Investigating the effects of personality and social support on meaning-making after the loss of a spouse

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Investigating the effects of personality and social support on meaning-making after the loss of a spouse

by

Lindsey Mia Olsen

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Human Development and Family Studies

Program of Study Committee:
Jennifer Margrett, Major Professor
Peter Martin
Daniel Russell

Iowa State University
Ames, Iowa
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ABSTRACT

This study examined the impact of individual demographic characteristics (i.e., age and gender), personality traits, and social integration on meaning-making after the death of a spouse. Secondary data were used from the Changing Lives of Older Couples sample (CLOC; Wortman, 1992). These data were collected from mostly White individuals in three metropolitan counties in Detroit, Michigan. Regression analyses were conducted to investigate the influence of hypothesized predictors on meaning-making as assessed six months following the loss. The findings indicated that personality and social integration did not have a significant effect on meaning making; however, the results did indicate that age was positively related to meaning. Additional analysis was conducted for the individual items from the meaning-making scale as the dependent variables. A limitation of this study was concerning reliability for the personality measures Extraversion and Openness. Future research should utilize scales with higher reliability in assessing the five dimensions of personality.
CHAPTER 1: INTRODUCTION

Spousal loss can be among the most stressful of all losses (Bonnano et al., 2002). Individuals come to cope with this loss in many different ways; however, the mode in which an individual copes is largely based on personality. Because personality has a considerable influence on an individual’s life, it is important to understand how personality contributes to the meaning-making process. Researchers and clinicians suggest that the meaning-making process is valuable when looking at adaptation and adjustment to life events or changes. What is not understood is how individuals come to make meaning after a loss. It is important to consider personality, social support or social integration, and meaning-making when examining spousal loss in order to promote healthy, positive outcomes. Examples of positive outcomes could include be seeking professional help from a doctor or therapist. Unhealthy outcomes might be engaging in self-destructive behavior such as excessive drinking or using illicit drugs.
CHAPTER 2: LITERATURE REVIEW

Families can be impacted by death in numerous ways. Losing a member of the family can result in “reassignment of roles, financial predicaments, changes in parenting, and overall change in family structure” (Siegel, 1990, p.519). Loss can lead to “increased depression, health problems, anxiety, poor appetite, trouble at work, and trouble with relationships with others” (Becvar, 2003, p.14). However, not all results of loss have to be negative. Some couples state that a loss can bring them closer together while working through their grief. For example, a positive result of loss is when couples and/or families might also choose to advocate together or raise awareness in their community, bringing them closer together after a loss.

While grieving is normal after a significant loss, the grief can turn into what is called complicated grief (Boelen, Keijser, van den Hout, & van den Bout, 2007; Shear, Frank, Houck, & Reynolds, 2005). It is common to feel sadness and anger and complicated grief can heighten these intense feelings. These feelings might be extremely debilitating for the individual grieving as well as those around them (Boss, 2006). Complicated grief can touch all areas of an individual and/or families’ life (Boelen et al.). Cumulative loss is also discussed throughout the literature. Cumulative loss can be defined as multiple losses experienced throughout a lifetime (Parkes, 1998). Parkes describes multiple losses as a factor that can increase the risk of complicated grief. He suggests that multiple losses can increase the length and intensity of bereavement after many losses, especially traumatic losses (Parkes, 1998).

It is important for professionals working in the human services field to be aware of grief and loss issues within the family. Because not all families are the same, professionals
should also be able to understand how loss, personality, social integration, and meaning-making affect individuals after the loss of a spouse in addition to working effectively with these families to promote positive ways of coping and resilience. Resilience can be defined as an “adaptive outcome in the face of adversity” (Campbell-Sills, Cohan & Stein, 2005, p. 586). Adaptation to a new situation can occur soon after the experience or event has happened, and it can happen in the weeks, months, and even years after.

**Loss**

It is valuable to study death as a loss because death is universal across all races, ethnicities, ages, genders, and socioeconomic statuses. It is especially important to study spousal loss because the majority (approximately 72%) of individuals get married at least once in their lifetime (U.S. Census Bureau; 2012).

Grief and loss are terms that are used throughout the literature; however, it should be noted that the terms are not synonymous. Grief can be viewed as a reaction to loss. Loss can be defined as “an event which is perceived to be negative by the individuals involved, and results in long-term changes to one’s social situations, relationships, or cognitions” (Miller & Omarzu, 1998, p. 4). Reactions can include “confusion, anger, sadness, and guilt” (Kubler-Ross & Kessler, 2005, p.5).

Much of the literature on death and dying focuses on the topic of adjustment and/or adaptation to loss. Adjustment or adaptation is generally considered to be a healthy outcome (Wortman & Silver, 1989). For example when people adapt to a loss, there may be less intense feelings of depression, and individuals may return to a routine of eating habits, or exercise. The literature also describes negative outcomes for failure to adapt or adjust to a
loss. Some negative outcomes include health problems, not exercising regularly or at all, and a change/decline in eating habits (Wortman and Silver, 1989). Wortman and Silver (1989) also state that in order for successful adjustment to occur, the individual must address their feelings related to the loss and not suppress them.

Wortman and Silver suggest that depression and emotional distress are normal part of the grief and loss process is to be expected. After a loss, Wortman and Silver (1989) report that depression is a rather universal and common experience because of the powerful emotional distress one can feel. Elisabeth Kubler-Ross also discusses depression in her five stages of grief and loss model (Kubler-Ross & Kessler, 2005). Here, Kubler-Ross also states that depression is a normal reaction to grief and loss. While some of the intense feelings of depression from grief and loss are similar to clinical depression, they are not the same. Depression due to a spousal loss would be categorized as an Axis IV psychosocial stressor versus clinical depression in Axis I. Axis IV describes events in a person’s life such as the death of a spouse. Axis I disorders, typically the main mental diagnosis given to an individual. These disorders typically have an etiology separate from life events (DSM-IV, 2000). Therefore clinicians working with people who have clinical depression would not use the same treatment plan as those working with individuals suffering from depression following the loss of a spouse.

