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Daily Hassles Among College Students: The Role of Spirituality on Risky Behaviors and Emotional Distress Indices

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DAILY HASSLES AMONG COLLEGE STUDENTS: THE ROLE OF SPIRITUALITY ON RISKY BEHAVIORS AND EMOTIONAL DISTRESS INDICES

by

KRISTEN CAMPBELL

(Under the Direction of C. Thresa Yancey)

ABSTRACT

Stressful life events are correlated with a higher likelihood of engaging in maladaptive coping techniques (Boden et al., 2014; Kohn, Lafreniere, & Gurevich, 1990; Park, Armell, & Tennen, 2004). One type of maladaptive coping technique is engagement in risky behaviors (e.g., high-risk sports, risky sexual behaviors, illicit drug use; Fromme, Katz, & Rivet, 1997). College students are at an increased risk of engaging in these behaviors. Research demonstrates that stressful life events are also correlated with higher levels of depression and anxiety (Kohn, Lafreniere, & Gurevich, 1990). As college students are exposed to a more stressful environment, they are at an increased risk for developing symptoms of depression and anxiety compared to emerging adults not enrolled in college. There is limited research on what may moderate the relationship between stressful life events and engaging in risky behaviors and the relationship between stressful life events and emotional distress indices, (i.e., depression and anxiety). Utilizing adaptive coping techniques may decrease the likelihood of engaging in risky behaviors and experiencing depression and anxiety for someone experiencing stress.

The objective of the current study was to examine the role of spirituality as a potential moderator between stressful life events and willingness to engage in risky behavior and emotional distress indices. We hypothesized a positive correlation between stressful life events and willingness to engage in risky behaviors, symptoms of depression, and symptoms of anxiety. We also hypothesized a negative correlation between spirituality and willingness to engage in risky behaviors, symptoms of depression, and symptoms of anxiety. Spirituality was hypothesized to serve as a moderator in the relationships between stressful life events and risky behaviors and depression and anxiety. Participants who report higher levels of stressful life events and higher levels of spirituality were predicted to report decreased risky behaviors and depression and anxiety symptoms, compared to those who report a higher levels of stressful life events and lower level of spirituality. Results of this study supported the first and second hypotheses; significant correlations were found in the expected directions. However, spirituality was not a significant moderator in these relationships in this study.

INDEX WORDS: Stressful Life Events, Spirituality, Risky Behaviors, Depression,
Anxiety

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DEDICATION

I dedicate this to my parents, John and Lori Campbell, for their unwavering love and support. They have been my rock and stood by my side since day one. No matter the situation, they remind me that I can accomplish anything and that everything will work out for the best. There is no way I could do this without you both; I love you!

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TABLE OF CONTENTS

DEDICATION	5
ACKNOWLEDGMENTS	6
LIST OF TABLES	8
LIST OF FIGURES	9
CHAPTER	
1 INTRODUCTION	10
Stressful Life Events	12
Depression and Anxiety	16
Risky Behaviors	19
Spirituality.....	22
2 METHOD	28
Participants	28
Procedure.....	28
Measures	28
3 RESULTS	32
4 DISCUSSION	35
REFERENCES	42
APPENDICES	
A INSTITUTIONAL REVIEW BOARD DOCUMENTS.....	
Informed Consent.....	53

LIST OF TABLES

Table 1: Inter-correlations among Measures of Stressful Life Events, Depression, Anxiety, Willingness to Engage in Risky Behaviors, and Spirituality.....	51
Table 2: Summery of Hierarchical Regression Analysis.....	52

LIST OF FIGURES

Figure 1: Moderation Model on Depression, Anxiety, and Willingness to Engage in Risky Behaviors50

CHAPTER 1: INTRODUCTION

Stressful life events are correlated with a higher likelihood of engaging in maladaptive coping techniques (Mahmoud, Staten, Hall & Lennie, 2012). One type of maladaptive coping technique is engagement in risky behaviors (Ahern, 2009; Boden, Fergusson, & Horwood, 2014; Coleman & Trunzo, 2015; Gurley & Satcher, 2003; Magrys & Olmstead, 2015). Risky behaviors include high risk sports, aggressive and illegal behaviors, risky sexual behaviors, illicit drug use, heavy drinking, and irresponsible academic/work behaviors (Fromme, Katz, & Rivet, 1997). Zuckerman (1994) calls engaging in these behaviors to be sensation seeking, which is characterized by a desire seek out new sensations and experiences and engaging in risky behaviors to attain these sensations. In addition, stressful life events are related to the use of alcohol as a maladaptive coping strategy (Boden et al., 2014). Binge drinking and heavy rates of alcohol consumption are common occurrences among college students, and related to problems in social, academic, and health areas (Wechsler & Nelson, 2001). Given that college is a stressful time for individuals, college students are at an increased risk of abusing alcohol and engaging in other risky behaviors.

Previous research demonstrates that stressful life events are also correlated with higher levels of depression and anxiety (Kohn, Lafreniere, & Gurevich, 1990). Mahmoud and colleagues consider college to be “stress-arousing and anxiety-provoking” (2012, pg. 149). Researchers Beck and Clark (1997) posit that symptoms of depression and anxiety can be conceptualized as reactions/consequences to stressors. As college students are exposed to a more stressful environment, they are at an increased risk for developing

symptoms of depression and anxiety (Beiter et al., 2015; Eisenberg et al., 2007; Mahmoud et al., 2012).

There is limited research on what may moderate the relationship between stressful life events and engaging in risky behaviors and the relationship between stressful life events and emotional distress indices (i.e., depression and anxiety). Coping, however, is a key process for reducing the effects of stressful life events (Lu, 1991). Finding more positive, adaptive ways for individuals to cope with stressful life events, such as those that college students face, are important to combat the negative effects stressful life events have on an individual. Utilizing adaptive coping techniques may decrease the likelihood of engaging in risky behaviors and experiencing depression and anxiety for someone experiencing stressful life events. These coping mechanisms may help people to manage the effects of stressful life events effectively while other coping mechanisms may intensify the effects and create a cycle of stressful life events and negative outcomes (Lu, 1991).

Study Aims: The objective of the current study is to examine the role of spirituality as a potential moderator in the stressful life events different psychosocial outcomes. We chose to examine spirituality as a moderator because we are most interested in the strength and directions of the relationships. This study is one of the first to specifically investigate spirituality among those experiencing stressful life events, so these relationships must be explored before assessing for mediation. Given previous research findings, there are three main hypotheses that will be analyzed in the current study:

Hypothesis 1: There will be positive correlations between stressful life events and emotional distress indices (depression, anxiety), and reported willingness to engage in risky behaviors.

Hypothesis 2: There will be negative correlations between spirituality and emotional distress indices (depression, anxiety), and willingness to engage in risky behaviors.

Hypothesis 3: Spirituality will serve as a moderator in the relationship between stressful life events and willingness to engage in risky behaviors. Participants who report higher levels of stressful life events and higher levels of spirituality will report a decreased willingness to engage in risky behaviors compared to those who report a lower level of spirituality.

Hypothesis 4: Spirituality will serve as a moderator in the relationship between stressful life events and depression and anxiety. Participants who report higher levels of stressful life events and higher levels of spirituality will report decreased depression and anxiety compared to those who report a lower level of spirituality.

Stressful Life Events

Stressful events can range from the hassles we experience in day-to-day life to traumatic and impairing events. Hassles include things such as having a disagreement with your roommate or spouse or missing a deadline for a project, while a traumatic experiences include things such as being sexually assaulted or death of a loved one. Experiencing stressful life events, both traumatic events and daily hassles, is correlated with increased risk for depression and anxiety (Barber et al., 2014; Vinkers et al., 2014). Specifically, experiencing daily hassles significantly predicts mental health concerns (Lu,

1991; McIntyre, Korn & Matsuo, 2008). Hassles are categorized as irritating, frustrating, and distressing demands that occur within the everyday environment (McIntyre, Korn, & Matsuo, 2008). There has been a shift in research regarding which type of stress better predicts negative psychological symptoms, with some research indicating minor life events, or daily hassles, as more predictive of negative psychological symptoms than major life events (Kohn, Lagreniere, & Gurevich, 1990; Lu, 1991; Monroe, 1983). Chamberlain and Zika (1990) also suggest that hassles are more influential and better predictors of mental health and well-being than are major life events. Major life events and daily hassles are thought to be linked; major life events may be the underlying cause of psychological symptoms while experiencing daily hassles may be the ‘last straw’ (Lu, 1991). In a study conducted by Lu (1991), daily hassles significantly predicted psychological symptoms cross-sectionally and longitudinally for two months after participants first completed the study.

