

Religious Orientation and Adjustment to Stressful Life Events: The Mediating Roles of  
Positive and Negative Religious Coping

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Statement of Originality

This is to certify that all work contained in this thesis is my own unless otherwise cited.

This thesis has not been submitted previously in whole or in part towards a degree at this or any other university.

Chi Ting, Low

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### Abstract

The meaning-making model has provided an important perspective on how individuals adjust to and cope with stressful life events. The aim of the current study was to investigate the relationship between intrinsic religious orientation and indicators of psychological adjustment (depression, anxiety, life satisfaction, positive affect and sense of coherence) and whether it is mediated by positive and negative religious meaning-making coping. Eighty-four participants who had experienced stressful life events in the past year completed measures of intrinsic religious orientation, positive and negative meaning making coping, and a broad range of psychological adjustment indicators. Mediation analysis using PROCESS macro found that positive religious meaning-making coping does have mediated effect between intrinsic religious orientation and psychological adjustment when it is conceptualized as life satisfaction. However, negative religious meaning-making coping does not have mediated effect between intrinsic religious orientation and psychological adjustment. Additionally, the findings also showed that negative religious meaning-making coping is related to depression and anxiety, low life satisfaction, positive affect and sense of coherence. The findings of the current study indicate that clinicians and counsellors should consider the importance of an individual's religiousness and its influence on well-being following stressful life events. The limitations and suggestions for future research are discussed.

*Keywords:* meaning-making model, religious orientation, positive and negative religious meaning-making coping, psychological adjustments



### Religious Orientation and Adjustment to Stressful Life Events: The Mediating Roles of Positive and Negative Religious Coping

In 2014, the Stress and Wellbeing in Australia Survey (Casey & Pui-Tak, 2014) reported that approximately 7 in 10 Australians (72%) stated that stress had a significant impact on their physical and mental health. Among the respondents, 13% reported that they had experienced some level of depression and anxiety. Young Australians (i. e. those between 18-25 and 26-35) were reported to have the highest level of stress and distress compared to older Australians (aged 66 and above; Casey & Pui-Tak, 2014). According to the survey, financial issues were the leading cause of stress among Australians, followed by family issues and personal health issues (Casey & Pui-Tak, 2014). In terms of sex, financial issues were the significant source of stress among men (44%) and women (53%). It can be deduced, based on this report, that stressful life events exert influence over individuals' lives.

A meta-analysis of 188 publications conducted by Luhmann, Hofmann, Eid and Lucas (2012) manifests that different life events (i.e. divorce or retirement) have different impact on individuals' well-being (e.g. emotions, moods and life satisfaction). In addition, many studies demonstrate that exposure to stressful life events are associated with symptoms of depression and anxiety (i.e. Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013; Sokratous, Merkouris, Middleton & Karanikola, 2013). Failure to manage stressful life events will decrease individuals' well-being (Suh, Diener & Fujita, 1996). Therefore, a coping method for stressful life events such as the meaning-making model is needed to reduce the adverse effects of stressful life events (Park, 2010).

The meaning-making model (Park, 2010) provides an important perspective on how individuals cope with their stressful life experiences. It is a model that integrates different coping theories used to understand individuals' psychological adjustment to stressful life experiences (Park, 2010; Park & Folkman, 1997). According to the model, there are two

levels of meaning, global meaning and situational meaning (Park, 2010). Global meaning refers to individuals' broad beliefs, goals and sense of meaningfulness that guide their understanding of worldviews, lives, behaviours and thoughts (Park, 2005; Park & Folkman, 1997, Slattery and Park, 2011) while situational meaning refers to meaning in the context of an individual experiencing a potentially stressful situation (Park & Folkman, 1997; Park, 2005; Park, 2010).

Both levels of meaning involve coping with stressful life experiences. The meaning-making model (Park, 2010) states that the discrepancies between individuals' global meaning (i.e. goals and beliefs) and their appraised meaning of events will lead to distress. For example, Park's (2008) study on 108 college students demonstrates that individuals who perceive a loss as a violation to their global beliefs have a higher level of distress. In addition, discrepancies between individuals' global meaning and appraised meaning of their life events are also related to higher levels of symptoms of depression and anxiety, and lower quality of life (i.e., Kuijer & de Ridder, 2003; Nordin, Wasteson, Hoffman, Glimelius, & Sjoden, 2001). Janoff-Bulman and Yopyk (2004) identified this as a paradox of meaning. It occurs when a traumatic event which individuals have experienced causes them to question their reality. They question why the event happened to them. This paradox will initiate the meaning-making process, which helps individuals revise or replace their belief system to adapt a more useful system to restore their violated global meaning as a way of reducing distress (Neimeyer & Milman, 2014, Werdel & Wicks, 2012; Gillies).

Heins (1999) stated that meaning making is an inevitable process. The meaning-making process influences individuals' ability to construct knowledge and understanding of what they know and believe (Heins, 1999; Park, 2010). For example, Park's (2010) reviews illustrate that meaning-making provides positive outcomes such as positive psychological adjustment and better quality of life. Furthermore, MacKenzie and Baumeister (2014) stated

that meaning-making helps individuals to find their purpose, values, efficacy and self-worth. If individuals fail to attribute their meaning, it may lead to long-term distress for the individuals (Davis, Nolen-Hoeksema & Larson, 1998). Many studies demonstrate that meaning-making coping processes are beneficial upon a stressful life event as they improve well-being (Mackay & Bluck, 2010). Research attests that meaning-making coping processes lead to better outcomes on emotional and social well-being such as less depression and greater personal growth and self-esteem (Boehmer, Luszczynska, & Schwarzer, 2007; Farran, Miller, Kaufman, & Davis, 1997; Hayes, Beevers, Feldman, Laurenceau, & Perlman, 2005).

Research shows that meaning-making coping processes are associated with positive outcomes. However, some studies have found that meaning-making coping processes are related to poor adjustment and poor quality of life (e.g., Helgeson & Tomich, 2005). It is possible that negative meaning will be the outcome of the meaning-making process (Park, 2011). Park's (2010) literature reviews show that meaning-making is associated with poor mental health and negative affect. In addition, some studies show that there is no difference between mental health and quality of life when an individual engages in meaning-making to cope with stressful life events (Park, 2010). Park (2010) stated that the main problem is the fact that some studies have poor operational definitions of meaning-making. This is due to different measurements, samples, time frames and statistical techniques used to study meaning-making (Park, 2011). Some investigations have demonstrated that different types of meaning-making and meanings have impacted on individuals' perception of distress (i.e., Manne, Ostroff, Fox, Grana & Winkel, 2009; Moore, Norman, Harris & Makris, 2006). Therefore, a universal meaning-making operational definition is required to reduce the inconsistency of those investigations.

### **Religion as a Meaning-Making Process and Adjustment**

Park and Folkman's (1997) literature reviews assert that religion and spirituality serve as a meaning-making coping process. Religion and spirituality heavily influence an individual's daily life and are strongly linked to a sense of meaning in life (Park, 2005; Slatter & Park, 2011; Stager & Fraizer, 2005). Religion and spirituality help an individual question or accept reality and gain insight and courage to manage stressful life events (Matitis, 2002). Research on 156 bereaved parents shows that religious beliefs and spirituality are the most common coping method for stressful events (Lichtenthal, Currier, Neimeyer & Keesee, 2010). Gillies, Neimeyer and Milman's (2014) study on 30 categories of meaning-making strategies concludes that personal growth, family bond and spirituality are the most common meaning-making strategies used by individuals to cope with stressful or traumatic life events. The same result can be observed in the Stress and Well-being in Australia Survey, where 33% of the respondents claimed that they do something spiritual as a strategy for managing their stress (Casey & Pui-Tak, 2014). Among these respondents, 79% claimed that it is an effective strategy for managing their stress (Casey & Pui-Tak, 2014). In addition, religion and spirituality have been reported to provide individuals with a sense of coherence and meaning which increase their ability to cope with stressful life events (George, Larson, Koenig & McCullough, 2000). Recent studies suggest that religion and spiritual beliefs lead to positive affect and better life satisfaction for caregivers and patients with chronic illness (Pakenham & Cox 2009; Pakenham & Cox, 2008). This indicates that there is a positive relationship between religion and spirituality, and individuals' well-being.

Furthermore, Ai, Cascio, Santangelo, and Evans-Campbell (2005) and Burne et. al.'s (2002) studies indicate that religious meaning is associated with lower levels of depression and anxiety in addition to minimizing post-traumatic stress disorder symptoms. In Ai, Casio, Santangelom and Evans-Campbell's study involving 457 students upon the September 11, 2001 terrorist attack, it was discovered that there was an increase in the respondents' faith,

hope and spirituality. The increase of these qualities has been associated with a lower level of post-traumatic symptoms such as depression and anxiety. In addition, Burne et al's (2002) pilot study on traumatized refugees shows that belief systems such as religion and spirituality have been found to be a protective factor that reduces post-traumatic symptoms. The above-mentioned studies provide valid documented evidence that religiousness and spirituality play a role in managing individuals' traumatic stress. This indicates that religious meaning has an important relationship with individuals' mental health (Pargament, Koenig, & Perez, 2000).

In addition, Park's (2005) study demonstrates that meaning-making coping mediates the relationship between religion and psychological adjustments. Park's study manifests that religion may serve as a meaning-making system that helps individuals to cope with stressful or traumatic life events. However, one of the major limitations in Park's study was the scale used to measure meaning-making coping, which was not sufficient to measure the whole construct of meaning-making in the study. Park used one of the subscales in COPE (Carver, Scheiver & Weintraub, 1989), i.e. the *positive reinterpretation and growth scale*, which consists of only four questions to measure meaning-making coping. The positive reinterpretation and growth scale has low Cronbach's  $\alpha$  reliability ( $\alpha = .68$ ) and test-retest reliability ( $\alpha = .48$ ) according to Carver, Scheier and Weintraub's (1989) study. The scale could result in weak statistical power and an increase in Type II error. Hence, this study capitalized on the recommendation in Park's (2005) study to examine the impact of positive and negative religious meaning-making coping on well-being. The current study involved Brief RCOPE (Pargament, Smith, Koenig & Perez, 1998) to study the religious meaning-making coping. The psychometric properties of the Brief RCOPE are supported by high internal consistency, the confirmatory factor analysis, construct validity and predictive validity (see Pargament, Smith & Preze, 1998; Pargament, Feuille & Burdzy, 2011, for reviews).

By integrating the religion model and the meaning-making model, it can be observed that religion/spirituality and the meaning-making model share one thing in common: i.e. religion and spirituality can influence individuals' goals, beliefs and sense of meaning in life (Park, 2007).

### **Religious Orientation and Adjustment**

Religion and spirituality help individuals shape their belief system. It is important to understand how religion and spirituality can help them to maintain well-being. The Stress and Wellbeing in Australia Survey (Casey & Pui-Tak, 2014) and Gillies, Neimeyer and Milman's (2014) studies show that religion is a common strategy to cope with stress, loss and bereavements. When individuals adopt a religious perspective, it helps them gain a sense of meaningfulness and purpose in life whenever they are in the midst of stressful life events (Compton, 2005). It can be observed that individuals who capitalise on religion and spirituality as a tool of motivation achieve well-being.

Allport and Ross (1967) have conceptualized two types of religious orientation, i.e. intrinsic orientation and extrinsic religious orientation, to measure individuals' religious orientation. Intrinsic religious orientation refers to the use of religion as a means to understand an individual's life (Allport & Ross, 1967; Haber, Jacob & Spangler, 2007). Intrinsic religious orientation also relates to a stronger connection with God. For example, individuals practice their religious beliefs because they believe religion helps them to overcome potentially stressful issues. Extrinsic religious orientation refers to the use of religion for personal gain (Allport & Ross, 1967; Roesch & Ano, 2003). For example, a politician may go to church to gain funding for his campaign.

To measure individuals' religious orientation, the Religious Orientation Scale (Allport & Ross, 1967) was developed. However, one of the major shortcomings of the Religious Orientation Scale (Allport & Ross, 1967) is that it does not measure what it is supposed to

measure. The fundamental problem of the intrinsic and extrinsic religious orientation scale is that the intrinsic scale is poorly defined and it does not measure an individual's religious motivation or religious behaviour, but it measures individuals' religious commitment (Kirkpatrick & Hood, 1990; Donahue, 1985). Donahue's (1985) meta-analysis study on the intrinsic and extrinsic religious orientation scale shows that the intrinsic religious orientation scale is highly correlated to the other valid measurement of religious commitment. This indicates that the intrinsic religious orientation scale should be used with caution, depending on the research question. Although there are limitations in the intrinsic and extrinsic religious orientation scale, many studies suggest that it is a valid and reliable measure to predict individuals' psychological adjustments to stressful and traumatic life events.

Many researches demonstrate that intrinsic religious orientation is more beneficial to individuals' well-being compared to extrinsic religious orientation. A meta-analysis conducted by Donahue (1985) shows that intrinsic religious orientation is negatively correlated to characteristics such as anxiety and prejudice. This result can also be observed in many recent investigations, which demonstrate that intrinsic religious orientation is associated with better psychological adjustment across different cultures (Kuyel Cesur & Ellision, 2012; Lavric & Flere, 2008) and religion groups (Cohen et. al., 2005; Ghorbani & Watson, 2006; Lavric & Flere, 2008).

Furthermore, a critical review of 17 studies suggests that intrinsic religious orientation helps to improve individuals' well-being (Shreve-Neiger & Edelstein, 2004). In addition, intrinsic religious orientation is also related to better adjustment outcomes for individuals. Tabak and Weisman de Mamani's (2014) study on 112 schizophrenia patients have found that intrinsic religious orientation is related to individuals' life satisfaction. Additionally, intrinsic religious orientation has also been found to be related to a sense of meaningfulness, which facilitates well-being (Ardelt & Koenig, 2007). These studies demonstrate that

intrinsic religious orientation is related to how individuals integrate their religious commitment to achieve meaningful experiences.

### **Religious Coping and Adjustment**

Pargament, Smith, Koenig and Perez (1998) have identified two patterns of religious coping (positive and negative religious coping), which potentially have important implications for individuals' well-being. Positive religious coping refers to a sense of connectedness towards God and the belief that life has a greater benevolent meaning; negative religious coping refers to spiritual tension, conflict and struggle with God, spiritual questioning and doubting, and interpersonal religious discontent (Pargament, Smith Koenig & Perez, 1998; Pargament, Feuille & Burdzy, 2011). To measure positive and negative religious coping, a 14-item Brief RCOPE Scale was developed by Pargament, Smith, Koenig and Perez (1998). In their study, it was revealed that positive religious coping is commonly used by respondents to cope with their stressful life experiences.

Many studies have provided evidence that positive religious coping is beneficial to individuals' spiritually, psychologically, socially and physically. Positive religious coping is related to less depressive and post-traumatic stress disorder symptoms while negative religious coping is related to a decrease in psychological functioning and negative outcomes such as poor mental health (Ai, Park, Huang, Rodgers & Tice, 2007; Bjrock & Thurman, 2007; Gerber, Boals & Schuettler, 2011; Pearce, Singer & Prigerson, 2006). This is because positive religious coping provides positive emotions such as connection with God that allow individuals to associate a spiritual connection compared to negative religious coping (Pargament, Smith Koenig & Perez, 1998). Thus, positive religious coping provides better outcomes compared to negative religious coping. Furthermore, a meta-analysis of 49 studies on religious coping demonstrates that positive religious coping is associated with better adjustments (Ano & Vasconcelles, 2005). Although investigations demonstrate that positive



religious coping is beneficial to individuals' well-being, religious coping does not always bring positive outcomes to individuals.

