Abilene Christian University
Digital Commons @ ACU

Electronic Theses and Dissertations

Graduate School

Spring 5-2-2017

Religious Problem Solving and Methods of Control

Richard Michael Eason
Abilene Christian University, rme15a@acu.edu

Follow this and additional works at: http://digitalcommons.acu.edu/etd

Part of the Psychology Commons

Recommended Citation

ABSTRACT

This study examined the connections between religious problem-solving strategies and experiences of control, specifically an internal and external locus of control, God locus of control, and the illusion of control. In addition, it explored how these connections relate to psychological well-being. Undergraduates enrolled in psychology courses were recruited to participate in this study. They completed five scales and a computerized task. These scales consist of the Religious Problem-Solving Scale, the Locus of Control Scale, the Multidimensional Locus of Control Scale-God Control Revision (God control subscale), the Center for Epidemiologic Studies-Depressed Mood Scale, and the Self-Rating Anxiety Scale. The computerized task will be a light bulb illumination task. While there were no significant results found in regards to the illusion of control, the religious measures of God control and religious problem-solving were shown to be consistent with previous findings. This can prove beneficial to clinicians working with religious clients.

   Keywords: religious problem-solving, internal and external locus of control, God locus of control, illusory control

Religious Problem Solving and Methods of Control

A Thesis

Presented to

The Faculty of the Graduate School

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

General Psychology

By

Richard Michael Eason

May 2017

This thesis, directed and approved by the candidate's committee, has been accepted by the Graduate Council of Abilene Christian University in partial fulfillment of the requirements for the degree

Master of Science in General Psychology

Lynette Sharp Penya
Assistant Provost for Graduate Programs

Date

May 2, 2017

Thesis Committee

Richard Beck
Dr. Richard Beck, PhD, Chair

John H. Casada
Dr. John Casada, PhD, MD

Scott Perk
Dr. Scott Perkins, PhD

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Coping

Coping and Mental Health

Coping has a significant impact on mental health (Gloria & Steinhardt, 2016). It is

aimed at regulating emotional experiences by changing one's own response to a stressful

situation or by changing the stress inducing situation in order to minimize stress

(Compas, Jaser, Dunbar, Watson, Bettis, Gruhn, & Williams, 2016; Jalbrzikowski, Sugar,

Zinberg, Bachman, Cannon, & Bearden, 2014; Moritz, Ludtke, Westermann, Hermeneit,

Watroba, & Lincoln, 2016).

Traditionally, coping styles are classified as adaptive coping or maladaptive

(Aldao, Nolen-Hoeksema, & Schweizer, 2010; Moritz et al., 2016). The literature

indicates that adaptive styles are also called action focused, active, problem focused, and

positive coping (Folkman & Lazarus, 1980; Martindale, Morissette, Kimbrel, Meyer,

Kruse, Gulliver, & Dolan, 2016). For example, one can take action to try to get rid of the

problem (Schroevers, Kraaij, & Garnefski, 2011). The literature goes on to state that

maladaptive coping is also called emotion focused, avoidant, and negative coping

(Folkman & Lazarus, 1980; Martindale, Morissette, Kimbrel, Meyer, Kruse, Gulliver, &

Dolan, 2016). For example, one can use escapist entertainment in order to think about the

problem less (Schroevers, Kraaij, & Garnefski, 2011).

When stressful situations arise, coping mechanisms are meant to help an individual deal with their issues. These mechanisms can take many forms, such as cognitive reframing and alcohol use. Whether the outcomes are adaptive or maladaptive largely depends upon the effectiveness of the coping mechanisms that are put into place (Abu-Raiya & Pargament, 2015; Lazarus & Folkman, 1984). Overall, adaptive coping has been associated with better long-term quality of life as opposed to maladaptive coping (Martindale et al., 2016; Wolters, Stapert, Brands, & Van Heugten, 2010).

Religious Coping

Religion can also be a resource for coping. This specific method of coping, as one might expect, is rooted in religious beliefs, practices, experiences, emotions, or relationships (Abu-Raiya & Parament, 2015). Religious coping methods can be, like other coping methods, either adaptive or maladaptive (Abu-Raiya & Parament, 2015). Consequently, on conceptual and empirical grounds, religious coping has been distinguished between two categories: "Positive" religious coping and "negative" religious coping (Abu-Raiya & Pargament, 2015; Pargament, Smith, Koenig, & Perez, 1998). Factor analysis has shown that positive and negative religious coping are higher order constructs that describe a variety of more specific religious coping methods (Abu-Raiya & Pargament, 2015; Pargament, Koenig, & Perez, 2000).

Positive religious coping methods are viewed as being activities that reflect a secure relationship with God, the sense of a higher purpose, and a feeling of spiritual community with others (Abu-Raiya & Pargament, 2015; Pargament, Koenig, & Perez, 2000). Examples of positive religious coping include looking for a stronger connection with God, seeking God's love and care, and asking forgiveness for sins (Pedersen,

Pargament, Pedersen, & Zachariae, 2013). Negative religious coping, on the other hand, relates to coping activities that reflect an ominous view of the world and a religious struggle to find, and conserve, significance in life (Abu-Raiya & Pargament, 2015; Pargament, Koenig, & Perez, 2000). Examples of negative religious coping include feeling abandoned by God, feeling punished by God, and questioning God's love (Pedersen et al., 2013).

In the presence of hard times, many people turn towards their religion (Abu-Raiya & Pargament, 2015). The use of positive religious coping methods is correlated to better states of mental health, lower levels of distress, less depression and anxiety, less helplessness, less perceived stress, and less severe post-traumatic symptoms (Abu-Raiya & Pargament, 2015; Arevalo, Pedro, & Amaro, 2008; Arnette, Mascaro, Santana, Davis, & Kaslow, 2007; Lee, 2007; Meisenhelder & Marcum, 2004; Tix & Frazier, 1998). However, the use of negative religious coping methods is correlated with higher levels of depression, anxiety, and obsessive-compulsive behaviors (Abu-Raiya & Pargament, 2015; Cole, 2005; McConnell, Pargament, Ellison, & Flannelly, 2006). Overall, as one might suspect, the use of positive religious coping methods lead to desirable mental-health outcomes, while negative religious coping methods lead to undesirable mental-health outcomes.

Religious Problem Solving

A more specific subset of religious coping has been described as religious problem solving. Pargament and colleagues (1988) argue that religion is an important part of society as a whole, and religious belief should permeate decision-making and problem-solving. From this understanding, Pargament and colleagues (1988) proposed

three ways that people use their religious beliefs to cope with and confront problems with a specific focus on an individual's locus of control (Andrews, Stefurak, & Mehta, 2011; Wong-McDonald & Gorsuch, 2004). These facets of religious problem solving are described as self-directed religious problem solving, deferring religious problem solving, and collaborative religious problem solving (Andrews et al., 2011; Kohn-Wood, Hammond, Haynes, Ferguson, & Jackson, 2012; Pargament et al., 1988).

According to Pargament and colleagues (1988) self-directing religious problem solving involves an individual who takes complete responsibility to resolve their own problems, relying very little, if at all, upon God. That is, while the individual is directly involved in an active problem solving stance, God is not. This, however, is not an anti-religious approach but instead takes the stance that God gives people the freedom and resources to direct themselves. Deferring religious problem solving, in contrast to self-directing, is when individuals defer the responsibility of problem solving to God. Instead of being active in the process of problem solving, the individual will wait for the solutions to his problems to emerge through God's actions or guidance. Finally, collaborative religious problem solving is a combination of the previous two methods. In the collaborative religious problem solving method both the individual and God have joint responsibility in the problem solving process. Neither participant is viewed as being a passive partner, but both work together in a "collaborative" manner.

These three religious problem-solving strategies are correlated with varying levels of mental health. For example, those who engage in deferring methods of religious problem solving are shown to have slight tendencies towards positive mental health, while those who engage in collaborative methods have a higher correlation with positive

mental health (Brown, Carney, Parrish, & Klem, 2013). However, those who engage in a more self-directing approach to religious problem solving have higher levels of anxiety and depression (Brown, Carney, Parrish, & Klem, 2013). Two possibilities for this finding have been considered. One being that less reliance on a higher power might increase the probability of feeling alone and unsupported (Phillips, Pargament, Lynn, & Crossley, 2004). The other possibility could be that higher levels of depression and anxiety may indicate a loss of hope, thus keeping an individual from being able to use spiritual and (or) religious resources (Hodges, 2002). Overall, then, the methods of religious problem solving are associated with differing levels of mental health.

Locus of Control and Coping

The relationship between locus of control and coping is bidirectional. Specifically, an individual's locus of control affects their coping style and vice versa. Internal characteristics can dictate a person's behavior, and the actions that a person chooses to make, in turn, modifies and defines the individual's personal attributes. Specific understandings of control may influence the method by which someone copes, and the effectiveness of certain coping strategies may influence individual perceptions of control (Wong-McDonald & Gorsuch, 2004).