Daily Stress. While major life events may impact psychological well-being, this may be due to the resulting change in daily routines and lifestyles (Eckenrode, 1984). Past research shows a significant correlation between negative daily events, or hassles, and mood, where experiencing more daily hassles relates to negative mood (Rehm, 1978). Individuals experiencing depression report fewer instances of pleasant events than individuals not experiencing depression (Rehm, 1978). Eckenrode’s (1984) study supports previous findings, and demonstrates that relatively minor events (“hassles”) demonstrated a causal relationship for resultant negative mood.

Lazarus (1984) conceptualized daily hassles as experiences in daily living that are salient and harmful or threatening to individuals’ well-being. These are common

concerns consistently reported across many populations, including: concerns about a family member's health, lack of enough time or energy, and having too many things to do at once (Chamberlain & Zika, 1990). However, it is important to note that daily stressors vary according to environment and situation. For example, a working adult may experience a stressful day at the office when arguing with co-workers and a college student may experience a stressful day in class when he/she has earned a lower grade than expected on a quiz. Both individuals have experienced a daily stressor, but it manifested in different forms. In Chamberlain and Zika's study (1990), the community group reported more general concerns, including the weather, while an older adult group reported more concerns regarding health and global issues, such as crime and pollution. Further, this sample included mothers who reported specific concerns that were immediately related to their situation, such as planning and preparing food, sleep deprivation, appearance, and lack of time (Chamberlain & Zika, 1990). Student participants in Chamberlain and Zika's study reported concerns about time, social responsibilities, and striving to work harder. There is also evidence for differences between interpersonal and non-interpersonal daily hassles, with interpersonal hassles being more stressful than others (McIntyre et al., 2008). Interpersonal hassles include hassles experienced with family or friends, while intrapersonal hassles are more internal (McIntyre et al., 2008).

There are several variables influencing the relationship between experiencing daily hassles and subsequent stress. Some variables include perceived control, negative emotions associated with hassles, the degree of importance of hassles, and an individual's gender (McIntyre, Korn & Matsuo, 2008). Perceived control, an individual's sense of

control or influence on events, is related to experiences of stressful life events. Having a sense of control in stress-inducing situations is linked to successful coping outcomes (McIntyre, Korn & Matsuo, 2008). McIntyre and colleagues also examined negative emotions, those associated with daily hassles; individuals who report more debilitating traits, such as neuroticism, also perceive hassles as being more stressful (2008). Negative emotions and personality style associated with hassles were the best predictor for experienced stressful life events (McIntyre, Korn & Matsuo, 2008). The importance of the hassle also plays a role in its effects. For example, sitting in traffic everyday may not be very important to individuals who do not value punctuality, whereas an individual valuing punctuality may perceive sitting in traffic as highly stressful. Finally, gender is related to stress following daily hassles; women report greater amounts of stress associated with daily hassles than men.

Individuals experiencing daily hassle stress are at an increased risk for depression, anxiety, cognitive deficits, illness, and decreased overall life satisfaction (Brougham et al., 2009; Mahmoud et al., 2012). College students reporting higher levels of stressful life events report increased consumption of junk food, lower likelihood to exercise, and poorer sleeping habits than those reporting lower stress levels (Brougham et al., 2009).

Gender Differences. Research conducted by Brougham and colleagues (2009) reveal that women in college report higher levels of stressful life events and use different coping strategies than men. Women report higher levels of frustration, self-imposed stress, and academic pressure (Brougham et al., 2009). Women also report using more emotion-focused coping, which focuses on reducing negative emotional responses, strategies than men (Brougham et al., 2009). There were five coping response goals

investigated in Brougham and colleagues' study: self-help by maintaining emotional well-being, approach stress through problem-solving, accommodate stress by accepting and reframing negative outcomes, avoid stress through denial and blaming others, and self-punishment by ruminating and blaming the self (2009). In Brougham and colleagues' study (2009), women reported greater stress associated with familial relationships, finances, daily hassles, and social relationships than men. This study also shows women report greater use of self-help, approach, and self-punishment coping strategies than men (Brougham et al., 2009). Both men and women in college report using maladaptive coping strategies of avoidance and self-punishment to cope with experiencing daily hassles (Brougham et al., 2009).

Depression and Anxiety

Mental health disorders, including depression and anxiety, are a significant health concern on college campuses (Mackenzie et al., 2011). In the US, approximately 10% of college students are diagnosed or treated for depression within a 12-month period (Beiter et al., 2015). In 2007, prevalence rates indicated 16% of undergraduate students and 13% of graduate students were diagnosed with depression and/or anxiety (Eisenberg et al., 2007). Epidemiological research shows that individuals ages 15 to 21, have the highest prevalence rate of past-year mental illness (Mackenzie et al., 2011). Difficult or stressful situations can contribute to problematic and chronic features of depression or anxiety. Depression and anxiety symptoms include feelings of sadness, irritability, and nervousness, but are treatable through various forms of therapies and medications.

Comorbidity. Previous research shows links between depression and anxiety. These two emotional distress indices often occur simultaneously, that is they are

comorbid, for older adolescents (Axelson & Birmaher, 2001). High rates of comorbidity between anxiety and depression may be due to common negative affect underlying the two conditions (Axelson & Birmaher, 2001) or from overlap in diagnostic criteria (Cummings et al., 2014). Negative affect comprises general emotional distress including fear, sadness, anger, and guilt (Axelson & Birmaher, 2001). Theorists also argue that rates of comorbidity are high because of diagnostic similarities from the *Diagnostic and Statistical Manual of Mental Disorders* 4th edition (DSM-IV; Cummings et al., 2014). Specifically, general anxiety disorder and depression have the most overlap in symptoms and risk factors (Cummings et al., 2014). The new edition, the DSM-5, may help lessen comorbidity rates due to slight changes in the required length of symptoms (Cummings et al., 2014). Individuals experiencing comorbid anxiety and depression are at an increased risk for overall impairment, physical health problems, and negative outcome and are less likely to attend college than those without comorbidity (Cummings et al., 2014).

While there is an overlap for symptoms of depression and anxiety, these constructs should be assessed separately. There may be specific cognitive and affective differences between depression and anxiety (Burns & Eidelson, 1998). According to the cognitive specificity hypothesis, individuals experiencing depression have automatic thoughts that revolve around themes of personal depreciation and negative attitudes toward the past and future (Beck, Brown, Steer, Eidelson & Riskind, 1987). On the contrary, individuals experiencing anxiety have automatic thoughts centered on danger and anticipated harm in future situations (Beck et al., 1987). Individuals experiencing anxiety tend to overestimate the probability and intensity of anticipated harm.

Depression/Anxiety and Stressful Life Events

Studies demonstrate that college students experience increased levels of depression, anxiety, and stressful life events compared to non-college peers (Mahmoud et al., 2012). Researchers found “emerging adulthood” is a challenging time as individuals transition from adolescence to adulthood. During this time, individuals work to develop skills for independency and self-sufficiency which can cause stress and symptoms of anxiety (Mahmoud et al., 2012).

Individuals experiencing stress may be at increased risk for experiencing symptoms related to depression and anxiety (Quinn & Joormann, 2015). Emotion regulation is important when experiencing stress; how individuals respond to stress and regulate emotions can have negative effects. Previous research demonstrates stress inhibits executive control functioning which is related to emotion regulation (Quinn & Joormann, 2015). If executive control is impaired, an individual’s ability to regulate emotions is also impaired which increases risk of experiencing symptoms related to depression and anxiety.

Maladaptive Coping. The relationship between increased stressful life events and depression and anxiety may be impacted by coping strategy, which can be adaptive or maladaptive (Mahmoud et al., 2012). Adaptive coping includes defining the problem, seeking support, reflecting on possible solutions, and taking action to resolve the situation. Maladaptive coping is characterized by withdrawal from the stressful situation or avoiding seeking solutions. Further, one maladaptive coping strategy may be engaging in risky behaviors, which are not uncommon among college students (Ahern, 2009). Several forms of maladaptive coping are classified as risky behaviors, including binge drinking, using drugs, and sensation-seeking behaviors. When individuals engage in these

risky behaviors, they are not actively coping with the issue at hand, which increases the risk for more severe emotional distress.

