

USE OF RELIGIOUS COPING STRATEGIES AFTER
TRAUMA EXPOSURE AS PREDICTORS OF
ALCOHOL USE AND SYMPTOMS OF
POSTTRAUMATIC STRESS AMONG COLLEGE
STUDENTS

By

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CHAPTER I

INTRODUCTION

Background

Among civilian populations, 50-90% of people experience at least one trauma during their lifetime (Breslau, Kessler, Chilcoat, Schultz, Davis, & Andreski, 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Traumatic events can lead to disruptions in multiple aspects of the individual's life. A person may experience emotional and cognitive disturbances including symptoms of avoidance, hyperarousal, and re-experiencing the traumatic event, with the more severe cases leading to the development of posttraumatic stress disorder (PTSD) or other psychological disorders (APA, 2000). Among individuals exposed to a traumatic experience, approximately 18-24% develop the full syndrome of PTSD (Breslau, Davis, Andreski, & Peterson, 1991; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). In addition, survivors of trauma may encounter disruptions among their social network, difficulty within their occupation, physical health concerns and existential concerns and spiritual crises (Schnurr, Green, & Kaltman, 2007).

Trauma survivors may utilize a variety of coping mechanisms in order to alleviate the symptoms and stressors that are associated with traumatic experiences. After trauma exposure, individuals with posttraumatic stress symptoms may use alcohol and/or other

substances in an attempt to control distressing and sometimes unbearable symptoms associated with trauma exposure (Brady, Back, & Coffey, 2004). These individuals utilize alcohol as a coping mechanism, likely because they lack other resources (e.g., social support, positive coping strategies) to manage these often excruciating symptoms.

PTSD and substance use disorders have consistently been found to co-occur (Keane & Wolfe, 1990). Kessler et al. (1995) reported that in the United States, among men diagnosed with PTSD, approximately 51.9% are diagnosed with alcohol use disorder during their lifetime and among women, approximately 27.9%. Moreover, people who suffer from posttraumatic stress symptoms and abuse substances are susceptible to multiple traumas (Fullilove, M., Fullilove, R., Smith, Winkler, Panzer, & Wallace, 1993). This may indicate that the relationship between substance use and posttraumatic stress symptoms are cyclical. For example, victimization may lead to substance use, which further increases the risk for PTSD and exposure to subsequent additional traumatic events (Kozaric-Kovacic, Ljubin, & Grappe, 2000).

Based on epidemiological research, it is evident that most individuals who are exposed to traumatic events do not, in fact, develop PTSD or a substance use disorder (Breslau et al., 1998; Kessler et al., 1995). Therefore, certain predisposing factors must play a significant role in the development of these two disorders. Factors that increase the risk of alcohol use after traumatic events include: family history and drinking behavior before trauma exposure (Helzer, 1984); the nature of the trauma (Green, Lindy, Grace, & Gleser, 1989); and negative social support (Ullman, Filipias, Townsend, & Starzynski, 2006). Personal predisposition to alcohol use prior to trauma exposure seems to have a significant effect on the use of substances after the traumatic event. A family

history of alcohol use and trauma exposure increases the probability of being exposed to traumatic events, developing posttraumatic stress symptoms, and alcohol use (McLeod, Koenen, Meyer, Lyons, Eisen, True, & Goldberg, 2001). Also, the level of trauma exposure and multiple traumatic experiences is a strong predictor in the development and severity of PTSD symptoms and the use of substances. Individuals who are exposed to more severe forms of trauma, such as childhood abuse and neglect, sexual assault, and combat trauma increase the likelihood and severity of PTSD symptoms and use of substances (Green et al., 1989; Ullman et al., 2006).