Ano and Vasconcelles's (2005) meta-analysis on 49 studies shows that negative religious coping is associated with poor psychological adjustments. Furthermore, many investigations demonstrate that negative religious coping is related to negative outcomes and a decrease in well-being such as poor mental health, poor quality of life, a high level of chronic illness symptoms and depressive symptoms (Hebert, Zdaniuk, Schulz & Scheier, 2009; Pearce, Singer & Prigerson, 2006; Trevino et. al., 2010). This is because individuals who use negative religious coping for their stressful life events have insecure relationship with God and struggle to use religion to cope with stressful or traumatic life experiences (Pargament, Smith, Koenig & Perez, 1998).

When individuals encounter stressful life events, religion and spirituality offer a coping method that helps them appraise the context of the situation and manage stressful situations (Pargament, 2011). Religious coping helps individuals perceive that they work with God to solve their life problems. Compton (2005) maintains that religious coping is a way to help individuals to suppress their negative emotions. For example, when individuals encounter family issues, they will experience depression symptoms and question their religion and spiritual beliefs. When individuals have found their answers through their religion and spiritual beliefs, they will feel less depressed. This demonstrates that religious meaning-making coping helps individuals adapt traumatic experiences and associated them with something greater (Steger et. al., 2010). On the other hand, many studies demonstrate that religious coping mediates the relationship between religion variables (i.e. praying and church attendance) and positive outcomes (i.e. less depression and stress; Nooney & Woodrum, 2002; Roesch & Ano, 2003). The investigations and studies show that religious coping indirectly lead to better psychological well-being (Pargament, Koenig, Tarakeshwar, & Hahn, 2004;

Tix & Frazier, 1998). These findings strengthen the hypothesis suggested by Krause and Van Tran (1989) that the relationship between religion and better psychological adjustment are mediated by something such as religious coping.

### **The Present Study**

The aim of this study was to examine the relationship between intrinsic religious orientation and psychological adjustment and whether this relationship mediated by positive and negative religious meaning-making coping and controlled by individuals' religious and spiritual interest. The study endeavoured to examine positive and negative religious meaning-making coping as recommended in Park's (2005) study. To examine the mediation relationship, the researcher had to establish the relationships between the predictor (intrinsic religious orientation), the mediator (positive and negative religious meaning-making coping) and the outcomes (depression, anxiety, life satisfaction, positive affect and sense of coherence). The previous literature and investigations have demonstrated the relationship between these variables (e.g. Park, 2005). Hence, the study hypothesized that religious meaning-making coping mediated individuals' religion orientation and psychological adjustment. The specific hypotheses were as follows:

*H1.* Religious orientation (intrinsic religious orientation) would be related to the impact of life events and understanding of life events. To be specific, higher scores on intrinsic religious orientation will related to lower scores on the impact of life events and higher scores on the understanding of life events.

*H2.* There would be a positive relationship between religious orientation and adjustment, i.e. higher scores on the intrinsic religious orientation would related to better adjustment indicated by lower scores on depression and anxiety and higher scores on life satisfaction, positive affect and sense of coherence.

*H3.* Religious orientation would be related to religious meaning-making coping (positive and negative religious coping). Specifically, higher scores on religious orientation would relate to higher the scores on positive religious coping and lower scores on negative religious coping.

*H4.* Religious meaning-making coping would be related to psychological adjustment. To be specific, positive religious meaning-making coping would be related to better psychological adjustment (lower scores on depression and anxiety, higher scores on life satisfaction, positive affect and sense of coherence) which negative religious meaning-making coping would be related to poorer psychological adjustment (higher scores on depression and anxiety, lower scores on life satisfaction, positive affect and sense of coherence).

*H5.* The relationship between religious orientation and adjustment will be significantly mediated by religious meaning-making coping, i.e. religious orientation would not directly predict adjustment (depression, anxiety, positive affect, meaningfulness of life and life satisfaction) while controlling for religious meaning-making coping and that positive religious coping will mediate most of the effect compared to negative religious coping.

## **Method**

### **Participants**

There were 116 respondents involved in this study. Forty-five university student respondents were recruited through the SONA participation system. Seventy-one respondents were recruited through social media sites (e.g. Facebook) and chain sampling (friends of friends). After excluding the respondents with extensive missing values due to human or computational errors, 84 valid respondents were used for this investigation.

The age range of the respondents was between 18 to 74 years old ( $M = 35.39$ ,  $S.D. = 18.30$ ), and 11 respondents did not disclose their age. There were 19 males (22.6%) and 64

females (76.2 %) and one respondent (1.2%) who did not provide information about his/her sex. In terms of their relationship status, 34 respondents (40.5%) were single, 23 respondents (27.4%) were married, 15 respondents (17.9%) were in a relationship and the rest were either divorced separated or widowed (14.3%).

In terms of their education status, 36.9% of the respondents reported that they had completed an undergraduate degree or an associate's degree; 26.2% of the respondents had completed college but had no degree; 16.7% of the respondents had completed secondary education; 10.7% of the respondents had completed a postgraduate degree or a Ph.D.; 3.6% of the respondents had completed a graduate or professional degree, and 6% of the respondents had completed other education, i.e. they had obtained a diploma degree or had attended high school in another country.

The majority of the respondents were full-time students (42.9%). The other respondents were part-time students (9.5%); 10.7% of the respondents were either employers or self-employed (10.7%); 8.3% of the respondents were full-time employees; 11.9% of the respondents were part-time/casual employees; 2.4 % of the respondents were receiving their carer payment; 4.8% of them were unemployed; 7.1% of them were retired; one respondent had ceased work on medical grounds while one respondent was a full-time student undertaking casual work (1.2%). With regard to household income, 44 respondents (52.4%) reported an annual income within the range of less than \$20,000 to 100,000, 24 respondents (28.6%) had an annual household income within the range of 100,001 to more than 220,001, 16 respondents (19%) did not provide information about their household income.

Concerning religious and spiritual interest, 47 respondents (56%) considered themselves to be religious or had spiritual interest and 37 respondents (44%) did not consider themselves to be religious or did not have any spiritual interest. In terms of nationality, the majority of the respondents were from Australia (63.1%), and the others were from the

United States of America (20.2%), Malaysia (4.8%), Britain (2.4%), Germany (2.4%), Russia (2.4%), Romania (1.2%), Singapore (1.2%), and South Africa (2.4%). With regards of the ethnicity, the respondents were predominantly Caucasian (60.7%) and the rest was Asian or mixed ethnicity (20.2%). The rest of the was no recorded (19.1%).

By using categories of stress suggested by Park, Cohen and Murch (1996) and the weight of stress provided by Holmes and Rahe (1967), the participants in the study had enlisted their stressful life events as follows: family-related events (e.g. communication problems with their parents) (15.5%), moving away/starting college (e.g. moving into a new house/university) (14.4%), illness/accidents (e.g. personal health problems) (11.9%), problems in a romantic relationship (e.g. a break-up) (9.5%), work-related stress (e.g. workplace bullying) (9.5%), academic performance problems (e.g. difficulty of maintaining good grades) (8.3%), illness/accidents experienced by others (e.g. a sick friend) (8.3%), the death of significant others (e.g. the death of a loved one) (8.3%), relationship problems with a friend (e.g. a friend had stopped talking to him/her) (1.2%), other events that were too infrequent for separate categorization (1.2%) and the other participants chose not to report the negative events (11.9%).

## **Materials**

**Demographic information.** The demographic questionnaire included questions on the stressful life events which the respondents had experienced, their age, sex, relationship status, education level, employment status, household income, religious interest, nationality, ethnicity and health status as presented in Appendix A .

**The impact of life events.** The Impact of Event Scale-Revised (IES-R) is a self-report measure of respondents' distress over the past few days (Weiss & Marmar, 1997). It is a 22-item scale measured on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). There are three subscales which reflect intrusion (e.g. "*I had trouble sleeping.*"), avoidance

(e.g. “*I stayed away from the reminders of it.*”), and hyper-arousal (e.g., “*I felt irritable and angry.*”). The total scores of each subscale are summed up by the mean of the items and the total score of the IES-R is the sum of the mean scores of the three subscales.

Research reveals that the reliability (internal consistency) of intrusion, avoidance and hyperarousal are above the acceptable level of 0.70 (Nunnally & Bernstein, 1994) with Cronbach’s  $\alpha$  of .89, .84 and .82 respectively (Weiss & Marmar, 1997; Creamer, Bell & Failla, 2003). The test-retest reliability across a 6-month period ranges from .89 to .94 (Weiss & Marmar, 1997). In addition, similar internal consistency and test and re-test reliability have been reported across different language versions of IES-R (Weiss & Marmar, 1997). Furthermore, the reliability of intrusion, avoidance and hyperarousal in the current study measured with Cronbach’s  $\alpha$  shares the same result as the result of the previous research. The Cronbach  $\alpha$  of intrusion, avoidance and hyperarousal in the current study are .89, .86 and .87 respectively. The IES-R, compared to other valid measures on the impact of traumatic stress, demonstrates good convergent and discriminant validity (Creamer, Bell & Failla, 2003).

**Religious orientation.** Revised Intrinsic/Extrinsic Religious Orientation Scale (I/E-R) is a self-report measure of an individual’s religious attitude and behaviours (Gorsuch & McPherson, 1989). It contains 14-items (three reversedly keyed items) and is measured on a 5-point Likert-type scale (1= *strongly disagree*, 5 = *strongly agree*). There are two subscales in the I/E-R; eight questions measure intrinsic religious orientation and six questions measure extrinsic religious orientation (three on extrinsic social and the other three on extrinsic personal). Individuals’ scores on the scale are summed up and divided into two categories, intrinsic and extrinsic religiousness. For this study, only the intrinsic religious orientation subscale was used for the investigation. I/E-R has demonstrated good psychometric properties. The reliability of intrinsic religious orientation has a Cronbach’s  $\alpha$  = .83 (Gorsuch & McPherson, 1989; Titiopoulos, Bikker, Coxon & Hawkin, 2007). The Cronbach’s  $\alpha$  in the

current study is .86, which is slightly higher compared to the value of the previous result. Besides that, the result of the factor analysis shows that I/E-R has high levels of construct validity compared to other measures of religious orientation (Titipoulos, Bikker, Coxon & Hawkin, 2007).

**Religious meaning-making coping.** Currently, there is no specific measurement scale to measure religious meaning-making coping. The Brief RCOPE is an alternative scale that is used to measuring religious meaning-making coping. The Brief RCOPE is a short version of Religion COPE, which measures two domains of religion coping, positive and negative religious coping (Pargament, Feuille & Burdzy, 2011). It is a self-report measure of religious coping with stressful or traumatic life events. The Brief RCOPE consists of a 14-item measure on a 4-point Likert-scale (1 = *not at all*; 4 = *a great deal*). The total score of the positive and negative religious coping subscales is the sum of the item scores in each subscale.

Confirmatory factor analysis identified two factors in The Brief RCOPE: positive religious coping measures the spiritual relationship between the individual and the world (e.g. “I tried to put my plans into action together with God.”) while negative religious coping measures the spiritual struggle between individuals and the world (e.g., “I questioned God’s love for me.” (Pargament, Smith, Koenig & Perez, 1998). The Brief RCOPE has demonstrated good internal consistency across various samples such as clinical and non-clinical patients, culturally diverse groups, various age groups and others (see Pargament, Feuille & Burdzy, 2011 for reviews). The median Cronbach’s  $\alpha$  for positive religious coping and negative religious coping across these samples were .92 and .81 (Pargament, Feuille & Burdzy, 2011). In the current study, the Cronbach’s  $\alpha$  is .93 for positive religious coping and 0.86 for negative religious coping, which are above the acceptable level of .70 according to the Nunnally and Bernstein (1994) guideline for reliability testing. Besides that, Brief

RCOPE also demonstrates good concurrent and predictive validity compared to other valid measures of spiritual well-being (Pargament, Feuille & Burdzy, 2011).

**Understanding of life events.** The Integration of Stressful Life Experience Scales (ISLES) is a self-report measure of meaning made of stress in a stressful or traumatic situation (Holland, Currier, Coleman & Neimeyer, 2010). It is a 16-item scale measured on a 5-point scale (1 = *strongly agree*; 5 = *strongly disagree*). The ISLES contains two factors. The first factor includes comprehensibility, which assesses individuals' adaptability and understanding of stressful life events (e.g., "I have made sense of this event"). The second factor includes footing in the world, which assesses individuals' perspective on the extent to which the stressful life event does or does not make sense to the individuals (e.g., "Since this event, the world has seemed like a confusing and scary place"). The ISLES has good internal reliability with the Cronbach's  $\alpha$  range from .80 to .92. However, the test-retest reliability of ISLES is below the acceptable level of .70; it has Cronbach's  $\alpha$  range from .48 to .59 from various testing (Holland, Currier, Coleman & Neimeyer, 2010). The Cronbach's  $\alpha$  for ISLES in the current study is .94, which is similar to the value in the previous testing, suggesting that the scale is a valid measurement scale. Additionally, ISLES also demonstrates good convergent validity with different measurements of posttraumatic stress and psychiatric distress (Holland, Currier, Coleman & Neimeyer, 2010).

**Depression and anxiety.** The Depression and Anxiety subscales of the Depression, Anxiety and Stress Scales short version (DASS21) were used in the current study. It is a self-report measure of the experience of depression, anxiety and stress over the past week (Lovibond & Lovibond, 1995). It is a short form of measurement scale adapted from Lovibond and Lovibond's (1995) 42-item of depression, anxiety and stress scale. The scale is measured on a 4-point Likert-type scale between 0 ("*Did not apply to me at all*") to 3 ("*Applied to me very much, or most of the time*"). The DASS21 contains 21 items and three



subscales (depression, anxiety and stress). Each subscale contains seven items. Both subscales yield a high level of internal consistency with Cronbach's  $\alpha = .94$  for the depression subscale and Cronbach's  $\alpha = .87$  for the anxiety subscale (Antony, Bieling, Cox, Enns & Swinson, 1998). The Cronbach's  $\alpha$  for the depression and anxiety subscales in the current study are .91 and .84 respectively, which are closer to the values in the previous testing. Furthermore, the study also demonstrates a high level of convergent and divergent validity when compared to other measurements of depression and anxiety (Antony, Bieling, Cox, Enns & Swinson, 1998; Henry & Crawford, 2005).

