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Strength of Religious Faith and Positive Coping Behaviors: Testing a Mediation Model

APPROVED BY
SUPERVISING COMMITTEE:

Supervisor:

____
Christopher McCarthy

____
Kevin Cokley

Strength of Religious Faith and Positive Coping Behaviors:

Testing a Mediation Model

by

Monique Mohit Shah, B.A.

Report

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Abstract

Strength of Religious Faith and Positive Coping Behaviors:

Testing a Mediation Model

Monique Mohit Shah, M.A.

The University of Texas at Austin, 2010

Supervisor: Christopher McCarthy

The purpose of the proposed study is to examine the relationships among the strength of college students' religious faith and positive coping behaviors (religious and non-religious) and their subsequent effects on physical and psychological well-being, perceived stress, and life satisfaction. Research has shown strength of faith to be positively associated with both mental health and life satisfaction, which in turn, are often related to better health (Larson et al., 1992; Ellison, 1991). Positive religious and non-religious coping behaviors have also been shown to have similar relationships with the aforementioned outcomes (Koenig et al., 2001). The potential mediating relationships between the variables will be tested with the multiple regression methods outlined by Baron and Kenny (1986).

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Chapter 1: Introduction

Research on the harmful effects of stress and interventions aimed at helping individuals cope more effectively has been ongoing for decades. Researchers have identified the potentially harmful effects of stressors ranging from major events such as losing a job to everyday hassles such as contending with traffic (Ruffin, 1993). Researchers have also investigated the varied way in which individuals cope, for example, through active attempts to reduce stressors or passive attempts to cope with one's feelings about a stressor (Beutler, Moos, & Lane, 2003). However, while this research sometimes includes the role that spirituality or religion can take in coping with life demands, it is usually not a focus of most studies (Pargament, Ano, & Wachholtz, 2005). Instead, religion is often included peripherally, through the measuring of another, overarching construct. For instance, measures of coping strategies might include an item such as, "I prayed," but not inquire *how* an individual is using religion to understand and subsequently deal with stressors (Carver, 1997). When investigating religion's role in coping with life demands, it is imperative that the inquiry be grounded in a functional view of religion and how it influences subsequent behaviors; it is not enough to know that an individual prayed.

According to Bergin & Jensen (1990), 72% of Americans identify religion as the single most important influence in their lives. If this is indeed the case, it is troubling that so few psychologists are well trained in how to work with clients on religious and spiritual issues (Kelly, 1994; Shafrankse & Malony, 1990). In fact, many practicing psychologists have little to no training on how to work with clients on such issues, even

though the American Psychological Association's (1992) ethical principles list religion as an aspect of human diversity that requires special attention from psychologists who are providing services. With so many people claiming religion as an important aspect in their lives, it does not seem logical to be expected to leave that at the door of a counseling session. Further, links between religiousness and mental health suggest that religion represents a potentially valuable resource in coping with stress (Ellison, 1991). A clearer understanding of the way religion influences how individuals cope with stress is the first step to incorporating religious and spiritual issues in mental health practice.

This study will focus on how individuals cope with the common developmental transition of moving away from home to attend college, and how religion impacts that coping process. It is important to study real life events with which individuals are coping instead of asking people to think about stressors abstractly or retrospectively in order to eliminate potential biases. To that end, students will be asked to report on the strategies they employ to cope with the transition from high school to college over the course of their first semester in college, while they are still transitioning.

The purpose of this study is to examine the relationships between the strength of college students' religious faith and positive coping behaviors (religious and non-religious) in the face of stress associated with starting college and being away from home for the first time. The goal is to assess coping strategies employed by individuals who are currently experiencing a real life stressor. This study also aims to examine the subsequent effects of strength of religious faith and positive coping behaviors on such positive outcomes as physical and psychological well-being, perceived stress, and life satisfaction.

Chapter 2: Literature Review

INTRODUCTION

The following integrative analysis will first describe models of stress and how religion fits into those models. Next, it will describe resources and strategies as components of the coping process and explain how religion can function as both (a resource and a strategy). Finally, it will outline coping behaviors and show how religion can influence outcomes like physical and mental well-being through its influence on coping behaviors.

STRESS, COPING, AND RELIGION

There are several different ways to conceptualize stress. For example, stimulus definitions focus on events in the environment such as natural disasters or losing a job, while response definitions focus on an individual's physiological responses to events in the environment, such as anxious feelings or increased heart rate (Lazarus and Folkman, 1984). Neither of those conceptualizations, however, takes into consideration how individuals react in the face of stress or the role of resources in coping with stress. As such, they are not ideal for understanding how religion influences the way in which individuals cope with stress.

Lazarus and Folkman (1984) define stress as the relationship or transaction between a person and the environment. According to this model, stress is a relationship between a person and the environment that the person appraises as taxing or exceeding his/her resources. Everyone has a certain amount of available resources, and when the

demands of his/her environment exceed, or are perceived to exceed, those resources, a stress response is likely to occur. The important thing to note with this model is that the judgment that a particular person or environment is stressful depends on cognitive appraisal, which varies from person to person. The concept of psychological stress then, depends solely on the individual's perception that demands outweigh available resources.

Hobfoll (1989) took a somewhat different perspective and proposed a conservation of resources model in which he defines stress as "(a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources." This model asserts that rather than the presence of stress hinging on the perception of an imbalance between demands and resources; it depends on the potential or actual loss of resources. Like the transactional model, the conservation of resources model also takes into account environmental factors. Rather than the person-environment interaction, however, it focuses on environmental or situational factors as potential threats to a person's available resources. A stress response occurs not when demands and resources are imbalanced, but when an individual perceives a threat to his/her resources or experiences a loss of resources. In comparing the two models, it is important to note the emphasis that both place on the role of resources in preventing or alleviating stress.

While there is no distinct model of stress that outlines the role religion plays, researchers have put forward a number of potential mechanisms that may explain religion's influence in the coping process. In his 1997 review of religion and coping, Pargament argues that people rarely come to the coping process empty-handed. He makes the case that everyone enters the process with a general orienting system of resources and

burdens that influences the particular ways in which they interpret and handle stressful situations. For those with a strong sense of religious faith, religion is a primary orienting system. For example, college students who identify as religious are likely to use their religion as a way to make sense of the world around them; they may interpret a good grade as a blessing from God or a week of midterms as a challenge God has placed in front of them. This proposition fits well with the transactional model of stress because as Lazarus and Folkman (1984) explained, the judgment that something is stressful hinges on cognitive appraisal, and as Pargament (1997) described, religion offers a framework with which to make that appraisal.

On the other hand, Pargament et al. (2005) describe religion as a conservational force in coping, which is more in line with the model Hobfoll (1989) proposed. The basic tenet of the conservation of resources model as laid out by Hobfoll (1989) is that "people strive to retain, protect, and build resources" and view any threat to those resources as stressful. Pargament et al. (2005) make the case that in this conservational process, religion is an individual's attempt to hold onto or sustain the sense of meaning, control, comfort, etc. in the midst of stressful events. For instance, many people turn to their religion as a source of social and/or spiritual support; religious communities offer a way for individuals to build and maintain a network of people who share their views and who can offer comfort and support in times of stress. Attending religious services can also be considered a way that individuals are able to sustain the sense of meaning in their lives. College students away from home for the first time, for example, may turn to religious organizations on campus for support during their transition to university life.