Exposure to traumatic events may also evoke certain existential questions concerning the meaning of life and suffering or, challenging fundamental assumptions in relation to living in a just world and the nature between good and evil. Individuals who grapple with these existential concerns may be confronted with spiritual crises. For instance, through their suffering they may question their belief in a compassionate and benevolent God. A growing body of literature has found that during stressful life events methods of religious coping are among the most common forms of coping strategies (Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma, et al., 1990). The utilization of religious coping strategies and experience of trauma is multidimensional and quite complex. In a paradoxical fashion, trauma can strengthen an individual's religious beliefs (Calhoun, Cann, & Tedeschi, 2000), but can also have a negative impact on religious beliefs and behaviors (Falsetti, Resick, & Davis, 2003; Harris, Erbes, Engdahl, Olson, Winskowski, & McMahill, 2008). It has been evidenced that more severe trauma exposure triggers both positive and negative religious coping strategies (Pargament, 1997). However, positive methods of religious coping have been associated with

increased spiritual growth and increased self-esteem and life satisfaction, whereas negative religious coping strategies have been associated with greater callousness towards others and more symptoms of depression and anxiety (Pargament, Smith, & Koenig, 1998; Harrison, Koenig, Hays, Eme-Akwari, & Pargament, 2001).

Trauma victims may engage in religious coping for a variety of reasons. They may utilize religious coping methods in order to find meaning within the context of the trauma, to gain control or comfort during stressful situations, to become closer to God and gain intimacy with others, or to achieve a life transformation (Pargament, Koenig, & Perez, 2000). The use of positive religious coping strategies demonstrates a “sense of spirituality, a secure relationship with God, a belief that there is meaning to be found in life and a sense of spiritual connectedness with others” (Pargament, Smith, Koenig, & Perez, 1998, p. 712). Methods of positive religious coping include: benevolent religious reappraisal, religious purification, seeking spiritual support, religious forgiveness, collaborative religious coping, spiritual connection, and religious focus (Pargament et al., 1998). On the other hand, methods of negative religious coping are “an expression of a less secure relationship with God, a tenuous and ominous view of the world, and a religious struggle in the search for significance” (Pargament et al., 1998, p.712). This coping strategy is demonstrated through spiritual discontent, punishing God reappraisals, interpersonal religious discontent, demonic reappraisals, and reappraisal of God’s powers (Pargament et al., 1998).

Present Study

Previous research has demonstrated a relationship between trauma exposure and increased alcohol use, as well as utilization of both positive and negative religious coping

strategies following traumatic experiences. However, the body of literature has yet to investigate whether utilization of positive or negative religious coping strategies after trauma impact the use of alcohol and the development of post-traumatic psychological symptoms. The aim of the current study is to examine the use of positive and negative religious coping strategies after traumatic experiences among college students and the influence of these coping strategies on alcohol use and psychological symptoms.

Specifically, it is hypothesized that individuals who utilize positive religious coping strategies after traumatic experiences will engage in less risky alcohol use compared to their counterparts who employ negative religious coping strategies and will experience lower levels of post-traumatic psychological symptoms.

CHAPTER II

REVIEW OF LITERATURE

Exposure to traumatic experiences creates a demand for coping and may elicit a variety of coping strategies among victims. These strategies are employed in order to assuage the negative symptoms and stressors that are associated with traumatic experiences, such as symptoms of avoidance, hyperarousal, and re-experiencing the event. The utilization of substances, particularly alcohol, and the use of religion are among the most prevalent coping methods (Kessler et al., 1995; Keane & Wolfe, 1990; Pargament, et al., 1990).

In addition to posttraumatic stress symptoms, trauma victims may also be confronted with existential questions that may upset the individual's fundamental beliefs and assumptions about the world. This may instigate utilization of one or more methods of positive and negative religious coping. The literature has demonstrated an inverse relationship among the use of positive religious coping strategies and alcohol consumption. Further, employment of religious coping strategies and use of alcohol to cope are triggered by more severe trauma exposure (Pargament, 1997; Green et al., 1989; Ullman et al., 2006).

However, the current body of literature has yet to investigate the relationship of religious coping strategies after trauma exposure to alcohol consumption. This review

will define the relationships among the following three bodies of literature independently: trauma exposure, alcohol use, and methods of religious coping. The aim of this study is to combine these three bodies of literature by examining whether religious coping strategies influence alcohol consumption after traumatic experiences.