Internal and External Locus of Control

Locus of control is an aspect of personality that affects the individual's belief, or perception, regarding adversities in life (Li, Wei, Ren, & Di, 2015; Edwards, Catling, & Parry, 2016; Rotter, 1966). The idea of locus of control originated from the social learning theory of Rotter (1966), which has been largely discussed throughout the area of personality psychology over the past few decades. Locus of control involves two primary

perceptions that people hold in relation to the controllability of events. Specifically, control is usually either attributed to individuals themselves or to the external environment (Sun, 2011). Those who demonstrate an internal locus of control perceive events as being dependent upon their behavior and characteristics, showing that they attribute control to themselves. On the other hand, those who demonstrate an external locus of control perceive events that arise to be the result of environmental factors related to luck, fate, or chance; they attribute control to forces outside of themselves (Edwards, Catling, & Parry, 2016; Paul, 1982; Rotter, 1966; Sun, 2011).

Internal control is associated with greater health and well-being (Brown & Siegel, 1988; Propst, 1991; Schulz, 1980; Seligman, 1975; Wong-McDonald & Gorsuch 2004). Individuals with an internal locus of control perceive themselves to have more control over adverse situations compared to those with an external locus of control and, therefore, perceive these situations to be less averse, leading to a lower response to stress (Abouserie, 1994; Anderson, 1977; Bollini, Walker, Hamann, & Kestler, 2004; Edwards, Catling, & Parry, 2016). Those who have an internal locus of control also have higher job satisfaction and feel less pressure of their roles than those with an external locus of control (Li et al., 2015; Robbins, 2000; Thomas & Velthouse, 1990). Conversely, when coping with adverse situations, those who have an external locus of control had an increased risk of negative outcomes, while those with an internal locus of control were less likely to experience these unfortunate outcomes (Edwards, Catling, & Parry, 2016; Kobasa, 1979; Sandler & Lakey, 1982). Those who have an external locus of control frequently lack self-confidence, take less risks, and are generally controlled by external

circumstances (Fournier & Jeanrie, 1999; Gurol & Atsan, 2006; Loosemore & Lam, 2004; Miller & Mulligan, 2002; Plunkett & Buehner, 2007; Spector, 1982; Sun, 2011).

Elfstrom and Kreuter (2006) found that differences in locus of control are connected with differing methods of coping. Specifically, those with an internal locus of control report having "positive" coping strategies that relate to increased well-being (problem focused and action focused). On the other hand, those indicating an external view of control report engaging in "negative" coping strategies that relate to lower levels of well-being (emotion focused and avoidant).

As noted above, research has suggested that there are many differing types of coping (Folkman & Moskowitz, 2004; Park, Sacco, & Edmondson, 2012; Skinner, Edge, Altman, & Sherwood, 2003), and that these distinct coping styles may differentially interact with control in determining the effectiveness of specific coping methods (Farber, Mirsalimi, Williams, & McDaniel, 2003; Park, Sacco, & Edmondson, 2012). In relation to religious problem-solving strategies, previous studies indicate that internal control is exhibited by people who engage in both self-directing and collaborative approaches and that those who exhibit an external locus of control tend to use more deferring methods of religious problem solving (Pargament et al., 1988; Wong-McDonald & Gorsuch, 2004). As stated earlier, those who engage in collaborative and deferring methods of religious coping show an improved sense of mental well-being. Those using self-directing religious coping tend to lower levels. This appears contradictory to what has been found regarding internal and external locus of control, seeing as those with an internal locus of control tend to have higher levels of mental health than those with an external locus of control. However, this might be due to the possibility that in particular populations some

forms of external locus of control are adaptive. For example, in religious populations reliance upon God, a form of external support, is a source of positive religious coping. By contrast, when religious persons engage in self-directed religious problem solving, a more internal locus of control, they might actually feel abandoned by God, feeling as though they have to take care of the situation by themselves (Phillips et al., 2004).

God Control

While internal and external locus of control may be the two primary models of control, there are other loci of control that have been studied. One such view of control is God locus of control (Aten, Hill, Bennett, Davis, & Hook, 2012; Moore, 2014; Wong-McDonald, & Gorsuch, 2000). Welton et al. (1996) examined God control as being an external source of locus of control. God control later developed in relation to health, which resulted in God locus of health control (Moore, 2014). The concept of God control is, in short, the belief that God is the one who determines life events (Kopplin, 1976; Wong-McDonald & Gorsuch, 2004). God control has also been described as a unique form of religious coping in which individuals acknowledge their lack of ability to control certain events and therefore surrender to God's will over the uncontrollable situation (Aten et al., 2012; Wong-McDonald & Gorsuch, 2000). While religious coping has both active (self-directing and collaborative) and passive (deferring) dimensions God control beliefs are primarily considered to be a passive external force. (Holt, Clark, & Klem, 2007; Moore, 2014).

Those who have a predominantly God centered locus of control have lower levels of depression and correlate with better mental well-being (Aten et al., 2012; Bjorck, Lee, & Cohen, 1997; Wong-McDonald & Gorsuch, 2004; Wong-McDonald & Gorsuch,

2000). Research has also been found that higher levels of God control beliefs are associated with decreased alcohol use and decreased engagement in sexual risk behavior (Goggin, Malcarne, Murray, Metcalf, & Wallston, 2007; Goggin, Murray, Malcarne, Brown, & Wallston 2007; Moore, 2014). This model of control involves a complex balance of viewing God as being in control while maintaining a collaborative sense of responsibility for one's own response to stressors (Aten et al. 2012). However, Pargament and colleagues (1988) indicate that those with a locus of control in God tend to use a deferring method of religious coping (Wong-McDonald & Gorsuch, 2004). Research has found that God control correlates positively with both the religious problem solving strategy of deferring and the strategy of collaborating with God (Aten et al., 2012; Wong-McDonald & Gorsuch, 2004). The findings of Brown and colleagues (2013) indicate that those who engage in self-directing religious problem-solving strategies are shown to have higher levels of depression and anxiety, while those who engage in problem-solving strategies that correlate more closely with God centered locus of control are shown to be more closely related with having better mental well-being.

<div align="center">

Illusory Control, Locus of Control, & Coping

</div>

Positive Illusions

There are certain false beliefs, referred to as positive illusions, that are thought to fulfill a crucial role in an individual's well-being (Young, 2014). These beliefs can be narrowed down to three categories. First, illusions regarding an individual's own attributes. Second, illusions regarding undue optimism concerning the future. And third, illusions in relation to an individual's personal control over events (Young, 2014). This third positive illusion is called the illusion of control, and while it is considered to be a

false belief it is still understood to have a positive impact on an individual's mental well-being (Taylor, 1989; Taylor & Brown, 1988; Young, 2014).

Illusory Control

The illusion of control, also referred to as illusory control, refers to the inappropriately high expected probability of personal success compared with what objective probability would warrant (Langer, 1975). This is seen when an individual believes a particular skill or ability that he possesses is capable of influencing the outcome of a random, or chance-determined, event (Cowley, Briley, & Farrell, 2015). Research has shown that familiarity with the setting, as well as the presence of favorable outcomes, facilitates the illusion of control (Bouts & Van Avermaet, 1992; Cowley, Briley, & Farrell, 2015; Davis, Sundahl, & Lesbo, 2000; Langer, 1975). Illusory control has been shown to be a positive illusion, and as such, has a distinctive impact on the mental well-being of individuals (Bogdan, Pringle, Goetz, & Pizzagalli, 2012; Thompson, Kyle, & Osgood, 2004).

An illusory sense of control is related to improved mental health (Vincze, Roth, & Degi, 2012). A low illusory sense of control has been associated with depression, as well as maladaptive responses to stressors (Alloy & Clements, 1992; Bogdan, Pringle, Goetz, & Pizzagalli, 2012; Thompson, Kyle, & Osgood, 2004). This is consistent with theoretical speculations that a low illusion of control may leave individuals vulnerable to the effects of stress that lead to depression (Alloy & Clements, 1992; Bogdan et al., 2012). Bogdan and colleagues (2012) also found that those who experienced lower levels of illusory control had elevated perceptions of life stress, as well as anhedonic symptoms.

While those who have an illusory sense of control have better mental health outcomes, there are observed drawbacks. For example, those who have an increased illusion of control are shown to be more likely to engage in unhealthy risk taking behavior (Dixon, 2000; Griffiths, 1994; Langer, 1975; Martinez, Le Floch, Gaffie, & Villejoubert, 2011; Walker, 1992). An example of this can be found when examining the illusion of control in relation to gambling behaviors (Hudgens-Haney, Hamm, Goodie, Krusemark, McDowell, & Clementz, 2013; Martinez et al., 2011). The connection becomes even more pronounced for problem and pathological gamblers (Breen & Frank, 1993; Dickerson, 1993; Hudgens-Haney et al., 2013). While problem gamblers have fewer symptoms than pathological gamblers, they are still willing to accept bets as if they actually have control, even when this control does not exist (Goodie, 2005; Hudgens-Haney et al., 2013).