Wortman and Silver (1989) also discuss the importance of facing a loss and that individuals who are unsuccessful at facing their loss are blocking their feelings, which in turn is ineffective.
Spousal Loss and Widowhood

As previously stated, spousal loss can be among one of the most traumatic losses one experiences in their life (Bonnano et al., 2002; Carnelley, Wortman, Bolger, Burke, 2006). The surviving spouse loses an important source of social support, and it can be a very confusing time. Not only will the surviving spouse lose a support provider, they also have other adjustments to make such as changes in finances.

After the death of a spouse, it can be a very confusing and difficult time for the surviving spouse (Fry, 1998). Carnelley et al (2006), describe some of the concerns for the surviving spouse including a “threat to well-being, health, and productivity” (Carnelley et al., 476). Fry found that indeed spousal loss did impose feelings of “loneliness, confusion, regret, guilt, and doubt about living without their spouse” (Fry, 1998, p. 371). Berkman and Syme (1979) found that when people did not have social and community connections, they were more likely to die in the follow-up time than other participants that had many more social and community connections.

Davis and Nolen-Hoeksema (2001) reported that many family members stated they wanted to find meaning in their loss. For individuals, this was an important method for coping with their loss. This suggests that participants believed that events and experiences throughout their lives should have some meaning.

Additionally, it is important to note that there are significant gender differences when it comes to spousal loss. Increased rates of depression are often associated with negative health effects for the surviving spouse after experiencing the loss of their spouse (Siegel & Kuykendall, 1990). Stroebe and Stroebe (1983) reported that men in their sample tended to suffer more serious health effects than did women and that the most vulnerable time for men
was six months up to a year after their spousal loss. Another contributing factor to the decrease in health for men is the lack of social support or social contact. Social support and social contact are positively associated with health (Martin-Matthews, 2001). Women are more likely than men to visit with friends and family and attend activities. Widowers often do in fact report having smaller support networks than do women (Martin-Matthews, 2001).

Ong, Bergeman, Bisconti and Wallace, reported positive emotions were more common among participants who were more resilient after a loss. Positive emotions included: “being active, alert, attentive, determined, enthusiastic, excited, inspired, interested, proud, and strong” (Ong, Bergeman, Bisconti, & Wallace, 2006 p. 730). Those who experienced more negative emotions such as “hostile, jittery, nervous, irritable, and distressed” showed less resilience after the loss of their spouse (Ong, Bergeman, Bisconti, & Wallace, 2006, p.730). Widows who tended to have a more difficult time regulating negative emotions showed lower resilience. From this study, we can see that individuals with experienced more positive emotions are therefore more resilient and had an easier time adapting to their spousal loss.

Additionally, Bonanno and colleagues reported different patterns among individuals’ adaptation. “On average, it takes individuals several months all the way to one to two years to see a decrease in disruptions in their functioning such as health problems, depression, and disorganization” (Bonanno, Wortman, & Nesse, 2002, p. 260). Bonanno et al found that the participant’s ability to cope increased significantly during the 6-to 18-month time period following a loss. For participants utilizing both personal and social time to reflect and explore their loss also helped to decrease the amount of emotional distress (Bonanno et al.)
Perhaps one explanation for emotional distress decreasing with time is the amount of meaning-making is increasing over time.

On the positive side of spousal loss, changes that occur after a loss are not all negative. In a study by Carnelley et al (2006), widows also reported “psychological growth and learning new skills” as well as other positive changes (Carnelley et al., 2006, 478).

**Meaning-Making**

There are numerous ways to define meaning making. Although meaning-making and coping share similar attributes, they represent different constructs. “Meaning-making consists of the processes of how an individual, couple, or family makes sense of an experience or event” (Bonanno, Wortman, Lehman, Tweed, Haring, Sonnega, Carr, & Nesse, 2002, p. 1151). Coping can be defined as the way in which a “person constantly changes their cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources” (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986).

Meaning-making is unique to every individual and can be influenced by previous experiences, family, culture, and society and the other systems that surround individuals and families (Pattakos, 2004). Importantly, Pattakos also talks about the flexibility of meaning making. He states that, “What might make sense at one point in time, might not make sense at another” (Pattakos, 2004, p. 23). Therefore, it is important to understand the process of how individuals, couples, and families assign meaning because there does not seem to be a universal answer.

The way in which individuals structure their reality or interpretation of the world can have a significant impact on how meaning-making from a loss is derived. Individuals make
meaning on a regular basis. We want to make sense out of our life events and our experiences, most especially stressful ones. Experiences or events can be unclear and confusing, so individuals will often reconstruct their experiences so that they make sense (Mackay & Bluck, 2010). From these meaning-making situations most individuals do adapt and accept the event or experience (Martin-Matthews, 2011).

A common way of making meaning found throughout the literature is through talking or creating a narrative. A narrative as a story can describe previous experiences or events that have occurred. Voicing feelings and opinions is one way to create meaning. Through expressing one’s thoughts and emotions an individual can develop insight, which in turn offers new perspectives (Dyregrov et al., 2011).

**Religiosity/Spirituality**

Religiosity and spirituality are often times a large part of an individual’s life. Therefore we should look at Religiosity and spirituality when addressing grief and loss issues. Religiosity impacts beliefs, values, and morals and can play a significant role in the process of meaning-making (Park, 2005). Religious or spiritual beliefs often provide individuals with a framework for meaning-making (Park, 2005). This framework allows the individual to interpret and respond to difficult events or experiences. Previous religious and/or spiritual experiences can influence how an individual assesses and assigns meaning to events or experiences. Our previous experiences can help to guide how we think or interpret situations. Davis and Nolen-Hoeksema (2001) discovered that Religiosity was one of the most significant ways in which individuals found meaning. Religiosity offered individuals with a reason or purpose for the loss when there was no logical explanation for what had
happened. Individuals might believe that God or a higher power had control over the loss (Davis and Nolen-Hoeksema).