RESOURCES VERSUS STRATEGIES IN COPING

As described above, religion has been conceptualized as a resource in the coping process. Some other examples of resources include supportive social networks such as family and friends, the ability to express a range of affect rather than suppressing it, and the ability to maintain a positive outlook about life. Religion has also been described by researchers as a coping strategy, or a way people cope with stress (Harrison, Koenig, Hays, Eme-Akwari, & Pargament, 2001). Other coping strategies include things like exercise or seeking professional help such as counseling.

In order to delineate between resources and strategies, it is necessary to understand the relationship between them. It can be argued that while the presence of available resources such as religiosity has been linked to positive outcomes like better mental health and satisfaction with life (Ellison, 1991), it is not the presence of these resources alone that leads to positive outcomes. Instead, it is the availability of resources that leads individuals to engage in behaviors aimed at preventing and/or mitigating stress in their lives. It is those purposeful behaviors that are classified as coping strategies. When a person has a wealth of resources, s/he will be more likely to employ adaptive coping strategies, or coping behaviors that will effectively help manage his/her stress. When faced with a stressor at a time when there are limited resources, that same person may be more likely to employ maladaptive or potentially ineffective coping strategies such as abusing drugs or alcohol.

The kind of resources an individual has available when faced with a stressor, whether it is religiosity or the ability to maintain a positive outlook, may influence the cognitive appraisal process described by Folkman and Lazarus (1984). That appraisal in

turn likely influences the coping strategies the individual decides to employ. The following sections will describe this relationship in more detail.

RELIGION AS A RESOURCE IN COPING

There is a growing body of literature on the role of religion and spirituality in health and wellness, and psychologists have recognized the need for clinically relevant theoretical frameworks to further research and practice in this area (Hood, Spilka, Hunsberger, & Gorsuch, 1996; Worthington, 1989). More specifically, research has shown positive correlations between religiousness and greater happiness, life satisfaction, positive affect, and higher morale, and these outcomes have often been shown to be related to a better health status of people experiencing bereavement or other loss (see Koenig, McCullough, & Larson, 2001 for review).

This positive relationship between religion and mental health, however, is largely dependent on a person's type of religiosity. Allport (1950) distinguished between two types of religiosity, extrinsic and intrinsic. He defined extrinsic aspects of religious life as the use of religion to achieve some other ultimate goal, or as a means to some other end. He defined intrinsic aspects of religious life as focusing on a relationship with a transcendent being and a sense that pursuit of the sacred is the focus of ultimate concern. In the words of Allport and Ross (1967), "the extrinsically motivated person uses his religion whereas the intrinsically motivated lives his religion," (p.434). Research has shown that those who are intrinsically religious tend to have better mental health than those who are extrinsically religious (Koenig, McCullough, & Larson, 2001).

Much of the work to date investigating religion and physical/mental health has examined the relationship between some aspect of a person's religiousness or religiosity and various physical and psychological outcomes based solely on the fact that the person identifies as religious (Bahr & Harvey, 1979; Sherkat & Reed, 1992), and while work in this area has demonstrated mixed findings, most studies have shown a positive relationship between religiousness and such outcomes as physical health, mental health, and self-esteem (Seybold & Hill, 2001). More specifically, Harrison et al. (2001) reported that religious activities such as seeking congregational support positively reframing stressful events have been linked to positive outcomes like better physical and mental health. Things like discontent with God or congregations and negative religious reappraisals of stressful events, e.g. reframing a stressor as a punishment from God, have been linked to health risks. It seems the mixed findings are a testament to the different types of religiosity (intrinsic and extrinsic) outlined by Allport (1950) and the failure of researchers to acknowledge their variable influences on outcomes like physical and mental health. Further, many of the studies include religiosity as a categorical variable, failing to acknowledge that there are varying levels of religiosity.

Given that religious faith is a complex and continuous variable, it does not make sense to measure it in a categorical fashion. Plante and Boccaccini (1997) recognized this gap in the literature, and in an effort to fill it, developed a questionnaire designed to measure strength of religious faith on a continuum. The Santa Clara Strength of Religious Faith Questionnaire is a brief scale that assesses the strength of a person's faith, regardless of religious orientation. The items assess a person's level of intrinsic

religiosity (IR), as this is the dimension that has been most consistently linked to positive outcomes (Koenig et al., 2001).

In a review of 139 studies utilizing measures designed to assess dimensions of religious commitment, Larson et al. (1992) found that of those that reported any association, a majority reported a positive relationship between extent of religious commitment and mental health. Research has also shown that individuals with strong religious faith report greater satisfaction with life and greater levels of personal happiness (Ellison, 1991). High levels of well-being and life satisfaction, in turn, are often related to a better health status of people (Koenig et al., 2001). Koenig et al. (2001) also found that religious involvement plays an important role in helping people cope with the effects of stressful life events.

While intrinsic religiosity has consistently been linked to positive outcomes such as better physical and mental health, the question still remains whether religious faith itself is leading to positive outcomes, or the faith is influencing a third variable such as coping behaviors, which in turn leads to positive outcomes.

RELIGION AS A COPING STRATEGY

Religious coping has been defined as the use of cognitive or behavioral techniques in times of stress that arise from one's religious or spiritual beliefs (Tix & Frazier, 1998). Some examples of religious coping strategies are prayer, seeking support from God or clergy members, confessing one's sins, and engaging in religious activities to shift focus from the stressor (Pargament, Koenig, & Perez, 2000).

Much of the literature examines religious coping from a more general, dispositional perspective (i.e. through single item measures of religiosity, determined by factors such as church attendance), which oversimplifies the construct of religion, leading to a lack of knowledge about how religion operates in daily life, especially in stressful situations. There has been a move to change this practice, however. Pargament et al. (2000) emphasized the need for a theoretically based measure of religious coping grounded in a functional view of religion and the roles it plays in coping.

In their development and initial validation of such a measure, the RCOPE, Pargament et al. (2000) identified five major functions of religion and defined religious coping methods with respect to each function: meaning, control, comfort/spirituality, intimacy/spirituality, and life transformation. Meaning refers to the use of religion to find meaning in the face of suffering or the use of religion as a framework with which to understand and interpret life events. An example of this is benevolent religious reappraisal, or redefining the stressor through religion as benevolent and potentially beneficial. Control refers to the use of religion as a way to gain control or mastery in the face of events that may push individuals beyond their resources. An example of this is collaborative religious coping, or seeking control through a partnership with God in problem-solving. Comfort refers to the use of religion to reduce apprehension about living in an unpredictable world, and spirituality refers to the desire to connect with a force greater than oneself. Examples of this are religious focus, or engaging in religious activities to take focus off the stressor and searching for comfort through God’s love and care. Intimacy/spirituality refers to the use of religion to foster intimacy with others as well as closeness to a higher power through spiritual methods. An example of this is

seeking support from clergy or members. Finally, life transformation refers to the use of religion as a way to assist in making major life transformations; for instance, finding new sources of significance to replace old objects of value. An example of this is using religion to help shift from anger, hurt, etc., or more specifically, seeking help from a higher power in letting go of negative emotions.