The illusion of control is also related to beliefs in superstitions (Rudski, 2004). Superstitions can arise in situations when reinforcement for a given response has been accidently paired with, and reinforces, an unrelated response (Catania & Cutts, 1963; Rudski, 2001). This aligns with a copious amount of research regarding facilitating factors of the illusion of control, specifically the presence of favorable outcomes (Cowley, Briley, & Farrell, 2015; Langer, 1975). Rudski (2004) suggests that the adoption of an illusion of control, or of superstitious beliefs, may be a way for people to cope with uncertainty.

When looking at the definition of an internal locus of control, it is apparent that the illusion of control derives its origins from this source. Both internal locus of control and the illusion of control view control as being influenced primarily through the

personal efforts of an individual, even though an illusory sense of control assumes

influence over events even when there is none (Cowley, Briley, & Farrell 2015; Edwards,

Catling, & Parry, 2016; Langer, 1975; Rotter, 1966). In fact, it has been said that those

who harbor an illusion of control have high levels of an internal locus of control (de

Stadelhofen, Aufrere, Besson, & Rossier, 2009). There have not, however, been any

studies that have investigated the relationship between God locus of control and the

illusion of control.

Illusory control and Religious Coping

A reason people may obtain an illusory sense of control is because it might help

them cope with uncertainty (Rudski, 2004). Lefcourt (1973) found that, with respect to

responding to aversive stimulation, the perception of control can make a significant

difference. Thus, it can be inferred that during stressful life situations, if an individual can

cope by convincing himself that he has a certain amount of control over the situation, it

could potentially help him shun avoidance coping strategies. Which, as stated earlier, is a

maladaptive form of coping (Folkman & Lazarus, 1980; Martindale et al., 2016).

There has been very little research done in relation to illusory control's

relationship with religious coping or religious problem solving. Bjorck (2007) is the only

study that touches on this subject, and his focus is theological rather than empirical. In

short, to date no empirical work has examined the relationship between illusory control

and religious coping.

As mentioned previously, those who have an internal locus of control have better

mental health. However, this trend requires nuancing when religious problem solving

techniques are brought into play. While those who engage in self-directing methods of

religious problem solving are found to be more prone to depression and anxiety, those who engage in collaborative methods of religious problem solving are shown to have fewer of these symptoms. This could be, though, because those who use collaborative religious problem-solving strategies also have a God locus of control, which is positively correlated with positive psychological well-being. But in relation to religious coping, it is still not known how an illusion of control relates to God control and associated religious problem-solving strategies.

The Present Study and Research Objectives

Due to the lack of empirical research on the connections between religious coping, God control, and the illusion of control, this study explored the relationships between these variables. The purpose of this study was to find connections between the use of specific religious problem-solving strategies and different methods of control and observe correlations between these connections and an individual's psychological well-being. Obtaining a better understanding of the relationship between these variables could open the path to further research which may help in better understanding the possible motivation behind some people's use of religious problem-solving strategies and having a God locus of control. If certain strategies, or having a God centered locus of control, are positively correlated with an illusory sense of control, then it may be speculated that people who exhibit these certain beliefs may not actually be working off of the belief that God is a key influencer in their life, but instead use these methods of coping to enforce their own sense of control. Also, if the combination of certain religious problem-solving strategies, a God centered locus of control, and an illusory sense of control are found to

be positively, or negatively, correlated, then clinicians can use this information to encourage, or discourage, certain behaviors in order to help their clients.

There were three primary predictions for this study. The first hypothesis was illusory control would be positively correlated with collaborative and self-directing religious problem-solving styles, and negatively with a deferring style. This was predicted because those with a stronger illusory sense of control would demonstrate an internal locus of control, which is associated with both collaborative and self-directing religious problem solving styles. The second prediction was that illusory control and collaborative religious problem-solving would be positively correlated with mental well-being. This was predicted because those with an illusory sense of control report higher levels of psychological well-being. Collaborative religious problem solving has been correlated with internal locus of control, which is also associated with mental health. The third prediction was that illusory control would be positively correlated with internal locus of control and negatively correlated with God control. This was predicted because illusory sense of control has been shown to be related to an internal locus of control.

CHAPTER II

METHODS

Participants

Research participants consisted of undergraduate students enrolled in an

Abnormal Psychology course at Abilene Christian University. They had an opportunity to

receive extra credit for their participation. Data from participants who provided

incomplete information were not included in the data analysis.

There were 53 students who participated in this study. Of these 53 students, 19%

were male and 81% were female. Regarding ethnicity, 66% of the students were

Caucasian, 24% were Hispanic or Latino/a, 6% were African American, and 4% were

Asian. The mean age of the participants was 20.5, with a standard deviation of 3.0.

Measures

All methods of measurement were administered via a computer. There were five

scales included in this study, and one computerized task.

Religious Problem Solving (RPSS; Pargament et al., 1988)

The Religious Problem-Solving Scale, by Pargament et al. (1988) is a 36-item

scale used to measure styles of problem-solving that relate to an individual's relationship

with God. There are three subscales involved in this scale: self-directing (an individual

solves the problem on his own), deferring (God solves the problem for the individual),

and collaborative (both God and the individual work together on solving the problem).

The ranges on the scale go from never (0) to always (4), with higher subscale scores

15

indicating a stronger tendency to use that particular style of problem-solving. An example item from the self-directing subscale is "When thinking about a difficulty, I try to come up with possible solutions without God's help." While an example of a deferring statement is "I do not think about different solutions to my problems because God provides them for me." Finally, an example of a collaborative method is "The Lord works with me to help me see a number of different ways that a problem can be solved." Pargament and colleagues reported Cronbach's alphas ranging from 0.91 (Deferring) to 0.94 (Self-Directing and Collaborative). Andrews et al. (2011) reported alphas of 0.95 (Self-directing and Deferring), and 0.96 (Collaborative). The entire RPSS can be found in Appendix B.

Internal and External Locus of Control (Rotter, 1966)

The Locus of Control Scale, by Rotter (1966), is a 29-item scale used to determine whether an individual has an internal or external locus of control. Items consist of pairs of statements which participants indicate which they most agree with (heredity plays the major role in determining one's personality, versus, it is one's experiences in life which determine what he is like). A high score indicates an external locus of control while a low score indicates an internal locus of control. Studies have supported the validity, stability, and accuracy of this measure (Davidson, Boyle, & Lauchlan, 2008). The entire Locus of Control Scale can be found in Appendix C.

God Locus of Control (MLCS-GCR; Welton et al., 1996)

The Multidimensional Locus of Control Scale-God Control Revision, originally by Levenson (1981), is a 32-item instrument designed to determine an individual's locus of control. One of the subscales of this instrument, by Welton et al. (1996), measures God

Control (the presence of a higher power being solely responsible for the outcomes of an individual's life). Choices range from strongly disagree (-3) to strongly agree (3). Higher scores indicate a stronger belief in the locus. An example item is "when things don't go my way I ought to pray." The God Control subscale demonstrates high internal consistency in initial validation studies showing alpha coefficients ranging from 0.85-0.89 (Welton et al., 1996). Andrews et al. (2011) reported an internal consistency of 0.92, which is markedly higher than those of the other subscales of this instrument. The six items that measure overall God control are used. The MLCS-GCR subscale can be found in Appendix D.

The Illusion of Control (Illusion of Control Light Bulb Illumination Task)

The Illusion of Control Light Bulb Illumination Task was administered through a computer, while the experimenter was present. Each session included 50 trials, each consisting of several stages. The initial stage consisted of an image of a darkened lightbulb, presented for two seconds. This was followed by an image of a darkened light bulb with red dots on it, which was also presented for two seconds. During this stage, the participant decided whether or not he would click the mouse. The participant had been instructed that his decision to click or not click the mouse could have an impact on whether the light bulb would be illuminated or not. Next, the screen would either switch to a darkened light bulb with no red dot, or an illuminated light bulb. The screen that was presented during the third stage was not influenced by the mouse click in any way. This continued for 50 trials. Twenty-six percent of the time, the lightbulb was illuminated on the final screen, and the other 74% of the time it remained darkened. After all fifty trials, the participant was asked to rate how much control he felt they had over the task on a

scale of one to one hundred. There have been several studies that have done variations on this task to measure the illusion of control, each finding it to be a reliable and valid measure (Balzan, Delfabbro, Galletly, & Woodward, 2013; Blanco, Matute, & Vadillo, 2012; Gillan, Morein-Zamir, Durieux, Fineberg, Sahakian, & Robbins 2014).

Depression (CES-D; Radloff, 1977)

The Center for Epidemiologic Studies-Depressed Mood Scale, by Radloff (1977), is a 20-item scale designed to measure depression. This measure is answered using a scale of 0 (rarely or none of the time) to 3 (most or all of the time). There are four items that required reverse scoring: 4, 8, 12, and 16. Scores range from 0 to 60, with higher scores indicating more depressive symptoms. Two example items are "I felt lonely," and "I had trouble keeping my mind on what I was doing." The CES-D has been found to have a high level of internal consistency in clinical samples, exhibiting alphas of 0.85 and 0.90 (Radloff, 1977). This measure also has good concurrent validity, shown to correlate well with other scales that are used to measure depressive symptoms (Radloff, 1977). Graziano and Sikorski (2014), recorded a Cronbach's alpha of 0.84 (Graziano, & Sikorski, 2014). The entire Center for Epidemiologic Studies-Depressed Mood Scale can be found in Appendix E.