Risky Behaviors and Stressful Life Events

College students have been identified as a group of individuals who engage in risky behaviors, experimenting, and conforming to peer pressure (Ahern, 2009). As students transition to the college lifestyle, they are forced to make more adult-like decisions about behaviors and actions on their own. Specifically, college students are stereotyped as heavy and risky drinkers, which is a significant problem on college campuses (Magrys & Olmstead, 2015). Underage and weekend binge drinking are considered cultural college norms. Other risky behaviors noted in college populations include: prescription drug misuse, driving while intoxicated or with an intoxicated driver, and casual and unprotected sex (Schwartz et al., 2011). Several studies suggest stressful life events increase the likelihood of engaging in risky behaviors, specifically alcohol consumption and substance use (Boden, Fergusson, & Horwood, 2014; Coleman & Trunzo, 2015; Gurley & Satcher, 2003; Magrys & Olmstead, 2015).

Alcohol. According to the National Institute on Alcohol Abuse and Alcoholism (2015), four of five college students drink alcohol, with about half of those engaging specifically in binge drinking. Substance Abuse and Medical Health Services Administration defines binge drinking as consuming five or more drinks on the same occasion at least once in the previous month. For many, college is the first time students are away from parental supervision and have increased exposure to alcohol via parties, tailgates, and college bars. This exposure poses a very serious threat to the well-being of college students (Boyd, McCabe, & d'Arcy, 2004). College students report more binge

drinking than their non-college peers (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997), which puts individuals at risk for making poor decisions such as unprotected sex, injury, and driving under the influence (Ahern, 2009). Boyd and colleagues (2004) report that, of students who reported drinking alcohol, one in four acknowledged driving while intoxicated (Boyd et al., 2004).

Research demonstrates those experiencing stress are more likely to drink alcohol, making stress a risk factor for alcohol use, specifically for college students and adolescents (Park, Armeli, & Tennen, 2004). As alcohol reduces negative affective states linked with stress, consuming alcohol is reinforced and this relationship increases the likelihood of consuming alcohol again when experiencing stress (Park et al., 2004).

Previous research demonstrates a correlation between increased stressful life events and increased alcohol consumption (Boden, Fergusson, & Horwood, 2014; Magrys & Olmstead, 2015). Research documents that individuals drink alcohol to regulate emotions, specifically to enhance positive emotions and cope with stressful life events (Cooper, Frone, Russell, & Mudar, 1995). Boden and colleagues (2014) found that those reporting the highest level of distress related to stressful life events were more than twice as likely to have alcohol abuse and dependence symptoms as those reporting the lowest level of distress. Magrys and Olmstead (2015) found acute levels of stress, commonly experienced by college students, specifically increases alcohol consumption.

Substance Use and Abuse. Like alcohol, the use and abuse of other drugs is common among college students (Palmer, McMahon, Moreggi, Rounsaville, & Ball, 2012). On a positive note, there was a general decline in illicit drug use from 2013 to 2014 as reported in the 2014 Overview Findings of Adolescent Drug Use report

(Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2014). However, like alcohol consumption, using other illicit substances increases the risk of poor decision making, such as engaging in unprotected sex and driving while intoxicated. Individuals abusing prescription drugs are also at an increased risk of polydrug use (Palmer, McMahon, Moreggi, Rounsaville, & Ball, 2012). Compared to alcohol use, substance use on college campuses has not been as widely researched, but is noted as an area of concern that should be investigated.

Recent research shows a correlation between stress and drug use (Coleman & Trunzo, 2015). Experiencing stressful life events are often a prelude and risk factor for substance use (Coleman & Trunzo, 2015; Gurley & Satcher, 2003). Like alcohol, drug use is conceptualized as a way to cope with negative experiences such as daily hassles (Gurley & Satcher, 2003). Gurley and Satcher (2003) found that offenders under federal supervision who used drugs reported higher levels of family stress, financial stress, employment-related stress, peer-related stress, and social stress than offenders who did not use drugs at the time of testing. Given previous research, there is a strong correlation between stressful life events and use of illicit substances.

Gender Differences. Research demonstrates gender differences in engaging in risky behaviors. Men tend to engage in risky behaviors more frequently than women. For example, men are more likely to make risky financial decisions and have higher rates of alcohol and drug abuse than women when experiencing depression or anxiety (Lighthall, Mather, & Gorlick, 2009). From an evolutionary standpoint, this may be related to the way humans are designed to handle stressful life events. When experiencing a stressful event, our bodies respond with the “fight-or-flight” response, however, as posed by

Taylor, Klein, Lewis, Gruenewald, and Gurung (2000), women may instead engage in a “tend-and-befriend” response reflective of traditional evolutionary roles. As men were traditionally hunters, it was more adaptive for them to have a “fight-or-flight” response while women’s roles were traditionally to care for children and stay in the home (Lighthall et al., 2009). It is evolutionarily riskier for women to engage in either a fight or flight response when caring for offspring, therefore possibly inhibiting risky responses to stressors (Lighthall et al., 2009).

As Lighthall and colleagues (2009) demonstrate, women are less likely to engage in risky behaviors when experiencing stressful life events. To examine this, participants were randomly assigned to either the stress (submerging their non-dominant hand in ice water for three minutes) or control condition (submerging their hand in room temperature water). Fifteen minutes after submerging their hand, participants moved to a balloon analogue risk task (BART). Men in the stress condition were significantly more likely to take risks than men in the control condition or women in the stress or control condition. Women in the stress condition however, were significantly less likely to take risks than women in the control condition, which lends support for Taylor and colleagues’ “tend-or-befriend” theory (Lighthall et al., 2009).

Spirituality as a Coping Response

Researchers have defined spirituality as a concept broader than religiousness but that includes components of religious beliefs (Zinnbauer et al., 1997). For the current study, we adopt a definition for spirituality posed by Reinert and Koenig: “a connection to the transcendent that which is outside the self and also within the self, and includes a search for the transcendent” (2013, pg. 2630). As the operational definition of spirituality

becomes more refined, researchers are better able to assess this topic. Our decision to investigate spirituality instead of religiosity was due to recent increases in US adults reporting that they are unaffiliated or do not identify with a specific denomination. In the past seven years, there has been a 6.7% increase in people reporting an unaffiliated religion and a 1.2% increase in people reporting a non-Christian faith (Pew Research Center, 2015). Because spirituality does not have a standard, unified definition or standard measure, most studies focus on aspects of organized religion such as frequency of attending services, perceived strength of faith, and other private practices (Abdel-Khaleyk & Lester, 2010; McNamara, Burns, Johnson & McCorkle, 2010). These methods likely do not fully capture the experience of those with spiritual beliefs and practices outside the Judeo Christian traditions. By expanding from the more traditional religious beliefs, we hope to more fully describe the experiences of those who hold organized religious beliefs and those who do not.

Research shows a positive relationship between spirituality and mental well-being (Koenig, 2010). Research demonstrates that many individuals use spiritual beliefs and practices to cope when faced with stress from traumatic national events such as September 11th and terminal medical illnesses (Koenig, 2010). Individuals reporting higher levels of spirituality also report lower levels of depression, anxiety, and substance abuse and misuse (Koenig, 2010). Many studies have explored the relationship between spirituality and depression and have found individuals who report higher levels of spirituality have significantly fewer depressive disorders or symptoms than those reporting less spirituality (Koenig, 2010). Research also examined the impact spiritual intervention may have on anxiety, to determine if spiritual activity is brought on by

anxiety or if spiritual activity lowers anxiety. This research found that the intervention lowered anxiety (Koenig, 2010). Certain kinds of spiritual coping may lower anxiety while others may increase anxiety; this relationship still needs to be investigated. Finally, studies show individuals reporting higher levels of spirituality significantly report less substance use, abuse, and misuse (Koenig, 2010). Individuals reporting lower levels of spirituality were more likely to drink alcohol, smoke cigarettes, binge drink, and use illicit drugs (Koenig, 2010). Based on these studies, spirituality is associated with a decrease in depression, anxiety, and substance use.