Epidemiology of Trauma Exposure

Exposure to traumatic events is a common human experience. A majority of individuals experience at least one traumatic event during their lifetime. A traumatic event is one in which the individual experiences, witnesses, or is confronted by a situation involving actual or threatened death or serious injury to themselves or someone else in which the individual's response included intense fear, helplessness, or horror (APA, 2000). These experiences may include combat experiences, natural or man-made disasters, sexual or physical assault, or witnessing the serious injury or violent death of someone else.

The National Comorbidity Survey (NCS; Kessler et al., 1995) estimated trauma exposure based on a nationwide probability sample of 5,877 adult residents in the United States. The respondents were between the ages of 15-54 and were interviewed in their homes about twelve types of trauma such as combat, life-threatening accident, sexual and physical assault, natural disaster, and witnessing. This study found that 61% of men and 51% of women reported experiencing at least one traumatic event during their lifetime, with a majority of those reporting experiencing multiple traumatic events. Types of trauma associated with high probability of developing posttraumatic stress disorder (PTSD) for men were combat exposure, childhood neglect, and childhood physical abuse and for women included sexual molestation, physical attack, being threatened with a

weapon, and childhood physical abuse. The results indicated that although men were more likely than women to experience at least one traumatic event during their lifetime, women were twice as likely overall to develop lifetime PTSD compared to men (10% vs. 5%). The results of this study indicate that a majority of individuals within the United States experience a traumatic event during their lifetime. It also demonstrates that PTSD is a highly prevalent disorder with roughly 8% of respondents (5% of men and 10% of women) being estimated to have a lifetime history of PTSD.

Breslau et al. (1998) conducted the Detroit Area Survey of Trauma in which they examined traumatic events and PTSD in a representative sample of 2,181 persons 18 to 45 years of age in the Detroit, Michigan area. In contrast to the National Comorbidity Survey (Kessler et al., 1995), this study collected a complete history of traumatic events and randomly selected trauma from the list of traumas reported by the respondent to collect further information and assess for PTSD. Breslau et al. found a higher lifetime prevalence of exposure to any traumatic event (approximately 90%) with the sudden, unexpected death of a loved one being the most prevalent experience at 60%. Individuals who experienced at least one qualifying event averaged five traumatic experiences over their lifetime. The probability of developing PTSD after exposure to trauma was 9.2% in women and 6.2% in men. Assaultive violence had the highest risk of developing PTSD with more women than men reporting rape (9.4% vs. 1.1%) and sexual assault (9.4% vs. 2.8%), but more men than women reported being threatened with a weapon (34.0% vs. 16.4%), being shot or stabbed (8.2% vs. 1.8%), or being badly beaten up (13.1% vs. 9.8%). Learning about the sudden, unexpected death of a loved one was associated with a moderate probability of developing PTSD (14.3%) and accounted for nearly one-third

of the PTSD cases. This study demonstrates that most people will experience a traumatic event during their lifetime; however, most individuals will not develop PTSD after exposure.

The NCS study assessed PTSD criteria for only the “most upsetting” traumatic event per person, likely creating an overestimation of the associations of particular events with PTSD. In addition, Breslau et al. used an expanded version of the DSM-IV inventory of qualifying events, while the NCS study used the DSM-III-R to assess for PTSD and other comorbid disorders. The DSM-IV broadened the range of qualifying traumatic events beyond the DSM-III-R criteria utilized in the NCS and also included a subjective component in which the “person’s response involved intense fear, helplessness, or horror” (APA, 1994). The different criteria used in determining a qualifying event are demonstrated in the lifetime prevalence of trauma exposure within each study.

Consequences of Trauma Exposure

Development of PTSD

Despite the high probability of trauma exposure (50-90%), roughly 10-24% of those exposed to trauma develop the full syndrome of posttraumatic stress disorder (Friedman, Keane, & Resick, 2007; Breslau et al., 1991; Resnick et al., 1993). PTSD develops after a person has been exposed to a traumatic event that involved actual or threatened death resulting in intense fear, helplessness, or horror.