**Life satisfaction.** The Satisfaction with Life Scale (SWL) is a five-item scale used to measure individuals' perspective on their life satisfaction (Diener, Emmons, Larsen & Griffin, 1985). It is measured on a 7-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*). Many investigations have shown that the satisfaction with life scale does not discriminate against age and sex, which makes it suitable across a general population (e.g. Pavot, Diener, Colvin & Snadvik, 1991). SWL has demonstrated strong reliability with Cronbach's  $\alpha = .87$  and strong test-retest reliability with Cronbach's  $\alpha = .82$  (Diener, 1985). The Cronbach's  $\alpha$  in the current study is slightly higher than that of the previous study with Cronbach's  $\alpha = .91$ , suggesting that the scale is a valid measurement of life satisfaction. In addition, SWL also shows strong construct validity. Review of the scale suggests that the items in the SWL sensitively detect individuals' life satisfaction under different circumstances (Pavot & Diener, 1993)

**Positive affect.** The Affect Balance Scale (ABS) is a self-report measure of satisfaction at the point of time (Bradburn, 1969; Schiaffino, 2003). There are two components in the scale, i.e. positive and negative affect, and five items in each component. For the purpose of this study, only positive affect components were used for investigation. ABS is measured with "yes" and "no". A score of 1 is allocated for a "yes" response; the

higher the scores, the higher the positive affect (Schiaffino, 2003). The ABS demonstrates strong internal consistency reliability on the positive affect with Cronbach's  $\alpha$  range between .55 and .73 (Schiaffino, 2003). The Cronbach's  $\alpha$  for the current study is .71, which is similar to that of the previous study. Besides that, the test-retest reliability over a 3-day period has Cronbach's  $\alpha$  of .83 (Bradburn, 1969). Furthermore, the strong convergent and discriminant validity indicate that it is a valid means of measuring satisfaction of well-being (McDowell & Praught, 1982).

**Sense of coherence.** The Sense of Coherence Scale (SOC) is a self-report measure of generalized views of the world (Antonovsky, 1993). It is a 29-item scale which measures three constructs: comprehensibility, manageability, and meaningfulness (Antonovsky, 1993). Each statement is measured with a 7-point Likert scale where the interpretation of the scale is different on each statement. Due to the nature of the present study, only one construct (meaningfulness), which contains eight items, was used for the current study. Studies show that the SOC is strong in reliability and validity and can be applied to a general population or clinical patients (Flensburg-Madsen, Ventegodt & Merrick, 2005; Pallant & Lae, 2002; Eriksson & Lindstrom, 2005). The internal consistency reliability measured with Cronbach's  $\alpha$  ranges from .70 to .95 in various studies (Eriksson & Lindstrom, 2005). The Cronbach's  $\alpha$  in the current study is .85, which is a moderate level compared to that of the previous finding. The test-retest reliability measured with Cronbach's  $\alpha$  ranges from .92 (one week) to .77 (six months; Eriksson & Lindstrom, 2005). However, a review of SOC indicates that the SOC has moderate validity (see Eriksson & Lindstrom, 2005 for review).

### **Design and Procedure**

The current study was correlational, cross-sectional study. Prior to conducting the study, the ethics approval for the study was granted by the university ethics committee, i.e. Bond University Human Research Ethic Committee as presented in Appendix A. The current

study was an online study, which was completed through PsychData. Prior to the study, the respondents were required to read the provided explanatory statement. The explanatory statement provided the details on confidentiality and the aims of the study and stated that the respondents could withdraw from the study without any penalty against them. The survey contained a questionnaire, which included demographic questions (as stated above). The estimated time to complete the survey was 30 to 40 minutes. The respondents were required to complete all the items in the survey. However, the respondents were given the option of not responding to the items if the questions were not applicable to them.

The respondents were recruited through various methods such as the SONA participation pools, chain sampling (friends of friends), through family members and social media network sites (e.g. Facebook). In addition, the psychology students from Bond University were recruited for the study. The students took part in the survey as a requirement of their studies. Credit points were given to the students who signed up for the survey through the participation pools. The respondents were required to complete the survey using their own devices at their convenience. The location and time for completing the survey were unknown.

## **Results**

### **Data Diagnosis and Assumption Checking**

All the analyses were conducted using IBM SPSS Statistic Software 22. Prior to the main analyses, data diagnostics were performed to identify the missing values of different variables. All the missing values in the data were identified and they were fewer than 5% as suggested by Tabachnick and Fidell (2013). However, the Impact of Life Events Scale-Revised has 6% of the missing values, but this did not have any major influence on the study. The missing values were imputed using expectation maximization, which is an effective technique often used to manage missing data since it has the advantage of overcoming some

of the limitations and errors found in other techniques such as mean substitution (Schafer & Olsen, 1998).

To check the assumptions of the mediated multiple regression, a series of data analyses were conducted. The sample size of the current study had a minimum power requirement of .80, suggesting that it was sufficient to for significant test and less likely to make a Type II error (Cohen, 1992). In addition, the outliers, normality, linearity, homoscedasticity and independence of residual tested using the Malalanobis distance, a histogram, a box and whisker plot, a normal P-P plot and a scatter plot suggests that there is no violation of the assumption. The findings suggested that there were no outliers in the study and it will not affect the precision of estimation on the regression model (Tabachnick & Fidell, 2013). In other word, this will not increase the Type I and Type II errors.

However, Table 1 shows that the skewness on negative RCOPE, depression anxiety and positive affect suggests that the data may not be normally distributed. In addition, the standard deviation of depression and anxiety exceeds the mean scores, suggesting that the data are spread from the mean. Since the study investigated normal populations, the low scores in negative RCOPE, depression and anxiety and the high scores in positive affect were expected. In addition, the data transformation will not change the skewness of these variables. The alpha level for the current investigation was set at .05.

Table 1

*Summary of the descriptive statistics of each variable, N=84*

	Mean	S.D.	Minimum	Maximum	Skewness	Kurtosis
Impact of life events	2.81	2.32	0	12.09	1.13	1.87
Intrinsic religious orientation	14.15	6.53	6	30	0.63	-0.42
Positive RCOPE	13.10	6.16	7	28	1.09	-0.01
Negative RCOPE	8.76	3.32	7	21	2.21	4.35
Understanding of life events	59	14.84	19	80	-0.50	-0.30
Depression	7.90	9.03	0	42	1.53	2.33
Anxiety	5.67	6.84	0	36	2.05	5.29
Life satisfaction	23	7.69	5	35	-0.65	-0.32
Positive affect	3.86	1.35	0	5	-1.05	0.27
Sense of coherence	41.63	9.26	20	56	-0.35	-0.92

*Note.* Positive RCOPE = Positive religious meaning-making coping; Negative RCOPE = Negative religious meaning making coping.

On the other hand, the assumption of the multicollinearity and singularity was tested and satisfied, as presented in Table 2 showing that the correlation of the variables is below .70 for multicollinearity and below .90 for singularity. However, the correlation between the intrinsic religious orientation and positive religious coping is  $r = .79, p < 0.01$ . The correlation was expected since the previous literature and investigation suggested that both variables have a similar construct.

Table 2

*Summary of Pearson Correlation on the Variables, N = 84*

	1	2	3	4	5	6	7	8	9	10	11
1. Religious interest	1										
2. Impact of life events	.03	1									
3. Intrinsic religious orientation	.61**	.09	1								
4. Positive RCOPE	.50**	.09	.79**	1							
5. Negative RCOPE	.23*	.25*	.16	.36**	1						
6. Understanding of life events	.01	-.55**	-.07	-.02	-.20	1					
7. Depression	.00	.50**	-.04	-.07	.23*	-.58**	1				
8. Anxiety	-.10	.49**	-.07	-.05	.26*	-.42**	.64**	1			
9. Life Satisfaction	-.03	-.37**	-.01	.07	-.23*	.42**	-.44**	-.13	1		
10. Positive Affect	.07	-.30**	.03	.04	-.07	.44**	-.56**	-.19	.62**	1	
11. Sense of coherence	-.03	-.33**	-.14	-.04	-.23*	.55**	-.67**	-.37**	.54**	.66**	1

*Note.* \*\* $p < .001$ , \* $p < .05$

## Main Analyses

**The correlational analysis.** To test the hypothesis that individuals' intrinsic religious orientation is related to the impact of their life events and understanding of the events, a bivariate Pearson correlation was conducted. As shown in Table 2, individuals' intrinsic religious orientation has no relationship with the impact of their life events and understanding of their life events as the findings reveal no significant relationship between these three variables. This suggests that individual religious orientation does not influence the impact of life events and understanding of life events. Furthermore, to test the relationship between intrinsic religious orientation and indicators of psychological adjustment (depression, anxiety, life satisfaction, positive affect and a sense of coherence), the correlations show that there is no significant relationship between individual religious orientation and any psychological adjustment outcome. However, there is a significant correlation between intrinsic religious orientation and positive religious meaning-making coping, but there is no significant correlation between individuals' religious orientation and negative religious meaning-making coping. In addition, the correlation shows that there is no significant correlation relationship between positive religious meaning-making coping and psychological adjustment. However, there is a significant correlation relationship between negative religious meaning-making coping and psychological adjustment (depression, anxiety, life satisfaction and sense of coherence) as presented in Table 2.

## The Mediation Analysis

To test the hypothesis that positive and negative religious meaning-making coping will mediate the relationship between intrinsic religious orientation and psychological adjustment (depression, anxiety, life satisfaction, positive affect and a sense of coherence), regression analyses were conducted using the PROCESS macro (Hayes, 2013). As presented in Appendix B, intrinsic religious orientation was entered as the independent variable (X),

psychological adjustment was entered as the outcome/dependent variable (Y), positive and negative religious meaning-making coping was entered as the mediator ( $M_1$  and  $M_2$ ) and religious and spiritual interest was entered as the covariate. The partial mediation model is presented in Figure 1. A bias-corrected bootstrapping approach was applied with 5000 samples to test the indirect effect of the mediation analysis. In addition, the current investigation used an unstandardized score for the dependent variable and the mediator variable, making the approach different to the traditional approach. As suggested by Hayes (2013), unstandardized scores will not influence the outcome of the study and can be compared across different studies (see Gelfan, Mensinger & Tenhave, 2009 for reviews). The summarized mediation outcomes are presented in Table 3, Table 4, Table 5, Table 6, and Table 7.

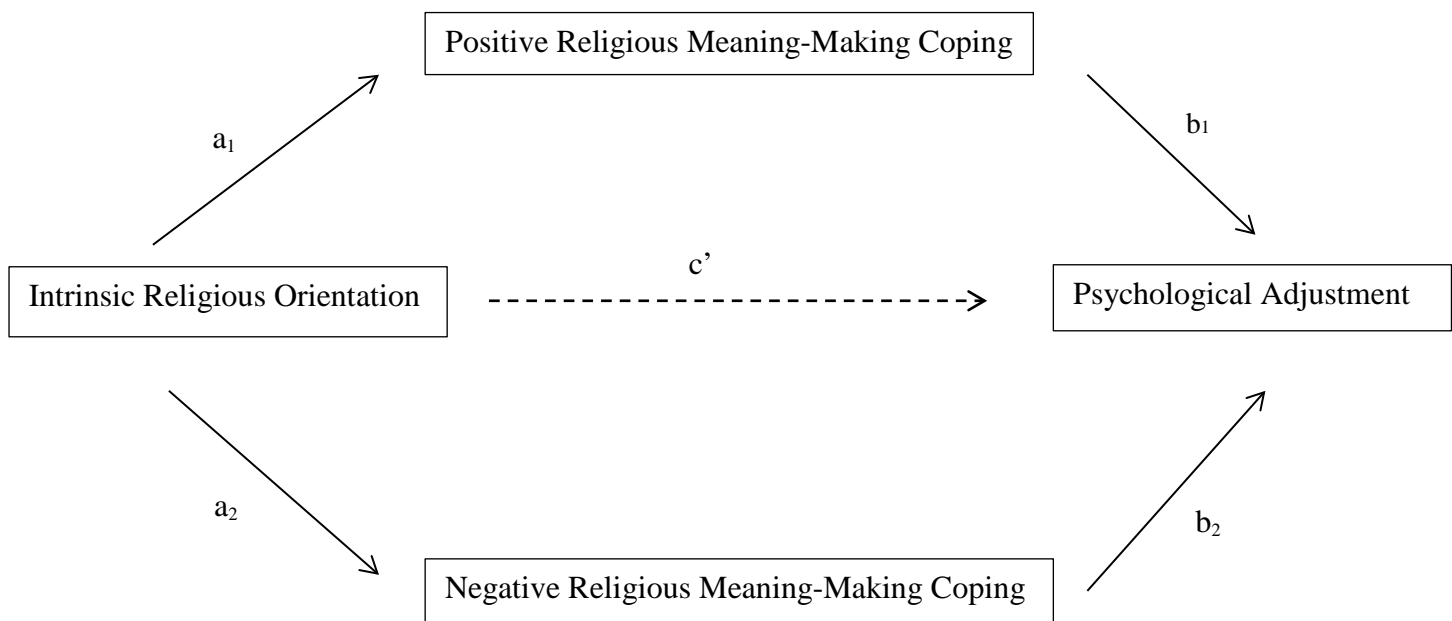


Figure 1. A single-step multiple mediator model with two mediators



**Depression.** A mediation analysis was conducted to test the hypothesis that positive and negative religious meaning-making coping mediate the relationship between intrinsic religious orientation and depression. As seen in Table 4, there is a significant relationship between intrinsic religious orientation and positive religious meaning-making coping ( $b = 0.73, p < .001$ ), but there is no significant relationship between positive religious meaning-making coping and depression ( $b = -0.43, p = .126$ ). On the other hand, intrinsic religious orientation does not have any significant relationship with negative religious meaning-making coping ( $b = 0.02, p = .821$ ), but negative religious meaning-making coping has a significant relationship with depression ( $b = 0.85, p = .011$ ) as presented in Table 4. A bias-corrected bootstrap confidence interval for the indirect effect of the positive religious meaning-making coping ( $b = -.32, SE = 0.18, 95\% \text{ CI} = -.674, .024$ ) and negative religious meaning making coping ( $b = .01, SE = 0.81, 95\% \text{ CI} = -.166, .151$ ) based on 5000 bootstrap sample is below zero, suggesting that there is no mediation effect.

Table 3

*Regression Coefficients, Standard Errors, and the Summary Information on the Positive and Negative Religious Meaning-Making Coping Mediation of the Relationship between Intrinsic Religious Orientation and Depression, N = 84*

		Consequences										
		Positive RCOPE			Negative RCOPE			Depression				
Antecedent		Coeff.	SE	<i>p</i>		Coeff	SE	<i>p</i>		Coeff.	SE	<i>p</i>
Intrinsic Religious Orientation	<i>a</i> <sub>1</sub>	.73	.08	<.001	<i>a</i> <sub>2</sub>	.01	.07	.821	<i>c'</i>	.23	.27	.405
Positive RCOPE									<i>b</i> <sub>1</sub>	-.43	.28	.126
Negative RCOPE									<i>b</i> <sub>2</sub>	.85	.33	.011
Constant	<i>i</i> <sub>m1</sub>	2.73	1.17	.022	<i>i</i> <sub>m2</sub>	8.45	1.01	<.001	<i>i</i> <sub>y</sub>	2.91	3.76	.441
		<i>R</i> <sup>2</sup> =.63				<i>R</i> <sup>2</sup> =.06				<i>R</i> <sup>2</sup> =.08		
		<i>F</i> (2,81) = 69.03, <i>p</i> < .001				<i>F</i> (2,81) = 2.37, <i>p</i> = .099				<i>F</i> (4,79) = 1.83, <i>p</i> = .132		

*Note.* Postive RCOPE = Positive Religious Meaning-Making Coping; Negative RCOPE = Negative Religious Meaning-Making Coping; Coeff. = Unstandardized Coefficient; SE = Standard Error; i = Intercept.