Anxiety (SAS; Zung, 1971)

The Self-Rating Anxiety Scale, by Zung (1971), is a 20-item scale used to quantify anxiety symptoms. The measure is answered using a scale of 1 (some or a little of the time) to 4 (most or all of the time). Scores range from 20 to 80, with higher scores indicating more anxiety. Two example items are "I get upset easily or feel panicky," and "I have nightmares." The SAS has been found to have adequate consistency exhibiting

alphas from 0.74 (Xu, Fu, Wang, & Zhang, 2015) to 0.86 (Yu, Chen, Liu, Yu, & Zhao

2015). The entire Self-Rating Anxiety Scale can be found in Appendix F.

CHAPTER III

RESULTS

Descriptive Statistics

The students who participated in this study were asked to take part in a light bulb illumination task, as mentioned previously. After they had completed the task, participants were asked to rate the amount of control they felt they had (how much their responses impacted the illumination of the light bulb) on a scale from 0-100.

Overall, the descriptive statistics for the illusion of control scores were: Mean = 27.26, SD = 25.79. Seventeen out of the 53 participants gave a score of zero.

Regarding the scores of zero, it was observed that some of the participants guessed the task was automated. One participant commented shortly after initiating the task, "[o]h, this is automated." This will be explored in more detail in the Discussion.

The descriptive statistics for the well-being variables can be found in full in Table 1. The descriptive statistics for the control variables (including the illusion of control) can be found in full in Table 2.

Correlations Between Control and Well-Being

A goal of the study was to observe the relationships between the psychological control—illusion of control, locus of control, and religious control—and well-being. It was predicted that illusory control, internal locus of control, and a collaborative style of religious problem-solving would be positively correlated with ratings of well-being (depression and anxiety).

The correlations between the control measures with the well-being measures can be seen in Table 3. In Table 3 it can be seen that, contrary to predictions, there are no significant correlations between the control measures and the well-being measures.

Correlations Between Control Measures

Another goal of the study was to assess the relationships between the various types of psychological control. It was predicted that the illusion of control would correlate positively with collaborative and self-directing religious problem-solving styles, and negatively with the deferring style. It was also predicted that illusory control would be positively correlated with internal locus of control and negatively with God control.

In order to examine the relationships between these variables bivariate correlations were run. These correlations can be found in full in Table 4. In Table 4 it can be seen that, also contrary to predictions, there were no significant correlations between the illusion of control and the other measures of control. The only significant results found in Table 4 were between the religious control variables (God locus of control, RPSS-collaborative, RPSS-deferring, and RPSS-Self-directing). Specifically, God control was positively correlated with collaborative and deferring religious coping and negatively correlated with self-directed religious coping.

Table 1

Descriptive Statistics of the Well-Being Variables

Well Being:	Mean	SD	Minimum	Maximum
Depression	14.98	10.67	1.00	45.00
Anxiety	33.89	8.42	22.00	63.00

Table 2

Descriptive Statistics of the Control Measures

Control Variables:	Mean	SD	Minimum	Maximum
Illusion of Control	27.26	25.79	0	100
Locus of Control	34.42	3.49	28	42
God Control	26.75	5.78	8	35
RPSS-Collaborative	41.73	8.13	12	51
RPSS-Deferring	31.64	7.71	12	60
RPSS-Self-Directive	28.45	9.90	28	42

Table 3

Correlations Between the Control Measures and Well-Being Measures

Control Measures:	Depression	Anxiety
Illusion of Control	-.06	-.08
Locus of Control	.12	.18
God Control	-.09	-.03
RPSS-Collaborative	-.14	-.06
RPSS-Deferring	.03	.11
RPSS-Self-Directing	.14	.04

Table 4

Correlations Between the Control Measures

	Illusion of Control	Locus of Control	God Control	RPSS-Collaborative	RPSS-Deferring
Locus of Control	-.14				
God Control	-.14	.21			
RPSS-Collaborative	-.06	.25	.77*		
RPSS-Deferring	-.08	.29	.68*	.54*	
RPSS-Self-Directing	-.13	-.23	-.63*	-.78*	-.42*

*p < .01

CHAPTER IV

DISCUSSION

Overview of findings

As mentioned previously, there is a considerable lack of empirical research on the connections between religious coping, God control, and the illusion of control. There has been a significant amount of research done in these realms individually; however, there have not been any evidence-based studies contributing to the connection of religious coping and God control to the illusion of control. This particular study took these variables, along with internal and external locus of control, and the well-being variables of depression and anxiety and searched for connections between said variables.

The purpose of this study was to explore the potential relationship between the illusion of control with religious problem solving techniques and God locus of control. It was hoped that in obtaining a better understanding these relationships a path for future research may open in order to better understand the motivation in engaging in religious activities. As stated previously, it was thought that if certain religious problem-solving strategies, or having a higher sense of God locus of control, were positively correlated with an illusory sense of control, then it could be speculated that those who engage in these religious behaviors may not truly believe that God has as much influence as they state He does. It could be that these individuals are using these religious methods of coping to inflate their own sense of control. Another reason that this study was conducted was to provide clinicians with more resources to help their clients. If the combination of

certain religious problem-solving strategies, a God centered locus of control, and an illusory sense of control are found to be correlated, either positively or negatively, then this information could provide clinicians information that would benefit their clients who are religiously affiliated.

As previously mentioned, the methods of measurement used in this study were administered using a computer. There were five scales and one computerized task. The scales used during this study were the Religious Problem-Solving Scale, by Pargament et al. (1988), the Locus of Control Scale, by Rotter (1966), the Multidimensional Locus of Control Scale-God Control subscale, Welton et al. (1996), the Center for Epidemiologic Studies-Depressed Mood Scale, by Radloff (1977), and the Self-Rating Anxiety Scale, by Zung (1971). The task that was used in this study was a Light Bulb Illumination Task, used in order to measure the illusion of control.

The participants were asked to complete the Light Bulb Illumination Task, which consisted of 50 trials, at the beginning of their participation in the study. After engaging in this activity they were asked to rate the level at which they felt they had control over the task on a scale of 0-100. Proceeding from this they executed the surveys, which were mixed between participants using a balanced latin square in order to reduce order effects.

The majority of the scales used in this study were shown to have fairly high reliability when examining the sample used in this study. The Religious Problem-Solving Scale, for collaborative, deferring, and self-directing, produced alphas of .921, .872, and .936 respectively. The Locus of Control Scale produced an alpha of .686. The God Control subscale of the Multidimensional Locus of Control Scale produced an alpha of .861. Finally, the well-being variables, depression and anxiety, produced alphas of .915

and .860 respectively. Overall, the surveys appeared to be sound measures with acceptable to excellent levels of reliability.

The findings of this study, contrary to what was predicted, did not produce significant results in relation to the illusion of control measure. This could be due to the fact that out of the 53 students who participated in this study, there were 17 of them who, on the 0-100 scale, gave a score of 0 as their level of controllability on the task. There were also, contrary to the predictions of this study, no significant results related to the well-being measures, depression and anxiety, used in this study.

There were, however, significant results found when examining the relationship between God control and the religious problem-solving subscales. Consistent with the findings of Aten et al. (2012) and Wong-McDonald & Gorsuch (2004), it was observed that God control positively correlated with the religious problem-solving subscales of collaboration and deferring and negatively correlated with the religious problem-solving subscale of self-directing. Also, the religious problem-solving subscales of collaboration and deferring correlated positively with one another, while each correlated negatively with the subscale of self-directing.

Clinical Implications

Although there were no significant results in the predicted directions involving the illusion of control, there is information that can be gleaned from the findings. As mentioned previously there were significant results found when examining the relationships between God control and the religious problem-solving subscales. The correlations that were examined are consistent with the findings of Aten et al. (2012) and Wong-McDonald & Gorsuch (2004). It was observed that God control positively

correlated with the religious problem-solving strategies of collaborating and deferring and negatively correlated with the religious problem-solving strategy of self-directing. It was also noted that the religious problem-solving subscales correlated with one another. The strategies of collaborating and deferring correlated positively with one another, while the strategy of self-directing correlated negatively with both the collaborating and deferring strategies.

This can have very meaningful implications for clinicians who are treating clients who are religious, or are practicing in a predominantly religious environment. It is important to remember that just because an individual may be religious does not mean that he has a high sense of God control or that he engages in praying, primarily found in collaborative and deferring styles, in order to help him solve the problems that he is going through. Some individuals may feel as though their autonomy is a gift from God and that He has provided them with the tools necessary to solve their problems on their own. Religiosity is not "one size fits all," and some strategies that work for certain individuals will not work for others. From this, clinicians can use the findings of this study to better help, accommodate, and understand their religious clients.

Limitations

When looking at the results there is a question that arises, "why were there no significant results found in this study?" This could be due to a number of contributing factors. There are obviously several limitations to this study, one such being the suspicions revolving around the task. As mentioned previously, it is suspected that a number of students believed the task to be automated. One participant went so far as to verbally state, shortly after initiating the task, "[o]h, this is automated." Because of this it

is not known how many of the 17 students who gave a score of 0 did so because they truly felt that they had no control or because they suspected the task was automated. This could be a severe issue that impacted the results of this study and should be addressed in future research.