The DSM classifies symptoms of PTSD into three clusters: re-experiencing symptoms, avoidance symptoms, and arousal symptoms. The traumatic event is persistently re-experienced through recurrent and intrusive recollections, or dreams, or

both; the person acts or feels as if the traumatic event were recurring (may include illusions, hallucinations, or dissociative flashback episodes); the person experiences intense psychological or physiological reactivity or distress when exposed to events that symbolize or resemble the trauma. As a result of these symptoms, the person persistently avoids events or stimuli associated with the trauma, including thoughts, feelings, conversations, activities or places. They may also be unable to recall important aspects of the trauma, feel detached or estranged from others, experience diminished interest in significant activities, and have a sense of a foreshortened future. These individuals experience some persistent increase in arousal including insomnia, irritability, difficulty concentrating, hypervigilance, and exaggerated startle response (APA, 2000) which demonstrates some of the debilitating effects of this disorder.

Traumatic experiences can lead to disruptions in multiple aspects of an individual's life. In addition to posttraumatic stress symptoms, trauma victims may also struggle with disruptions among their social network, occupation, and physical health, as well as existential crises (Schnurr et al., 2007). Social support is related to the diagnosis of PTSD and is considered one of the most important precursors in the development of the disorder (Andrews, Brewin, & Rose, 2003; Guay, Billette, & Marchand, 2006; Kimerling & Calhoun, 1994; Zoellner, Foa, & Bartholomew, 1999). After trauma, the individual's emotional state and coping strategies may be directly impacted by the individual's social support system. Williams & Joseph (1999) described a model where the support received from significant others is a factor that may decrease or exacerbate stress levels. Victims who receive supportive, receptive, and noncritical responses from significant others after disclosing the events of the trauma have beneficial effects and

possibly assuage the negative impact on the emotional adjustment in the aftermath of the trauma (Guay et al., 2006). Conversely, negative reactions that are perceived to be unsupportive, avoidant, and critical tend to increase the victim's level of distress and contribute to the development and maintenance of PTSD symptoms (Guay et al., 2006).

Dual Diagnoses among Trauma Survivors

Comorbidity with PTSD has been well recognized and documented. The literature has demonstrated a high frequency of alcohol abuse and dependence, major depressive disorder, generalized anxiety disorder, panic disorder, and suicidal ideation (Davidson, Kudler, Saunders, & Smith, 1990; Bremner, Southwick, Darnell, & Charney, 1996) among individuals with PTSD. Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar, & Weiss (1990) reported that 98.9% of Vietnam theatre veterans diagnosed with PTSD had a history of another psychological disorder, in comparison to 40.6% of individuals without a PTSD diagnosis. Studies have shown that individuals with PTSD exhibit higher scores of guilt, impairment of functioning and loss of pleasure, detachment and estrangement, derealization, and suicidal ideation or attempts (Davidson et al., 1990). In addition to higher rates of comorbidity, studies examining the relationship between exposure to trauma and mortality have demonstrated that trauma exposure is associated with higher rates of mortality, primarily due to external causes such as accidents and suicide (Schnurr, et al., 2007). PTSD and trauma exposure have also been related to utilization of more medical services (Walker, Gelfand, Katon, Koss, Von Korff, Bernstein, et al., 1999) and poorer health outcomes in both veterans and nonveterans (Sareen, Cox, Clara, and Asmundson, 2005 as cited in Schnurr, et al., 2007).