The RCOPE is a measure that aims to comprehensively assess the many methods of religious coping; it includes active, passive, and interactive coping methods as well as both problem-focused and emotion-focused strategies. It also includes what Pargament et al. (2000) identify as positive and negative religious coping strategies. Positive religious coping strategies are those that effectively help people manage their stress. These are the strategies that help people feel less stress in the face of a crisis. Some examples of positive religious coping strategies are seeking strength and support from God and redefining a stressor as an opportunity for growth. Negative religious coping strategies, on the other hand, are those that are in essence, ineffective in helping people cope with stress. They are potentially dysfunctional strategies that may actually cause people to experience more distress in the face of a crisis (Pargament, 1997). Some examples of negative religious coping strategies are redefining the stressor as a punishment from God and demonic reappraisal (attributing the stressor to an act of the devil).

In their initial validation of the RCOPE, Pargament et al. (2000) found the use of negative religious coping methods to be tied to poorer physical and mental health in a college student sample while use of positive religious coping methods was tied to stress-related growth in the college student sample as well as a hospital sample.

When an individual endorses engagement in religious coping behaviors, it is generally because s/he is a religious person. A person who does not believe in the existence of God or a higher power is not likely to employ a religious coping strategy like prayer in the face of a stressful event. Pargament (1997) suggested that religious individuals tend to incorporate their beliefs into their coping responses, so it follows that the strategies they utilize would be religious in nature.

In a meta-analytic review, Ano & Vasconcelles (2005) found positive religious coping strategies to be negatively related to such outcomes as distress, depression, anxiety, and hopelessness and positively related to more positive outcomes, i.e. stress-related growth and greater life satisfaction. They also reported a positive relationship between positive religious coping and positive outcomes to stressful events. If an individual perceives an event to be stressful and subsequently engages in particular coping strategies because of that appraisal, a reduced level of perceived stress would be considered a positive outcome. As such, it is expected that those who utilize positive religious coping strategies to deal with stressful life events will perceive less stress in their lives. Koenig et al. (2001) also found positive religious coping strategies to be related to indices of better health in some studies.

Because strength of religious faith, positive religious coping, and positive outcomes (e.g. reduced symptom distress, less perceived stress, and increased satisfaction with life) have all been shown to be independently related to one another, the case can be made that mediation is at work. Baron and Kenny (1986) propose that establishing individual relationships between each variable is the first step to testing for mediation. Going back to the concept of religion as an orienting system in the coping process, it

makes sense that strength of religious faith would influence the cognitive appraisal that takes place when an individual is faced with a stressful life event. It is not the strength of faith alone that allows him/her to effectively manage stress, nor is it the cognitive appraisal. Rather, it is the behaviors or coping strategies that the appraisal leads to that have the power to change the outcomes. The hypothesized model is illustrated in Figure 1.

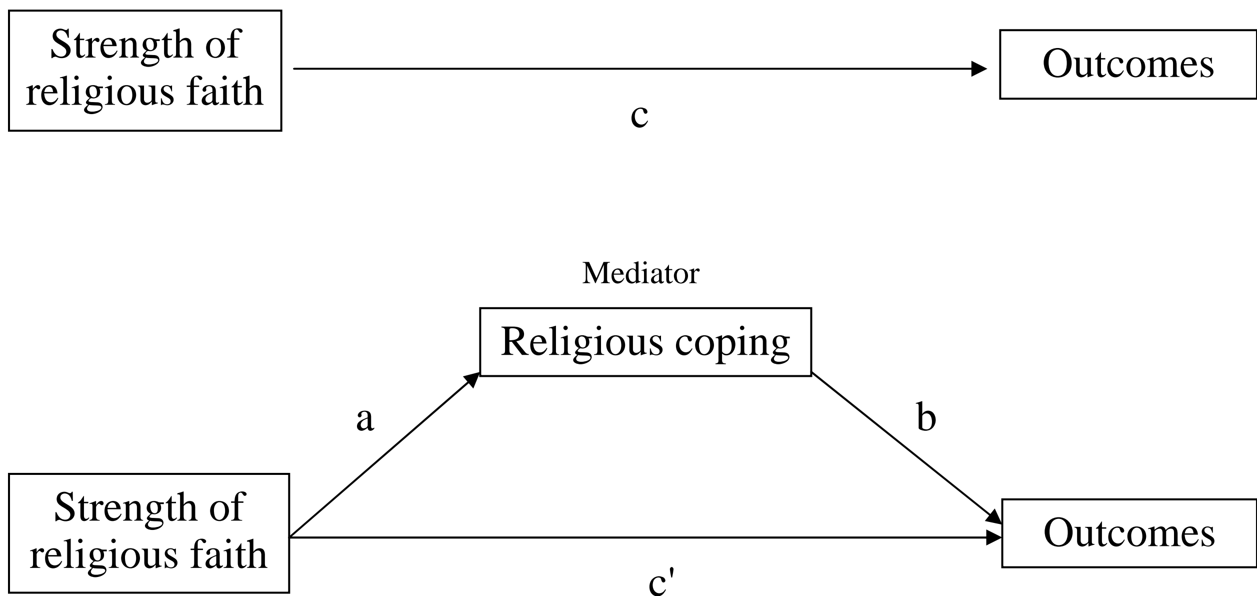

FIGURE 1. Hypothesized mediation model, with religious coping mediating the relationship between strength of religious faith and the outcomes.

Religious coping has been shown to mediate the relationship between religiousness and mental health (Pargament, 1997), but there have been few empirical investigations of this model. Fabricatore, Handal, Rubio, & Gilner, (2004) investigated this particular relationship with college students at a religiously affiliated university. They found religiousness to be indirectly associated to mental health, through its influence on positive religious coping behaviors. It is anticipated that this mediating

relationship will be extended to the other outcomes being assessed because of the associations between the outcomes, e.g. better mental health is associated with greater satisfaction with life, greater physical well-being, and less perceived stress (Smead, 1991; Ellison, 1991; Lazarus & Folkman, 1994). Though Fabricatore et al.'s (2004) study supports the hypothesized model, because their sample was primary Catholic or Protestant, their findings may not be generalizable to individuals from varying faith traditions. This study hopes to fill that gap by including measures that are applicable across religious orientations.

