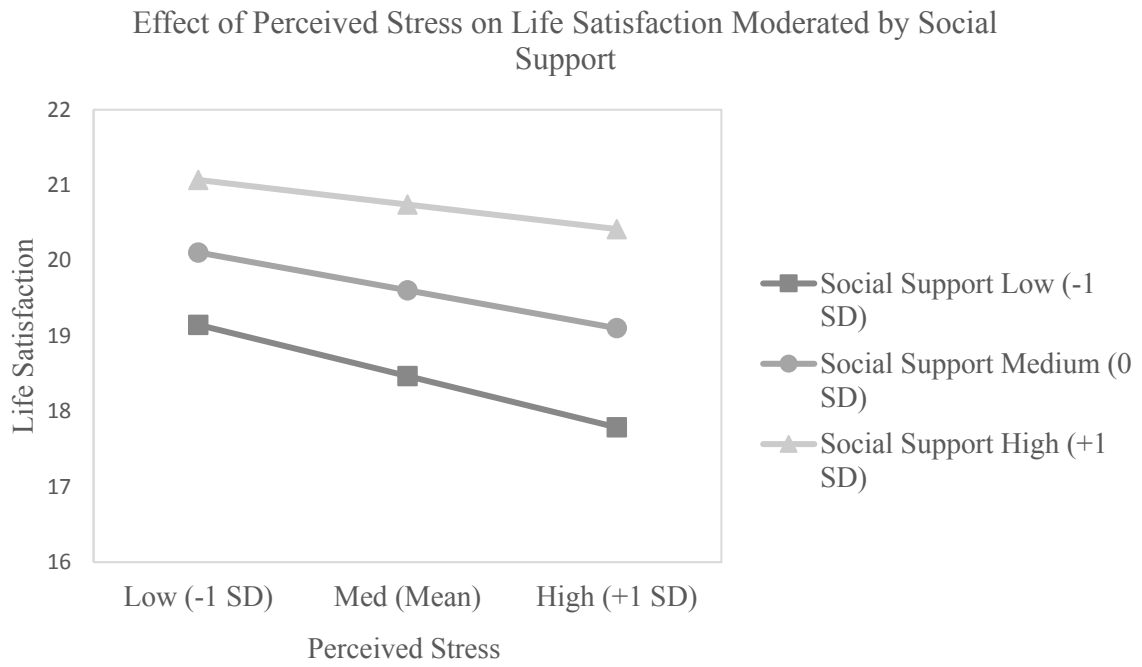
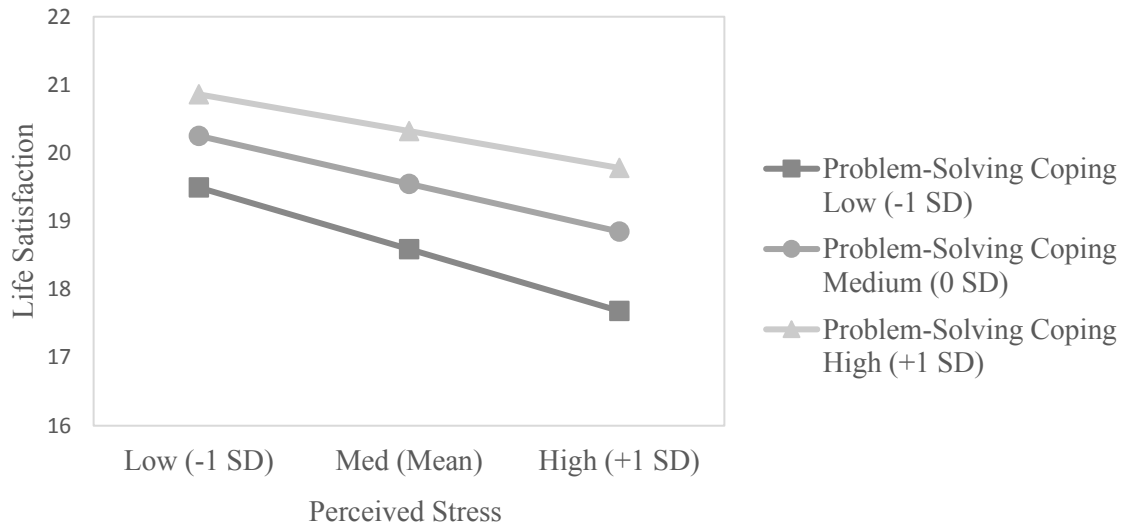


Figure 2

Effect of Perceived Stress on Life Satisfaction Moderated by Problem-Solving Coping



APPENDIX A  
STUDY QUESTIONNAIRE



## Perceived Stress Scale

Below is a list of questions that ask you about your feelings and thoughts in the ***PAST MONTH***. Without trying to count the number of times you felt a particular way, try to mark the option that seems like a reasonable estimate.