Steffen and Coyle (2011) learned through qualitative interviews that a majority of individuals specified that they made sense of death by thoughts of an afterlife. They also noted that through talking about their experiences with death, some participants stated they were less afraid of death or had less anxiety about death (Steffen and Coyle). Religiosity can serve as both a way to cope and as a way to make meaning after a loss.

**Personality**

Personality is defined as, “consistent behavior patterns and intrapersonal processes originating within the individual” (Burger, 2010, p. 24). That is, there seems to be consistent behavior patterns observed among individuals, across situations and over time. While consistent behavior processes, certainly the environment in which an individual is raised can have a significant impact (Burger). Caspi (2005) reports in an article by Costa et al, that personality seems to be fairly stable across the lifespan (Costa, McCrae, Zonderman, Barbano, Lebowitz, & Larson, 1986; Sutin, Costa, Wethington, & William, 2010). Costa et al, also found that even during a crisis, there were no differences in participants’ personality scores.

The Big Five personality model was developed through multiple factor analyses stemming from a lexical approach (De Raad, 2000). From these factor analyses, five dimensions of personality surfaced and seemed to be consistently present in almost all personality measures (De Raad, 2000). Costa and McCrae purport the universality of five main personality traits: Extraversion, Neuroticism, Conscientiousness, Agreeableness, and Openness.
Individuals who exhibit greater Extraversion tend to be “outgoing, expressive, and energetic” (Caspi et al., 2005, p. 454). Another way to describe Extraversion is in the term of sociability, or how social an individual is (Carver & Connor-Smith, 2010). Extraversion may relate to meaning-making in that those who tend to be more extraverted have many friends, are involved in hobbies and activities, and therefore are most likely be more socially integrated than those high on Neuroticism.

Neuroticism reflects the “frequency and ease a person becomes upset and distressed” (Carver & Connor-Smith, 2010, p. 681). Aspects linked with Neuroticism include hostility among other negative feelings. The literature also describes Emotional Stability as the opposite of Neuroticism. Individuals who were high on Neuroticism were found to be “anxious, vulnerable to stress, guilt prone, lacking in confidence, moody, angry, easily frustrated and insecure in relationships” (Caspi et al., 2005, p. 687). Neuroticism may relate to meaning-making in that these individuals are less likely to be socially integrated due to having fewer friends.

Individuals exhibiting high levels of Conscientiousness are those who are “responsible, careful, and organized” (Caspi et al., 2005, p. 688). These individuals tend to demonstrate good impulse control, reliability and responsibility as well as organizational skills, planning skills, and preparedness (Carver & Connor-Smith, 2010). Conscientiousness may be related to meaning-making in that individuals high on conscientiousness may also be more willing to receive help from others.

Individuals who tend to be cooperative, considerate of others, and caring show high levels of Agreeableness. These individuals tend to be very easy-going and seem to adapt to change quite easily (Caspi et al., 2005). Agreeable individuals are generally quite friendly
and do well at maintaining relationships. They also tend to be helpful to others and empathic (Carver & Connor-Smith, 2010). Agreeableness may relate to meaning-making in that these individuals should do well at maintaining relationships suggesting that they too would be more socially integrated than those high on Neuroticism.

Finally, individuals who are “imaginative, insightful, and creative” are typically going to display high amounts of Openness (Caspi et al., 2005, p. 703). Individuals high on Openness generally express flexibility to change and they are willing to try new things outside of their own comfort zone (Carver & Connor-Smith, 2010). Openness may relate to meaning-making in that these individuals may be more likely to adapt to role changes. Because they are more open to trying new things, these individual may be less affected by the changes that occur following the loss of a spouse.

**Rationale for the Current Study**

Based on the literature, there appear to be many variables that can impact meaning-making. It is clear that some individuals do make meaning out of their loss, and that meaning-making is also related to positive adjustment. However, it is still unclear how personality, social integration, and meaning-making are related. By understanding the relationship of how to predict meaning-making, based on personality characteristics and the level of social integration, professionals working with surviving spouses could promote positive adjustment or resilience after a loss.

The current study examined how these constructs are related to one another. The first research question examined if social integration, and personality, and demographic variables (e.g., gender, and age) predicted meaning-making following the loss of a spouse. It was hypothesized that the Extraversion and Openness dimensions of personality would be
significantly related to meaning-making. Specifically, individuals high on Extraversion and Openness as well as social support would report the highest levels meaning-making.
CHAPTER 3: METHOD

Procedure

This study used data from the Changing Lives of Older Couples (CLOC) study (Wortman, 1994) project. The main focus of the larger project was to examine the transitions that older couples face, specifically issues related to mortality such as the loss of your spouse. The CLOC is a longitudinal study that was conducted in three different counties in metropolitan Detroit. The CLOC study consists of four waves of data: Baseline, Wave 1, Wave 2, and Wave 3. Of those who were initially contacted, approximately 65% participated in the baseline interviews. The baseline data were collected through face-to-face interviews performed from June 1987 through April 1988. Wave 1 interviews of widows and widowers occurred six months following the death of their spouse (Wortman, 1994). Because not all spouses died exactly six months after the baseline data was collected, a variable was created to account for the differences in the timing of the baseline and Wave 1 interviews. In order to address this issue, a “gap” variable was created to reflect the time between the two interviews (see Appendix B).