**Anxiety.** A mediation analysis was conducted to test the hypothesis that positive and negative religious meaning-making coping mediate the relationship between intrinsic religious orientation and anxiety. As seen in Table 5, there is a significant relationship between intrinsic religious orientation and positive religious meaning-making coping ( $b = 0.73, p < .001$ ), but there is no significant relationship between positive religious meaning-making coping and anxiety ( $b = -0.19, p = .357$ ). On the other hand, intrinsic religious orientation does not have any significant relationship with negative religious meaning-making coping ( $b = 0.02, p = .821$ ), but negative religious meaning-making coping has a significant relationship with depression ( $b = 0.69, p = .006$ ) as presented in Table 5. A bias-corrected bootstrap confidence interval for the indirect effect of the positive religious meaning-making coping ( $b = -0.14, SE = 0.14, 95\% CI = -.435, .139$ ) and negative religious meaning making coping ( $b = -0.01, SE = 0.06, 95\% CI = -.118, .130$ ) based on a 5000-bootstrap sample is below zero, suggesting that there is no mediation effect.

Table 4

*Regression Coefficients, Standard Errors, and Model Summary Information on the Positive and Negative Religious Meaning-Making Coping Mediate the Relationship between Intrinsic Religious Orientation and Anxiety, N = 84*

		Consequent										
		Positive RCOPE			Negative RCOPE			Anxiety				
Antecedent		Coeff.	SE	p		Coeff	SE	p		Coeff.	SE	p
Intrinsic Religious Orientation	$a_1$	.73	.08	<.001	$a_2$	.01	.07	.821	$c'$	.11	.21	.593
Positive RCOPE									$b_1$	-.19	.21	.357
Negative RCOPE									$b_2$	.69	.24	.006
Constant	$i_{m1}$	2.73	1.17	.022	$i_{m2}$	8.45	1.01	<.001	$i_y$	.68	.281	.807
		$R^2 = .63$				$R^2 = .06$				$R^2 = .10$		
		$F(2,81) = 69.03, p < .001$				$F(2,81) = 2.37, p = .099$				$F(4,79) = 2.26, p = .071$		

*Note.* Postive RCOPE = Positive Religious Meaning-Making Coping; Negative RCOPE = Negative Religious Meaning-Making Coping; Coeff. = Unstandardized Coefficient; SE = Standard Error; i = Intercept.

**Life Satisfaction.** A mediation analysis was conducted to test the hypothesis that positive and negative religious meaning-making coping mediate the relationship between intrinsic religious orientation and life satisfaction. As seen Table 6, there is a significant relationship between intrinsic religious orientation and positive religious meaning-making coping ( $b = 0.73, p < .001$ ). Furthermore, a significant relationship exists between positive religious meaning-making coping and life satisfaction ( $b = 0.55, p = .023$ ) as presented in Table 6. On the other hand, intrinsic religious orientation does not have any significant relationship with negative religious meaning-making coping ( $b = 0.02, p = .821$ ), but negative religious meaning-making coping has a significant relationship with life satisfaction ( $b = -0.79, p = .005$ ). A bias-corrected bootstrap confidence interval for the indirect effect of the positive religious meaning-making coping ( $b = 0.39, SE = 0.18, 95\% CI = .049, .759$ ) based on a 5000-bootstrap sample is above zero, suggesting that there is no mediation effect. At the same time, a bias-corrected bootstrap confidence interval for the indirect effect of the negative religious meaning making coping ( $b = -0.01, SE = 0.07, 95\% CI = -.121, .156$ ) based on a 5000-bootstrap sample is below zero, suggesting that there is no mediation effect

Table 5

*Regression Coefficients, Standard Errors, and the Summary Information on the Positive and Negative Religious Meaning-Making Coping Mediation of the Relationship between Intrinsic Religious Orientation and Life Satisfaction, N = 84*

Antecedent		Consequences										
		Positive RCOPE			Negative RCOPE			Life Satisfaction				
		Coeff.	SE	<i>p</i>	Coeff	SE	<i>p</i>	Coeff.	SE	<i>p</i>		
Intrinsic Religious Orientation	<i>a</i> <sub>1</sub>	.73	.08	<.001	<i>a</i> <sub>2</sub>	.01	.07	.821	<i>c</i> '	-.37	.23	.110
Positive RCOPE									<i>b</i> <sub>1</sub>	.55	.23	.022
Negative RCOPE									<i>b</i> <sub>2</sub>	-.79	.27	.005
Constant	<i>i</i> <sub><i>m</i>1</sub>	2.73	1.17	.022	<i>i</i> <sub><i>m</i>2</sub>	8.45	1.01	<.001	<i>i</i> <sub><i>Y</i></sub>	28.08	3.14	<.001
		<i>R</i> <sup>2</sup> =.63				<i>R</i> <sup>2</sup> =.06				<i>R</i> <sup>2</sup> =.11		
		<i>F</i> (2,81) = 69.03, <i>p</i> < .001				<i>F</i> (2,81) = 2.37, <i>p</i> = .099				<i>F</i> (4,79) = 2.59, <i>p</i> = .043		

*Note.* Postive RCOPE = Positive Religious Meaning-Making Coping; Negative RCOPE = Negative Religious Meaning-Making Coping; Coeff. = Unstandardized Coefficient; SE = Standard Error; i = Intercept.

**Positive Affect.** A mediation analysis was conducted to test the hypothesis that positive and negative religious meaning-making coping mediate the relationship between intrinsic religious orientation and positive affect. As seen in Table 7, there is a significant relationship between intrinsic religious orientation and positive religious meaning-making coping ( $b = 0.73, p < .001$ ), but there is no significant relationship between positive religious meaning making coping and positive affect ( $b = 0.03, p = .512$ ). On the other hand, intrinsic religious orientation does not have any significant relationship with negative religious meaning-making coping ( $b = 0.02, p = .821$ ) and there is no significant relationship between negative religious meaning-making coping and positive affect ( $b = -0.05, p = .347$ ) as presented in Table 7. A bias-corrected bootstrap confidence interval for the indirect effect of the positive religious meaning-making coping ( $b = 0.02, SE = 0.03, 95\% CI = -.046, .083$ ) and negative religious meaning making coping ( $b = -0.001, SE = 0.06, 95\% CI = -.019, .006$ ) based on a 5000- bootstrap sample is below zero, suggesting that there is no mediation effect.

Table 6

*Regression Coefficients, Standard Errors, and the Summary Information on the Positive and Negative Religious Meaning-Making Coping Mediation of the Relationship between Intrinsic Religious Orientation and Positive Affect, N = 84*

Antecedent		Consequences										
		Positive RCOPE			Negative RCOPE			Positive Affect				
		Coeff.	SE	<i>p</i>	Coeff	SE	<i>p</i>	Coeff.	SE	<i>p</i>		
Intrinsic Religious Orientation	<i>a<sub>1</sub></i>	.73	.08	<.001	<i>a<sub>2</sub></i>	.01	.07	.821	<i>c'</i>	-.03	.04	.562
Positive RCOPE									<i>b<sub>1</sub></i>	.03	.04	.512
Negative RCOPE									<i>b<sub>2</sub></i>	-.05	.05	.347
Constant	<i>i<sub>m1</sub></i>	2.73	1.17	.022	<i>i<sub>m2</sub></i>	8.45	1.01	<.001	<i>i<sub>Y</sub></i>	4.23	.58	<.001
		<i>R</i> <sup>2</sup> =.63				<i>R</i> <sup>2</sup> =.06				<i>R</i> <sup>2</sup> =.02		
		<i>F</i> (2,81) = 69.03, <i>p</i> < .001				<i>F</i> (2,81) = 2.37, <i>p</i> = .099				<i>F</i> (4,79) = 1.89, <i>p</i> = .847		

*Note.* Postive RCOPE = Positive Religious Meaning-Making Coping; Negative RCOPE = Negative Religious Meaning-Making Coping; Coeff. = Unstandardized Coefficient; SE = Standard Error; i = Intercept.



**Sense of Coherence.** A mediation analysis was conducted to test the hypothesis that positive and negative religious meaning-making coping mediate the relationship between intrinsic religious orientation and a sense of coherence. As seen in Table 8, there is a significant relationship between intrinsic religious orientation and positive religious meaning-making coping ( $b = 0.73, p < .001$ ), but there is no significant relationship between positive religious meaning making coping and positive affect ( $b = 0.55, p = .056$ ). On the other hand, intrinsic religious orientation does not have any significant relationship with negative religious meaning-making coping ( $b = 0.02, p = .821$ ), but there is a significant relationship between negative religious meaning-making and a sense of coherence ( $b = -0.87, p = .009$ ). A bias-corrected bootstrap confidence interval for the indirect effect of the positive religious meaning-making coping ( $b = 0.40, SE = 0.20, 95\% CI = -.013, 0.804$ ) and negative religious meaning making coping ( $b = -0.01, SE = 0.08, 95\% CI = -.156, .160$ ) based on a 5000-bootstrap sample is below zero, suggesting there is no mediation effect.

Table 7

*Regression Coefficients, Standard Errors, and the Summary Information on the Positive and Negative Religious Meaning-Making Coping Mediation of the Relationship between Intrinsic Religious Orientation and Sense of Coherence, N = 84*

		Consequences										
		Positive RCOPE			Negative RCOPE			Sense of Coherence				
Antecedent		Coeff.	SE	<i>p</i>		Coeff	SE	<i>p</i>		Coeff.	SE	<i>p</i>
Intrinsic Religious Orientation	<i>a</i> <sub>1</sub>	.73	.08	<.001	<i>a</i> <sub>2</sub>	.01	.07	.821	<i>c</i> '	-.65	.28	.021
Positive RCOPE									<i>b</i> <sub>1</sub>	.55	.28	.055
Negative RCOPE									<i>b</i> <sub>2</sub>	-.87	.328	.009
Constant	<i>i</i> <sub><i>m</i>1</sub>	2.73	1.17	.022	<i>i</i> <sub><i>m</i>2</sub>	8.45	1.01	<.001	<i>i</i> <sub>Y</sub>	51.21	3.79	<.001
		<i>R</i> <sup>2</sup> =.63				<i>R</i> <sup>2</sup> =.06				<i>R</i> <sup>2</sup> =.11		
		<i>F</i> (2,81) = 69.03, <i>p</i> < .001				<i>F</i> (2,81) = 2.37, <i>p</i> = .099				<i>F</i> (4,79) = 2.55, <i>p</i> = .046		

*Note.* Postive RCOPE = Positive Religious Meaning-Making Coping; Negative RCOPE = Negative Religious Meaning-Making Coping; Coeff. = Unstandardized Coefficient; SE = Standard Error; i = Intercept.

### Discussion

The aim of the current investigation is to examine the relationship between religious orientation and psychological adjustment (depression, anxiety, life satisfaction, positive affect and sense of coherence) when it is mediated by positive and negative religious meaning-making coping and covariate by individuals' religious and spiritual interest. The findings of the current study showed that the hypothesis was not supported.

The current study hypothesized that intrinsic religious orientation would be related to the impact of life events and the understanding of life events. However, the findings revealed that intrinsic religious orientation does not relate to either the impact of life events or the understanding of life events. This finding demonstrated that the hypothesis is not supported. In addition, the current study also hypothesized that there would be a positive relationship between intrinsic religious orientation and psychological adjustment (low depression and anxiety; better life satisfaction, positive affect and sense of coherence). The findings showed that there was no positive correlation between intrinsic religious orientation and psychological adjustment. This finding was inconsistent with previous literature and investigations which suggested that intrinsic religious orientation was related to better psychological well-being (e.g. Shreve-Neiger & Edelstein, 2004). Furthermore, it was hypothesized that intrinsic religious orientation would be related to positive and negative religious meaning-making coping, but the hypothesis was not supported for negative religious meaning-making coping. The findings demonstrated that intrinsic religious orientation only related to positive religious meaning-making coping. This suggested that individuals who reported higher in intrinsic religious orientation were more likely to using positive religious meaning-making coping.

In addition, the study hypothesized that positive and negative religious meaning-making coping would be related to psychological adjustment. However, the findings revealed

that positive religious meaning-making coping does not correlate with better psychological adjustment (low depression and anxiety and higher scores in life satisfaction, positive affect and sense of coherence). This finding was inconsistent with previous studies and investigation (i.e., Gerber, Boals & Schuettler, 2011) which suggested that positive religious meaning-making coping is beneficial to individuals' well-being. On the other hand, the findings demonstrate that there is significant correlation between negative religious meaning-making coping and psychological adjustment. This finding suggested that negative religious coping is related to negative outcome (high depression and anxiety, low life satisfaction, positive affect and sense of coherence). This finding was consistent with previous studies and investigations (i.e., Hebert, Zdaniuk, Schulz & Scheier, 2009) which suggested that negative religious meaning-making coping is related to negative well-being.

In addition, the current study also hypothesized that the relationship between intrinsic religious orientation and psychological adjustment would be mediated by the positive and negative religious meaning-making coping. This was not supported. The finding suggested that the mediation effect was only found for life satisfaction. This finding was inconsistent with Park's (2005) study. Park's study suggested that meaning-making coping mediated the relationship between religion and well-being. However, the findings in the current study suggested that an indirect effect was only found in the life satisfaction. As presented in Table 6 shows that positive religious meaning-making coping has an indirect effect on intrinsic religious orientation and life satisfaction. The effect accounted for 11% for life satisfaction. Although the effect was small, this suggested that positive religious meaning-making coping does contribute to better adjustment for intrinsic religious orientation and life satisfaction. However, it should be aware that the concept of the life satisfaction measured in the current study was a broad construct. There life satisfaction questionnaires used in the current study was only contained 5 questions. It was not specific enough to measure individuals'

perspective of life satisfaction. Therefore, the outcome of the current study should be interpreted with caution.

Although the findings were inconsistent with Park's (2005) study, but it had demonstrated that the meaning-making does lead to better psychological adjustment. The findings showed that positive religious meaning-making coping mediated the relationship between intrinsic religious orientation and life satisfaction. This suggested that meaning-making coping lead to well-being. As suggested in Park's (2010) meaning-making coping model suggested quality of the meaning-making coping helps individuals cope with their traumatic and stressful life events. Many researches have demonstrated that positive meaning-making attempted by individuals subsequently lead to better adjustment compared to the negative meaning-making coping which lead to poorer psychological outcome such as depression and anxiety (see Park, 2010 for review).

The inconsistencies of the findings in the current study can be explained. The current study revealed that intrinsic religious orientation is not related to either the impact of the life events, understanding of life events or psychological adjustment. This was inconsistent with the previous investigations. The majority of the sample used in the current study was Australian. The Australian Social Trends Report (Australian Bureau of Statistics, 2013) showed that 98% of the population reported that they have no religion. The report provided additional information showing that the majority of them are Atheists or Agnostics. The intention of the current study was to investigate individuals' religious orientation and religious coping that lead to better psychological adjustment. However, the result shows that religious orientation and religious coping do not lead to better psychological adjustment. This suggests that religion is not the main protective factor that leads to individuals' well-being. To solve this problem, the future study needed to target a population of religious

communities, to investigate the influence of religious orientation and religious coping on psychological adjustment.

Furthermore, the criticism of the intrinsic religious orientation scale by Kirkpatrick and Hood (1990) and Donahue (1985) suggested that the scale does not measure what it intended to measure. They suggested that the items of the scale are poorly constructed. This may threaten the validity of the study (Reynolds & Livingston, 2012). The poorly constructed items may cause the result in measurement not measuring the construct it is supposed to measure. In the current study, 56% of the respondents reported they have religious or spiritual interest. Although the Australia Bureau of Statistics report showed that the Australian population hold no religion, they may have religious or spiritual interested. This suggests that the population does have religious belief or spiritual faith, but that the traditional approach is not applicable to investigate the current religious and spiritual interests held by the current population groups. Therefore, an alternative measure for religiousness such as the multidimensional measure of religiousness/spirituality is recommended (Traphagan, 2005). The multidimensional measure of religiousness/spirituality is a measure of religiousness which covering a broader construct of measuring individuals' religiousness. This allowed the study has better generalisability and practicability.