Further, a positive association between religiosity and subjective well-being has been established (Ellison, 1991). Individuals reporting higher religious certainty also report higher levels of life satisfaction and fewer negative outcomes following traumatic events (Ellison, 1991). A negative correlation between religion and depression and anxiety and religion and engaging in other risky behaviors is demonstrated in the literature (Sinha, Cnaan, & Gelles, 2007). Specifically, religious activities were associated with lower rates of smoking, drinking alcohol, depression, drug use, and sexual activity in adolescents (Sinha et al., 2007). McNamara and colleagues investigated a possible cognitive mechanism to explain why religiosity is protective against risky behaviors: implementation intentions (2010). Implementation intentions allow individuals to have values, goals, and plans to honor their values and goals. For example, if an individual does not wish to have premarital sex, they will actively seek a partner who also does not wish to have premarital sex. McNamara and colleagues (2010) hypothesized that private religious practices, such as prayer, would help form and solidify implementation intentions. The results of their study supported their hypothesis; self-reported

religiousness was correlated with creation of high quality implementation intentions (McNamara et al., 2010). There were significant gender differences, with women generating more and higher quality implantation intentions than men (McNamara et al., 2010).

Additionally, research demonstrates that spirituality can be a mechanism or strategy to cope with negative life events for the general population and those with medical disorders (Brown, Carney, Parrish & Klem, 2013; Koenig, 2010). Koenig found individuals with congestive heart failure or chronic pulmonary disease reporting higher levels of depression also reported lower levels of spiritual coping (2010). However, when participants were followed after being discharged from the hospital, those most involved in spiritual activities and beliefs recovered from depression more than 50 percent faster than participants who were less involved (Koenig, 2010). This research suggests spirituality may help individuals with mental and physical disorders cope with negative life events.

Moderating Effects

The Moderating Effects of Spirituality as a Coping Response. Research examining the moderating effects of spirituality (specifically religiosity) has on negative emotional distress indices finds high levels of religiosity may buffer against outcomes from stressful life events, especially for women (Angst, Gamma, Gastpar, Lepine, Mendlewicz & Tylee, 2002; Stoltzfus & Farkas, 2012). Angst et al. (2002) found higher prevalence rates for depression in women. In the second wave of their study, Angst and colleagues (2002) investigated symptoms and coping behaviors of European individuals seeking treatment for depression. Participants were representative of six countries: Belgium, France,

Germany, The Netherlands, Spain, and the United Kingdom. Women tended to report a lack of energy, decreased sleep, changes in appetite, palpitations, and ‘being emotional,’ while men tended to report feeling a greater need to drink alcohol (Angst et al., 2002). Both women and men reported seeking support through family and friends frequently. However, women specifically reported finding relief through emotional outlets, such as laughing and crying, and often relied on religion. Men on the other hand, reported coping with depression by drinking alcohol, participating in sports, and smoking cigarettes (Angst et al., 2002).

The way college students cope with experiencing stressful life events may decrease the negative outcomes of stressful life events on well-being (Brougham et al., 2009). Problem-focused coping strategies include behavioral activities such as planning, while emotional-focused coping strategies include expressing emotions and changing expectations. Problem-focused strategies are associated with more positive outcomes, while most emotion-focused strategies are associated with more negative outcomes and may be considered maladaptive (Brougham et al., 2009).

As discussed previously, research shows a correlation between stressful life events and alcohol consumption in college students (Stoltzfus & Farkas, 2012). Stoltzfus and Farkas (2012) investigated religion as a possible moderator in this relationship. This study used a cross sectional design and recruited participants from a religiously affiliated college. Participants completed the Positive Religious Coping subscale in the Brief RCOPE to assess positive religious coping, the Inventory of College Students’ Recent Life Experiences (ICSRLE) to assess daily hassles, and answered two questions regarding their alcohol consumption during the last 30 days. Stoltzfus and Farkas

specifically hypothesized that positive religious coping would moderate the relationship for women but not for men. The results of this study supported the hypothesis that positive religious coping is associated with decreased alcohol use in college students. Results also found that positive religious coping moderates the relationship of certain daily hassle stress experienced in college (academic alienation and romantic problems) and alcohol use in college women specifically.

Stoltzfus and Farkas investigated relationships between daily hassle stress and rates of alcohol use among students enrolled at a religiously affiliated college (2012). Using the Brief RCOPE to measure religiousness, these researchers found a moderating effect of religiousness on the daily hassle stress/alcohol use relationship. Students who reported higher positive religious coping also reported less alcohol use (Stoltzfus & Farkas, 2012). There were gender differences as the relationship was only significant for women (Stoltzfus & Farkas, 2012). Women who reported higher involvement in religious coping were less likely to drink alcohol due to stress (Stoltzfus & Farkas, 2012). These findings support positive religious coping as a buffer against negative effects of daily hassle stress for women in college (Stoltzfus & Farkas, 2012). This study also suggests substance prevention programs should assess and incorporate religious coping or religious involvement, if desired by clients (Stoltzfus & Farkas, 2012).

CHAPTER 2: METHOD

Participants

Participants were 614 undergraduate students (66.7% women, 31.6% men) at a large-sized southeastern university. Most were Caucasian (63.9%), with 25.9% African American, and 10.1% other. Participants were between the ages of 18 and 51 years old, and the average age of participants was 19.4 years ($SD = 2.63$). A total of 11 participants were excluded from analysis because of measurement error, yielding a total of 603 participants for analyses.

Participants were recruited through SONA, an organizational system that allows participants to sign up for research studies via the Internet. Participants were required to be enrolled in a Psychology class. There were no other limitations to inclusion or exclusion requirements. This study was completely anonymous; the participants' identities will be protected to the fullest extent of the law. All measures were collected via an online survey. Participants who participated in the study received one unit of credit toward their research activity requirement. Participation in this study was voluntary.

Measures

The following measures were randomly presented via an online survey and data collection tool (Qualtrics).

The Center for Epidemiologic Studies Depression (CES-D, Radloff, 1977). The Center for Epidemiologic Studies Depression (CES-D; Radloff, 1977) scale was used to measure depressive symptoms. This is a 20 item self-report scale measuring depressive symptoms participants experienced during the past week. Cronbach's alpha = .85 for the general population and .90 among the clinical population (Radloff, 1977). Internal

consistency was good ($\alpha = .81$). It should be noted that the CES-D is not used for diagnosing individuals with depression; the scale measures common depressive symptoms a person may experience during a typical week. Higher total scores reflect higher levels of depressive symptoms.

The Burns Anxiety Scale (BAI, 1989). To measure anxiety symptoms, the Burns Anxiety Scale (1989) was used. This self-report scale consists of 33 items, which includes thoughts, feelings, and physical symptoms (Burns & Eidelson, 1998). Questions assess how much a symptom or problem has bothered the participant during the past week with answers ranging from 0 (not at all) to 3 (a lot). The scale has test-retest reliability ($r = .62$) and convergent and divergent validity (Burns & Eidelson, 1998). The Burns Anxiety Scale also shows good internal consistency of .92 (Kring, Persons, & Thomas, 2007). Internal consistency was excellent ($\alpha = .96$). Higher total scores on all items reflect higher levels of anxious symptoms for this scale.

A Revised Edition of the Brief RCOPE (2015). A revised edition of the brief RCOPE measured participants' level of spiritual coping with life stressors. There is not yet a commonly used measure to assess spirituality. The Brief RCOPE, developed by Kenneth Pargament, measures more specific religious coping (Pargament, Feuille & Burdzy, 2011). The Brief RCOPE includes 14 items such as, "When I have stressful problems I have sought God's love and care" and "When I have stressful problems I focused on religion to stop worrying about my problems." Previous studies indicate that the Brief RCOPE has good internal consistency and validity (Pargament, Feuille & Burdzy, 2011). Cronbach's alpha = .88 in a religious-affiliated college student population for the positive religious coping subscale (Stoltzfus & Farkas, 2012). For the purposes of

this study, we were granted permission to alter the words “God” and “religion” to “my faith/spirituality” as a way to measure a broader aspect of spirituality. Internal consistency was excellent ($\alpha = .91$).