Substance abuse is among the most prevalent dual diagnoses with PTSD. Kessler et al. (1995) reported that in the United States, among men diagnosed with PTSD, approximately 51.9% meet criteria for an alcohol use disorder and 34.5% are diagnosed with a drug use disorder during their lifetime. Further, this dual diagnosis is two to three times more prevalent among women in substance abuse treatment than men (Brown & Wolfe, 1994). As discussed earlier, there are three major symptom clusters that comprise the PTSD diagnosis: re-experiencing symptoms, avoidance symptoms, and arousal symptoms. The severity of these symptom clusters may differentially affect substance use and abuse (Ouimette & Brown, 2003). Further, it is important to acknowledge the functional relationship between substance use and PTSD symptoms. Patients report that the use of alcohol reduces nightmares and numbing symptoms, such as feeling detached or isolated from others. Alcohol and other drugs such as heroin have been reported to reduce a majority of symptoms within the hyperarousal cluster (Bremner et al., 1996).

Association of Alcohol Use to Trauma Exposure

A growing body of literature has demonstrated an association between traumatic experiences and an increase in alcohol use (Schiff, 2006). This association has been investigated through examining changes in alcohol consumption and various measures of abusive drinking following trauma exposure including natural and man-made disasters, sexual and physical abuse, combat, and accidents. The nature or severity of traumatic exposure, as well as multiple traumatic experiences, is a strong predictor in the development and severity of posttraumatic alcohol abuse (Stewart, 1996). Individuals who are exposed to more severe forms of trauma, such as childhood abuse and neglect, sexual and physical assault, and combat trauma are at greater risk of developing lifetime

PTSD (Friedman et al., 2007; Kessler et al., 1995) and use of substances (Green et al., 1989; Ullman et al., 2006). On the other hand, events associated with a lower probability of lifetime PTSD include accidents, natural disasters, and witnessing traumas (Friedman et al., 2007; Kessler et al., 1995).

Moreover, people with both PTSD and substance abuse are susceptible to multiple traumas (Fullilove et al., 1993). This may indicate that the relationship between substance use and PTSD is cyclical. For example, victimization may lead to substance use, which further increases the risk for PTSD and exposure to multiple traumatic events (Kozaric-Kovacic et al., 2000). Several factors have been found to be related to an increased risk of alcohol abuse and PTSD symptoms after traumatic experiences such as level of social support (Guay et al., 2006), the nature of the trauma (Gold, Engdahl, Eberly, Blake, Page, & Frueh, 2000), self-blame (Ullman et al., 2006), alcohol expectancies (Galen & Rogers, 2004), and drinking in order to cope with the stress (Ullman et al., 2006).

Theoretical Models of Alcohol Abuse after Trauma

Several explanations for the co-occurrence between trauma exposure and alcohol use have been proposed, including the “self-medication” hypothesis and the “tension reduction” hypothesis. Ullman et al. (2006) compared female sexual assault victims with PTSD only (N=279) to victims with comorbid PTSD and drinking problems (N=226). They found that women with stronger tension reduction expectancies and more drinking to cope (or self-medicate) were related to having PTSD in conjunction with problem drinking.

Self-Medication Hypothesis

Most of the published data support the “self-medication” hypothesis. This hypothesis asserts that after traumatic exposure, individuals use alcohol in an attempt to control distressing and sometimes unbearable symptoms associated with PTSD (Van der Kolk, 1996). These individuals utilize substances as a coping mechanism, likely because they may lack other resources (e.g., social support, positive coping strategies) to manage these often excruciating symptoms (Butler, 1996). The substance provides only temporary relief of symptoms, with cessation of the substance, the PTSD symptoms re-emerge.

Central Nervous System (CNS) depressants, such as alcohol, cannabis, opioids, and benzodiazepines, significantly improve some symptoms associated with PTSD (Bremner et al., 1996). However, other PTSD symptoms may be exacerbated by substance use. For example, PTSD patients with alcohol dependence display significantly more arousal symptoms (Jacobsen, Southwick, & Kosten, 2001). Also, withdrawal from the substance may instigate PTSD symptoms (e.g., withdrawal from alcohol can induce flashbacks) (Ouimette & Brown, 2003). This demonstrates how both alcohol abuse and PTSD become intertwined and complicated to treat.