For the current study, only baseline and Wave 1 data were analyzed. At baseline demographic information (gender, age, income, ethnicity), personality traits, previous losses of a child, parent/sibling, and someone close to you in the past 12 months, Religiosity/spirituality, and social integration were measured. At Wave 1, meaning-making was assessed at least six months after the death of their spouse. For this study, social integration scores from Wave 1 were used in the analyses to indicate social integration following the death of their spouse. On average surviving spouses were interviewed 43 months after the baseline interview.
Participants

To be eligible to participate in the CLOC study, individuals needed to be non-institutionalized and able to participate in a 2-hour long interview (Wortman, 1992). Participants also needed to be English-speaking married couples (Wortman). The husband had to be at least 65 years of age; however, there were no age restrictions for the wives (Wortman, 1992). The participants’ ages ranged from 53-91 years old with an average age of 73.47 years old (SD =6.71). The majority of the sample identified themselves as White. Sample demographics characteristics are presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Demographics Characteristics of Participants (N=246)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
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<tr>
<td>White</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Work Status</td>
</tr>
<tr>
<td>Working</td>
</tr>
<tr>
<td>Retired</td>
</tr>
<tr>
<td>Income</td>
</tr>
<tr>
<td>Highest education year</td>
</tr>
<tr>
<td>Age</td>
</tr>
</tbody>
</table>

*Note: Mean income is actually the median income range. Work status does not equal 100% due to response rate.*

At baseline, 1532 individuals and (766 dyads) were interviewed. For this study, we focused on the widow/widower group in which one partner died at least six months after the baseline data were gathered. The remaining partner (the respondent) participated in the Wave 1 interview yielding a sample of 250 participants. Four participants were not included in the final analysis due to excessive missing data resulting in a sample of 246 participants.
Descriptive statistics are reported in Table 2 with correlations among these variables reported in Table 3. Some participants were missing as much as 30 scores on multiple items and so they were omitted from the sample.

**Measures**

*Personality*

The personality measure was designed to evaluate the dimensions of Extraversion, Agreeableness, Conscientiousness, Openness, and Emotional Stability that are included in McCrae and Costa’s Big 5 model of personality (McCrae & Costa, 1987). The scale used in the CLOC study included items similar to those included in McCrae and Costa’s scale, but utilized fewer items in each subscale to measure each personality dimension (Wortman, 1992). Participants were read statements describing different personality characteristics and indicated whether the felt the statement was true or not using a five-point Likert scale that ranged from 1 (Strongly agree) to 5 (Strongly disagree). Selected items were then reverse-coded so that for all subscales higher values indicated greater endorsement of that personality characteristic. Items within each subscale were summed to create a total score. The internal consistency of each subscale within the current study sample was assessed and items, which reduced the reliability of the total score, were omitted from the analyses.

The Extraversion scale included six items asking respondents to gauge their self-perceived degree of sociability and outgoingness. For example, participants were asked “I like to have a lot of people around me.” Total scores ranged from 6-30. Extraversion had a reliability of .46.

Agreeableness included four items which assessed the extent to which a person tends to be accommodating or pleasing within social situations. An example of this is, “I believe
that most people will take advantage of you if you let them.” Total scores ranged from 7 to 20. The reliability of the Agreeableness subscale was good, with a Chronbach’s alpha of .84.

The Openness subscale consisted of seven items. Openness refers to an “active imagination and attentiveness to one’s inner feelings”, or “I experience a wide range of emotions or feelings.” Total scores could range from 7 to 15. The reliability of this scale was .57.
Table 2
Correlation matrix of all variables

|   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2 | .25 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 3 | .02 | -.06|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4 | -.10| .10 | .04 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 5 | -.03| .01 | -.03| -.18**|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6 | .06 | -.15*| -.10| -.04| -.19*|     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 7 | .10 | -.03| -.11| -.01| .09 | .12 |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 8 | .06 | -.17**| -.07| .10 | .30**| .23**|     |     |     |     |     |     |     |     |     |     |     |     |     |
| 9 | -.01| -.10| -.01| .06 | .09 | .00 | .21**| .14|     |     |     |     |     |     |     |     |     |     |     |
|10 | -.03| -.13*| .03 | .03 | .18**| -.06| .25**| .02 | .41**|     |     |     |     |     |     |     |     |     |     |
|11 | -.17**| -.16*| .08 | .08 | .00 | .57 | -.07| .20 | .24**| .12 |     |     |     |     |     |     |     |     |     |
|12 | -.02| -.01| .02 | .08 | .23**| -.01| .03 | .00 | .22**| .11 | .29**|     |     |     |     |     |     |     |     |
|13 | .15*| -.08| .05 | -.02| .00 | -.09| .04 | -.07| .00 | -.00| -.07| -.07|     |     |     |     |     |     |     |
|14 | -.09| .02 | -.11| .00 | -.00| .03 | -.00| -.04| -.04| -.01| -.17**| -.06| .33**|     |     |     |     |     |     |
|15 | -.10| -.13*| -.07| .01 | -.00| .07 | -.09| .03 | .02 | -.08| .00 | .09 | -.01| .33**|     |     |     |     |     |
|16 | .01 | .21**| .02 | -.05| -.10| -.10| -.14*| -.06| -.22**| -.14*| -.08| -.31**| -.07| -.12*| -.14*|     |     |     |     |
|17 | .02 | .21**| -.06| .02 | -.21**| -.03| -.06| -.00| -.07| -.11| -.04| .30**| -.05| -.12*| -.26**| .60**|     |     |     |     |
|18 | .12 | .13*| .06 | .03 | .06 | -.02| .04 | .01 | -.06| -.06| .01 | .02 | -.01| -.05 | .10 | .06 | .01 |     |     |     |
|19 | .02 | .01 | -.01| -.01| -.09| .01 | -.05| -.13*| -.00| -.03| -.07 | .00 | .09 | .13*| .10 | .01 | -.08| .05 |     |     |
|20 | -.10| .03 | .07 | .16**| -.12*| -.08| -.00| -.13*| .02 | -.03| -.02| -.12| .03 | .02 | .00 | .03 | .08 | .03 | .03 |     |
|21 | .07 | .15*| .00 | -.05| -.03| .05 | .02 | .01 | -.08| -.16**| -.06| -.04| -.08| -.03| -.12*| .14*| .20**| .08 | .00 | .06 |