A way to improve this issue may be to allow the participants to initiate the task themselves, instead of there being a screen that states "Please Wait The Task Will Start Shortly" before the task starts. It might also be beneficial for the slides to change when the participant clicks on the slide with the red dots, instead of having these particular slides remain on the screen for the entire 2 seconds. Both of these put together may help in collecting more accurate levels of illusory control from participants.

A limitation that could very well be a contributing factor to the null results would be the restriction of range in the sample. The variables for well-being, depression and anxiety, both had means that were fairly low. Also, the variables of God control, collaborative, and self-directive, were all shown to have means which gravitated towards one direction. With an issue such as the restriction of range in play, there is a significantly lower likelihood that there will be correlations between the variables.

From this it is seen that there is likely to be an issue with the selection of participants. The participants were a selective group chosen from a private Christian college, with high levels of God control, collaborative and deferring problem-solving preferences, and with low levels of depression and anxiety. The gender ratio was also very skewed, with only 10 out of the 53 participants being male. When this is taken into account it is not that surprising that there were no significant results obtained from this

population. From this it can be determined that the study would benefit from being conducted with a more diverse population in order to avoid this problem.

Another limitation that could have impacted the results of this study would be the number of participants who were involved in the study. With only 53 participants there might not be a sufficient amount of power to get significant results. This particular issue can be addressed by simply involving more participants in the study. This, coupled with the other limitations that were noted, could have impacted this study in such a way that led to the lack of significant results for the predictions of this study.

Directions for Future Research

While there are several noteworthy limitations to this study, there should be further work done in this area. If the drawbacks to this study can be resolved, then this research could make some definitive headway. As stated earlier, it is suspected that an aspect of the task was causing suspicion amongst some of the participants. It could help increase believability to have the participants actively start the task, such as having a screen available that tells the participant to click when they are ready to begin the task. Another particular part of the task that should be changed in future studies would be to allow the participant's clicking of the slides with the red dots to switch to the next slide, instead of just having it be completely automated. With both of these aspects changed in future research there should be lower levels of suspicion involving the automation of the task.

Another issue that future research can amend would be gathering a larger sample from a more diverse selection of people. As previously mentioned there is a restriction of range that could be dramatically affecting the results of this study. If future studies can

pull from more diverse populations, more diverse than undergraduates at a private Christian college, then this issue could easily be taken care of. It would also be beneficial to involve more subjects to participate in the study, in order to increase the power. If these aspects are taken into account in future research, then this may greatly improve the likelihood that more significant results will be obtained.

Future work in this area should also include a measure of religiosity. The reason for this being that when taking on more subjects for a larger sample size with a more diverse population, it will be important to differentiate between those who are religious and those who are not. It is important to make this distinction so that those who are religious who have low levels of God control and/or high levels of self-directing problem-solving strategies do not get confused with those who have these results because they are not religious individuals. This will be an important aspect for future research.

Conclusion

There has been much research conducted on the individual variables that were observed in this study. However, there was no empirical research that observed the relationship that the illusion of control has with religious coping and God control. While this study did not find any significant results in the connection between these variables, there is still a need for research to be conducted in this area.

Also, even though there were no significant results for the variables of interest, there were some validating findings. The findings that were consistent with research done by Aten et al. (2012) and Wong-McDonald & Gorsuch (2004). These results, which observed the religious variables, can help clinicians in better understanding those who

engage in certain religious problem-solving techniques and to better help their religious clients.

Future research can, and should, continue to be explored in this particular area. Those who decide to do further research on the connections of the illusion of control and religious behaviors can improve upon the limitation of this study. The improving of the limitations of this study could lead to more accurate results for future studies.

REFERENCES

Abouserie, R. (1994). Sources and levels of stress in relation to locus of control and self esteem in university students. *Educational Psychology, 14*(3), 323-330.

Abu-Raiya, H., & Pargament, K. I. (2015). Religious coping among diverse religions: Commonalities and divergences. *Psychology of Religion and Spirituality, 7*(1), 24-33.

Aldo, A., Nolem-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*, 217-237.

Alloy, L. B., & Clements, C. M. (1992). Illusion of control: Invulnerability to negative affect and depressive symptoms after laboratory and natural stressors. *Journal of Abnormal Psychology, 101*, 234–245.

Anderson, C. R. (1977). Locus of control, coping behaviors, and performance in a stress setting: A longitudinal study. *Journal of Applied Psychology, 62*(4), 446-451.

Andrews, S. L., Stefurak, J. T., & Mehta, S. (2011). Between a rock and a hard place? Locus of control, religious problem-solving and psychological help-seeking. *Mental Health, Religion & Culture, 14*(9), 855-876.

Arevalo, S., Pedro, G., & Amaro, H. (2008). Spirituality, sense of coherence, and coping responses in women receiving treatment for alcohol and drug addiction. *Evaluation and Program Planning, 31*, 113-123.

Arnette, N. C., Mascaro, N., Santana, M. C., Davis, S., & Kaslow, N. J. (2007). Enhancing spiritual well-being among suicidal African American female survivors of intimate partner violence. *Journal of Clinical Psychology, 63*, 909-924.

Aten, J. D., Bennett, P. R., Hill, P. C., Davis, D. & Hook, J. N. (2012). Predictors of God concept and God control after Hurricane Katrina. *Psychology of Religion and Spirituality, 4*(3), 182-192.

Balzan, R. P., Delfabbro, P. H., Galletly, C. A., & Woodward, T. S. (2013). Illusory correlations and control across the psychosis continuum: The contributions of hypersalient evidence-hypothesis matches. *Journal of Nervous and Mental Disease, 201*(4), 319-327.

Bjorck, J. P. (2007). Faith, coping, and illusory control: Psychological constructs with theological ramifications. *Journal of Psychology and Christianity, 26*(3), 195-206.

Bjorck, J. P., Lee, Y. S., & Cohen, L. H. (1997). Control beliefs and faith as stress moderators for Korean American versus Caucasian American Protestants. *American Journal of Community Psychology, 25*, 61-72.

Blanco, F., Matute, H., Vadillo, M. A. (2012). Mediating role of activity level in the depressive realism effect. *PLoS ONE, 7*(9): e46203.

Bogdan, R., Pringle, P. L., Goetz, E. L., & Pizzagalli, D. A. (2012). Perceived stress, anhedonia and illusion of control: Evidence for two mediation models. *Cognitive Therapy and Research, 36*(6), 827-832.

Bollini, A. M., Walker, E. F., Hamann, S., & Kestler, L. (2004). The influence of perceived control and locus of control on the cortisol and subjective responses to stress. *Biological Psychology, 67*(3), 245-260.

Bouts, P., & Van Avermaet, E. (1992). Drawing familiar or unfamiliar cards: Stimulus familiarity, chance orientation, and the illusion of control. *Personality and Social Psychology Bulletin, 18*(3), 331–335.

Breen, R. B., & Frank M. L. (1993). The effects of statistical fluctuations and perceived status of a competitor on the illusion of control in experienced gamblers. *Journal of Gambling Studies, 9*(3), 265-276.

Brown, D. R., Carney, J. S., Parrish, M. S., & Klem, J. L. (2013). Assessing spirituality: The relationship between spirituality and mental health. *Journal of Spirituality in Mental Health, 15*(2), 107-122.

Brown, J. D., & Siegel, J. M. (1988). Attributions for negative life events and depression: The role of perceived control. *Journal of Personality and Social psychology, 54*, 316-322.

Catania, A. C., & Cutts, D. (1963). Experimental control of superstitious responding in humans. *Journal of the Experimental Analysis of Behavior, 6*, 203-208.

Cole, B. S. (2005). Spiritually-focused psychotherapy for people diagnosed with cancer: A pilot outcome study. *Mental Health, Religion & Culture, 8*, 217-226.

Compas, B. E., Jaser, S. S., Dunbar, J. P., Watson, K. H., Bettis, A. H., Gruhn, M. A., & Williams, E. K. (2016). Coping and emotion regulation from childhood to early adulthood: Points of convergence and divergence. *Australian journal of psychology, 66*, 71-81.

Cowley, E., Briley, D. A., & Farrell, C. (2015). How do gamblers maintain an illusion of control? *Journal of Business Research, 68*(10), 2181-2188.

Davidson, A. L., Boyle, C., & Lauchlan, F. (2008). Scared to lose control? General and health locus of control in females with a phobia of vomiting. *Journal of Clinical Psychology, 64*(1), 30-39.

Davis, D., Sundahl, I., & Lesbo, M. (2000). Illusory personal control as a determinant of bet size and type in casino craps games. *Journal of Applied Social Psychology, 30*(6), 1224–1242

de Stadelhofen, F. M., Aufrere, L., Besson, J., & Rossier, J. (2009). Somewhere between illusion of control and powerlessness: Trying to situate the pathological gambler's locus of control. *International Journal of Clinical and Health Psychology, 9*(1), 117-126.