Additionally, the findings of the current study were inconsistent with Park's (2005) study. The current study uses a different meaning-making measurement to measure the meaning-making coping process. The Brief COPE and Brief RCOPE used in Park's study and the current study were not designed to measure the meaning-making coping process. The interpretation from these measurements may have contributed to the different outcome of the study. The findings revealed that negative religious meaning-making coping does not mediate the relationship between intrinsic religious orientation and psychological adjustment. However, the findings showed that positive religious meaning-making coping mediated the

relationship between intrinsic religious orientation and psychological adjustment (life satisfaction and sense of coherence). Although the effect size of the mediation is small, and it only accounted for small variation, it suggested that positive religious meaning-making does lead to better psychological adjustment.

Although, an indirect effect was found for adjustment when conceptualized as life satisfaction, the effect accounted for only 11% of the total variation. This suggested 89% of the variance was accounted for by other factors. Gillies, Neimeyer and Milman's (2014) study suggested that personal growth and family bond are the highest coping strategy reported as a coping method for stressful life events. This suggests that religious coping may not be the main protective factors for individuals' well-being. Perhaps, investigations on personal growth and social support should be considered in future study.

There are several limitations in the current study. The current study focused on the general healthy population instead of population groups which have suffered major stressful or traumatic life events. Additionally, the study also focused on the population which has low religious and spiritual interest. This may have influenced the outcome of the study. General healthy population may hold different perspective of the stressful or traumatic life events compare to population groups who have suffered stressful or traumatic life events. To improve the limitations, the future study should focus on specific population group such as patient with depression or suffered post-traumatic stress disorder. Additionally, to study how individuals' religiousness influences the meaning-making coping and psychological adjustment, the study should also focus on religion community. This allowed researcher to examine the effect of religion.

Furthermore, the major limitation was there is no universal scale to measure meaning-making coping or religious meaning-making coping. As mentioned earlier, alternative scales such as Brief COPE and Brief RCOPE does not measure individuals' meaning-making

coping processes. The design of the scale was not intended to measure meaning-making coping. This may pose a threat to the internal validity of the current study. Additionally, there is no empirical study to support the operational definition of the meaning-making model (Park, 2010 for reviews). Park's (2010) reviews showed that there is inconsistency of operation definition and measurement in meaning-making model which demonstrated different findings and investigations. Additionally, the design of the current study was cross-sectional design, which the data only collected one point at the time. Hoyle & Robison (2003) suggested that to the mediation a longitudinal study is recommended to test the effect of variables over time. Further study should focus on these problems such as using a better meaning-making scale, a clear operational definition on meaning-making and conducting a longitudinal study.

Additionally, the current study design was a self-report measurement. This may increase the chance of social desirability such as faking good or faking bad. This social desirability will threaten the validity and generalisability of the current study (Reynolds & Livingston, 2010). Besides that, using undergraduate psychology students for the investigation, who may have knowledge in this area, could potentially influence the outcome of the current investigation. Furthermore, the current study does not utilise counterbalancing on the survey. By utilizing counterbalancing, it will reduce the inadvertent cues which provide additional information about the current study. Future research should take on these issues into consideration.

Although limitations are found, the current study has provided a small contribution to the empirical findings for the meaning-making model. The findings of the current study demonstrated that religious meaning-making coping does mediate the relationship between intrinsic religious orientation and psychological adjustment when conceptualized as life satisfaction. This suggests that religious coping does benefit individuals' well-being. Thus,



clinicians or counsellors should be aware of the importance of the religious meaning-making coping which is beneficial to individuals' well-being. By including other factors such as social support, it will increase the effectiveness of positive religious meaning-making coping to manage with stressful or traumatic life events. In addition, clinicians and counsellors should be aware of the role of negative religious meaning-making coping, that is harmful for individuals' well-being such as increasing depression and anxiety (Ano & Vasconcelles, 2005). Furthermore, by increasing their understanding of the meaning-making coping process on patients, clinicians and counsellors can adjust their strategies and provide better care to individuals who have difficulties to coping with stressful or traumatic life events.

In conclusion, although the findings of the current study were inconsistent with the hypotheses, they have potentially contributed to the understanding of individuals' meaning-making on stressful or traumatic life events. Despite the knowledge gaps in the current findings that required further understanding, Park's (2010) meaning-making model has demonstrated a well establishing model which proposed the relationship between meaning-making coping and stressful or traumatic life experience.

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## Appendix A

# Social Cultural Aspects of Meaning Making



## Explanatory Statement (RO15280)

### **Project: The social and cultural aspects of meaning making following a stressful life event**

Dear Sir/Madam,

You are invited to participate in the **Social and Cultural Aspects of Meaning Making Following a Stressful Life Event** project, which is being conducted by Ibolya Monai and Chi Ting Low (Postgraduate Diploma of Psychology candidates) under the supervision of Dr. Christina Samios from the Department of Psychology at Bond University.

This project aims to examine the social and cultural factors at play when we try to find meaning following a stressful life event. In order to do this, we need to obtain perspectives from many people who have experienced a stressful life event in the past 12 months.

As part of this study, we will invite you to complete a questionnaire about your experiences and your feelings. This will only take 30-40 minutes of your time. Although there are no immediate benefits from your participation, the data collected will be used to inform meaning focused interventions for people experiencing challenging life events.

Participation in this study is voluntary and you may withdraw at any time without penalty. In addition, you do not have to answer any questions that make you feel uncomfortable.. Any publication(s) based on this project will not be written in such a way as to make you identifiable. Please be assured that you and your data will remain anonymous. Data will be stored in a secured location at Bond University for a period of five years in accordance with the guidelines set out by the Bond University Human Research Ethics Committee. After this period it will be securely destroyed.

Some questions may evoke strong feelings. If you experience any distressing emotions following the completion of the questionnaire, Lifeline (13 11 14) can provide services to assist you.

If you have any further questions about this project please contact the researchers by phone or email. If you wish to receive a summary of the study findings please do not hesitate to contact the research team.

Should you have any complaints concerning the manner in which this research is being conducted please contact the Bond University Human Research Ethics Committee.

**c/o Bond University Office of Research Services, Bond University, Gold Coast, 4229**

**Tel: +61 7 5595 4194 Fax: +61 7 5595 1120 Email: [buhrec@bond.edu.au](mailto:buhrec@bond.edu.au)**

We thank you for taking the time to assist us with this research.

Yours sincerely,

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**Thank you!**

Thank you for your interest in this study. We appreciate the time you take to complete this survey.

**Completing the Questionnaire:**

- Some questions will require you to type your answer, while others will simply require you to select an option.
- Please answer every question – some questions may not seem relevant to you, but answer them as best you can.

**What is a life stressor?**

- A life stressor or stressful life event can be any situation that causes distress to a you.
- Life stressors can include events that are personal, professional, work or study related, intimate or social relationships and lifestyle.

Please select the one that applies to you regarding the most stressful life event for you in the past year.

\*1)

Was the life stressor:

- a personal event (the event actually happened to you) [Value=1]

- an external event (an event that you were not directly involved in) [Value=2]

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**Part A: This part of the questionnaire enquires about a stressful life event you experienced in the past 12 months**

2)

Please describe the stressful event that you experienced in the past 12 months:  
(include how many months ago the event occurred)

(1000 characters remaining)

**Please answer the following questions about that stressful event.**

		Not at all	Low	Slightly	Neutral	Moderately	Very	Completely
3)	How stressful was this event at the time of occurrence?	●	●	●	●	●	●	●
4)	How stressful is this event to you currently?	●	●	●	●	●	●	●
5)	Did you experience personal growth as a result of this event?	●	●	●	●	●	●	●
6)	Did you have control over the event occurring?	●	●	●	●	●	●	●
7)	How resolved is the event?	●	●	●	●	●	●	●



**Part B: Please answer the question below**

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS** with respect to (your problem), how much were you distressed or bothered by these difficulties? This assessment is not intended to be a diagnosis.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
8) Any reminder brought back feelings about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) I had trouble staying asleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Other things kept making me think about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11) I felt irritable and angry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12) I avoided letting myself get upset when I thought about it or was reminded of it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13) I thought about it when I didn't mean to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14) I felt as if it hadn't happened or wasn't real.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15) I stayed away from reminders about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16) Pictures about it popped into my mind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17) I was jumpy and easily startled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18) I tried not to think about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19) I was aware that I still had a lot of feelings about it, but I didn't deal with them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20) My feelings about it were kind of numb.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21) I found myself acting or feeling as though I was back at that time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22) I had trouble falling asleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23) I had waves of strong feelings about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24) I tried to remove it from my memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25) I had trouble concentrating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26) Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27) I had dreams about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28) I felt watchful or on-guard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29) I tried not to talk about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following items with regard to that stressful life event.

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
30)	Since this event, the world seems like a confusing and scary place.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31)	I have made sense of this event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32)	If or when I talk about this event, I believe people see me differently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33)	I have difficulty integrating this event into my understanding about the world.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34)	Since this event, I feel like I'm in a crisis of faith.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35)	This event is incomprehensible to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36)	My previous goals and hopes for the future don't make sense anymore since this event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37)	I am perplexed by what happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38)	Since this event happened, I don't know where to go next in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39)	I would have an easier time talking about my life if I left this event out.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40)	My beliefs and values are less clear since this event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41)	I don't understand myself anymore since this event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42)	Since this event, I have a harder time feeling like I'm part of something larger than myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43)	This event has made me feel less purposeful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44)	I haven't been able to put the pieces of my life back together since this event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45)	After this event, life seems more random.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following questions ask about the styles of coping you use in dealing with that stressful life event. Please rate each coping statement as it applies to you.

		I don't do this at all	I do this rarely	I do this sometimes	I do this a lot
46)	I concentrate my efforts on doing something about the situation I'm in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47)	I take action to try to make the situation better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48)	I try to come up with a strategy about what to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49)	I think hard about what steps to take	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50)	I try to see it in a different light, to make it seem more positive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51)	I look for something good in what is happening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52)	I accept the reality of the fact that it has happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

53)	I learn to live with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54)	I make jokes about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55)	I make fun of the situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56)	I try to find comfort in my religion or spiritual beliefs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
57)	I pray or meditate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58)	I get emotional support from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59)	I get comfort and understanding from someone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
60)	I try to get advice or help from other people about what to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
61)	I get help and advice from other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
62)	I turn to work or other activities to take my mind off things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
63)	I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping or shopping.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
64)	I say to myself "this isn't real"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
65)	I refuse to believe that it has happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
66)	I say things to let my unpleasant feelings escape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
67)	I express my negative feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
68)	I use alcohol or other drugs to make myself feel better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
69)	I use alcohol or other drugs to help me get through it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
70)	I give up trying to deal with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
71)	I give up the attempt to cope	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
72)	I criticise myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
73)	I blame myself for things that happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Here is a series of questions relating to various aspects of our lives. Each question has seven possible answers. Please mark the number which best expresses your feeling. Please give only one answer to each question.**

74) Do you have the feeling that you don't really care about what goes on around you?

**Very seldom or  
never**

**Very often**

☐ ☐ ☐ ☐ ☐ ☐ ☐

75) Life is

76) Until now your life has had:

Full of interest      Completely routine

77) Most of the things you do in the future will probably be

No clear goals or purpose at all      Very clear goals and purpose

78) When you think about your life, you very often:

Completely Fascinating      Completely boring

79) Doing the things you do every day is:

A deep source of pleasure and satisfaction      A source of pain and boredom

80) You anticipate that your personal life in the future will be:

Totally without meaning or purpose      Full of meaning and purpose

81) How often do you have the feeling that there's little meaning in the things you do in your daily life?

Very often      Very seldom or never

Below are five statements with which you may agree or disagree. Select the option which best reflects how you feel now:

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
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82)	In most ways my life is close to ideal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
83)	The conditions of my life are excellent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
84)	I am satisfied with my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
85)	So far I have gotten the important things I want in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
86)	If I could live my life over, I would change almost nothing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please indicate whether you have felt the following in the past few weeks including today.**

	Yes	No
87) Particularly excited or interested in something	<input type="radio"/>	<input type="radio"/>
88) Proud because someone had complimented you on something you had done	<input type="radio"/>	<input type="radio"/>
89) Pleased about having accomplished something	<input type="radio"/>	<input type="radio"/>
90) On top of the world	<input type="radio"/>	<input type="radio"/>
91) That things were going your way	<input type="radio"/>	<input type="radio"/>

**Please read each statement and select an option how much you feel the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.**

	Did not apply to me at all	Applied to me to some degree, or some of the time	Applied to me a considerable degree, or a good part of the time	Applied to me very much, or most of the time
92) I found it hard to wind down.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
93) I was aware of dryness of my mouth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
94) I couldn't seem to experience any positive feeling at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
95) I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness) in the absence of physical exertion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
96) I found it difficult to work up the initiative to do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
97) I tended to over-react to situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
98) I experienced trembling (e.g. in the hands).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
99) I felt that I was using a lot of nervous energy,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

100)	I was worried about situations in which I might panic and make a fool of myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
101)	I felt that I had nothing to look forward to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
102)	I found myself getting agitated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
103)	I found it difficult to relax.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
104)	I felt down-hearted and blue.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
105)	I was intolerant of anything that kept me from getting on with what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
106)	I felt I was close to panic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
107)	I was unable to become enthusiastic about anything.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
108)	I felt I wasn't worth much as a person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
109)	I felt that I was rather touchy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
110)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
111)	I felt scared without any good reason.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
112)	I felt that life was meaningless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Below are the statements with which you may agree or disagree. Choose an option which best reflects how you feel about each statement:**

	I strongly disagree	I tend to disagree	I'm not sure	I tend to agree	I strongly agree
113) I enjoy reading about my religion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
114) I go to church because it helps me to make friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
115) It doesn't much matter what I believe so long as I am good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
116) It is important to me to spend time in private thought and prayer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
117) I have often had a strong sense of God's presence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
118) I pray mainly to gain relief and protection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
119) I try hard to live all my life according to my religious beliefs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
120) What religion offers me most is comfort in times of trouble and sorrow.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
121) Prayer is for peace and happiness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
122) Although I am religious, I don't let it affect my daily life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
123) I go to church mostly to spend time with my friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
124) My whole approach to life is based on my religion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

125)	I go to church mainly because I enjoy seeing people I know there.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
126)	Although I believe in my religion, many other things are more important in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Choose the answer that best describes how often you do the following things when you have a stressful problem.**

	Not at all	Somewhat	Quite a bit	A great deal
127) Looked for a stronger connection with God.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
128) Sought God's love and care.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
129) Sought help from God in letting go of my anger.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
130) Tried to put my plans into action to strengthen me in this situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
131) Tried to see how God might be trying to strengthen me in this situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
132) Asked forgiveness for my sins.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
133) Focused on religion to stop worrying about my problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
134) Wondered whether God had abandoned me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
135) Felt punished by God for my lack of devotion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
136) Wondered what I did for God to punish me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
137) Questioned God's love for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
138) Wondered whether my church had abandoned me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
139) Decided the devil made this happen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
140) Questioned the power of God.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Part C: Please answer the following question.**

141)

What is your age?

142) What is your sex?