Another area in need of further research is whether specific faith traditions are adequately assessed by measures that focus only on Judeo-Christian orientations. While Pargament et al. (2000) showed the RCOPE to be applicable to people of varying levels of religiousness with different types of problems, some of the items are specific to a Christian orientation, e.g. "Asked for God to help me be less sinful," and therefore may not be applicable to people of different religious orientations. And though the Hindu Religious Coping Scale (Tarakeshwar, Pargament, & Mahoney, 2003) and Pakistani Religious Coping Practices Scale (Khan & Watson, 2006) both take steps to correct this problem, both scales are also grounded in very specific religious orientations, Hinduism and Islam, respectively. Given that current empirical studies which focus on religious coping show mixed findings on whether religious coping leads to positive or negative outcomes in stressful circumstances (Ano & Vasconcelles, 2005), it is important to widen the scope of inquiry to include all major belief systems. Given that currently existing measures are grounded in specific religious orientations, the information gleaned from them cannot be generalized to people outside of those orientations. Having one measure

of religious coping that is applicable across religious orientations would allow for generalizability across populations and aid in unifying the religious coping literature.

To that end, Shah, Douglas, Maheshwari, & McCarthy (2008) developed a measure of positive religious coping strategies that can be applied to a broad range of belief systems. A focus was placed on positive religious coping strategies due to the trends mentioned by Pargament et al. (2000) linking positive religious coping to more positive outcomes. In an initial investigation of the construct, focus groups of undergraduate students, who reported that religion was either helpful or unhelpful in their daily coping, were utilized by the researchers to develop as broad a taxonomy as possible of religious coping. The focus groups offered a means to compare experiences and identify themes common across a variety of belief systems. Because the purpose of the study was to identify dimensions of religious coping, not to encourage debate about the role of religion in people's lives, homogenous groups with respect to religious identification were created. In other words, groups contained only members who strongly identified with a religious group (N = 15), or members who did not (N = 15). People who did not identify with a religious group were included in the focus groups in an effort to identify as many dimensions of religious coping as possible, both positive and negative.

The result was a two-part 40-item measure (each part containing 20 items) called the Assessment of Religion and Spirituality in Coping (ARSC). Only the second part will be utilized in this study; it assesses individuals' utilization of positive religious coping behaviors in the face of stressful situations. Religious (high IR) individuals are almost certainly more likely to endorse items on this scale than are non-religious individuals.

NON-RELIGIOUS COPING STRATEGIES

Positive or adaptive coping strategies are not limited to religion, however. Historically, the study and measurement of non-religious coping strategies dates back much farther than the study of religious coping; the religious coping literature is still very much in its infancy. Coping strategies have been defined by Perlin and Schooler (1978) as behaviors individuals employ once a stressor has been engaged, presumably as a way to manage or ameliorate their stress.

Just as both positive and negative religious coping strategies have been identified (Pargament et al., 2000), there are also positive and negative non-religious coping strategies, referred to as adaptive and maladaptive coping strategies by Carver (1997). Some examples of negative strategies are substance abuse and denial. These are strategies that are unlikely to mitigate distress in the face of crisis or a stressful life event. Positive strategies, however, are more likely to help an individual feel less distress when employed in stressful circumstances. Some examples of positive coping strategies include, but are not limited to planning, using emotional support, and positive reframing of the situation.

Pargament et al. (2005) suggested that people enter the coping process with a general orienting system that influences the way they interpret and respond to stressful situations. Given that intrinsic religiosity leads to engagement in more positive religious coping behaviors (Koenig et al., 2001), it is anticipated that those who have a stronger sense of intrinsic religious faith will also respond to stressful situations with more adaptive non-religious coping strategies. In other words, individuals high in intrinsic religiosity are expected to engage in both religious and non-religious adaptive coping

behaviors; they are not expected to employ positive religious coping behaviors exclusively. The positive relationship between religiousness (high IR) and adaptive non-religious coping has been shown in several studies (Graham-Pole et al., 1989; Hughes et al., 1994; Jenkins, 1995).

Adaptive coping strategies, in turn, have been linked to more positive outcomes. Steptoe, O'Donnell, Marmot, & Wardle (2008) reported a positive relationship between adaptive coping and positive affect. Positive affect has also been linked to physical well-being and greater satisfaction with life (Koenig et al., 2001; Watson et al., 1988). Furthermore, it is anticipated that individuals who engage in positive coping behaviors generally perceive less stress in their lives.

To review, research has linked strength of religious faith (IR) to positive outcomes (e.g. reduced symptom distress, increased positive affect, and increased satisfaction with life). It has also linked positive non-religious coping to those same outcomes. Further, strength of religious faith has also been shown to be associated with positive non-religious coping. Because strength of religious faith, positive non-religious coping, and positive outcomes have all been shown to be independently related to one another, the case can be made that instead mediation is at work. Establishing each individual relationship between the variables is the first step to testing a mediation model (Baron and Kenny, 1986). There is little empirical support that positive non-religious coping behaviors mediate the relationship between strength of religious faith (IR) and positive outcomes. Pargament et al.'s (2005) assertion that religious (high IR) people enter the coping process with religion as their primary orienting system, however, suggests that they tend to approach life differently than non-religious people. Their

orienting system of religion (IR) likely influences their cognitive appraisal of the stressor and leads them to engage in more positive, adaptive coping strategies. The hypothesized model is illustrated in Figure 2.

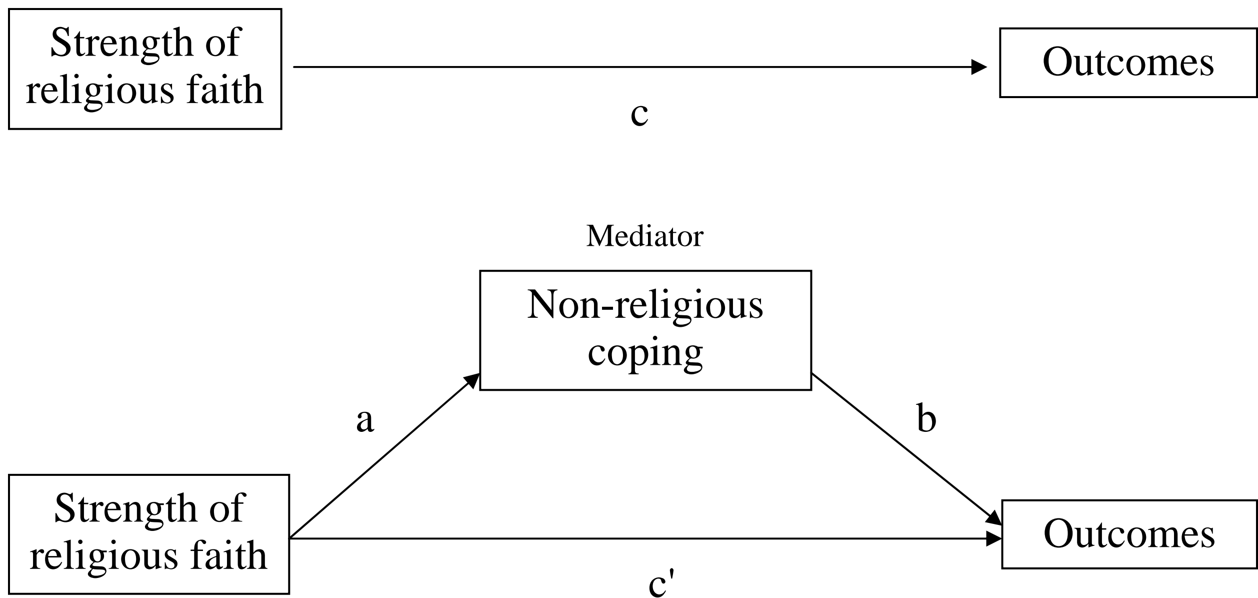

FIGURE 2. Hypothesized mediation model, with non-religious coping mediating the relationship between strength of religious faith and the outcomes.