Table 3

Means and Standard Deviations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>73.47</td>
<td>6.71</td>
</tr>
<tr>
<td>Gap</td>
<td>37.27</td>
<td>18.20</td>
</tr>
<tr>
<td>Income</td>
<td>$17,500</td>
<td>2.10</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>14.73</td>
<td>3.46</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>27.04</td>
<td>3.78</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>30.32</td>
<td>5.06</td>
</tr>
<tr>
<td>Extraversion</td>
<td>21.05</td>
<td>3.05</td>
</tr>
<tr>
<td>Openness</td>
<td>25.12</td>
<td>3.75</td>
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<tr>
<td>Child Die</td>
<td>4.30</td>
<td>1.52</td>
</tr>
<tr>
<td>Someone close die</td>
<td>3.58</td>
<td>1.91</td>
</tr>
<tr>
<td>Parent/sibling die</td>
<td>4.36</td>
<td>1.46</td>
</tr>
<tr>
<td>Spiritual comfort</td>
<td>2.45</td>
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</tr>
<tr>
<td>Asked God what to do</td>
<td>2.54</td>
<td>1.46</td>
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<tr>
<td>Informal Social Integration</td>
<td>9.88</td>
<td>2.59</td>
</tr>
<tr>
<td>Formal Social Integration</td>
<td>5.59</td>
<td>2.35</td>
</tr>
<tr>
<td>Searched for meaning past month</td>
<td>1.64</td>
<td>1.05</td>
</tr>
<tr>
<td>Searched meaning ever</td>
<td>1.35</td>
<td>.75</td>
</tr>
<tr>
<td>Made sense/found meaning</td>
<td>1.90</td>
<td>1.14</td>
</tr>
</tbody>
</table>

Conscientiousness was assessed using seven items. Conscientiousness refers to the extent of which an individual allows their conscience to direct and guide them. An example of this is, “I have a clear set of goals and work toward them in an orderly fashion.” The Chronbach’s alpha for Conscientiousness was .70.

The Emotional Stability subscale was comprised of nine items asking individual questions such as, “When everything seems to be going wrong, I can still make good decisions.” Individuals scoring low on Emotional Stability are more reactive to stress, tend to be or feel more rattled, and are less calm than those who score low on this dimension. The reliability for Emotional Stability had a Chronbach’s alpha of .66.
The low internal consistency of Extraversion and Openness presented a problem. This will be further discussed in the Results and Discussion sections.

**Social Integration**

Social integration was assessed in two different ways within the CLOC study; informal social integration and formal social integration (Wortman, 1992). Informal social integration gauged how often respondents saw friends, family members, and/or neighbors. Examples of these items were, “How often do you get together with friends, neighbors or relatives and do things like go out together or visit in each other’s homes,” and “In a typical week, about how many times do you talk on the telephone with friends, neighbors or relatives?” Respondents could answer 1 (More than once a week), 2 (About once a week), 3 (1 to 3 times a month), 4 (Less than once a month), or 5 (Never). There were a total of three items included to assess informal social integration. Reliability for informal social integration was .45, with total scores ranging from 3-15.

Formal social integration focused on the participant’s involvement in organizations, or clubs. Two items were posed: “How often do you attend meetings or programs of groups, clubs, or organizations that you belong to?” Total scores were computed based on these two questions ranged from 2-10. The reliability of the total score for these two questions was .60.

**Meaning-Making**

Participants were asked about the death of their spouse at six months following the death of their spouse. Three questions were asked of the surviving spouse concerning his or her related attempts to make sense or find some meaning in the death of their spouse. Examples of these items were, “Have you searched for meaning the past month? Have you
searched for meaning ever?” The three items were combined to create a total meaning-making score, with total scores ranging from 6-12. Reliability of the total meaning-making was .39.

Meaning-making was also examined using the same three individual items, but not combining the items to create a total score. Table 3 shows a correlation matrix of the three individual meaning-making items.

Correlations among responses by participants to these three items designed to assess meaning-making are shown in Table 4. Two of the items were not correlated, which in turn led to the low level of reliability that was found for the measure. Due to the poor reliability of the total meaning-making score, additional analyses were conducted examining the relationship between the predictor variables and responses to each one of the individual items designed to assess meaning-making.

Table 4

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search meaning past month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search for meaning ever</td>
<td>.33**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Made meaning/found meaning</td>
<td>-.01</td>
<td>.33**</td>
<td></td>
</tr>
</tbody>
</table>

Note: **p < .01 level (2-tailed).

Religiosity/Spirituality

Two questions used to assess religious beliefs or spirituality. The items were, “When you have problems or difficulties in your family, work, or personal life, how often do you seek spiritual comfort and support?” and “When you have a big decision to make in your everyday life, how often do you ask yourself what God would want you to do?” Individual responses ranged from 1 (Almost always), 2 (Often), 3 (Sometimes), 4 (Rarely) and 5
(Never). Scores were reverse coded so that a larger score indicated greater spiritual comfort or higher levels of religiosity.
CHAPTER 4: RESULTS

Analyses were conducted using SPSS version 20.0 (SPSS for Macintosh, 2011) with an alpha level of .05.

Prediction of Meaning-Making

A hierarchical multiple regression analysis were conducted to answer our first research question asking how personality and social integration can predict meaning-making as a total score. A series of hierarchical multiple regression analyses were conducted to answer the second research question asking how personality and social integration can predict meaning-making using the individual items from the meaning-making measure. Additional predictor variables were later added into the model to see how they related to the individual items from the meaning-making measure.

In the regression analysis to answer research question one, demographic variables (age and gender), the gap variable and the three personality traits (i.e., Agreeableness, Conscientiousness, and Emotional Stability) were entered in step 1. In step 2 of the analysis, formal and informal social integration were added into the regression equation.
Table 5

Hierarchical multiple regression analysis predicting the meaning-making total score

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.03</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>.33</td>
<td>.31</td>
</tr>
<tr>
<td>Gap</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.00</td>
<td>.02</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>.41</td>
<td>.31</td>
</tr>
<tr>
<td>Gap</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.00</td>
<td>.02</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Informal Integration</td>
<td>.09</td>
<td>.04</td>
</tr>
<tr>
<td>Formal Integration</td>
<td>-.03</td>
<td>.04</td>
</tr>
</tbody>
</table>

*p < .05

Results of the hierarchical multiple regression analysis indicated that both steps one and two were significant. Within the first step of predictors, age was significant with a p-value of .03 in both steps. Personality and social integration indicators were not predictive of meaning making. For step one, \( F(6, 239) = 1.58, p < .05, R^2 = .03 \). The F change was not significant in for step one. For step two, \( F(2, 237) = 2.34, p < .05, R^2 = .01 \). The F change was not significant in step two.