- ☐ Male
- ☐ Female
- ☐ Other

143)

If you select 'other', please specify

**144)** What is your relationship status?

- ☐ Single (never married)
- ☐ Single living with significant other
- ☐ In a relationship
- ☐ Married
- ☐ Separated
- ☐ Widowed
- ☐ Divorced
- ☐ Other
- ☐ Not applicable

**145)**

If you select 'other', please specify

**146)**

How long have you been in this status?

**147)** What is the highest level of education you have completed?

- ☐ Primary
- ☐ Secondary year 10
- ☐ Secondary year 12
- ☐ Some college, no degree
- ☐ Undergraduate degree/ Associate's degree
- ☐ Postgraduate degree/ Ph.D.
- ☐ Graduated or professional degree
- ☐ Trade school/ TAFE
- ☐ Other
- ☐ Not Applicable

**148)**

If you select 'other', please specify



**149)** What is your current employment situation?

- ☐ Employer/ Self-employed
- ☐ Employed full time
- ☐ Employed part-time/casual
- ☐ Student: Part-time
- ☐ Student: Full-time
- ☐ Carer payment
- ☐ Unemployed
- ☐ Retired
- ☐ Other
- ☐ Not applicable

**150)**

If you select 'other', please specify

**151)** What is your household income?

- ☐ Less than 20, 000
- ☐ 20,001 – 40, 000
- ☐ 40,001 – 60,000
- ☐ 60,001 – 80,000
- ☐ 80,001 – 100,000
- ☐ 100,001 – 120,000
- ☐ 120,001 – 140,000
- ☐ 140,001 – 160,000
- ☐ 160,001 – 180,000
- ☐ 180,001 – 200,000
- ☐ 200,001 – 220,000
- ☐ More than 220,001
- ☐ Not applicable

**152)** Do you consider yourself to be religious or have spiritual interests?

- ☐ Yes
- ☐ No

**153)**

What is your nationality?

**154)** What is your ethnicity (ethnic background, heritage, family descent – select all applicable)?

- ☐ African Mid to Southern
- ☐ African Northern and Middle Eastern (e.g., Egyptian, Iranian)
- ☐ Asian Asian (e.g., Indian)
- ☐ Asian Northern (e.g., Chinese, Mongolian)
- ☐ Asian South East (e.g., Malaysian, Vietnam)
- ☐ Australian Aboriginal
- ☐ Caucasian
- ☐ Caucasian Eastern European
- ☐ Caucasian North to Northwest European (e.g., English, Scottish, Dutch, Scandinavian)
- ☐ Caucasian Southern European (e.g., Spanish, Greek)
- ☐ Mixed
- ☐ Torres Strait Islander
- ☐ Pacific Islander (e.g., Fijian, Samoan)
- ☐ Other
- ☐ Not applicable

**155)**

If you select 'other', please specify

**156)** In general, how would you rate your health during the past week?

- ☐ Extremely Poor
- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

## Social Cultural Aspects of Meaning Making

### Thank you!

For maximum confidentiality, please close this window.



**BOND  
UNIVERSITY**  
BRINGING AMBITION TO LIFE

**HUMAN RESEARCH  
ETHICS COMMITTEE**

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11 August 2015

Christina Samios, Chi Ting Low and Ibolya Monai  
Faculty of Society and Design  
Bond University

Dear Christina

**Application ID: 15280**  
**Project Title: The Social and Cultural Context of Searching for and Finding  
Meaning following a Life Stressor**

I am pleased to confirm that your project was reviewed by Bond University Human Research Ethics Committee and you have been granted approval to proceed.

The Committee requires, as a condition of approval, that all investigations be carried out in accordance with the National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research* (2007). Approval is subject to conduct of the research in accordance with the requirements set out in the National Statement.

Approval is given subject to the protocol of the study being undertaken as described in your application, and approved amendments. As you may be aware the Ethics Committee is required to annually report on the progress of research it has approved. We would greatly appreciate if you could respond promptly and fully to the request for information on this project which will be distributed in March/April each year.

Under the terms of the National statement BUHREC has a role to monitor approved research projects and if necessary may withdraw approval. Conduct of unapproved research or deviation from the approved protocol may constitute academic misconduct and will be investigated in accordance with Section B of the *Australian Code for the Responsible Conduct of Research* (2007). Please refer to the Research Ethics website for more detail on Research Integrity and Bond University processes for dealing with instances of research misconduct.

You are reminded that the Principal Investigator must immediately report anything that might warrant review of ethical approval of the project. Should you have any queries or experience any problems, please contact us promptly.

We wish you well with your research project.

Yours sincerely

**Dr Mark Bahr**  
**Chair Bond University Human Research Ethics Committee**

## Appendix B

## Descriptive Statistic

**What is your sex?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	22.6	22.6	22.6
	Female	64	76.2	76.2	98.8
	Other	1	1.2	1.2	100.0
	Total	84	100.0	100.0	

**What is your relationship status?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single (never married)	34	40.5	40.5	40.5
	Married	23	27.4	27.4	67.9
	Separated	4	4.8	4.8	72.6
	Widowed	1	1.2	1.2	73.8
	Divorced	7	8.3	8.3	82.1
	In a relationship	15	17.9	17.9	100.0
	Total	84	100.0	100.0	

**What is the highest level of education you have completed?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary year 10	1	1.2	1.2	1.2
	Secondary year 12	10	11.9	11.9	13.1
	Undergraduate degree/ Associate's degree	31	36.9	36.9	50.0
	Postgraduate degree/ Ph.D.	9	10.7	10.7	60.7
	Trade school/ TAFE	3	3.6	3.6	64.3
	Other	5	6.0	6.0	70.2
	Some college, no degree	22	26.2	26.2	96.4
	Graduated or professional degree	3	3.6	3.6	100.0
	Total	84	100.0	100.0	

**What is your current employment situation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employer/ Self-employed	9	10.7	10.7	10.7
	Employed full time	7	8.3	8.3	19.0
	Employed part-time/casual	10	11.9	11.9	31.0
	Carer payment	2	2.4	2.4	33.3
	Unemployed	4	4.8	4.8	38.1
	Retired	6	7.1	7.1	45.2
	Other	1	1.2	1.2	46.4
	Not applicable	1	1.2	1.2	47.6
	Student: Part-time	8	9.5	9.5	57.1
	Student: Full-time	36	42.9	42.9	100.0
	Total	84	100.0	100.0	

#### What is your household income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20, 000	17	20.2	20.2	20.2
	20,001 - 40, 000	13	15.5	15.5	35.7
	40,001 - 60,000	6	7.1	7.1	42.9
	60,001 - 80,000	2	2.4	2.4	45.2
	80,001 - 100,000	6	7.1	7.1	52.4
	100,001 - 120,000	3	3.6	3.6	56.0
	120,001 - 140,000	5	6.0	6.0	61.9
	140,001 - 160,000	4	4.8	4.8	66.7
	160,001 - 180,000	2	2.4	2.4	69.0
	180,001 - 200,000	3	3.6	3.6	72.6
	200,001 - 220,000	2	2.4	2.4	75.0
	More than 220,001	5	6.0	6.0	81.0
	Not applicable	16	19.0	19.0	100.0
	Total	84	100.0	100.0	

#### Do you consider yourself to be religious or have spiritual interests?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	56.0	56.0	56.0
	No	37	44.0	44.0	100.0
	Total	84	100.0	100.0	

What is your nationality?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	american	1	1.2	1.2	1.2
	American	11	13.1	13.1	14.3
	Aus	1	1.2	1.2	15.5
	aussie	1	1.2	1.2	16.7
	Australia	1	1.2	1.2	17.9
	australian	3	3.6	3.6	21.4
	Australian	45	53.6	53.6	75.0
	Australian/British	1	1.2	1.2	76.2
	australism	1	1.2	1.2	77.4
	English	2	2.4	2.4	79.8
	German	2	2.4	2.4	82.1
	Malaysia	1	1.2	1.2	83.3
	malaysian	2	2.4	2.4	85.7
	Malaysian	1	1.2	1.2	86.9
	Romanien	1	1.2	1.2	88.1
	Russian	2	2.4	2.4	90.5
	Singaporean	1	1.2	1.2	91.7
	South African	2	2.4	2.4	94.0
	United States	1	1.2	1.2	95.2
	United States of American	1	1.2	1.2	96.4
usa	1	1.2	1.2	97.6	
USA	2	2.4	2.4	100.0	
Total		84	100.0	100.0	

**ETHNICITY1 - What is your ethnicity (ethnic background, heritage, family descent - select all applicable)?: African Mid to Southern**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	3.6	4.1	4.1
	Asian eg Indian	4	4.8	5.5	9.6
	Asian Northern eg Chinese, Mongolian	1	1.2	1.4	11.0
	Asian South East eg Malaysian, Vietnam	2	2.4	2.7	13.7

	Caucasian	29	34.5	39.7	53.4
	Caucasian Eastern	3	3.6	4.1	57.5
	European				
	Caucasian North to North	14	16.7	19.2	76.7
	West European eg English				
	Caucasian Southern	5	6.0	6.8	83.6
	European eg Spanish, Greek				
	Mixed	10	11.9	13.7	97.3
	Not applicable	1	1.2	1.4	98.6
	16	1	1.2	1.4	100.0
	Total	73	86.9	100.0	
Missing	System	11	13.1		
Total		84	100.0		

## Correlation

[illegible]

	N	84	84	84	84	84	84	84	84	84	84	84
NEGATIVE	Pearson	.234 <sup>*</sup>	.254 <sup>*</sup>	.162	.356 <sup>**</sup>	1	-.201	.227 <sup>*</sup>	.256 <sup>*</sup>	-	-	-
	Correlation									.234 <sup>*</sup>	.067 <sup>*</sup>	.226 <sup>*</sup>
	Sig. (2-tailed)	.032	.020	.141	.001		.067	.038	.019	.032	.547	.039
	N	84	84	84	84	84	84	84	84	84	84	84
ISLES	Pearson	.013	-	-.072	-.024	-.201	1	-.585 <sup>**</sup>	-.417 <sup>**</sup>	.424 <sup>**</sup>	.441 <sup>**</sup>	.549 <sup>**</sup>
	Correlation		.551 <sup>**</sup>									
	Sig. (2-tailed)	.906	.000	.517	.831	.067		.000	.000	.000	.000	.000
	N	84	84	84	84	84	84	84	84	84	84	84
DEPRES	Pearson	-.004	.499 <sup>**</sup>	-.035	-.067	.227 <sup>*</sup>	-	1	.638 <sup>**</sup>	-	-	-
	Correlation						.585 <sup>*</sup>			.441 <sup>**</sup>	.564 <sup>**</sup>	.670 <sup>**</sup>
	Sig. (2-tailed)	.971	.000	.750	.544	.038	.000		.000	.000	.000	.000
	N	84	84	84	84	84	84	84	84	84	84	84
ANXIETY	Pearson	-.100	.492 <sup>**</sup>	-.073	-.049	.256 <sup>*</sup>	-	.638 <sup>**</sup>	1	-	-	-
	Correlation						.417 <sup>*</sup>			.131	.193	.366 <sup>**</sup>
	Sig. (2-tailed)	.367	.000	.511	.658	.019	.000	.000		.235	.079	.001
	N	84	84	84	84	84	84	84	84	84	84	84
SWL	Pearson	-.035	-	-.015	.072	-.234 <sup>*</sup>	.424 <sup>*</sup>	-.441 <sup>**</sup>	-.131	1	.615 <sup>**</sup>	.540 <sup>**</sup>
	Correlation		.373 <sup>**</sup>									
	Sig. (2-tailed)	.752	.000	.894	.513	.032	.000	.000	.235		.000	.000
	N	84	84	84	84	84	84	84	84	84	84	84
PAC	Pearson	.066	-	.026	.044	-.067	.441 <sup>*</sup>	-.564 <sup>**</sup>	-.193	.615 <sup>**</sup>	1	.664 <sup>**</sup>
	Correlation		.305 <sup>**</sup>									
	Sig. (2-tailed)	.550	.005	.817	.691	.547	.000	.000	.079	.000		.000
	N	84	84	84	84	84	84	84	84	84	84	84
SOC	Pearson	-.033	-	-.139	-.043	-.226 <sup>*</sup>	.549 <sup>*</sup>	-.670 <sup>**</sup>	-.366 <sup>**</sup>	.540 <sup>**</sup>	.664 <sup>**</sup>	1
	Correlation		.333 <sup>**</sup>									
	Sig. (2-tailed)	.766	.002	.209	.695	.039	.000	.000	.001	.000	.000	



N	84	84	84	84	84	84	84	84	84	84	84
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\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### Outliner and assumption checking

#### Descriptive Statistics

	Mean	Std. Deviation	N
TOTAL_INTRINSIC	14.1548	6.52796	84
TOTAL_NIES.R	2.8113	2.32212	84
TOTAL_POSITVE_RCOPE	13.0995	6.15911	84
TOTAL_NEGATIVE_RCOPE	8.7619	3.32069	84
TOTAL_ISLES	58.9990	14.84117	84
TOTAL_DEPRESSION	3.9524	4.51745	84
TOTAL_ANXIETY	2.8342	3.41752	84
TOTAL_SWL	23.0033	7.69496	84
TOTAL_PAS	3.8571	1.35454	84
TOTAL_SOC	41.6310	9.25773	84

#### Correlations

	TOTAL _INTRI NSIC	TOTA L_NIE S.R	TOTAL_P OSITVE_R COPE	TOTAL_NE GATIVE_R COPE	TOT AL_I SLES	TOTAL_ DEPRES SION	TOTA L_ANX IETY	TOT AL_ SWL	TOT AL_ PAS	TOT AL_ SOC
Pea rso n Cor rela tion	1.000	.091	.793	.162	-.072	-.035	-.073	-.015	.026	-.139
TOTAL_IN TRINSIC										
TOTAL_NI ES.R	.091	1.000	.087	.254	-.551	.499	.492	.373	.305	.333
TOTAL_PO SITVE_RC OPE	.793	.087	1.000	.356	-.024	-.067	-.049	.072	.044	-.043
TOTAL_NE GATIVE_R COPE	.162	.254	.356	1.000	-.201	.227	.256	.234	.067	.226
TOTAL_ISL ES	-.072	-.551	-.024	-.201	1.000	-.585	-.417	.424	.441	.549
TOTAL_DE PRESSION	-.035	.499	-.067	.227	-.585	1.000	.638	.441	.564	.670
TOTAL_AN XIETY	-.073	.492	-.049	.256	-.417	.638	1.000	.131	.193	.366
TOTAL_S WL	-.015	-.373	.072	-.234	.424	-.441	-.131	1.000	.615	.540

[illegible]

TOTAL_ANXIETY	84	84	84	84	84	84	84	84	84	84
TOTAL_SWL	84	84	84	84	84	84	84	84	84	84
TOTAL_PAS	84	84	84	84	84	84	84	84	84	84
TOTAL_SOC	84	84	84	84	84	84	84	84	84	84

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	TOTAL_SOC, TOTAL_POSITIVE_RCOPE, TOTAL_NIES.R, TOTAL_NEGATIVE_RCOPE, TOTAL_ANXIETY, TOTAL_SWL, TOTAL_ISLES, TOTAL_PAS, TOTAL_DEPRESSION <sup>b</sup>		Enter

a. Dependent Variable: TOTAL\_INTRINSIC

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 <sup>a</sup>	.686	.648	3.87122

a. Predictors: (Constant), TOTAL\_SOC, TOTAL\_POSITIVE\_RCOPE, TOTAL\_NIES.R, TOTAL\_NEGATIVE\_RCOPE, TOTAL\_ANXIETY, TOTAL\_SWL, TOTAL\_ISLES, TOTAL\_PAS, TOTAL\_DEPRESSION

b. Dependent Variable: TOTAL\_INTRINSIC

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2428.000	9	269.778	18.002	.000 <sup>b</sup>
Residual	1108.988	74	14.986		