CHAPTER 3: PROPOSED RESEARCH STUDY

Most studies that examined the role of religion in the coping process not only required participants to report retrospectively on which coping strategies they employed, but also used current mental health as an outcome variable (Fabricatore et al., 2004). This brings to light two problems: 1) participants' reports have the potential to be biased by their current mood state and the likely resolution of the stressor, and 2) using current mental health as an outcome for a stressor that may have occurred up to several years ago does not allow for investigation of the immediate effects of the coping strategies employed. It is important to examine how coping strategies affect individuals in the moment, when they are dealing with the stressor(s), in order to confidently attribute variability in outcomes (e.g. mental health, physical health, perceived stress, life satisfaction, etc.) to the coping strategies employed.

To this end, this study will examine how first year college students respond to the stress of starting college and being away from home for the first time. Students who move away from home to attend college often leave their support system behind. Because this transition period is a stressful one that places many demands on students, it is important to identify resources that can aid in the process.

In a study of U.S. universities from 1985 to 1995, Sax (1997) reported a trend that college students were reporting decreased physical and emotional health and increased feelings of stress. Cohen, Kessler, and Gordon (1995) argued that stress can result in "psychological or biological changes that may play persons at risk for disease" (p. 3).

Illness, in turn, is likely to affect students' personal and academic lives, and can also potentially add to the stress they are feeling. Given the far-reaching effects of stress, it is important to determine what kinds of strategies are most helpful during this transition period and investigate whether religious faith is an available resource that university staff should utilize when working with students who are having a hard time.

Assessing the students' behavior, affect, perceived stress level, symptom distress, and life satisfaction over the course of their first semester in college will eliminate potential biases related to the resolution of the stressor. This will also help control for outside factors that have the potential to affect the outcomes if behaviors are measured retrospectively. A better understanding of the ways in which students respond to the stress of starting college is essential to facilitate a smooth transition to university life.

Based on the above review of the literature, this study aims to add to the body of research focused on identifying the role religion plays in coping with stressful life events. By better understanding this process, the objective is to aid mental health professionals in addressing religion, when applicable, with their clients. The purpose of this study is to examine the relationships between the strength of college students' religious faith and positive coping behaviors (religious and non-religious) in the face of stress associated with starting college and being away from home for the first time. This study also aims to examine the subsequent effects of strength of religious faith and positive coping behaviors on such positive outcomes as physical and psychological well-being, perceived stress, and life satisfaction.

PARTICIPANTS

Participants in this study will be 90 first-year undergraduate students from the University of Texas at Austin who are away from home for the first time. Students will be recruited from the Department of Psychology subject pool. They will complete this research project to fulfill the department's undergraduate research requirement. Subjects will be prescreened to ascertain that they are first year students who have moved at least 100 miles away from home to attend the university. They will then be assigned to this research project and will have access to a webpage that will explain the study procedures.

Sample size was determined through a power analysis conducted on GPower (Faul, Erdfelder, Lang, & Buchner, 2007), a program designed to provide an estimated minimum number of participants needed to show significant differences at a set level of power, alpha, and effect size. The researcher set alpha at .05, requested a power level of .80, and anticipated a medium effect size of .15. With the parameters specified, the analysis revealed that 90 participants would be the minimum number of participants needed in order to achieve an 80% chance of seeing an effect when and if effects are actually present.

Participants will range in age from 18 to 20, with an expected mean of 18.33. It is expected that the participants' sex and ethnicity will be representative of the Department of Psychology at the university.

MEASURES – PREDICTIVE VARIABLES

Strength of Faith. Participants' strength of religious faith will be operationalized by their scores on the Santa Clara Strength of Religious Faith Questionnaire (SCSORF;

Plante & Boccaccini, 1997). All participants will complete this measure. The SCSORF is a ten-item scale that assesses strength of religious faith and is compatible with a variety of religious denominations. The Likert-type items on the SCSORF are scored on a four-point scale anchored at one as "strongly disagree" and four as "strongly agree." Possible scores range from 10 to 40, with higher scores indicating a stronger sense of religious faith.

The SCSORF demonstrated high internal reliability (Cronbach's Alpha = .95) as well good split-half reliability (r = .92) with an undergraduate student population (Plante & Boccaccini, 1997). Construct validity was demonstrated by correlating scores on the SCSORF with scores on the God control measure of the Belief in Personal Control Scale (r = -.83, *p<.01*) (BPCS; Berrenberg, 1987). Higher scores on the God control measure of the BCPS indicate less belief in God.

Positive Religious Coping. Participants' engagement in positive religious coping behaviors will be operationalized by their scores on the behavior portion of the Assessment of Religion and Spirituality in Coping (ARSC-B; Shah et al., 2008), a measure which all participants will complete. The ARSC-B is also compatible with an assortment of religious denominations. It asks participants to reflect on how often they employ positive religious coping strategies to manage their stress. The 20 Likert-type items on the ARSC-B are scored on a five-point scale anchored at one as "never" and five as "daily or almost daily." Possible scores range from 20 to 100, with higher scores indicating more religious coping than lower scores.

The ARSC-B demonstrated high internal reliability (Cronbach's Alpha = .98) as well as good split-half reliability (r = .91) with an undergraduate student population.

Construct validity was measured by correlating scores on the ARSC-B with scores on the Positive Religious Coping scale of the Brief R-COPE (r = .823, *p<.01*) (Pargament, Smith, Koenig, & Perez, 1998).

Positive Non-religious Coping – Brief COPE. Participants' engagement in non-religious coping behaviors will be operationalized by their scores on a modified instrument based on the Brief COPE (Carver, 1997). The Brief COPE is a 28-item instrument aimed at assessing a person's use of adaptive and maladaptive focused coping strategies. It includes 14 two-item subscales that each measures a conceptually distinct coping response.

The 14 subscales are as follows: Active coping, Planning, Positive reframing, Acceptance, Humor, Religion, Using emotional support, Using instrumental support, Self-distraction, Denial, Venting, Substance use, Behavioral disengagement, and Self-blame. As reported by Carver (1997), some of these responses are adaptive while others are more maladaptive. It was hypothesized by Capello (2008) that those who endorse 'active coping,' 'planning,' 'positive reframing,' 'acceptance,' 'humor,' 'religion,' 'using emotional support,' and 'using instrumental support' utilize more adaptive (or positive) coping strategies, and that those who endorse 'self-distraction,' 'denial,' 'venting,' 'substance use,' 'behavioral disengagement,' and 'self-blame' utilize more maladaptive (or negative) coping strategies.

Because this study focuses on positive coping strategies, only the adaptive strategy subscales (active coping, planning, positive reframing, acceptance, humor, using emotional support, and using instrumental support) will be included in the operational definition of positive non-religious coping. The religion subscale will not be included

because positive religious coping is a separate construct already being assessed by the ARSC-B.