Extraversion and Openness were omitted from the regression due to the low reliability of these measures. A second regression analysis was conducted to include these
variables. When included in the analysis, neither personality dimension was statistically significant.

The second hierarchical regression analysis used the first individual item from the meaning-making measure asking participants if they had attempted to make meaning over the previous month. In step one, demographic variables (age and gender), the gap variable, and the three personality traits were entered into the regression. In step two, formal and informal social integration were added into the regression.

Table 6

Hierarchical multiple regression analysis predicting the item assessing meaning-making over the previous month

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>-.15</td>
<td>.20</td>
</tr>
<tr>
<td>Gap</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-.02</td>
<td>.02</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.01</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>-.18</td>
<td>.20</td>
</tr>
<tr>
<td>Gap</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-.02</td>
<td>.02</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.00</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Informal Integration</td>
<td>-.03</td>
<td>.02</td>
</tr>
<tr>
<td>Formal Integration</td>
<td>-.03</td>
<td>.03</td>
</tr>
</tbody>
</table>

*p < .05
Results of the hierarchical regression analysis indicated that both steps one and two were significant. Within the first step of predictors age was significant with a p-value of .03. Age was also significant in the second step with a p-value of .02. Personality and social integration were not predictive of meaning making during the last month. For step one, $F(6, 239) = 1.84, p < .05, R^2 = .04$. In step two, $F(2, 237) = 1.72, p < .05, R^2 = .01$. The F change was not significant in either step.

The third hierarchical regression analysis assessed whether meaning-making had ever occurred for participants. In step one, the demographic variables (age and gender), the gap variable, and the three personality traits (i.e., Agreeableness, Conscientiousness, and Emotional Stability) were added into the analysis. In step two, informal and formal social integration were added into the analysis.

In the third hierarchical multiple regression analysis, both steps were significant. Age was not a significant predictor in the first step, but became significant when informal and formal social integration were added into the model. Age in the second step had a significance of .02. No other predictor variables were significant. For step one, $F(2, 239) = 1.23, p < .05, R^2 = .03$. For step two, $F(2, 237) = 4.00, p < .05, R^2 = .03$. The F change was statistically significant in step two with an F change of .02.
### Table 7

Hierarchical multiple regression assessing whether meaning-making has ever occurred

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>.00</td>
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<tr>
<td>Gender</td>
<td>.12</td>
<td>.14</td>
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<tr>
<td>Gap</td>
<td>-.00</td>
<td>.00</td>
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<tr>
<td>Agreeableness</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.01</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>-.18</td>
<td>.20</td>
</tr>
<tr>
<td>Gap</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-.02</td>
<td>.02</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.00</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Informal Integration</td>
<td>-.03</td>
<td>.02</td>
</tr>
<tr>
<td>Formal Integration</td>
<td>-.03</td>
<td>.03</td>
</tr>
</tbody>
</table>

*<p<.05, **<p<.01 Note: The F change was significant in predictor block 2

In the fourth hierarchical multiple regression analysis, participants were asked if they had ever made meaning or made sense. In step one, demographics (age and gender), the gap variable, and the three personality traits were added into the analysis. In step two, formal and informal social integration were added into the model.
In the fourth hierarchical multiple regression analysis, participants were asked if they had made meaning or made sense. Both steps were significant in this regression analysis.

Both steps were significant. Conscientiousness was significant when informal and formal social integration were added into the analysis with a significance of .05. No other personality traits were significant in this last regression analysis, nor was social integration.

In step one, $F (2, 239) = 1.86, p < .05, R^2 = .04$. In step two $F (2, 237) = 1.75, p < .05, R^2 = .01$. Neither F change was statistically significant in either step.
A series of *t*-test analyses were conducted to examine group differences between Caucasian and African American participants on the three individual meaning-making items. The results from the *t*-test confirmed that the means did not differ significantly from one another at the *p* < .05 level between ethnicity and the three individual meaning-making items.

Further regression analyses were conducted adding additional variables to the regression. The new variables included: income, ethnicity, religiosity/spirituality, ever having a child die, experiencing a parent or sibling die in the past 12 months, and experiencing someone close die to you in the past 12 months. For the single item asking if the participant had searched for meaning over the past month, only two of the new predictor variables were statistically significant.

When adding the new predictor variables into the regression analysis predicting responses to the item asking participants if they had ever searched for meaning, experiencing a parent or sibling die during past 12 months was statistically significant, indicating that individuals who had experience in additional losses were more likely to have searched for meaning. However, none of the other new predictor variables added significantly to the regression.

A final regression analysis adding these new predictor variables into the regression analysis predicting responses to the item asking participants if they had ever made sense or found meaning. The measure asking participants “How often do you ask God what He would want you to do” was a statistically significant predictor.
CHAPTER 5: DISCUSSION

For many, losing a spouse can be very painful and traumatic (Bonnano, 2002). It is clear that professionals working with families need a better understanding of the grief and loss process. The current research study aimed to examine selected individual characteristics of those who had lost a spouse (i.e., personality, gender, age, social integration) to better understand if there were common factors among individuals, which would predict an increase in meaning making.

This study attempted to answer two research questions. The first research question examined if personality and social integration could predict meaning-making after the loss of a spouse. It was hypothesized that personality and the amount of social integration would strongly predict meaning-making while controlling for gender and age. The second research question asked how demographic information, personality, and social integration predict meaning-making in the past month, making meaning ever, or making meaning/finding sense. Within these categories, we examined other descriptive characteristics that might be potential predictors of meaning making. These characteristics included asking God for help, finding spiritual comfort, ever having a child die, if someone close to you had died in the past 12 months, having a parent or sibling die within the last 12 months, and seeking a mental health professional. Only having a parent or sibling die in the last 12 months and asking God what He would want you to do added any significance in the regression analysis.