The Inventory of College Students Recent Life Experiences (ICSRLE, Kohn, Lafreniere & Gurevich, 1990). The ICSRLE measured participants’ recent stressful life events. This measure is designed specifically to assess stressful life events for college students over the past month. This is a 49-item scale, which includes questions regarding possible academic, social, and personal experiences. Cronbach’s alpha = .89 for the item-selection subsample (Kohn, Lafrenier & Gurevich, 1990). This measure is also strongly correlated with the Perceived Stress Scale which is a widely used measure of subjective stress, $p < .0005$ (Kohn, Lafreiner & Gurevich, 1990). Internal consistency was excellent ($\alpha = .95$). Responses are on a 4-point Likert scale, with 1 indicating that the experience is “not at all part of my life” and 4 indicating that the experience is “very much part of my life;” higher scores indicate more perceived stress.

The Cognitive Appraisal of Risky Activities – Expected Involvement (CARE-EI, Fromme, 1997). The CARE-EI examined participants’ likelihood of engaging risky behaviors in the next six months. This 30-item questionnaire is a self-report survey focusing on a variety of risky behaviors. Questions include items such as “Missing class or work” and “Drinking alcohol too quickly.” Questions are answered on a 7-point Likert scale (1 indicating not at all likely to 7 indicating extremely likely). In a college sample specifically examining students involved in either sororities or fraternities, Cronbach’s alpha ranged from .64 to .90, indicating adequate internal reliability with item-total

correlations offering further support for internal reliability (Fromme, Katz & Rivet, 1997). Internal consistency was excellent ($\alpha = .91$).

Demographics Questionnaire. Participants completed a 10-item questionnaire to evaluate current demographic information (e.g., age, gender).

CHAPTER 3: RESULTS

Initially, bivariate correlations were conducted to examine relationships among variables. As expected, stressful life event scores were positively related to the three outcome variables, willingness to engage in risky behaviors ($r = .35$), depression ($r = .62$), and anxiety ($r = .64$). Consistent with expectations, spirituality was negatively related to stressful life events ($r = -.14$) and negatively related to scores of depression ($r = -.27$), anxiety ($r = -.20$), and stressful life events ($r = -.25$). Overall, all variables were significantly related in the expected direction and to the expected degree. Inter-correlations among the study's variables are located in Table 1.

To examine moderating effects, three hierarchical regressions were analyzed. Using hierarchical modeling to analyze moderation is consistent with previous research (Jose, 2004), and compared to using ANOVAs yields more accurate results. Transforming a continuous variable into a dichotomous categorical variable would result in loss of statistical information when conducting an ANOVA (Jose, 2004). For all models, stressful life events, the predictor variable, was entered into the first block of the process model. Spirituality (the moderating variable) was entered in the second block for all models. Finally, the interaction term (stressful life events*spirituality) was entered in the last block for all models. The first moderation model was designed to examine the indirect effect of spirituality on the relationship between stressful life events and anxiety. The second moderation model was designed to examine the indirect effect of spirituality on the relationship between stressful life events and depression. The third moderation model was designed to examine the moderating effect of spirituality on the relationship between stressful life events and willingness to engage in risky behaviors.

Table 2 presents the results of the hierarchical regressions. Regression effects on anxiety were first explored through main effects of predictor variables. Spirituality was negatively associated and stressful life events was positively associated with anxiety. These main effects were significant ($ps < .05$). In the second step, the interaction effect between stressful life events and spirituality was added to the model. This interaction term was non-significant ($p > .05$). Variance explained in the second step did not statistically increase (from 42% to 42.17%; $p > .05$). Considering these findings, spirituality did not moderate the relation between stressful life events and anxiety.

Regression effects on depression were first explored through main effects of the proposed predictor and moderator variables. Spirituality was negatively associated and stressful life events was positively associated with depression. These main effects were significant ($ps < .05$). In the second step, the interaction effect between stressful life events and spirituality was added to the model. This interaction term was non-significant ($p > .05$). Variance explained in the second step of the model did not statistically increase (from 42% to 42%; $p > .05$). Considering these findings, spirituality did not moderate the relation between stressful life events and depression.

Finally, regression effects on willingness to engage in risky behaviors were first explored through main effects of the predictor and moderator variables. Spirituality was negatively associated and stressful life events was positively associated with willingness to engage in risky behaviors. These main effects were significant ($ps < .05$). In the second step, the interaction effect between stressful life events and spirituality was added to the model. This interaction term was non-significant ($p > .05$). Variance explained in this step did not statistically increase (from 16% to 16%; $p > .05$). Considering these findings,

spirituality did not moderate the relation between stressful life events and willingness to engage in risky behaviors. Given that our results did not yield spirituality as a significant moderator of the relationship between stressful life events and negative outcomes (i.e., anxiety, depression or willingness to engage in risky behaviors), we cannot assume that spirituality influences this relationship, although spirituality is inversely related to anxiety, depression, and risky behaviors.

CHAPTER 4: DISCUSSION

Review of Purpose

The main purpose of the current study was to investigate and expand current knowledge on protective factors that influence the relationship between stressful life events and negative outcomes (i.e., depression, anxiety and willingness to engage in risky behaviors). Specifically, this study examined whether spirituality moderated the relationship between stressful life events and negative outcomes (i.e., depression, anxiety, and reported willingness to engage in risky behaviors). Gaining a better understanding of moderating effects of the relationship between stressful life events and these negative outcomes will aid in prevention and treatment options for clinicians and students. To achieve these goals, the current study considered the following questions: (a) were higher levels of experienced stressful life events related to higher levels of depression, anxiety and reported willingness to engage in risky behaviors?; (b) were higher scores of spirituality associated with lower levels of depression, anxiety, and reported willingness to engage in risky behaviors?; and (c) did spirituality moderate the relationship between stressful life events and negative outcomes? Experience of stressful life events was retained as the predictor variable.

Relationship between Stressful Life Events and Negative Outcomes

It was hypothesized that there would be a positive relationship between experiencing stressful life events and negative outcomes. Bivariate correlations confirmed these hypotheses. These findings suggest that individuals reporting more experiences of stressful life events also report more depressive and anxiety symptoms and

willingness to engage in risky behavior, consistent with past research (Boden et al., 2014; Kohn, Lafreniere, & Gurevich, 1990; Mahmoud et al., 2012; Park et al., 2004).

The current study used a college sample, so examining this relationship utilizing a more generalizable sample is important to determine the consistency of this relationship across other demographics. Previous research found college to be a stressful time for individuals, with its own unique trials and obstacles (Brougham et al., 2009). Future research should examine these relationships in other samples to see if these results are consistent and generalizable, particularly among emerging adults who do not attend college.

Additionally, this study investigated participants' willingness to engage in risky behaviors as opposed to how frequently they have engaged in risky behaviors. It is unclear what impact having one measure about future expectations and other measures assessing past behaviors may have on the study. While retrospective studies may have more room for variability, consistency in measures may influence results. Individuals may also underreport how likely they are to engage in these behaviors, whereas a measure assessing how frequently they have engaged in these behaviors in the past may offer a better understanding of the relationship between stressful life events and risky behavior engagement. Future research measuring risky behavior engagement consistent with the retrospective aspect of other measures would also be beneficial.

Relationship between Spirituality and Negative Outcomes

It was hypothesized that there would be a negative relationship between spirituality and negative outcomes. Bivariate correlations confirmed this hypothesis. These results indicate that higher scores on a measure of spirituality are related to lower

depressive and anxious symptoms and willingness to engage in risky behaviors. Current results are consistent with past research showing negative correlations between spirituality and negative outcomes (Koenig, 2010). Given that current correlations are consistent with previous findings, these results further support past literature that details the negative relationship between spirituality and the negative outcomes assessed. The current study also expanded upon past literature by analyzing spirituality in these relationships whereas past literature investigated religiosity. However, results do suggest that further research into these variables is warranted as previous relationships (i.e., religiosity as a moderator) did not appear in our research when religiosity was expanded to include a broader spirituality.

Moderation Models

Religiosity moderates the relationship between stressful life events and depression, anxiety, and willingness to engage in risky behaviors (Angst et al., 2002; Koenig, 2010; Sinha et al., 2007). Previous findings demonstrate that the relationship between stressful life events and negative outcomes can weaken or strengthen depending upon a factor such as religiosity. Religiosity plays a unique role in the relationship associated with stressful life events, with higher religiosity weakening the relationships between stressful life events and depression, anxiety, and engagement in risky behaviors.