Carver (1997) reported good internal consistency for each of the subscales (Coefficient Alphas as follows: Active coping, .68; Planning, .73; Positive reframing, .64; Acceptance, .57; Humor, .73; Using emotional support, .71; Using instrumental support, .64) in a community sample recovering from Hurricane Andrew. Capello (2008) reported a coefficient alpha of .63 for the aggregate positive coping score (including the religion subscale) in a sample of veterans.

MEASURES – OUTCOME VARIABLES

Physical Well-Being. Participants' physical well-being will be operationalized by their scores on the Hopkins Symptom Checklist – 21 (HCL-21; Green, Walkey, McCormick, & Taylor, 1988). The HCL-21 is a 21-item instrument designed to measure symptom distress. It is an instrument that has been used both for the measurement of neurotic symptoms as well as an indicator of symptoms present in normal populations. The three scales are general feelings of distress, somatic distress, and performance difficulty. An example item from the general feelings of distress subscale is, "Blaming yourself for things." An example item from the somatic distress subscale is, "Soreness of your muscles." Lastly, an example item from the performance difficulty subscale is, "Having to do things very slowly in order to be sure you are doing them right." Respondents are asked to report their experience over the past seven days on each of these dimensions on a four-point Likert scale anchored at one with "not at all" and at four

with “extremely.” A total distress score will be calculated based on all three scales, as suggested by the authors.

Green et al. (1988) reported high internal consistency for the total distress score (Coefficient Alpha = .90) as well as for each of the individual subscales (alphas ranging from .75 to .86) for a sample of 203 undergraduate students.

Perceived Stress. Participants’ perceived level of stress will be operationalized by their scores on the Perceived Stress Scale, ten-item version (PSS-10; Cohen & Williamson, 1988). The PSS-10 is a ten-item scale that measures the degree to which a person perceives aspects of his/her life uncontrollable, unpredictable, and overloading; it measures the degree to which situations in one’s life are evaluated as stressful. Respondents are asked to rate how often they have felt or thought a certain way over the past week on a five-point Likert scale anchored at zero with “never” and four with “very often.” Possible scores range from 0 to 40, with higher scores indicating a higher level of perceived stress.

Roberti, Harrington, & Storch (2006) reported high internal consistency (Cronbach’s Alpha = .89) in an undergraduate student sample. Convergent validity was established through high correlations with the State Trait Anxiety Inventory total score and the anxiety and depression factors (.72, .59, and .73, $p<.05$, respectively) (Roberti et al., 2006).

Psychological Well-Being. Participants’ psychological well-being will be operationalized by their scores on the Positive Affect (PA) scale of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PA scale is a ten-item instrument in which respondents report their affective experience over the past

few days on a five-point Likert scale, anchored at one with “very slightly or not at all” and at five with “extremely.” Possible scores range from 10 to 50, with higher scores indicating a more positive affective experience over the past few weeks.

Watson et al. (1988) reported high internal consistency (Coefficient Alpha = .87) and test-retest reliability at eight weeks (r = .58) for an undergraduate student sample. Convergent validity was also established through a negative relationship with the Beck Depression Inventory (r = -.36).

The PANAS also has a Negative Affect (NA) scale, and Watson et al. (1988) reported high correlations between this scale and the 58-item version of the Hopkins Symptom Checklist (r = .65 to .74). Because of this it was deemed unnecessary to include both the NA scale and the HCL-21 given that they seem to be measuring very similar constructs.

Satisfaction with Life. Participants’ satisfaction with life will be operationalized by their scores on the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985). The SWLS is a five-item scale that measures satisfaction with life as a cognitive judgmental process. Respondents are asked to rate their agreement with each statement on a seven-point Likert scale anchored at one with “strongly disagree” and at seven with “strongly agree.” Possible scores range from 5 to 35, with higher scores indicating a greater degree of overall satisfaction with one’s life.

In a review, Pavot and Diener (1993) found favorable reliability statistics, with Coefficient Alphas ranging from .8 to .89 and test-retest reliabilities for up to four years ranging from .5 to .84. The SWLS has also been shown to be positively correlated with

other measures of subjective well-being and life satisfaction and negatively correlated with clinical measures of distress (Pavot & Diener, 1993).

PROCEDURE

Prior to the study, consent will be obtained from the Institutional Review Board of The University of Texas at Austin. Participants will be recruited from the Department of Psychology subject pool. Potential participants will be asked to give their classification and approximately how many miles they moved away from home in order to attend the university during the prescreening process. 90 first-year students who are at least 100 miles away from home will be assigned to participate in this study.

Because the survey measures will all be delivered online, signed consent forms will not be obtained. Students who are assigned to this project will have access to a survey monkey webpage for the study. On the webpage, participants will view a cover letter describing the study. They will be given the investigator's contact information in case they have any questions regarding the consent. The subjects will not be identified at any time. They will be told that if they do not agree to the terms of consent they should not participate in the study. If they contact the investigator, they will be given other options to fulfill the research requirements with no penalty involved. They will also be told that they can stop the online survey at any time and withdraw from the study. Participants' identities will remain completely anonymous to the investigator and other students.

Subjects may take the surveys at any location of their choice (home, library, etc.), and will be asked to find a place where they can answer questions and write comfortably.

If subjects agree to the terms of consent and do not have any further questions, they will begin the online surveys. The online survey should take no more than 45 minutes to complete.

Participants will be asked to complete the instruments twice over the course of the fall semester, once at the beginning (in September) and once at the end (in December). They will complete the SCSORF, ARSC-B, and the Brief COPE only once, at the beginning of the semester. The will complete the outcome measures (HCL-21, PSS, PA scale, and SWLS) twice, once in September and once in December. Because individuals' are expected to show improvement in each outcome over the course of the semester, change scores from time one to time two of measurement will be used in the analyses. Each time the subjects complete the on-line study, they will e-mail the investigator verification of participation. Once this is received, the participants will be e-mailed their participation receipt. They will once again receive contact information of the investigator if they have any further questions.

RESEARCH QUESTIONS, HYPOTHESES, AND DATA ANALYSIS

Research Question 1

Will strength of religious faith (SCSORF) predict students' scores on the outcome measures? (HCL-21, PSS, PA scale, and SWLS)?

Hypothesis

Strength of religious faith (SCSORF) will account for a statistically significant amount of variance in the outcomes. It will be negatively related to symptom distress

(HCL-21) and perceived stress (PSS) and positively related to positive affect (PA scale) and satisfaction with life (SWLS).

Analysis

Four separate regression analyses will be conducted; each individual outcome variable will be regressed on the participants' score on the SCSORF. SCSORF scores will be entered as the predictor variable in each analysis, and change scores on the HCL-21, PSS, PA scale, and SWLS will serve as the dependent variables in each respective analysis.

Research Question 2

Will strength of religious faith predict students' engagement in religious coping behaviors (ARSC-B)?

Hypothesis

Strength of religious faith will account for a statistically significant amount of variance in use of religious coping; it will be positively related to engagement in religious coping behaviors.