Asking God for help and finding spiritual comfort is found throughout the literature examining grief and loss and more recently in the literature examining meaning-making. In a study conducted by Golsworthy and Coyle (1999), religious and spiritual beliefs were a key way in which surviving spouses reported making meaning. Participants reported their
religious and spiritual beliefs gave them a starting place to begin the process of meaning-making (1999). For many, comfort in their Religiosity or spiritual beliefs was a predictor of their meaning-making and should be further explored.

Having a child die is a very traumatic experience, probably one of the most painful losses a couple or individual might experience in their lifetime. However, the experience of losing a child could also provide individuals with a frame of reference for how to navigate their loss. This is not to say that all behaviors are effective and healthy when navigating a loss. Some coping behaviors can be very negative. Having multiple losses can be seen as cumulative loss. For example, the CLOC study asked participants at Wave 1 if they had also experienced someone close to them die during the previous 12 months in addition to their spouse (Wortman, 1992). Additional loss can have a large impact on their lives. We might expect those with more cumulative losses to make meaning faster than those who have never had a loss or have had very limited experience with death and dying. Age was a significant predictor of meaning-making. Therefore, it appears that the older a spouse is, the more likely it is that he or she will make meaning of their spousal loss. There were no significant relationships between gender and meaning-making, which may be due to the small number of men in the sample.

The analysis revealed that, the five dimensions of personality were not significant predictors of meaning-making. Likewise, social integration was also not significantly related to predicting meaning-making. Further analyses also implied that neither informal nor formal social integration were significantly related to predicting meaning-making. It did not make a significant difference whether the scores were entered as a total or keeping social integration separate.
The hierarchical multiple regression analysis looking at the three individual meaning-making items showed that age was a significant predictor of searching for meaning over the past month. Neither informal nor formal social integration was not significant in the model. Conscientiousness was significant in the first step, but when social integration was added into the model it was no longer significant. Agreeableness and Emotional Stability did not contribute any significance to the model.

The hierarchical multiple regression analysis looking at if individuals had ever searched for meaning indicated that age was significant in both steps. For this regression, none of the personality characteristics or social integration added significantly to the model.

The last hierarchical multiple regression analysis looked at the individual item asking if the participant had made sense or found meaning was in both steps. Conscientiousness was significant in step two of the regression, but not step one. Agreeableness and Social Integration did not add any significance to the model.

**Limitations and Future Directions**

There were a number of limitations to the sample that may have affected the results. The majority of the sample identified themselves as Caucasian. Future studies should examine meaning-making utilizing a more diverse racial and ethnic sample of participants. This is important because there may be differences between ethnic and racial groups in the process of meaning-making. These differences may be due to religious practices, beliefs, and different amounts and kinds of social support an individual receives. There were also many more women in the sample then men because of the criteria to participate in this study required the male to be at least 65 years old and there were no age restrictions for female participants. The age of the participant was confounded by gender, by the male participants
being significantly older than the female participants. Thus, the significant effect of age on meaning-making may reflect the influence of gender on meaning-making. Future studies should compare men and women of similar age in order to better separate the effects these demographic variables have on meaning-making.

A second of the study was related to the measures of personality in the survey. The internal consistency reliability of the personality measures was low, especially for measures of Extraversion and Openness. This could explain the lack of significant relationship between personality dimensions and meaning-making since the power of the analysis would have been reduced due to unreliability. Future studies should use a more reliable and valid personality scale to gain a better understanding of how Extraversion and Openness may relate to meaning making.

Another limitation of the study involved meaning-making because the measure only consisted of three items which in turn reduced reliability. A better measure of meaning-making with higher reliability should be utilized in future studies. Another limitation concerning meaning-making involved the amount of time that had elapsed following the loss. We cannot be sure how accurate data may be, because the individual may be in the middle of the grieving process. We are unsure of how or if the grieving process influenced an individual’s personality characteristics when looking at meaning-making. The meaning-making process could vary depending on the time that has elapsed since the death of their spouse. We still do not understand the optimal time to measure meaning-making by individuals after a loss occurs.

Another limitation of the data involved the way in which the data was collected. The data were collected in the early 1980’s and some might therefore consider the data to be
outdated. The generalizability of the results may not be reliable and valid for individuals currently experiencing the loss of a spouse. This might be due to changing times, increased technology, or developments in measuring coping behaviors, cognitive processes, and grief.

In addition to measurement, future studies should take into account the large impact technology has had on society. Future studies should look at new technological advances related to social integration such as text messaging, blogging, skyping, or updating other social networks as a way of social integration. While an individual may not be visiting or talking on the phone with friends and family, they may still be communicating via text message to friends and family, skyping, or emailing. None of this technology was available when these data were collected. Future studies should include different social networks, text messaging, facetime/video chatting and/or skyping, emailing, and tweeting as other ways of socializing with others.

While the gap variable was good in theory, it posed problems related to measuring meaning-making. While caregiving was directly examined in this study, some would argue that those who were in the caregiving role had time to make meaning regarding the impending mortality of their spouse while they were caregiving. In contrast, those who were not caregiving and lost their spouse more unexpectedly might have a harder time making meaning.

Lastly, the current study only included heterosexual couples. No same-sex couples were included in this data set. Perhaps by including same-sex couples, researchers might be able to evaluate gender differences between men and women more accurately. Perhaps same-sex couples are qualitatively different than heterosexual couples.
SUMMARY

This study aimed to determine the relationship between age, gender, personality traits, social integration, and meaning-making as a way to improve working with a surviving spouse after the death of their partner. It is important for clinicians and human service providers to gain a better understanding how individuals process and cope with a spousal loss.

Future research should examine the grief process to better understand how spousal loss is affected by age, gender, income, ethnicity, personality, prior losses, Religiosity and/or spirituality, and social integration. Currently the best time to measure the grief process and meaning-making is unknown. This topic should continue to be researched as a way of finding the best methods of working with families experiencing grief and loss issues.
APPENDIX A.