Total	3536.988	83		
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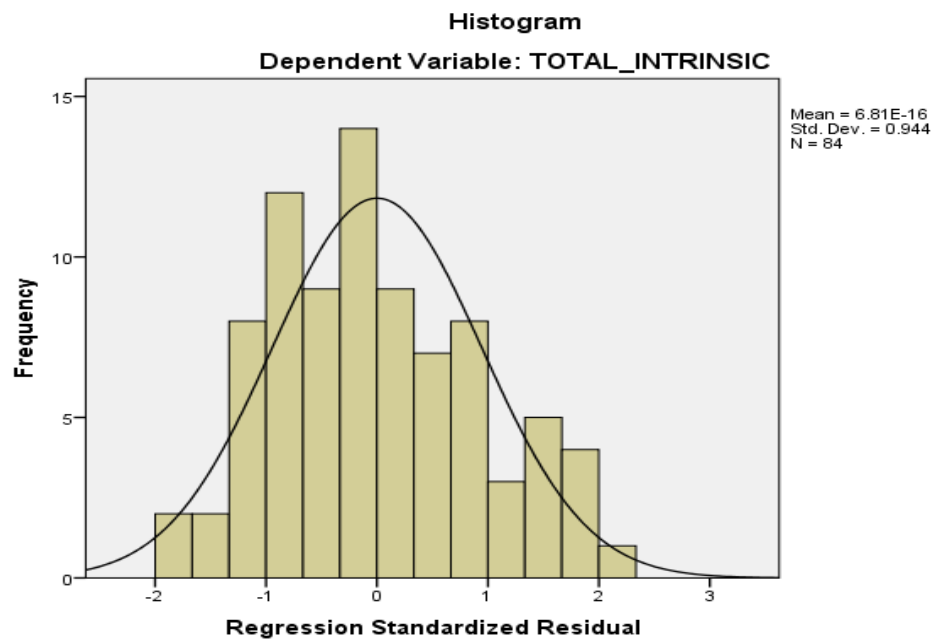
a. Dependent Variable: TOTAL\_INTRINSIC

b. Predictors: (Constant), TOTAL\_SOC, TOTAL\_POSITIVE\_RCOPE, TOTAL\_NIES.R,  
TOTAL\_NEGATIVE\_RCOPE, TOTAL\_ANXIETY, TOTAL\_SWL, TOTAL\_ISLES, TOTAL\_PAS,  
TOTAL\_DEPRESSION

**Residuals Statistics<sup>a</sup>**

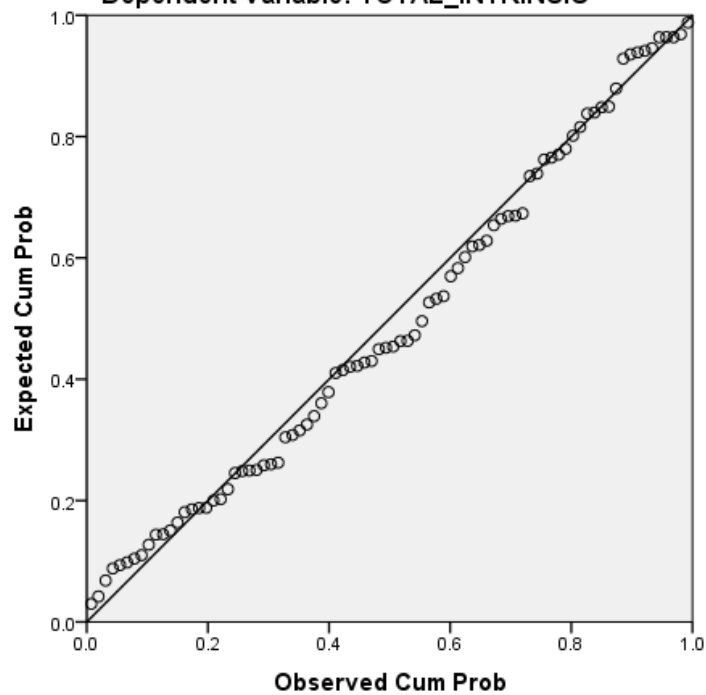
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6.3576	29.0403	14.1548	5.40861	84
Std. Predicted Value	-1.442	2.752	.000	1.000	84
Standard Error of Predicted Value	.735	2.321	1.278	.390	84
Adjusted Predicted Value	5.8217	29.0519	14.1328	5.41763	84
Residual	-7.29180	8.72757	.00000	3.65531	84
Std. Residual	-1.884	2.254	.000	.944	84
Stud. Residual	-1.969	2.325	.002	1.006	84
Deleted Residual	-8.33493	10.33153	.02193	4.16956	84
Stud. Deleted Residual	-2.010	2.399	.005	1.016	84
Mahal. Distance	2.006	28.859	8.893	6.280	84
Cook's Distance	.000	.216	.015	.033	84
Centered Leverage Value	.024	.348	.107	.076	84

a. Dependent Variable: TOTAL\_INTRINSIC



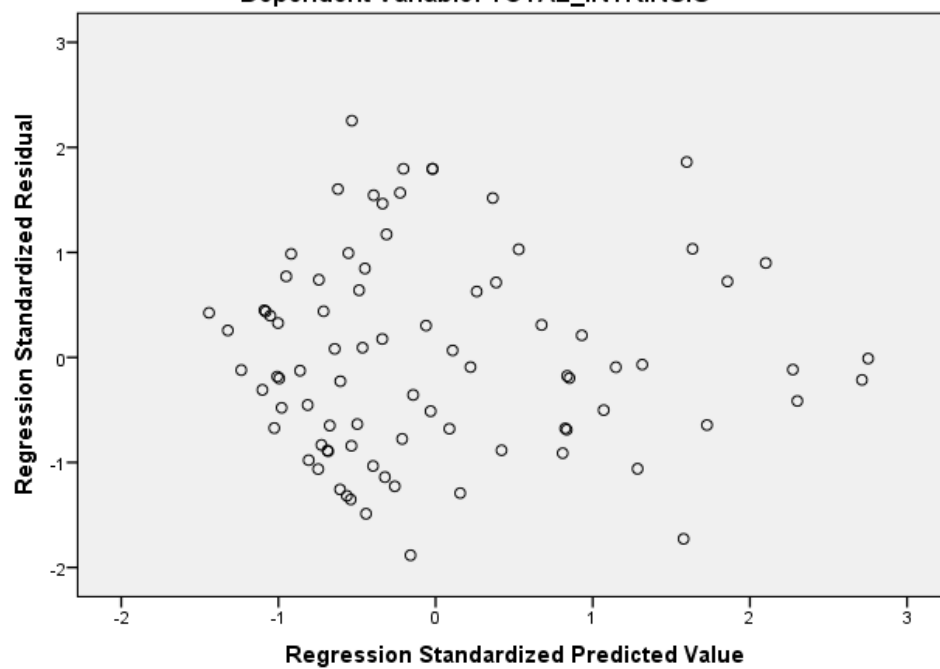
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: TOTAL\_INTRINSIC



Scatterplot

Dependent Variable: TOTAL\_INTRINSIC

**Process output (Depression)**

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.13.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model = 4  
Y = DEPRES  
X = INTRIN  
M1 = POSITIVE  
M2 = NEGATIVE

Statistical Controls:

CONTROL= RELI\_INT

Sample size  
84

\*\*\*\*\*

Outcome: POSITIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.7939	.6302	14.3732	69.0297	2.0000	
81.0000		.0000				

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.7326	1.1756	2.3244	.0226	.3935	5.0716
INTRIN	.7308	.0804	9.0950	.0000	.5709	.8907
RELI_INT	.1918	.5251	.3653	.7158	-.8530	1.2367

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.3820	-.0883	.3307
INTRIN	-.0883	.0065	-.0257
RELI_INT	.3307	-.0257	.2758

\*\*\*\*\*

Outcome: NEGATIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.2351	.0553	10.6745	2.3702	2.0000	
81.0000		.0999				

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.4545	1.0131	8.3452	.0000	6.4388	10.4703
INTRIN	.0157	.0692	.2268	.8212	-.1221	.1535
RELI_INT	.7150	.4525	1.5799	.1180	-.1854	1.6154

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.0264	-.0656	.2456
INTRIN	-.0656	.0048	-.0191
RELI_INT	.2456	-.0191	.2048

\*\*\*\*\*

Outcome: DEPRES

Model Summary

	R	R-sq	MSE	F	df1	df2
P						
	.2910	.0847	78.4990	1.8275	4.0000	
79.0000	.1318					

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.9097	3.7566	.7746	.4409	-4.5676	10.3871
POSITIVE	-.4337	.2805	-1.5462	.1260	-.9919	.1246
NEGATIVE	.8483	.3255	2.6064	.0109	.2005	1.4960
INTRIN	.2314	.2766	.8368	.4052	-.3191	.7820
RELI_INT	-.2730	1.2464	-.2190	.8272	-2.7540	2.2080

Covariance matrix of regression parameter estimates

	constant	POSITIVE	NEGATIVE	INTRIN	RELI_INT
constant	14.1120	.0767	-.8012	-.5259	2.3645
POSITIVE	.0767	.0787	-.0345	-.0569	.0096
NEGATIVE	-.8012	-.0345	.1059	.0235	-.0691
INTRIN	-.5259	-.0569	.0235	.0765	-.1462
RELI_INT	2.3645	.0096	-.0691	-.1462	1.5536

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: DEPRES

Model Summary

	R	R-sq	MSE	F	df1	df2
P						
	.0416	.0017	83.5004	.0701	2.0000	
81.0000	.9324					

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.8963	2.8335	3.1397	.0024	3.2586	14.5341
INTRIN	-.0722	.1937	-.3726	.7104	-.4575	.3132
RELI_INT	.2503	1.2657	.1977	.8438	-2.2681	2.7686

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	8.0286	-.5131	1.9214
INTRIN	-.5131	.0375	-.1492
RELI_INT	1.9214	-.1492	1.6020

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.0722	.1937	-.3726	.7104	-.4575	.3132

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
.2314	.2766	.8368	.4052	-.3191	.7820

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.3036	.1979	-.7230	.0626
POSITIVE	-.3169	.1763	-.6735	.0245

NEGATIVE	.0133	.0808	-.1662	.1513
(C1)	-.3302	.1898	-.7535	-.0036

Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.0334	.0214	-.0748	.0102
POSITIVE	-.0349	.0194	-.0710	.0056
NEGATIVE	.0015	.0087	-.0184	.0154

Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.1740	.1085	-.3931	.0458
POSITIVE	-.1817	.0996	-.3788	.0166
NEGATIVE	.0076	.0437	-.0909	.0809

Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	4.2076	1113.7900	.8229	74754.1537
POSITIVE	4.3922	1088.3069	1.0206	72546.7622
NEGATIVE	-.1846	50.3914	-50.8477	.9449

Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-1.3118	21.3374	-51.6862	-.1075
POSITIVE	-1.3693	22.2072	-98.4322	-.4408
NEGATIVE	.0576	3.7088	-.6513	11.1337

Normal theory tests for specific indirect effects

	Effect	se	Z	p
POSITIVE	-.3169	.2091	-1.5155	.1296
NEGATIVE	.0133	.0631	.2110	.8329

Specific indirect effect contrast definitions

(C1) POSITIVE minus NEGATIVE

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS \*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals:

5000

Level of confidence for all confidence intervals in output:

95.00

----- END MATRIX -----

## Anxiety

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.13.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
 Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model = 4  
 Y = ANXIETY  
 X = INTRIN  
 M1 = POSITIVE



M2 = NEGATIVE

Statistical Controls:

CONTROL= RELI\_INT

Sample size

84

\*\*\*\*\*

Outcome: POSITIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.7939	.6302	14.3732	69.0297	2.0000	
81.0000		.0000				

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.7326	1.1756	2.3244	.0226	.3935	5.0716
INTRIN	.7308	.0804	9.0950	.0000	.5709	.8907
RELI_INT	.1918	.5251	.3653	.7158	-.8530	1.2367

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.3820	-.0883	.3307
INTRIN	-.0883	.0065	-.0257
RELI_INT	.3307	-.0257	.2758

\*\*\*\*\*

Outcome: NEGATIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.2351	.0553	10.6745	2.3702	2.0000	
81.0000		.0999				

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.4545	1.0131	8.3452	.0000	6.4388	10.4703
INTRIN	.0157	.0692	.2268	.8212	-.1221	.1535
RELI_INT	.7150	.4525	1.5799	.1180	-.1854	1.6154

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.0264	-.0656	.2456
INTRIN	-.0656	.0048	-.0191
RELI_INT	.2456	-.0191	.2048

\*\*\*\*\*

Outcome: ANXIETY

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.3202	.1025	44.0518	2.2558	4.0000	
79.0000		.0705				

Model

	coeff	se	t	p	LLCI	ULCI
--	-------	----	---	---	------	------

constant	.6892	2.8141	.2449	.8072	-4.9122	6.2906
POSITIVE	-.1946	.2101	-.9263	.3571	-.6128	.2236
NEGATIVE	.6939	.2438	2.8462	.0056	.2086	1.1792
INTRIN	.1113	.2072	.5371	.5927	-.3011	.5237
RELI_INT	-1.0617	.9337	-1.1371	.2589	-2.9203	.7968

## Covariance matrix of regression parameter estimates

	constant	POSITIVE	NEGATIVE	INTRIN	RELI_INT
constant	7.9193	.0431	-.4496	-.2951	1.3269
POSITIVE	.0431	.0441	-.0194	-.0320	.0054
NEGATIVE	-.4496	-.0194	.0594	.0132	-.0388
INTRIN	-.2951	-.0320	.0132	.0429	-.0820
RELI_INT	1.3269	.0054	-.0388	-.0820	.8719

## \*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: ANXIETY

## Model Summary

	R	R-sq	MSE	F	df1	df2
p	.1009	.0102	47.3838	.4167	2.0000	
81.0000	.6606					

## Model

	coeff	se	t	p	LLCI	ULCI
constant	6.0240	2.1345	2.8222	.0060	1.7770	10.2709
INTRIN	-.0200	.1459	-.1374	.8911	-.3103	.2702
RELI_INT	-.6029	.9535	-.6324	.5289	-2.5000	1.2941

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	4.5560	-.2912	1.0903
INTRIN	-.2912	.0213	-.0847
RELI_INT	1.0903	-.0847	.9091

## \*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

## Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.0200	.1459	-.1374	.8911	-.3103	.2702

## Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
.1113	.2072	.5371	.5927	-.3011	.5237

## Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.1313	.1523	-.4409	.1613
POSITIVE	-.1422	.1432	-.4351	.1392
NEGATIVE	.0109	.0616	-.1177	.1300
(C1)	-.1531	.1593	-.5053	.1273

## Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.0192	.0222	-.0615	.0264
POSITIVE	-.0208	.0211	-.0600	.0227
NEGATIVE	.0016	.0090	-.0170	.0193

## Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.1000	.1134	-.3167	.1379

POSITIVE	-.1083	.1088	-.3194	.1137
NEGATIVE	.0083	.0456	-.0827	.0994

Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	6.5515	74.2760	3.1507	3129.3461
POSITIVE	7.0951	84.3897	3.5458	3294.1872
NEGATIVE	-.5436	15.8093	-253.7654	.2247

Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-1.1801	171.5957	-63.3075	.8941
POSITIVE	-1.2781	207.3871	-141.8795	.4322
NEGATIVE	.0979	41.3336	-.8228	23.1371

Normal theory tests for specific indirect effects

	Effect	se	Z	p
POSITIVE	-.1422	.1553	-.9160	.3596
NEGATIVE	.0109	.0511	.2134	.8310

Specific indirect effect contrast definitions

(C1) POSITIVE minus NEGATIVE

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS \*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals:

5000

Level of confidence for all confidence intervals in output:

95.00

----- END MATRIX -----

**Life satisfaction**

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.13.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
 Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model = 4  
 Y = SWL  
 X = INTRIN  
 M1 = POSITIVE  
 M2 = NEGATIVE

Statistical Controls:

CONTROL= RELI\_INT

Sample size

84

\*\*\*\*\*

Outcome: POSITIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p						

.7939 .6302 14.3732 69.0297 2.0000  
81.0000 .0000

## Model

	coeff	se	t	p	LLCI	ULCI
constant	2.7326	1.1756	2.3244	.0226	.3935	5.0716
INTRIN	.7308	.0804	9.0950	.0000	.5709	.8907
RELI_INT	.1918	.5251	.3653	.7158	-.8530	1.2367

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.3820	-.0883	.3307
INTRIN	-.0883	.0065	-.0257
RELI_INT	.3307	-.0257	.2758

\*\*\*\*\*  
Outcome: NEGATIVE

## Model Summary

	R	R-sq	MSE	F	df1	df2
p	.2351	.0553	10.6745	2.3702	2.0000	
81.0000	.0999					

## Model

	coeff	se	t	p	LLCI	ULCI
constant	8.4545	1.0131	8.3452	.0000	6.4388	10.4703
INTRIN	.0157	.0692	.2268	.8212	-.1221	.1535
RELI_INT	.7150	.4525	1.5799	.1180	-.1854	1.6154

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.0264	-.0656	.2456
INTRIN	-.0656	.0048	-.0191
RELI_INT	.2456	-.0191	.2048

\*\*\*\*\*  
Outcome: SWL

## Model Summary

	R	R-sq	MSE	F	df1	df2
p	.3404	.1159	55.0032	2.5879	4.0000	
79.0000	.0431					

## Model

	coeff	se	t	p	LLCI	ULCI
constant	28.0888	3.1445	8.9326	.0000	21.8297	34.3478
POSITIVE	.5456	.2348	2.3239	.0227	.0783	1.0129
NEGATIVE	-.7939	.2724	-2.9143	.0046	-1.3362	-.2517
INTRIN	-.3740	.2315	-1.6152	.1103	-.8348	.0869
RELI_INT	.1447	1.0434	.1387	.8900	-1.9320	2.2215

## Covariance matrix of regression parameter estimates

	constant	POSITIVE	NEGATIVE	INTRIN	RELI_INT
constant	9.8881	.0538	-.5614	-.3685	1.6568
POSITIVE	.0538	.0551	-.0242	-.0399	.0067
NEGATIVE	-.5614	-.0242	.0742	.0165	-.0484
INTRIN	-.3685	-.0399	.0165	.0536	-.1024
RELI_INT	1.6568	.0067	-.0484	-.1024	1.0886

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: SWL

Model Summary

	R	R-sq	MSE	F	df1	df2
P	.0359	.0013	60.5961	.0524	2.0000	
81.0000	.9490					

Model

	coeff	se	t	p	LLCI	ULCI
constant	22.8674	2.4138	9.4737	.0000	18.0647	27.6701
INTRIN	.0123	.1650	.0744	.9409	-.3160	.3405
RELI_INT	-.3182	1.0782	-.2952	.7686	-2.4636	1.8271

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	5.8263	-.3724	1.3944
INTRIN	-.3724	.0272	-.1083
RELI_INT	1.3944	-.1083	1.1626

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
.0123	.1650	.0744	.9409	-.3160	.3405

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.3740	.2315	-1.6152	.1103	-.8348	.0869

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.3862	.1931	.0184	.7745
POSITIVE	.3987	.1782	.0494	.7597
NEGATIVE	-.0125	.0704	-.1217	.1563
(C1)	.4112	.1901	.0546	.7947

Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.0499	.0240	.0002	.0953
POSITIVE	.0515	.0221	.0052	.0934
NEGATIVE	-.0016	.0091	-.0159	.0200

Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.2601	.1216	.0157	.4985
POSITIVE	.2685	.1146	.0425	.5006
NEGATIVE	-.0084	.0458	-.0831	.0993

Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	31.4604	122.3836	23.4590	2368.5807
POSITIVE	32.4759	115.3403	28.0967	2347.7853
NEGATIVE	-1.0155	30.0689	-1839.6843	-.1608

Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-1.0328	29.8257	-7.9939	.0725
POSITIVE	-1.0662	31.1768	-12.0158	-.4077
NEGATIVE	.0333	4.9631	-.5521	1.5506

Normal theory tests for specific indirect effects

	Effect	se	Z	p
POSITIVE	.3987	.1781	2.2389	.0252
NEGATIVE	-.0125	.0583	-.2139	.8306

Specific indirect effect contrast definitions

(C1) POSITIVE minus NEGATIVE

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS \*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals:  
5000

WARNING: Bootstrap CI endpoints below not trustworthy. Decrease confidence or increase bootstraps  
-1839.6843

Level of confidence for all confidence intervals in output:  
95.00

----- END MATRIX -----

## Positive affect

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.13.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model = 4  
Y = PAC  
X = INTRIN  
M1 = POSITIVE  
M2 = NEGATIVE

Statistical Controls:  
CONTROL= RELI\_INT

Sample size  
84

\*\*\*\*\*

Outcome: POSITIVE

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.7939	.6302	14.3732	69.0297	2.0000	
	81.0000	.0000				

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.7326	1.1756	2.3244	.0226	.3935	5.0716
INTRIN	.7308	.0804	9.0950	.0000	.5709	.8907
RELI_INT	.1918	.5251	.3653	.7158	-.8530	1.2367

Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.3820	-.0883	.3307
INTRIN	-.0883	.0065	-.0257
RELI_INT	.3307	-.0257	.2758

\*\*\*\*\*

Outcome: NEGATIVE

#### Model Summary

	R	R-sq	MSE	F	df1	df2
p	.2351	.0553	10.6745	2.3702	2.0000	
81.0000		.0999				

#### Model

	coeff	se	t	p	LLCI	ULCI
constant	8.4545	1.0131	8.3452	.0000	6.4388	10.4703
INTRIN	.0157	.0692	.2268	.8212	-.1221	.1535
RELI_INT	.7150	.4525	1.5799	.1180	-.1854	1.6154

#### Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.0264	-.0656	.2456
INTRIN	-.0656	.0048	-.0191
RELI_INT	.2456	-.0191	.2048

\*\*\*\*\*

Outcome: PAC

#### Model Summary

	R	R-sq	MSE	F	df1	df2
p	.1310	.0172	1.8946	.3447	4.0000	
79.0000		.8469				

#### Model

	coeff	se	t	p	LLCI	ULCI
constant	4.2381	.5836	7.2619	.0000	3.0764	5.3997
POSITIVE	.0287	.0436	.6585	.5122	-.0580	.1154
NEGATIVE	-.0478	.0506	-.9457	.3472	-.1485	.0528
INTRIN	-.0250	.0430	-.5823	.5620	-.1106	.0605
RELI_INT	.1375	.1936	.7101	.4797	-.2479	.5229

#### Covariance matrix of regression parameter estimates

	constant	POSITIVE	NEGATIVE	INTRIN	RELI_INT
constant	.3406	.0019	-.0193	-.0127	.0571
POSITIVE	.0019	.0019	-.0008	-.0014	.0002
NEGATIVE	-.0193	-.0008	.0026	.0006	-.0017
INTRIN	-.0127	-.0014	.0006	.0018	-.0035
RELI_INT	.0571	.0002	-.0017	-.0035	.0375

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: PAC

#### Model Summary

	R	R-sq	MSE	F	df1	df2
p	.0687	.0047	1.8712	.1918	2.0000	
81.0000		.8258				

#### Model

	coeff	se	t	p	LLCI	ULCI
constant	3.9122	.4242	9.2233	.0000	3.0682	4.7562
INTRIN	-.0048	.0290	-.1657	.8688	-.0625	.0529
RELI_INT	.1088	.1895	.5743	.5673	-.2682	.4858

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	.1799	-.0115	.0431
INTRIN	-.0115	.0008	-.0033
RELI_INT	.0431	-.0033	.0359

## \*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

## Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.0048	.0290	-.1657	.8688	-.0625	.0529

## Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.0250	.0430	-.5823	.5620	-.1106	.0605

## Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.0202	.0337	-.0497	.0842
POSITIVE	.0210	.0329	-.0468	.0831
NEGATIVE	-.0008	.0069	-.0189	.0059
(C1)	.0217	.0336	-.0430	.0900

## Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.0149	.0247	-.0400	.0587
POSITIVE	.0154	.0243	-.0372	.0587
NEGATIVE	-.0006	.0050	-.0145	.0044

## Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.0775	.1268	-.2096	.3080
POSITIVE	.0803	.1255	-.1910	.3093
NEGATIVE	-.0029	.0251	-.0662	.0222

## Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-4.2074	151.8936	-7521.2847	-1.4319
POSITIVE	-4.3636	121.4276	-5655.8381	-1.5240
NEGATIVE	.1563	45.5243	-.0323	416.8473

## Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.8080	145.3488	-73.1932	.8287
POSITIVE	-.8380	157.8784	-115.1755	.4574
NEGATIVE	.0300	14.6092	-.1436	26.4679

## Normal theory tests for specific indirect effects

	Effect	se	Z	p
POSITIVE	.0210	.0321	.6528	.5139
NEGATIVE	-.0008	.0049	-.1538	.8778

## Specific indirect effect contrast definitions

(C1) POSITIVE minus NEGATIVE

## \*\*\*\*\* ANALYSIS NOTES AND WARNINGS \*\*\*\*\*



Number of bootstrap samples for bias corrected bootstrap confidence intervals:  
5000

WARNING: Bootstrap CI endpoints below not trustworthy. Decrease confidence or increase bootstraps  
-7521.2847 -5655.8381

Level of confidence for all confidence intervals in output:  
95.00

----- END MATRIX -----

## Sense of coherence

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.13.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model = 4  
Y = SOC  
X = INTRIN  
M1 = POSITIVE  
M2 = NEGATIVE

Statistical Controls:  
CONTROL= RELI\_INT

Sample size  
84

\*\*\*\*\*

Outcome: POSITIVE

### Model Summary

	R	R-sq	MSE	F	df1	df2
p	.7939	.6302	14.3732	69.0297	2.0000	
	81.0000	.0000				

### Model

	coeff	se	t	p	LLCI	ULCI
constant	2.7326	1.1756	2.3244	.0226	.3935	5.0716
INTRIN	.7308	.0804	9.0950	.0000	.5709	.8907
RELI_INT	.1918	.5251	.3653	.7158	-.8530	1.2367

### Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.3820	-.0883	.3307
INTRIN	-.0883	.0065	-.0257
RELI_INT	.3307	-.0257	.2758

\*\*\*\*\*

Outcome: NEGATIVE

### Model Summary

	R	R-sq	MSE	F	df1	df2
p						
	.2351	.0553	10.6745	2.3702	2.0000	
81.0000		.0999				

## Model

	coeff	se	t	p	LLCI	ULCI
constant	8.4545	1.0131	8.3452	.0000	6.4388	10.4703
INTRIN	.0157	.0692	.2268	.8212	-.1221	.1535
RELI_INT	.7150	.4525	1.5799	.1180	-.1854	1.6154

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	1.0264	-.0656	.2456
INTRIN	-.0656	.0048	-.0191
RELI_INT	.2456	-.0191	.2048

\*\*\*\*\*

Outcome: SOC

## Model Summary

	R	R-sq	MSE	F	df1	df2
p						
	.3382	.1143	79.7486	2.5499	4.0000	
79.0000		.0456				

## Model

	coeff	se	t	p	LLCI	ULCI
constant	51.2081	3.7864	13.5243	.0000	43.6715	58.7447
POSITIVE	.5487	.2827	1.9409	.0558	-.0140	1.1113
NEGATIVE	-.8737	.3280	-2.6634	.0094	-1.5266	-.2208
INTRIN	-.6543	.2788	-2.3469	.0214	-1.2092	-.0994
RELI_INT	1.2762	1.2563	1.0158	.3128	-1.2245	3.7768

## Covariance matrix of regression parameter estimates

	constant	POSITIVE	NEGATIVE	INTRIN	RELI_INT
constant	14.3366	.0779	-.8140	-.5342	2.4021
POSITIVE	.0779	.0799	-.0350	-.0578	.0097
NEGATIVE	-.8140	-.0350	.1076	.0239	-.0702
INTRIN	-.5342	-.0578	.0239	.0777	-.1485
RELI_INT	2.4021	.0097	-.0702	-.1485	1.5784

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: SOC

## Model Summary

	R	R-sq	MSE	F	df1	df2
p						
	.1530	.0234	85.7662	.9706	2.0000	
81.0000		.3832				

## Model

	coeff	se	t	p	LLCI	ULCI
constant	45.3208	2.8717	15.7821	.0000	39.6070	51.0345
INTRIN	-.2670	.1963	-1.3605	.1774	-.6576	.1235
RELI_INT	.7568	1.2828	.5900	.5569	-1.7955	3.3091

## Covariance matrix of regression parameter estimates

	constant	INTRIN	RELI_INT
constant	8.2465	-.5271	1.9736
INTRIN	-.5271	.0385	-.1533

RELI\_INT      1.9736      -.1533      1.6455

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.2670	.1963	-1.3605	.1774	-.6576	.1235

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-.6543	.2788	-2.3469	.0214	-1.2092	-.0994

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.3872	.2179	-.0571	.8094
POSITIVE	.4010	.2047	-.0135	.8035
NEGATIVE	-.0137	.0795	-.1564	.1603
(C1)	.4147	.2213	.0054	.8705

Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.0416	.0233	-.0077	.0847
POSITIVE	.0431	.0220	-.0040	.0835
NEGATIVE	-.0015	.0086	-.0171	.0170

Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	.2167	.1202	-.0311	.4465
POSITIVE	.2244	.1155	-.0062	.4525
NEGATIVE	-.0077	.0438	-.0918	.0847

Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-1.4501	110.6997	-39.6938	2.8972
POSITIVE	-1.5015	115.7667	-37.3478	2.1342
NEGATIVE	.0514	14.6678	-2.1480	2.3488

Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TOTAL	-.5919	9.1519	-1.3913	.1635
POSITIVE	-.6128	6.4219	-1.5680	-.0726
NEGATIVE	.0210	3.8552	-.3061	.5139

Normal theory tests for specific indirect effects

	Effect	se	Z	p
POSITIVE	.4010	.2125	1.8872	.0591
NEGATIVE	-.0137	.0648	-.2116	.8324

Specific indirect effect contrast definitions

(C1) POSITIVE minus NEGATIVE

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS \*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals:

5000

Level of confidence for all confidence intervals in output:

95.00

----- END MATRIX -----