Analysis

Participants' ARSC-B scores will be regressed on their SCSORF scores. This analysis is expected to yield a significant positive relationship between the two constructs.

Research Question 3

Will engagement in religious coping behaviors predict students' scores on the outcome measures (HCL-21, PSS, PA scale, and SWLS), after controlling for strength of religious faith?

Hypothesis

Engagement in religious coping behaviors will account for a statistically significant amount of variance in the outcomes; it will be negatively related to symptom distress and perceived stress and positively related to positive affect and satisfaction with life, after controlling for strength of religious faith.

Analysis

As with research question one, four separate regression analyses will be conducted; each individual outcome variable will be regressed on participants' ARSC-B and SCSORF scores. SCSORF scores and ARSC-B scores will be entered as the predictor variables in each analysis, and change scores on the HCL-21, PSS, PA scale, and SWLS will serve as the dependent variables in each respective analysis.

The analyses are expected to yield significant negative relationships between the ARSC-B and the HCL-21 and PSS, respectively and significant positive relationships between the ARSC-B and the PA scale and SWLS, after controlling for strength of religious faith.

Research Question 4

Will strength of religious faith predict students' engagement in non-religious coping behaviors (Brief COPE)?

Hypothesis

Strength of religious faith will account for a statistically significant amount of variance in non-religious coping behaviors; it will be positively related to engagement in non-religious coping behaviors.

Analysis

Participants' Brief COPE scores will be regressed on their SCSORF scores. This analysis is expected to yield a significant positive relationship between the two constructs.

Research Question 5

Will engagement in non-religious coping behaviors predict students' scores on the outcome measures (HCL-21, PSS, PA scale, and SWLS), after controlling for strength of religious faith?

Hypothesis

Engagement in non-religious coping behaviors will account for a statistically significant amount of variance in the outcomes; it will be negatively related to symptom distress and perceived stress and positively related to positive affect and satisfaction with life, after controlling for strength of religious faith.

Analysis

As with research questions one and three, four separate regression analyses will be conducted; each individual outcome variable will be regressed on participants' Brief COPE and SCSORF scores. SCSORF scores and Brief COPE scores will be entered as the predictor variables in each analysis, and change scores on the HCL-21, PSS, PA scale, and SWLS will serve as the dependent variables in each respective analysis.

The analyses are expected to yield significant negative relationships between the Brief COPE and the HCL-21 and PSS, respectively and significant positive relationships between the ARSC-B and the PA scale and SWLS, after controlling for strength of religious faith.

Research Questions 6 and 7

Will the relationship between strength of religious faith and the outcomes be mediated by engagement in religious coping behaviors (6)? Will the relationship between strength of religious faith and the outcomes be mediated by engagement in non-religious coping behaviors (7)?

Hypothesis

It is expected that the relationship between participants' SCSORF scores and their scores on the individual outcome measures (HCL-21, PSS, PA scale, and SWLS) will be mediated both by their scores on the ARSC-B (6) and on the Brief COPE (7).

Analysis

The method outlined by Baron and Kenny (1986) will be employed to test the mediation model. This method says that for a variable to function as a mediator, the following conditions must be met: (1) the independent variable is related to the outcome (2) the independent variable is related to the mediator (3) the mediator has a unique effect on the outcome (after controlling for the independent variable (4) the relationship between the independent variable and the outcome disappears or shrinks upon the addition of the mediator to the model. This procedure will be conducted four times, once for each outcome. The hypothesized models for this study are illustrated in Figures 1 and 2 in the Integrative Analysis.

The expected results of research question one, significant negative relationships between participants' scores on the SCSORF and the HCL-21 and PSS will satisfy condition one identified above. The expected results of research questions two and four, significant positive relationships between participants' scores on the SCSORF and their

scores on the ARSC-B and Brief COPE, will satisfy condition two identified by Baron and Kenny (1986). The expected results of research questions three and five, significant, unique effects of both ARSC-B scores and Brief COPE scores on the outcomes, above and beyond that explained by SCSORF scores, will fulfill condition three. What remains is condition four, which will be met by showing that entering ARSC-B scores as a predictor in one model and Brief COPE scores as a predictor in the second model, will reduce the strength of the relationship between SCSORF scores and participants' scores on each of the outcome measures.

Baron and Kenny (1986) indicate that the relationship between the predictor variable and the outcome must disappear upon the addition of the mediator in order for there to be a complete mediation. A decrease in that relationship, however, still illustrates a partial mediation. Jose (2003) created a program designed to test for the presence of partial mediations. This program asks for the values and sample size associated with paths a, b, c, and c' in each mediation model, and yields a Sobel's t-value in return. If this value is shown as statistically significant, there is a partial mediation. The t-values computed by this program are standardized, and can therefore be used to determine relative strengths of multiple mediators. This leads to the next research question.

Research Question 8

Are religious coping behaviors or non-religious coping behaviors a stronger mediator of the relationship between strength of religious faith and the outcomes?

Hypothesis

Religious coping will be a stronger mediator of the relationship between strength of religious faith and the outcomes than non-religious coping.

Rationale

Though religious people may enter the coping process with a general orienting system that leads them to engage in more adaptive coping behaviors, it is anticipated that the stronger their faith, the more likely they are to let religion permeate throughout other aspects of their lives. As such, their religious beliefs are likely to influence even the types of adaptive coping strategies they employ. Pargament (2002) reported that the relationships between religious coping and adjustment have remained significant even after controlling for the effects of non-religious coping measures. It is because of this effect above and beyond non-religious coping strategies that religious coping is expected to be a stronger mediator than non-religious coping.

Analysis

Assuming that both religious coping behaviors and non-religious coping behaviors separately mediate the relationship between strength of religious faith and the outcomes, as expected, the Sobel's t-values associated with each model will be compared. Because these values are computed in the form of z-scores, anything above 1.96 is considered significant at the .05 level, and beyond that, the greater value is associated with the stronger mediator.

CHAPTER 4: DISCUSSION

SUMMARY AND IMPLICATIONS

The broad goal of this study is to provide better understanding of the role religion plays in the coping process. More specifically, this study aims to assess how religion impacts the way first year college students cope with the transition from high school to college when they are away from home for the first time. A clearer understanding of the relationships hypothesized in this study can aid university staff (e.g. resident assistants, counseling center staff, or freshman interest group leaders) who may work with students who are having a hard time with the transition.

In addressing the aforementioned goal, it is predicted that both religious and non-religious coping behaviors will mediate the relationship between strength of religious faith (IR) and the outcomes (physical health, perceived stress, positive affect, and satisfaction with life). If the data supports this assertion, it would provide empirical support that higher levels of intrinsic religiosity lead to engagement in more adaptive coping strategies in the face of stressful circumstances; it would support the notion that religious individuals (high IR) tend to approach life differently than non-religious individuals. More specifically, it would indicate that when faced with a stressful life event, religious individuals are more likely to go through a cognitive appraisal process that results effective coping strategies rather than dysfunctional ones.