- 0 Never
- 1 Almost Never
- 2 Sometimes
- 3 Fairly Often
- 4 Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and stressed?
4. In the last month, how often have you felt confident or sure in your ability to manage your personal problems?
5. In the last month, how often have you felt that things were going your way?
6. In the last month, how often have you felt that you could not cope with everything you had to do?
7. In the last month, how often have you been able to control irritations in your life?
8. In the last month, how often have you felt that you were on top of things?
9. In the last month, how often have you been angered because of things that were outside of your control?
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

## Life Satisfaction Scale

The following are statements with which you may agree or disagree about your satisfaction with life. Please indicate your agreement or disagreement with each of the following items by marking the appropriate box. Please be open and honest with your response.

1. In most ways, my life is close to ideal.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

2. The conditions of my life are excellent.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

3. I am satisfied with my life.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

4. So far, I have gotten the important things in my life.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

6. If I could live my life over, I would change almost nothing.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

7. I am happy as I was at younger ages.

Agree a lot	Kind of Agree	Kind of Disagree	Disagree a Lot
1	2	3	4

## Social Support Scale

The following questions ask you about your friends and family. Please indicate your answer.

- 0 Not at all
- 1 A little
- 2 Moderately
- 3 Very

1. Overall how satisfied have you been in the past month with the help you have received from your family members, friends, or neighbors?

- 0 None
- 1 One
- 2 Two
- 3 Three or four
- 4 Five to Eight
- 5 Nine or More

2. How many relatives, friends, and/or neighbors do you see or hear from at least once a month?

3. How many relatives, friends, and/or neighbors do you feel close to? That is how many do you feel at ease with, can talk to about private matters, or can call on for help?

4. How many relatives, friends, and/or neighbors do you feel you can call on for help with chores, transportation, etc.?

I felt depressed.

- 0 Never
- 1 Seldom
- 2 Sometimes
- 3 Often
- 4 Very Often
- 5 Always

5. When other people know you have an important decision to make, do they talk to you about it?

- 0 Never
- 1 Once in a while
- 2 Fairly often

3 Very often

6. In the past month, how often has someone, such as a family member, friend, or neighbor, provided transportation, pitched in to help you do something that needed to get done, like household chores or yard work, and/or helped you with shopping?

0 Not at all

1 A little

2 Moderately

3 Very

7. Overall how satisfied have you been in the past month with the help you have received with transportation, housework and yard work, and shopping?

8. In the past month, how often has someone been there with you (physically) in a stressful situation, provided comfort to you, or expressed concern about your well-being?

9. In the past month, how satisfied have you been with the support, comfort, interest, and concern you have received from others?

0 Never

1 Once in a while

2 Fairly often

3 Very often

10. In the past month, how often has someone given you information and guidance on some action? For example, they made a difficult situation clearer and easier to understand or told you what they did in a similar situation.

0 Not at all

1 A little

2 Moderately

3 Very

11. Overall, how satisfied in the past month have you been with the suggestions, clarifications, and sharing of similar experiences you have received from others?

- 0 Never
- 1 Once in a while
- 2 Fairly often
- 3 Very often

12. In the past month, how often have others made too many demands on you?

13. In the past month, how often have others been critical of you?

14. In the past month, how often have others pried into your affairs?

15. In the past month, how often have others taken advantage of you?

- 0 Not at all
- 1 A little
- 2 Moderately
- 3 Very

16. Overall, how upset in the past month have you been with the demands, criticisms, prying, or being taken advantage of by family members, friends, and/or neighbors?

In general, **WHEN FACED WITH A STRESSFUL SITUATION** in your life, how much do you do each of the following?

1. When faced with a stressful situation, I try to make myself feel better by eating, drinking, smoking, taking medication, or sleeping more than usual; avoid or walk away from my problem.

I usually don't do this at all  
 I usually do this a little bit  
 I usually do this a medium amount  
 I usually do this a lot

2. When faced with a stressful situation, I pray, meditate, or read spiritual material to help with it; meet with my priest, rabbi, or clergyman about it.

I usually don't do this at all  
 I usually do this a little bit  
 I usually do this a medium amount  
 I usually do this a lot

3. When faced with a stressful situation, I just take one day or one step at a time; learn to live with it or not worry about it.

I usually don't do this at all  
 I usually do this a little bit  
 I usually do this a medium amount  
 I usually do this a lot

4. When faced with a stressful situation, I take action to try to solve the problem or make the situation better.

I usually don't do this at all  
 I usually do this a little bit  
 I usually do this a medium amount  
 I usually do this a lot

5. When faced with a stressful situation, I turn to someone for advice and follow it.

I usually don't do this at all  
 I usually do this a little bit  
 I usually do this a medium amount  
 I usually do this a lot

6. When faced with a stressful situation, I turn to others for emotional support; talk to

someone about how I feel, or express my negative feelings.

- I usually don't do this at all
- I usually do this a little bit
- I usually do this a medium amount
- I usually do this a lot