In the current study, spirituality was defined as different from religiosity, but including aspects of religiosity (Zinnbauer et al., 1997). The intent was to expand previous research by being more inclusive of other faiths and religions as previous research focuses solely on organized religions. Inclusivity of a broader concept of spirituality is important due to a decrease in individuals who report following an

organized religion over the past seven years (Pew Research Center, 2015). Although current results do not indicate that spirituality serves as a moderator in the relationships between stressful life events and negative outcomes, it is important to note correlations in the expected directions were found.

Future research should focus on teasing apart the differences in spirituality and religiosity, as religiosity has been found to moderate the relationship in past research but spirituality did not in this study. Future research should investigate components of spirituality coping strategies (i.e., active or passive coping). The literature on coping strategies suggest active coping is inversely related to negative outcomes and psychological distress, while passive (or avoidant) coping is related with an increased risk for negative outcomes and psychological distress (Amjad & Bakharey, 2015; Neville, Heppner, Oh, Spanierman, & Clark, 2004). Developing and utilizing a measure to better assess active and passive spiritual coping would be beneficial and assist in understanding the relationship between stressful life events and negative outcomes. Kausar and Munir developed a coping strategy questionnaire (2004) that assesses four types of coping (i.e., active-practical coping, active-distractive coping, avoidance-focused coping, and religious-focused coping). Incorporating aspects of this questionnaire in a spiritual light may yield a better understanding of the relationship between spirituality and negative outcomes.

Given that the current study was correlational, future research should test for causality in these relationships. One way to determine if spirituality may influence the negative relationship between stress and negative outcomes is to ask participants to engage in a stress inducing task (i.e., tell participants they have to give an impromptu

speech in front of a camera). After completing the stress-inducing task and assessing stress levels, researchers could ask participants to engage in their own coping strategies to reduce their stress level. Researchers could then ask participants what strategies they used and assess stress levels. Researchers could then use this information to determine what coping strategies were most used and were most successful for participants. Finally, researchers may also assess for negative outcomes (i.e., depression, anxiety, and willingness to engage in risky behaviors) after the stress-inducing task. Knowing effective coping strategies to reduce stress allows researchers to have a better understanding of these relationships and will have major implications for treating those experiencing stress, specifically in recommending coping strategies based on spirituality and not limited to religion given recent changes in reported religious involvement among Americans.

Strengths

Strengths of the study include examining spirituality in an effort to be more inclusive of individuals who do not follow a common organized religion. Most previous research focuses on Christianity as a moderator without considering other faiths. Given the societal shift in reported faiths away from Christianity to more non-denominational or non-traditional faiths, investigating spirituality is more inclusive and may offer a better understanding of these relationships. However, results of this study did not support the hypotheses that spirituality moderates the relationships between stressful life events and depression, anxiety, and willingness to engage in risky behaviors.

Limitations

There are several limitations to consider in this study. Currently, there is no standardized measure of spirituality, so we utilized an authorized revised edition of the Brief RCOPE measure originally designed to assess Christian religiosity. Given that this is a revised edition of a religiosity measure, there may be validity concerns. Some components or aspects of spirituality may have been omitted given the religious nature of the original measure. Previous literature demonstrates that religiosity, assessed using the Brief RCOPE measure, moderates the relationship between stressful life events and negative outcomes (Pargament et al., 2011; Stoltzfus & Farkas, 2012), so the changes we made may decrease the validity of the scale. Spirituality is defined as broader than religiosity, but including religiosity. In our attempt to be more inclusive in our revised edition of the Brief RCOPE, we changed the wording of some questions. We replaced the word “God” in questions with “faith/spirituality.” This may have caused some confusion to participants who follow a specific faith and caused them to underreport their spirituality.

In addition, all measures with the exception of the CARE-EI (assessing likelihood of risky behaviors) were retrospective. The CARE-EI asks participants what behaviors they think they will engage in in the future, which may lead to underreporting of behaviors. Participants may be less likely to report how frequently they are going to engage in the risky behaviors (Brener, Billy, & Grady, 2003).

Implications

While some results of this study were non-significant, there are significant implications for current findings. Spirituality is designed to be broader and more inclusive than religiosity, but include aspects of religiosity (Zinnbauer et al., 1997).

Spirituality is a newer concept which has not been widely researched. This study is one of the first studies to look broadly at spirituality as a possible protective factor in outcomes associated with the experience of stress. Given that prior research has shown religiosity moderates the relationships between stressful life events and negative outcomes (i.e., depression, anxiety, engagement in risky behaviors; Angst et al., 2002; Koenig, 2010; Sinha et al., 2007), further research should be conducted to determine if specific aspects of religiosity moderates the relationships, given that this study did not support the hypotheses that spirituality serves as a moderator. The results of this study did however, support the hypotheses that the selected concepts are correlated in the expected direction, so further research should be conducted to investigate these relationships deeper.

Conclusions

In sum, spirituality was not a significant moderator in the relationships between stressful life events and depression, anxiety and engagement in risky behaviors. While these concepts were correlated in the expected directions, spirituality did not change the strength of the relationships. Previous research has demonstrated that religiosity moderates the relationships between stressful life events and negative outcomes; however, results of this study did not find spirituality to significant moderate the relationships. These results demonstrate that there is a need for further research investigating the specific concepts of religiosity and spirituality that can be utilized by clinicians.

REFERENCES

- Abdel-Khalek, A. M., & Lester, D. (2010). Constructions of religiosity, subjective well-being, anxiety, and depression in two cultures: Kuwait and USA. *International Journal of Social Psychiatry, 58*, 138-145.
- Angst, J., Gamma, A., Gastpar, M., Lepine, J. P., Mendlewicz, J., & Tylee, A. (2002). Gender differences in depression: Epidemiological findings from the European DEPERs I and II studies. *Eur Arch Psychiatry Clin Neurosci, 252*, 201-209.
- Axelson, D. A., & Birmaher, B. (2001). Relation between anxiety and depression disorders in childhood and adolescence. *Depression and Anxiety, 14*, 67-78.
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care Second Edition*. Geneva, Switzerland: World Health Organization.
- Bachman, J., Wadsworth, K. N., O'Malley, P. M., Johnston, L. D., & Schulenberg, J. E. (1997). *Smoking, drinking and drug use in young adult-hood*. Mahwah, NJ: Lawrence Erlbaum.
- Barber, B. A., Kohl, K. L., Kassam-Adams, N., & Gold, J. I. (2014). Acute Stress, Depression, and Anxiety Symptoms Among English and Spanish Speaking Children with Recent Trauma Exposure. *Journal of Clinical Psychology in Medical Settings, 21*, 66-71.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
doi:10.1037/0022-3514.51.6.1173

- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders, 173*, 90-96.
- Boden J. M, Fergusson D. M, Horwood L. J. (2014) Associations between exposure to stressful life events and alcohol use disorder in longitudinal birth cohort studied to age 30. *Drug Alcohol Depend* 142:154–60.
- Boyd, C. J., McCabe, S. E., & d'Arcy, H. (2004). Collegiate Living Environments: A Predictor of Binge Drinking, Negative Consequences, and Risk-Reducing Behaviors. *Journal of Addictions Nursing, 14*, 111-118.
- Brener, N. D., Billy, J. O. G., & Grady, W, R. (2003). Assessment of factors affecting the validity of self-reported health-risk behavior among adolescents: Evidence from the scientific literature. *Journal of Adolescent Health, 33*, 436-457.
- Brewer, G., & Olive, N. (2014). Depression in Men and Women: Relative Rank, Interpersonal Dependency, and Risky-Taking. *Evolutionary Behavioral Sciences, 8*, 142-147.
- 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 and Mental Health, 15*, 107-122. doi: 10.1080/19349637.2013.776442
- Burns, D. D., & Eidelson, R. J. (1998). Why are depression and anxiety correlated? A test of the tripartite model. *Journal of Consulting and Clinical Psychology, 66*, 461-473.
- Chamberlain, K., & Zika, S. (1990). The minor events approach to stress: Support for the use of daily hassles. *British Journal of Psychology, 81*(4), 469-481.

- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.
doi:10.1037/00332909.112.1.155
- Coleman, J. & Trunzo, J. (2015). Personality, Social Stress, and Drug Use Among College Students. *Psi Chi Journal of Psychological Research*, *20*, 52-56.
- Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to Regulate Positive and Negative Emotions: A Motivational Model of Alcohol Use. *Journal of Personality and Social Psychology*, *69*, 990-1005.
- Cummings, C. M., Caporino, N. E., & Kendal, P. C. (2013). Comorbidity of Anxiety and Depression in Children and Adolescents: 20 Years After. *Psychological Bulletin*, *140*, 812-845.
- Eckenrode, J. (1984). Impact of Chronic and Acute Stressors on Daily Reports of Mood. *Journal of Personality and Social Psychology*, *46*, 907-918.
- Eisenberg, D., Gollust, S. E., Golberstein, S. E., & Hefner, J. L. (2007). Prevalence and correlated of depression, anxiety, and suicidality among university students. *American Journal of Orthopsychiatry*, *77*, 534-542.
- Ellison, C. G. (1991). Religious Involvement and Subjective Well-Being. *Journal of Health and Social Behavior*, *32*, 80-99.y
- Fromme, K., Katz, E.C., & Rivet, K. (1997). Outcome Expectancies and Risk-Taking Behavior. *Cognitive Therapy and Research*, *21*, 421-442.
- Gurley, J. D., & Satcher, J. F. (2003). Drug Use or Abstinence as a Function of Perceived Stressors Among Federally Supervised Offenders. *Federal Probation*, *67*, 49-53.
- Johnston, L. D., O'Malley, P. M., Miech, R. A., Bachman, J. G., & Schulenberg, J. E. (2015). Monitoring the Future national survey results on drug use: 1975-2014:

Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, The University of Michigan.

Jose, P. E. (2004). *Doing statistical mediation & moderation*. New York, New York: The Guilford Press.

Kapuscinski, A. N., & Masters, K. S. (2010). The Current Status of Measures of Spirituality: A Critical Review of Scale Development. *Psychology of Religion and Spirituality*, 2, 191-205. doi:10.1037/a0020498.

Kausar, R., & Munir, R. (2004). Pakistani adolescents' coping with stress: Effects of loss of a parent and gender of adolescents. *Journal of Adolescence*, 27(6), 599–610.

Koenig, H. G. (2010). Spirituality and Mental Health. *International Journal of Applied Psychoanalytic Studies*, 7, 116-122. doi:10.1002/aps.239

Kohn, P. M., Laffreniere, K., Gurevich, M. (1990). The Inventory of College Students' Recent Life Experiences: A Decontaminated Hassles Scale for a Special Population. *Journal of Behavioral Medicine*, 13, 619-630.

Kring, A. M., Persons, J. B., & Thomas, C. (2007). Changes in affect during treatment for depression and anxiety. *Behaviour Research and Therapy*, 45, 1753-1764.

Lazarus, R. S. (1984). Puzzles in the study of daily hassles. *Journal of Behavioral Medicine*, 7, 375-389.

Lu, L. (1991). Daily hassles and mental health: A longitudinal study. *British Journal of Psychology*, 82, 441-447.

Lighthall, N. R., Mather, M., & Gorlick, M. A. (2009). Acute Stress Increases Sex Differences in Risky Seeking in the Balloon Analogue Risk Task. *PLoS ONE* 4(7): e6002. doi:10.1371/journal.pone.0006002.

- Mackenie, S., Wiegel J. R., Mundt, M., Brown, D., Saewyc, E., Heiligenstein, E., Harahan, B., & Fleming, M. (2011). Depression and Suicide Ideation Among Students Accessing Campus Health Care. *American Journal of Orthopsychiatry*, *81*, 101-107.
- Magrys, S. A., & Olmstead, M. C. (2015). Acute Stress Increases Voluntary Consumption of Alcohol in Undergraduates. *Alcohol and Alcoholism*, *50*, 213-218.
- Mahmoud, J. S. R., Staten, R. T., Hal, L. A., & Lennie, T. A. (2012). The Relationship among Young Adult College Students' Depression, Anxiety, Stress, Demographics, Life Satisfaction, and Coping Styles. *Issues in Mental Health Nursing*, *33*, 149-156.
- McNamara, P., Burns, J. P., Johnson, P., & McCorkle, B. H. (2010). Personal Religious Practice, Risky Behavior, and Implementation Intentions Among Adolescents. *Psychology of Religion and Spirituality*, *2*, 30-34.
- Monroe, S. M. (1983). Major and minor life events as predictors of psychological distress: Further issues and findings. *Journal of Behavioral Medicine*, *6*, 189-205.
- Neville, H. A., Heppner, M. J., Oh, E., Spanierman, L. B., & Clark, M. (2004). General and culturally specific factors influencing Black and White rape survivors' self-esteem. *Psychology of Women Quarterly*, *28*, 83-94. doi:10.1111/j.1471-6402.2004.00125.x
- Palmer, R. S., McMahon, T. J., Moreggi, D. I., Rounsaville, B. J., & Ball, S. A., (2012). College Student Drug Use: Patterns, Concerns, Consequences, and Interest in

- Intervention. *Journal of College Student Development*, 53, 124-132. doi: 10.1353/csd.2012.0014.
- Pargament, K., Feuille, M., & Burdzy, D. The Brief RCOPE: Current Psychometric Status of a Short Measure of Religious Coping. *Religions*, 2, 51-76; doi:10.3390/rel2010051.
- Park, C. L., Armeli, S., Tennen, H. (2004). The Daily Stress and Coping Process and Alcohol Use among College Students. *Journal of Studies on Alcohol*, 65, 126-135.
- Pew Research Center: Religion and Public Life. (2015). America's Changing Religious Landscape: Christians Decline Quickly as Shares of Population: Unaffiliated and Other Faiths Continue to Grow. [Data file and code book]. Retrieved from <http://www.pewforum.org/2015/05/12/americas-changing-religious-landscape/>
- Quinn, M. E. & Joormann, J. (2015). Control when it Counts: Change in Executive Control Under Stress Predicts Depression Symptoms. *American Psychological Association*, 15, 522-530.
- Rehm, L. P. (1978). Mood, Pleasant Events, and Unpleasant Events: Two Pilot Studies. *Journal of Consulting and Clinical Psychology*, 46, 854-859.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Reinhert, K. G., & Koenig, H. G. (2013). Re-examining definitions of spirituality in nursing research. *Journal of Advanced Nursing*, 2622-2634.
- Schwartz, S. J., Waterman, A. S., Vazsonyi, A. T., Zamboanga, B. L., Whitbourne, S. K., Weisskirch, R. S., Vernon, M., Caraway, S. J., Kim, S. Y., Forthum, L. F.,

- Donnellan, M. B., & Ham, L. S. (2011). The Association of Well-Being with Health Risk Behaviors in College-Attending Young Adults. *Applied Developmental Science, 15*, 20-36.
- Sinha, J. W., Cnaan, R. A., & Gelles, R. J. (2007). Adolescent risky behaviors and religion: Findings from a national study. *Journal of Adolescence, 30*, 231-249.
- Sirois, F. M., & Kitner, R. (2015). Less Adaptive or More Maladaptive? A Meta-analytic Investigation of Procrastination and Coping. *Journal of Personality, Eur. J. Pers, 29*.433-444.
- Stoltzfus, K. M., & Farkas, K. (2012). Alcohol Use, Daily Hassles, and Religious Coping Among Students at a Religiously Affiliated College. *Substance Use & Misuse, 47*, 1134-1142.
- Taylor, S. E., Klein L. C., Lewis B. P., Gruenewald, T. L., & Gurung, R. A. R. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review 107*: 411–429.
- Wechsler, H., & Nelson, T. F. (2001). Binge Drinking and the American College Student: What's Five Drinks? *Psychology of Addictive Behaviors, 15*, 287-291.
- Villalobos-Gallegos, L., Perez-Lopez, A., Mendoza-Hassey, R., Graue-Moreno, J., Marin-Navarrete, R. (2015). Psychometric and diagnostic properties of the Drug Abuse Screening Test (DAST): Comparing the DAST-20 vs the DAST-10. *Salud Mental, 38*, 89-94.
- Vinkers, C. H., Joels, M., Milaneschi, Y., Kahn, R. S., Penninx, B. W. J. H, Book, M. P. M. (2014). Stress exposure across the life span cumulatively increases depression risk and is moderated by neuroticism. *Depression and Anxiety, 31*, 737-745.