Dickerson, M. (1993). Internal and external determinants of persistent gambling: problems in generalising from one form of gambling to another. *Journal of Gambling Studies, 9*(3), 225-245.

Dixon, M. R. (2000). Manipulating the illusion of control: Variations in gambling as a function of perceived control over chances outcomes. *The Psychological Record, 50*, 705–719.

Edwards, T., Catling, J. C., & Parry, E. (2016). Identifying predictors of resilience in students. *Psychology Teaching Review, 22*(1), 26-34.

Elfstrom, M. L., & Kreuter, M. (2006). Relationships between locus of control, coping strategies and emotional well-being in persons with spinal cord lesion. *Journal of Clinical Psychology in Medical Settings, 13*(1), 93-103.

Farber, E. W., Mirsalimi, H., Williams, K. A., & McDaniel, J. S. (2003). Meaning of illness and psychological adjustment to HIV/AIDS. *Psychosomatics, 44*, 485-491.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*, 219-239.

Folkman, S., & Moskowitz, J.T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*, 745-774.

Fournier, G. & Jeanrie, C. (1999). Validation of five-level locus of control scale. *Journal of Career Assessment, 7*, 63–89.

Gillan, C. M., Morein-Zamir, S., Durieux, A. M. S., Fineberg, N. A., Sahakian, B. J., & Robbins, T. W. (2014). Obsessive-compulsive disorder patients have a reduced sense of control on the illusion of control task. *Frontiers in Psychology, 5*, 204.

Gloria, C. T., & Steinhardt, M. A. (2016). Relationships among positive emotions, coping, resilience and mental health. *Stress and Health: Journal of the International Society for the Investigation of Stress, 32*(2), 145-156.

Goggin, K., Malcarne, V. L., Murray, T. S., Metcalf, K. A., & Wallston, K. A. (2007). Do religious and control cognitions predict risky behavior? II. Development and validation of the Sexual Risk Behavior-related God Locus of Control Scale for Adolescents (SexGLOC-A). *Cognitive Therapy and Research, 31*(1), 123-139.

Goggin, K., Murray, T. S., Malcarne, V. L., Brown, S. A., Wallston, K. A. (2007). Do religious and control cognitions predict risky behavior? I. Development and validation of the alcohol-related God Locus of Control Scale for Adolescents (AGLOC-A). *Cognitive Therapy and Research, 31*(1), 111-122.

Goodie, A. S. (2005). The effects of control on betting: paradoxical betting on items of

    high confidence with low value. *Journal of Experimental Psychology: Learning,*

    Memory, and Cognition, 19(4), 598-610.

Graziano, M., Sikorski, J. F. (2014). Level of disordered eating: Depression,

    perfectionism, and body dissatisfaction. *Psi Chi Journal of Psychological*

    Research, 19(3), 119-128.

Griffiths, M. D. (1994). The role of cognitive bias and skill in fruit machine gambling.

    British Journal of Psychology, 85, 351–369.

Gurol, Y. & Atsan, N. (2006). Entrepreneurial characteristics amongst university

    students: Some insights for entrepreneurship education and training in Turkey.

    Education & Training, 48, 25–38.Hodges, S. (2002). Mental health, depression,

    and dimensions of spirituality and religion. *Journal of Adult Development, 9*, 109-

    115.

Hodges, S. (2002). *Measures of religiosity*. Birmingham, AL: Religious Education Press

Holt, C. L., Clark, E. M., & Klem, P. R. (2007) Expansion and validation of the spiritual

    health locus of control scale. Factor analysis and predictive validity. *Journal of*

    Health Psychology, 12(4), 597-612.

Hudgens-Haney, M. E., Hamm, J. P., Goodie, A. S., Krusemark, E. A., McDowell, J. E.,

    & Clementz, B. A. (2013). Neural Correlates of the impact of control on decision

    making in pathological gambling. *Biological Psychology, 92*(2), 365-372.

Jalbrzikowski, M., Sugar, C. A., Zinberg, J., Bachman, P., Cannon, T. D., Bearden, C. E.

    (2014). Coping styles of individuals at clinical high risk for developing psychosis.

    Early Intervention in Psychiatry, 8(1), 68-76.

Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology, 37*(1), 1-11.

Kohn-Wood, L. P., Hammond, W. P., Haynes, T. F., Ferguson, K. K., & Jackson, B. A. (2012). Coping styles, depressive symptoms and race during the transition to adulthood. *Mental Health, Religion & Culture, 15*(4), 363-372.

Kopplin, D. (1976, August). *Religious orientations of college students and related personality characteristics.* Paper presented at the convention of the American Psychological Association, Washington, DC.

Langer, E. J. (1975). The illusion of control. *Journal of personality and Social Psychology, 32*(2), 311-328.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, NY: Springer.

Lee, E.-K. O. (2007). Religion and spirituality as a predictors of well-being among Chinese American and Korean American older adults. *Journal of Religion, Spirituality & Aging, 19*, 77-100.

Lefcourt, H. M. (1973). The function of the illusions of control and freedom. *American Psychologist, 28*(5), 417-425.

Levenson, H. (1981). Differentiating among internality, powerful others and chance. In H.M. Lefcourt, *Research with the locus of control construct, vol. 1 assessment methods*, 15–63. San Diego, CA: Academic Press.

Li, Y., Wei, F., Ren, S., & Di, Y. (2015). Locus of control, psychological empowerment and intrinsic motivation relation to performance. *Journal of Managerial Psychology, 30*(4), 422-438.

Loosemore, M. & Lam, A. S. Y. (2004). The locus of control: A determinant of

    opportunistic behaviour in construction health and safety. *Construction*

    Management and Economics, 22, 385–394.

Martindale, S. L., Morissette, S. B., Kimbrel, N. A., Meyer, E. C., Kruse, M. I., Gulliver,

    S. B., & Dolan, S. L. (2016). Neuropsychological functioning, coping, and quality

    of life among returning war veterans. *Rehabilitation Psychology, 61*(3), 231-239.

Martinez, F., Le Floch, V., Gaffie, B, & Villejoubert, G. (2011). Reports of wins and risk

    taking: An investigation of the mediating effect of the illusion of control. *Journal*

    of Gambling Studies, 27(2), 271-285.

McConnell, K. M., Pargament, K. I., Ellison, C. G., & Flannelly, K. J. (2006). Examining

    the links between spiritual struggles and symptoms of psychopathology in a

    national sample. *Journal of Clinical Psychology, 62*, 1469-1484.

Meisenhelder, J. B., & Marcum, J. P. (2004). Responses of clergy to 9/11: Posttraumatic

    stress, coping, and religious outcomes. *Journal for the Scientific Study of*

    Religion, 43, 547-554.

Miller, R. L. & Mulligan, R. D. (2002). Terror management: The effects of mortality

    salience and locus of control on risk-taking behaviors. *Personality and Individual*

    Differences, 33, 1203–1214.

Moore, E. W. (2014). Assessing God locus of control as a factor in college students'

    alcohol use and sexual behavior. *Journal of American College Health, 62*(8), 578-

    587.

Moritz, S., Ludtke, T., Westermann, S., Hermeneit, J., Watroba, J., Lincoln, T. M. (2016). Dysfunctional coping with stress in psychosis. An investigation with the Maladaptive and Adaptive Coping Styles (MAX) questionnaire. *Schizophrenia Research, 175*(1-3), 129-135.

Pargament, K. I., Kennell, J., Hathaway, W., Grevengoed, N., Newman, J., & Jones, W. (1988). Religion and the problem-solving process: Three styles of coping. *Journal for the Scientific Study of Religion, 27*(1), 90-104.

Pargament, K. I., Koenig, H. G., & Perez, L. (2000). The many methods of religious coping: Initial and validation of the RCOPE. *Journal of Clinical Psychology, 56*, 519-543.

Pargament, K. I., Smith, B. W., Koenig, H., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37*, 710-724.

Park, C. L, Sacco, S. J., & Edmondson, D. (2012). Expanding coping goodness-of-fit: Religious coping, health locus of control, and depressed affect in heart failure patients. *Anxiety, Stress & Coping: An International Journal, 25*(2), 137-153.

Paul, E. S. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin, 91*(3), 482-497.

Pedersen, H. F., Pargament, K. I., Pedersen, C. G., Zachariae, R. (2013). Religious coping and quality of life among severely ill lung patients in a secular society. *International Journal for the Psychology of Religion, 23*(3), 188-203.

Phillips, R. E., III, Pargament, K. I., Lynn, Q. K., & Crossley, C. D. (2004). Self-directing religious coping: A deistic God, abandoning God, or no God at all? *Journal for the Scientific Study of Religion, 43*, 409-418.

Plunkett, H. R. & Buehner, M. J. (2007). The relation of general and specific locus of control to intertemporal monetary choice. *Personality and Individual Differences, 42*, 1233–1242.

Propst, L. R. (1991). Introduction: The scope of religious influences on personal and societal well-being. *Journal of Social Issues, 51*, 1-11.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Instrument, 1*, 385–401.