Identifying potential resources, such as religion, as particularly helpful during this transition period can help university personnel better tailor their outreach efforts to new

students. If religion is indeed as valuable a resource as some researchers expect, it is imperative that mental health practitioners be trained to address general concerns surrounding religion and spirituality and that they increase their cultural sensitivity and competence relevant to different religious orientations.

There are a number of studies linking religiosity to factors such as improved physical and mental well-being, but the reasons for these associations are still unclear. Because this area of research is still in its infancy, this study is largely exploratory in nature. Nevertheless, the results of this study have the potential to illuminate directions for future research.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

There are several limitations to the proposed study. First and foremost, because the current sample consists only of university students recruited from a specific geographic area, the generalizability of these findings is limited. Further, due to the status of the University of Texas at Austin as a public, state university, most of the students in the study are likely to be Texas residents. While participants will be screened to ensure all have moved at least 100 miles away from home to attend the university, there is a clear difference between 100 miles and 1,500 miles. The transition may be more difficult for those who have moved across the country than for those who have moved to less than halfway across the state. Future studies should seek to broaden their scope of inquiry to both public and private universities across the nation, in an effort to diversify the sample and make it more representative of the college student population as a whole.

Additionally, in terms of homogeneity of participants, this sample is likely to be over-representative of Judeo-Christian traditions. Though this issue is liable to be a common one for researchers, future studies should aim to recruit as religiously diverse a sample as possible.

A threat to the study's internal validity is the reliance on self-report measures. These can introduce such issues as measurement error and social desirability biases. Future research should attempt to include objective outcome measures wherever possible, e.g. number of doctor visits as a way to measure physical well-being.

Finally, while most of the measures used in this study have been well-validated with college student samples, the ARSC-B has not. The development and validation of this scale is still in its infancy, therefore it may not capture all aspects of positive religious coping common across religions. More work is needed in this area before generalizations can be made.

Appendix A

Santa Clara Strength of Religious Faith Questionnaire

Please answer the following questions about religious faith using the scale below.
Indicate the level of agreement (or disagreement) for each statement.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

1. My religious faith is extremely important to me.
2. I pray daily.
3. I look to my faith as a source of inspiration.
4. I look to my faith as providing meaning and purpose in my life.
5. I consider myself active in my faith or church.
6. My faith is an important part of who I am as a person.
7. My relationship with God is extremely important to me.
8. I enjoy being around others who share my faith.
9. I look to my faith as a source of comfort.
10. My faith impacts many of my decisions.

Appendix B

Assessment of Religion and Spirituality in Coping – Behavior Scale

Many people find the following aspects of religion and spirituality helpful in coping with their stress. Please rate how frequently you find yourself relying on the following aspects in managing your stress. Using the scale below for each item, please rate the extent to which you agree or disagree with each statement.

1 = never	2 = a few times a year	3 = a few times a month	4 = a few times a week	5 = daily or almost daily

Religious and spiritual practices can help ME cope with stress by:

1. providing me overall structure in life
2. offering me meaningful pursuits/practices (i.e. prayer, meditation)
3. providing me a routine
4. providing me opportunities to worship (i.e. attending religious ceremonies and services)
5. providing me a social network
6. offering me a sense of community
7. offering me a way to be around others with similar beliefs
8. providing me a religious community to belong to
9. providing me a system of values
10. offering me guidance (i.e. via scriptures and/or leaders)
11. allowing me a personal relationship with a higher power (i.e. God, Jesus, Allah, Krishna, etc.)
12. supporting my belief in a higher power
13. providing me comfort through a relationship with a higher power
14. offering me unconditional acceptance of myself through relationship with a higher power
15. providing me a connection with a higher power (e.g. the universe, God, etc.)
16. providing me a worldview that makes sense of life
17. offering me a sense of control in life
18. providing me a helpful way to view the world
19. giving my life a sense of meaning
20. explaining why things happen in my life

Appendix C

Brief COPE

These items deal with ways you've been coping with the stress in your life since you moved to Austin for school. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use the following response choices, try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been concentrating my efforts on doing something about the situation I'm in.
2. I've been getting emotional support from others.
3. I've been taking action to try to make the situation better.
4. I've been getting help and advice from other people.
5. I've been trying to see it in a different light, to make it seem more positive.
6. I've been trying to come up with a strategy about what to do.
7. I've been getting comfort and understanding from someone.
8. I've been looking for something good in what is happening.
9. I've been making jokes about it.
10. I've been accepting the reality of the fact that it has happened.
11. I've been trying to get advice or help from other people about what to do.
12. I've been learning to live with it.
13. I've been thinking hard about what steps to take.
14. I've been making fun of the situation.

Appendix D

Hopkins Symptom Checklist 21

INSTRUCTIONS: How have you felt during the past seven days including today? Use the following scale to describe how distressing you have found these things over this time.

1 = not at all   2 = a little   3 = quite a bit   4 = extremely

__difficulty in speaking when you are excited
__trouble remembering things
__worried about sloppiness or carelessness
__blaming yourself for things
__pains in the lower part of your back
__feeling lonely
__feeling blue
__your feelings being easily hurt
__feeling others do not understand you or are unsympathetic
__feeling that people are unfriendly or dislike you
__having to do things very slowly in order to be sure you are doing them right
__feeling inferior to others
__soreness of your muscles
__having to check and double-check what you do
__hot or cold spells
__your mind going blank
__numbness or tingling in parts of your body
__a lump in your throat
__trouble concentrating
__weakness in parts of your body
__heavy feelings in your arms and legs

Appendix E

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last week. In each case, please indicate with a check how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

3. In the last month, how often have you felt nervous and "stressed"?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

5. In the last month, how often have you felt that things were going your way?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

7. In the last month, how often have you been able to control irritations in your life?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

8. In the last month, how often have you felt that you were on top of things?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

9. In the last month, how often have you been angered because of things that were outside of your control?

___0=never
___1=almost never
___2=sometimes
___3=fairly often
___4=very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

___0=never

___1=almost never
___2=sometimes
___3=fairly often
___4=very often

Appendix F

Positive Affect Scale

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past week. Use the following scale to record your answers.

very slightly = 1 a little = 2 moderately = 3 quite a bit = 4 extremely = 5
or not at all

__ interested
__ excited
__ strong
__ enthusiastic
__ proud
__ alert
__ inspired
__ determined
__ attentive
__ active

Appendix G

Satisfaction with Life Scale

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree or Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

______1. In most ways my life is close to my ideal.

______2. The conditions of my life are excellent.

______3. I am satisfied with life.

______4. So far I have gotten the important things I want in life.

______5. If I could live my life over, I would change almost nothing.

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Vita

<Monique Shah grew up in Sugar Land, Texas, outside of Houston. After receiving her high school diploma from William P. Clements high school in 2002, she attended the University of Texas at Austin. She received her Bachelor of Arts in Psychology, with a minor in Spanish in December, 2005. In 2006, Monique was admitted to the Counseling Psychology Training Program at the University of Texas at Austin where she studies religious coping under Dr. Christopher McCarthy.

Permanent email: moniqueshah@gmail.com

This report was typed by Monique Shah.