Zinnbauer, B. J., Pargament, K. I., Cole, B., Rye, M. S., Butter, E. M., Belavich, T. G.,

Hipp, K. M., Scott, A. B., & Kadar, J. L. (2001). Religion and Spirituality:

Unfuzzifying the Fuzzy. *Journal for the Scientific Study of Religion*, 36, 549-564.

Zuckerman, M. (1994). Behavioral expressions and biosocial bases of sensation seeking.

New York, NY: Cambridge University Press.

FIGURE

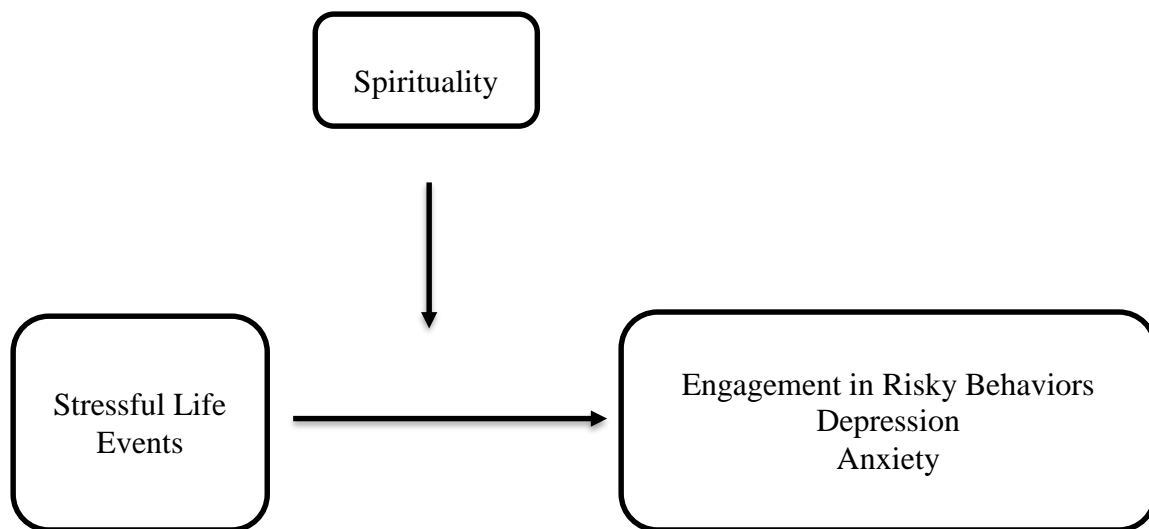


Table 1
Inter-correlations among Measures of Stressful Life Events, Depression, Anxiety, Willingness to Engage in Risky Behaviors, and Spirituality

Variables	1	2	3	4	5
1. SLE	--	--	--	--	--
2. ANX	.640**	--	--	--	--
3. DEP	.624**	.712**	--	--	--
4. WERB	.351**	.318**	.259**	--	--
5. SPI	-.135**	-.204**	-.266**	-.248**	--

Note: *Correlation is significant at the .01 level. ** Correlation is significant at the .001 level. SLE = Stressful Life Events, ANX = Anxiety, DEP = Depression, WERB = Willingness to Engage in Risky Behaviors, SPI = Spirituality

Variables	Predicting Depression				Predicting Anxiety				Predicting Risky Behaviors			
	Step 1		Step 2		Step 1		Step 2		Step 1		Step 2	
	<i>B</i>	95% <i>CI</i>	<i>B</i>	95% <i>CI</i>	<i>B</i>	95% <i>CI</i>	<i>B</i>	95% <i>CI</i>	<i>B</i>	95% <i>CI</i>	<i>B</i>	95% <i>CI</i>
Predictors												
SLE	.27	[.25, .30]	.27	[.24, .30]	.48	[.43, .53]	.48	[.43, .53]	.33	[.26, .41]	.33	[.26, .41]
SPI	-.23	[-.32, -.15]	.28	[.24, .32]	-.25	[-.28, -.13]	.51	[.43, .53]	-.56	[-.76, -.35]	.34	[.23, .45]
SLE*SPI			-.00	[-.004, .002]			-.004	[-.009, -.002]			-.00	[-.009, .009]
R^2	.42		.002		.42		.002		.16		.00	
Change in R^2			.418				.418				.16	

Note: All models include covariates. Entries for predictors and interactions are unstandardized *B*'s. Bolded effects are significant ($p < .05$). Effects and CI's that contain only zeros (.00 and -.00) were rounded to the nearest decimal and represent the direction of the effect (positive or negative).
SLE = Stressful Life Events, SPI = Spirituality

APPENDIX A
IRB DOCUMENTS
INFORMED CONSENT

1. Kristen Campbell and Dr. C. Thresa Yancey are conducting this study. Kristen Campbell is a graduate student in the experimental psychology program and Dr. Yancey is an associate professor in the Psychology Department at Georgia Southern University.
2. The purpose of this research is to gain a better understanding of life events, mood, and spirituality principles.
3. Participation in this research will include completing surveys.
4. Completing this survey should be no more uncomfortable than everyday life. However, if you feel you have experienced any discomfort in answering any of these questions, here are some free to low cost health services that will help relieve discomfort:
 - a. Georgia Southern University's Counseling Center: 912-478-5541
 - b. National Mental Health Association: 1-800-969-6642
 - c. National Suicide Hotline: 1-800-784-2443
 - d. Georgia Southern University's Center for Addiction Recovery: 912-478-2288
 - e. National Suicide Prevention Hotline: 1-800-273-8255
 - f. SAMHSA's National Helpline (Treatment Referral Routing Service): 1-800-662-HELP (4357) or visit the online treatment locators.
 - i. SAMHSA's National Helpline (also known as the Treatment Referral Routing Service) is a confidential, free, 24-hour-a-day, 365-day-a-year, information service, in English and Spanish, for individuals and family members facing mental health and/or substance use disorders. This service

provides referrals to local treatment facilities, support groups, and community-based organizations. Callers can also order free publications and other information.

5. The benefits for the participants are indirect and rather abstract. Specifically, by answering questions regarding their emotions and behaviors, they may obtain some self-awareness about who they are and how they function on a day-to-day basis. Additionally, participating in this study may provide the participants with some knowledge about psychological research and how data is obtained. However, the primary author does not guarantee that self-awareness or insight will be obtained for every participant.

6. Participation in this study will take no longer than 50 minutes.

7. This study is completely anonymous. Your identity will be protected to the fullest extent of the law. Your name will only be used to provide you with credit for participating in the study. The researchers will not be able to attach your responses to any identifiable features of your person. Also, we will only report that you participated to your professor through the SONA system – all of your information is confidential and no one will know what your answers to the questionnaires are. Your professors will not be allowed access to any of your responses. Moreover, all of your information will be held in a safe and secure environment. All data will be stored on a password protected data file and only the researchers will have access to the data. All data will be kept for seven years. Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about this combined information. Your responses will not be identified in these written materials. Finally, because data will be collected through the Internet there are always

some risks concerning security. However, we have taken stringent steps to ensure that all of your responses will be collected and maintained through the most secure means possible.

8. Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-0843.

9. You will receive research participation credit for participating in this study. Participation in this research study is worth one research credit. Equivalent alternative research participation opportunities will be available for those who elect not to participate. Please see your course instructor for alternative research participation opportunities.

10. Please know that your participation in this research is completely voluntary, and as such, you have the right to withdraw at anytime without prejudice, penalty, or loss of benefits, to which you are otherwise entitled. You may choose to not answer any item without penalty. Additionally, students may receive the same credit as research participation by opting for an alternative, indicated by each individual Introduction to Psychology instructor.

11. There is no penalty for deciding not to participate in the study; if you decide to stop participation at any point, you will be entitled to the compensation of credit. Your

decision not to participate will not jeopardize your relations with GSU and will not affect your course grade.

12. Since we cannot obtain your signature to verify that you are voluntarily providing your consent to participate, it is important that we obtain your consent through another means. By clicking the “I give my consent freely” button below, you are acknowledging that you have read and understood the instructions and limitations to participating in this research. Moreover, you are indicating that you would like to participate in this study as a volunteer. If you do not wish to take this survey or are hesitant about participating, cancel out of the survey and then please email the primary investigator if you wish to discuss any concerns. You will be given a copy of this consent form to keep for your records.

This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H15409.

Title of Project: Daily Experiences and Emotional Indices

Principal Investigator: Kristen Campbell, 912-347-0545, kc03097@georgiasouthern.edu

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