Robbins, S. P. (2000). *Organisational Behaviour*, 9th edition, Prentice Hall of India Pvt Ltd, New Delhi.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*(1), 1-28.

Rudski, J. M. (2004). The illusion of control, superstitious belief, and optimism. *Current Psychology, 22*(4), 306-315.

Rudski, J. M. (2001). Competition, superstition and the illusion of control. *Current Psychology, 20*(1), 68-84.

Sandler, I. N., & Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. *American Journal of community Psychology, 10*(1), 65-80.

Schroevers, M. J., Kraaij, V., & Garnefski, N. (2011). Cancer patients' experience of positive and negative changes due to the illness: Relationships with psychological well-being, coping, and goal reengagement. *Psycho-Oncology, 20*(2), 165-172.

Schulz, R. (1980). Aging and control. In J. Garber & M. E. P. Seligman (Eds.), *Human helplessness* (pp.261-277). New York: Academic Press.

Seligman, M. E. P. (1975). *Helplessness: On depression, development, and death.* San Francisco: Freeman.

Skinner, E.A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129*, 216-269.

Spector, P. E. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin, 91*, 482–497.

Sun, Y. (2011). The impact of locus of control and priming on the endowment effect. *Scandinavian Journal of Psychology, 52*(5), 420-426.

Taylor, S. E. (1989). *Positive illusions: Creative self-deception and the healthy mind.* New York: Basic Books.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*(2), 193–210.

Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. *Academy of Management Review, 15*(4), 666-681.

Thompson, S. C., Kyle, D., & Osgood, A. (2004). Illusory control and motives for control: The role of connection and intentionality. *Motivation and Emotion, 28*, 315–333.

Tix, A. P., Frazier, P. A. (1998). The use of religious coping during stressful life events: Main effects, moderation, and mediation. *Journal of Consulting and Clinical Psychology, 66*(2), 411-422.

Vincze, A. E., Roth, M., & Degi, L. C. (2012). Self-enhancement relationship to cognitive schemas and psychological distress in young adults. *Journal of Cognitive and Behavioral Psychotherapies, 12*(2), 189-207.

Walker, M. B. (1992). *The psychology of gambling*. Oxford: Permagon Press.

Welton, G. L., Adkins, A. G., Ingle, S. L., & Dixon W. A. (1996) God control: the fourth dimension. *Journal of Psychology & Theology, 24*, 13-25.

Wolters, G., Stapert, S., Brands, I., & Van Heugten, C. (2010). Coping styles in relation to cognitive rehabilitation and quality of life after brain injury. *Neuropsychological Rehabilitation, 20*(4), 587-600.

Wong-McDonald, A., & Gorsuch, R. L. (2004). A multivariate theory of God concept, religious motivation, locus of control, coping, and spiritual well-being. *Journal of Psychology and Theology, 32*(4), 318-334.

Wong-McDonald, A., & Gorsuch, R. L. (2000). Surrender to God: An additional coping style? *Journal of Psychology and Theology, 28*(2), 149 –161.

Xu, W., Fu, Z., Wang, J., & Zhang, Y. (2015). Relationship between autistic traits and hoarding in a large non-clinical Chinese sample: Mediating effect of anxiety and depression. *Psychological Reports, 116*(1), 23-32.

Young, M. C. (2014). Do positive illusions contribute to human well-being? *Philosophical Psychology, 27*(4), 536-552.

Yu, X., Chen, J., Liu, J., Yu, X., & Zhao, K. (2015). Dispositional optimism as a mediator of the effect of rumination on anxiety. *Social Behavior and Personality, 43*(8), 1233-1242.

Zung, W. K. (1971). A rating instrument for anxiety disorders. *Psychosomatics, 12,* 371-379.

APPENDIX A

IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

12/12/2016

Richard Michael Eason

Department of Psychology

ACU Box 28011

Abilene Christian University

Dear Mr. Eason

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled Religious Problem Solving and Methods of Control

was approved by expedited review (46.110(b)(1) category 7) on 12/12/2016 for a period of one year (IRB # 16-111). The expiration date for this study is 12/12/2017 . If you intend to continue the study beyond this date, please submit the Continuing Review Form at least 30 days, but no more than 45 days, prior to the expiration date. Upon completion of this study, please submit the Inactivation Request Form within 30 days of study completion.

If you wish to make **any** changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the Study Amendment Request Form.

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the Unanticipated Events/Noncompliance Form.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Our Promise: ACU is a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world.

Informed Consent Agreement

Informed Consent for <u>Religious Problem Solving and Methods of Control</u>

Richard Michael Eason, B.S.

Abilene Christian University

Introduction

You are invited to join a research study in which we will be studying how the use of certain religious problem solving strategies relate to their views of situational controllability. Participants of all ages, genders, racial and ethnic groups, all education levels, and all socioeconomic classes are accepted. Subjects in this study must be able to follow spoken and written instructions.

If you decide to take part in this research, you will be asked to fill out five questionnaires and complete a computerized task. One of the questionnaires will be used to evaluate preferred methods of religious problem solving, two will be used to measure psychological well-being, and the other two questionnaires, and the computerized task, will be used to measure methods of control. Your participation should last approximately 25 minutes.

Your participation in this study is completely voluntary. You have the right not to participate at all, and you may leave the study at any time. Deciding not to participate or choosing to leave the study will not result in any penalty to you and will not harm your relationship with your professors or the examiners.

Mr. Eason may stop the study at any time or may take you out of the study if he judges it is in your best interest. He may also remove you from the study if he finds you unable to perform the tasks required. He can do this without your consent.

Alternatives to Participation

If you decline to participate in this research, you may still choose to do a writing assignment for the same amount of extra credit offered to study participants. This assignment is expected to last less than 30 minutes, and the writing assignment will not be used in this research, or in any other, without your permission.

Risks and Benefits

Participation in this research, or the non-research writing assignment, is not mandatory for successful completion of your course. Each student's participation, or non-participation, will be unknown to your professor until final class grades are submitted at the end of the semester. There will be no penalty for choosing not to participate in either activity.

The main risk of participating in this research is the risk of fatigue and frustration, due to the implementation of five scales and a computerized task. A break will be provided in order to keep the fatigue and frustration to a minimum. There is also the risk of breaching confidentiality. We will collect data using paper and pencil and an electronic medium. All of the data collected from study participants, and non-participants who choose the writing task, will be private. Please see below the section entitles "Confidentiality" for more information about how your research information will be made private.

Participation in this research is not expected to result in any physical or psychological injury, though you may experience fatigue due to the length of the surveys. Also, while it is possible that emotionally distressing thoughts could be triggered by the topics of this study, they have not been selected to be distressing or to elicit any uncomfortable emotions.

Research participants and those who participate in the writing assignment will earn 10 points added to any one of their test grades. It cannot be guaranteed that you will experience any other benefits from participating in this study, however, you will have the opportunity to gain insight into yourself and how you deal with anxiety inducing situations. If you happen to be injured while participating in this research, there is no money in order to provide you treatment. You will be responsible for any medical treatment required.

Confidentiality

The following steps will be taken in order to ensure information about you is confidential. All of your data will be identified with a coded subject number to protect your identity and will be stored on a password protected secure server. A code sheet linking your coded subject number to information that could identify you as a participant will be stored on another document on a password protected secure server.

Information collected from you during this research will be available to Michael Eason, B.S. (Principal Investigator) and your names will be provided to your professors so that they will know to give you extra credit for your participation. Your information may also be viewed by the Abilene Christian University Institutional Review Board as part of their duties to ensure the safety and integrity of research at ACU. All those involved are committed to maintaining the confidentiality of all research participants.

Contact Information

If you have any questions or concerns about your participation in this research, please contact one of the following:

For questions about the **rights of research subjects**, please contact

Dr. Megan Roth – Director of the Office of Research and Sponsored Programs, (325) 674-2885.

For questions about **participation in or conduct of this research**, please contact

Richard Michael Eason by e-mail at rme15a@acu.edu

or Dr. Richard Beck by email at beckr@acu.edu.

Agreement to participate in research

I affirm that I have read the description of the research and the risks and benefits of participating. I also affirm that I have been informed of my rights as a participant and have had the opportunity to ask questions and get clarification about any information in this document. By signing below, I express my agreement to participate in this research.

_____

Sign   Print   Date

Research Participant

_____

Sign   Print   Date

Research Participant

APPENDIX C

Religious Problem-Solving Scale

Following are the items included in the Religious Problem-Solving Scale. Items from the

three subscales (Collaborative, Self-Directive, and Deferring) were mixed together to

form a single questionnaire. All items were scored on the same 5-point Likert continuum

ranging from "never" to "always."

1. [C] When I have a problem, I talk to God about it, and together we decide what it means.

2. [D] Rather than trying to come up with the right solution to a problem myself, I let God decide how to deal with it.

3. [S] When faced with trouble, I deal with my feelings without God's help.

4. [D] When a situation makes me anxious, I wait for God to take those feelings away.

5. [C] Together, God and I put my plans into action.

6. [C] When it comes to deciding how to solve a problem, God and I work together as partners.

7. [S] I act to solve my problems without God's help.