INSTITUTIONAL REVIEW BOARD APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Date: 12/8/2011

To: Lindsey Deets Olsen
    1317 Palmer

CC: Dr. Jennifer Margrett
    4300 Palmer

From: Office for Responsible Research

Project Title: Meaning Making in Older Adulthood

The Co-Chair of the ISU Institutional Review Board (IRB) has reviewed the project noted above and determined that the project:

☐ Does not meet the definition of research according to federal regulations.
☒ Is research that does not involve human subjects according to federal regulations.

Accordingly, this project does not need IRB approval and you may proceed at any time. We do, however, urge you to protect the rights of your participants in the same ways you would if IRB approval were required. For example, best practices include informing participants that involvement in the project is voluntary and maintaining confidentiality as appropriate.

If you modify the project, we recommend communicating with the IRB staff to ensure that the modifications do not change this determination such that IRB approval is required.
**APPENDIX B.**

**GAP VARIABLE**

*Gap Variable: Duration from Baseline to Wave 1 (N = 246)*

<table>
<thead>
<tr>
<th>Range (In months)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-76</td>
<td>37.27</td>
<td>18.20</td>
</tr>
</tbody>
</table>

Note: The Gap Variable represents the amount of time (in months) from baseline interview to Wave 1 interview.
APPENDIX C.

PERSONALITY

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree
6. Don’t know
7. Not applicable

Agreeableness Scale \( \alpha = 0.70 \)

1. It would not bother me to punish a child or a pet.
2. Some people think I’m selfish and egotistical.
3. I tend to be cynical and skeptical of others’ intentions.
4. I believe that most people will take advantage of you if you let them.
5. Some people think of me as cold and calculating.
6. I’m hard-headed and tough-minded in my attitudes.
7. I generally try to be thoughtful and considerate

Conscientiousness Scale \( \alpha = 0.61 \)

1. I keep my belongings neat and clean.
2. I’m pretty good about pacing myself so as to get things done on time.
3. I have a clear set of goals and work toward them in an orderly fashion.
4. I work hard to accomplish my goals.
5. I waste a lot of time before setting down to work.
6. Sometimes I’m not as dependable or reliable as I should be.
7. I never seem to be able to get organized.
8. I strive for excellence in everything I do.

Emotional Stability Scale \( \alpha = 0.65 \)

1. I’m an even-tempered person.
2. I am easily frightened.
3. I tend to blame myself when anything goes wrong.
4. I often worry about things that might go wrong.
5. It takes a lot to get me mad.
6. I am seldom sad or depressed.
7. At times I have been so ashamed I just wanted to hide.
8. I often feel inferior to others.
9. When everything seems to be going wrong, I can still make good decisions.
10. I often feel helpless and want someone else to solve my problems. (Omitted)
11. I can handle myself pretty well in a crisis. (Omitted)
12. When I’m under a great deal of stress sometimes I feel like I’m going to pieces. (Omitted)

Extraversion Measure $\alpha = 0.45$ Note: Extraversion scale was not used

1. I have a very active imagination.
2. I’m an even-tempered person.
3. I am dominant, forceful, and assertive.
4. I don’t get much pleasure from chatting with people.
5. I like to have a lot of people around me.
6. I have strong emotional attachments to my friends.
7. I prefer jobs that let me work alone without being bothered by other people.
8. I am a cheerful, high-spirited person.
9. I am a very active person.

Openness Scale $\alpha = 0.50$ Note: Openness scale was not used

1. I have a very active imagination.
2. I am sometimes completely absorbed in music I am listening to.
3. I rarely experience strong emotions.
4. Poetry has little to no effect on me.
5. I experience a wide range of emotions or feelings.
6. I enjoy solving problems or puzzles.
7. I consider myself broad-minded and tolerant of other people’s lifestyles.
8. I have a wide range of intellectual interests.
APPENDIX D.

RELIGIOUS INVOLVEMENT/SPIRITUALITY

Question: When you have problems or difficulties in your family, work, or personal life, how often do you seek spiritual comfort and support?

1. Almost always
2. Often
3. Sometimes
4. Rarely
5. Never
8. Don’t know
9. Not applicable

Question: When you have decision to make in your everyday life, how often do you ask yourself what God would want you to do?

1. Almost always
2. Often
3. Sometimes
4. Rarely
8. Don’t know
9. Not applicable
APPENDIX E.
INFORMAL SOCIAL SUPPORT

1. More than once a week
2. About once a week
3. 1 to 3 times a month
4. Less than once a month
5. Never
8. Don’t know
9. Not applicable

Question: How often do you get together with friends, neighbors or relatives and do things like go out together or visit in each other’s homes?

Question: How often do you attend meetings or programs of groups, clubs, or organizations that you belong to?

Question: How often do you go out socially by yourself, or with people other than your (husband/wife)?
APPENDIX F.

FORMAL SOCIAL INTEGRATION

1. More than once a week
2. About once a week
3. 1 to 3 times a month
4. Less than once a month
5. Never
6. Don’t know
7. Not applicable

Question: In a typical week, about how many times do you talk on the telephone with friends, neighbors or relatives?

Question: How often do you attend religious services?
APPENDIX G.

MEANING-MAKING

Question: During the past month, have you ever found yourself searching to make sense of find some meaning in your (husband’s/wife’s) death?

1. No, never
2. Yes, but rarely
3. Yes, sometimes
4. Yes, often
8. Don’t know
9. Not applicable

Question: At any time since (his/her) death, have you ever found yourself searching to make sense or find some meaning in (his/her) death?

1. No, never
2. Yes, but rarely
3. Yes, sometimes
4. Yes, often
8. Don’t know
9. Not applicable

Question: Have you made any sense or found any meaning in your (husband’s/wife’s) death?

1. No, not at all
2. Yes, a little
3. Yes, some
4. Yes, a great deal
8. Don’t know
9. Not applicable
REFERENCES CITED


SPSS for Macintosh, Rel. 20.0. 2011. Chicago: SPSS Inc.