8. [S] When I have difficulty, I decide what it means by myself without help from God.

9. [D] I don't spend much time thinking about troubles I've had; God makes sense of them for me.

10. [C] When considering a difficult situation, God and I work together to think of possible solutions.

11. [D] When a troublesome issue arises, I leave it up to God to decide what it means for me.

12. [S] When thinking about a difficulty, I try to come up with possible solutions without God's help.

13. [C] After solving a problem, I work with God to make sense of it.

14. [S] When deciding on a solution, I make a choice independent of God's input.

15. [D] In carrying out the solutions to my problems, I wait for God to take control and know somehow He'll work it out.

16. [D] I do not think about different solutions to my problems because God provides them for me.

17. [S] After I've gone through a rough time, I try to make sense of it without relying on God.

18. [C] When I feel nervous or anxious about a problem, I work together with God to find a way to relieve my worries.

19. [C] When I'm upset, I try to soothe myself and also share the unpleasantness with God so He can comfort me.

20. [S] When faced with a decision, I make the best choice I can without God's involvement.

21. [D] God solves problems for me without my doing anything.

22. [D] When I have a problem, I try not to think about it and wait for God to tell me what it means.

23. [C] In carrying out solutions, I work hard at them knowing God is working right along with me.

24. [S] When a difficult period is over, I make sense of what happened on my own without involvement from God.

25. [C] When faced with a question, I work together with God to figure it out.

26. [S] When I feel nervous or anxious, I calm myself without relying on God.

27. [S] God doesn't put solutions to my problems into action; I carry them out myself.

28. [D] I don't worry too much about learning from difficult situations, since God will make me grow in the right direction.

29. [S] When I am trying to come up with different solutions to troubles I am facing, I do not get them from God but think of them myself.

30. [C] When a hard time has passed, God works with me to help me learn from it.

31. [C] God and I talk together and decide upon the best answer to my question.

32. [D] When faced with a decision, I wait for God to make the best choice for me.

33. [D] I do not become upset or nervous because God solves my problems for me.

34. [D] When I run into trouble, I simply trust in God knowing that He will show me the possible solutions.

35. [S] When I run into a difficult situation, I make sense out of it on my own without divine assistance.

36. [C] The Lord works with me to help me see a number of different ways that a

problem can be solved.

[C]   Collaborative

[S]   Self-Directing

[D]   Deferring

APPENDIX D

Rotter's Locus of Control Scale

For each question select the statement that you agree with the most.

1.   a. Children get into trouble because their parents punish them too much.

    b. The trouble with most children nowadays is that their parents are too easy with them.

2.   a. Many of the unhappy things in people's lives are partly due to bad luck.

    b. People's misfortunes result from the mistakes they make.

3.   a. One of the major reasons why we have wars is because people don't take enough interest in politics.

    b. There will always be wars, no matter how hard people try to prevent them.

4.   a. In the long run people get the respect they deserve in this world.

    b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.   a. The idea that teachers are unfair to students is nonsense.

    b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.   a. Without the right breaks one cannot be an effective leader.

    b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.   a. No matter how hard you try some people just don't like you.

        b. People who can't get others to like them don't understand how to get along with others.

8.   a. Heredity plays the major role in determining one's personality.

        b. It is one's experiences in life which determine what they're like.

9.   a. I have often found that what is going to happen will happen.

        b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10.   a. In the case of the well prepared student, there is rarely if ever such a thing as an unfair test.

        b. Many times exam questions tend to be so unrelated to course work that studying in really useless.

11.   a. Becoming a success is a matter of hard work; luck has little or nothing to do with it.

        b. Getting a good job depends mainly on being in the right place at the right time.

12.   a. The average citizen can have an influence in government decisions.

        b. This world is run by the few people in power, and there is not much the little guy can do about it.

13.   a. When I make plans, I am almost certain that I can make them work.

        b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14.   a. There are certain people who are just no good.

        b. There is some good in everybody.

15.   a. In my case, getting what I want has little or nothing to do with luck.

       b. Many times we might just as well decide what to do by flipping a coin.

16.   a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.

       b. Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it.

17.   a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.

       b. By taking an active part in political and social affairs the people can control world events.

18.   a. Most people don't realize the extent to which their lives are controlled by accidental happenings.

       b. There really is no such thing as "luck."

19.   a. One should always be willing to admit mistakes.

       b. It is usually best to cover up one's mistakes.

20.   a. It is hard to know whether or not a person really likes you.

       b. How many friends you have depends upon how nice a person you are.

21.   a. In the long run, the bad things that happen to us are balanced by the good ones.

       b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22.   a. With enough effort, we can wipe out political corruption.

       b. It is difficult for people to have much control over the things politicians do in office.

23.   a. Sometimes I can't understand how teachers arrive at the grades they give.

        b. There is a direct connection between how hard I study and the grades I get.

24.   a. A good leader expects people to decide for themselves what they should do.

        b. A good leader makes it clear to everybody what their jobs are.

25.   a. Many times I feel that I have little influence over the things that happen to me.

        b. It is impossible for me to believe that chance or luck plays an important role in

        my life.

26.   a. People are lonely because they don't try to be friendly.

        b. There's not much use in trying too hard to please people; if they like you, they

        like you.

27.   a. There is too much emphasis on athletics in high school.

        b. Team sports are an excellent way to build character.

28.   a. What happens to me is my own doing.

        b. Sometimes I feel that I don't have enough control over the direction my life is

        taking.

29.   a. Most of the time I can't understand why politicians behave the way they do.

        b. In the long run, the people are responsible for bad government on a national as

        well as on a local level.

Score one point for each of the following:

2.a, 3.b, 4.b, 5.b, 6.a, 7.a, 9.a, 10.b, 11.b, 12.b, 13.b, 15.b, 16.a, 17.a, 18.a, 20.a,

21.a, 22.b, 23.a, 25.a, 26.b, 28.b, 29.a.

A high score = External Locus of Control

A low score = Internal Locus of Control

APPENDIX E

The Multidimensional Locus of Control Scale - God Control Revision

MLCS-GCR

Below are six statements. Please rate each using the following scale:

-3 = Strongly Disagree

-2 = Disagree

-1 = Slightly Disagree

+1 = Slightly Agree

+2 = Agree

+3 = Strongly Agree

1.   What happens in my life is determined by God's purpose.

2.   My life is primarily controlled by God.

3.   Whether or not I get into a car accident depends on God's plans.

4.   In order to have my plans work, I make sure they fit in with the commands of

        God.

5.   When things don't go my way, I ought to pray.

6.   When good things happen to me, it is because of God's blessing.

APPENDIX F

Center for Epidemiologic Studies-Depressed Mood Scale

(CES-D)

Using the scale below, indicate the number which best describes how often you felt or

behaved this way-DURING THE PAST WEEK.

0 = Rarely or none of the time (less than 1 day)

1 = Some or a little of the time (1-2 days)

2 = Occasionally or a moderate amount of time (3-4 days)

3 = Most or all of the time (5-7 days)

DURING THE PAST WEEK:

__   1.   I was bothered by things that usually don't bother me.

__   2.   I did not feel like eating; my appetite was poor.

__   3.   I felt that I could not shake off the blues even with help from my family or

friends.

__   4.   I felt that I was just as good as other people.

__   5.   I had trouble keeping my mind on what I was doing.

__   6.   I felt depressed.

__   7.   I felt that everything I did was an effort.

__   8.   I felt hopeful about the future.

__   9.   I thought my life had been a failure.

__   10.   I felt fearful

58

___ 11. My sleep was restless.

___ 12. I was happy.

___ 13. I talked less than usual.

___ 14. I felt lonely.

___ 15. People were unfriendly.

___ 16. I enjoyed life.

___ 17. I had crying spells.

___ 18. I felt sad.

___ 19. I felt that people disliked me.

___ 20. I could not get "going."

APPENDIX G

Self-Rating Anxiety Scale

(SAS)

Below are twenty statements. Please rate each using the following scale:

1. = Some or a little of time

2. = Some of the time

3. = Good part of the time

4. = Most or all of the time

Please record your rating in the space to the left of each item.

___   1.   I feel more nervous and anxious than usual.

___   2.   I feel afraid for no reason at all.

___   3.   I get upset easily or feel panicky.

___   4.   I feel like I'm falling apart and going to pieces.

___   5.   I feel that everything is all right and nothing bad will happen.

___   6.   My arms and legs shake and tremble.

___   7.   I am bothered by headaches, neck, and back pains.

___   8.   I feel weak and get tired easily.

___   9.   I feel calm and can sit still easily.

___   10.   I can feel my heart beating fast.

___   11.   I am bothered by dizzy spells.

60

___ 12. I have fainting spells or feel like it.

___ 13. I can breathe in and out easily.

___ 14. I get feelings of numbness and tingling in my finger sand toes.

___ 15. I am bothered by stomach aches or indigestion.

___ 16. I have to empty my bladder often.

___ 17. My hands are usually dry and warm.

___ 18. My face gets hot and blushes.

___ 19. I fall asleep easily and get a good night's rest.

___ 20. I have nightmares.