Tension Reduction Hypothesis

Similarly, the “tension reduction” hypothesis asserts that alcohol drinking reduces tension and individuals consume alcohol to feel calmer in stressful situations (Volpicelli, 1987). This notion has been supported through clinical, epidemiological, and experimental studies using alcohol abusers, social drinkers, and animals. Hodgson, Stockwell, & Rankin (1979) found that alcohol can in fact reduce fear and frustration in

rats, thereby helping the rats cope with the stress and providing support for the tension reduction hypothesis. Kalodner, Delucia, & Ursprung (1989) examined alcohol consumption and anxiety levels in college students. The results indicated that students with high levels of anxiety drank significantly more alcohol than students with low levels of anxiety.

Further, alcohol consumption reduces physiological reactivity to stressful events. A study examining the effects of alcohol on physiological arousal before and during exposure to two stressful situations indicated that the consumption of alcohol markedly alleviated the degree of physiological responses to the stressful situations (Levenson, Sher, Grossman, Newman, & Newlin, 1980). Oftentimes individuals with alcohol dependence relapse after negative life events (Marlatt & Gordon, 1980 as cited in Volpicelli, 1987) providing additional support for the tension-reduction hypothesis.

Association of Religiosity and Alcohol Use

The empirical research has demonstrated an inverse relationship between religious beliefs and practices to both alcohol and drug use (Strawser, Storch, Geffken, Killiany, & Baumeister, 2004; Wallace, Yamaguchi, Bachman, O'Malley, Schulenberg, Johnston, 2007). It has been hypothesized that religious beliefs and practices (e.g., praying, attending church, redefining the stressor through religion as benevolent and potentially beneficial, seeking support from clergy or other members) might protect against stress that motivates alcohol use by providing the individual with adaptive coping skills (Pargament et al., 1998; Strawser, et al., 2004). Individuals with strong religious beliefs also likely internalize religious proscriptions on alcohol or drugs that are common to all major religions. The extant literature has demonstrated that frequent church

attendance (Koenig et al., 1994; Francis, 1992), having a religious affiliation (Mullen, Baxter, & Dyer, 1986; Francis, 1992; Patock-Peckham, Hutchinson, Cheong, & Nagoshi, 1998) and level of intrinsic religiosity (Patock-Peckham et al., 1998; Galen & Rogers, 2004) have been associated with lower levels of alcohol consumption.

Koenig, George, Meador, Blazer, & Ford (1994) conducted a study examining the associations between religious practices and alcohol abuse and dependence. The participants consisted of 2,969 individuals aged 18-97 who had previously participated in the National Institute of Mental Health Epidemiologic Catchment Area survey. They assessed six-month and lifetime prevalence of alcohol use disorders and compared the varying levels of religious activity among the participants. The religious activity data included frequency of Bible reading, prayer, and church attendance; time spent watching or listening to religious programming on television or radio; importance of religion; religious denomination; and identification as “born-again” Christian. The results demonstrated that recent and lifetime rates of alcohol use disorders were significantly lower among participants who frequently engaged in religious activity, more specifically Bible study, prayer, frequent church attendance, and those reporting to be born-again Christians. These activities reflect personal expressions of religious devotion, as well as an intrinsic religious orientation and demonstrate a strong adherence to religious doctrine that teaches against the abuse of alcohol.

Intrinsic versus Extrinsic Religiosity

Multiple studies have found that intrinsic religiosity is associated with lower levels of alcohol consumption (Patock-Peckham et al., 1998; Galen & Rogers, 2004) and is related to better outcome following stressors (Schiff, 2006) than extrinsic religiosity.

Individuals who adhere to a more intrinsic orientation of religiosity look to religion for more spiritual purposes (Pargament, 1997) and integrate religion into one's own identity (Galen & Rogers, 2004). People with this religious orientation have been found to read their Bible more (Pargament, 1997) and have stronger self-esteem, life satisfaction, and quality of life (Harrison et al., 2001).

In contrast, an extrinsic religious orientation consists of individuals who look toward religion primarily for their own personal development (Pargament, 1997) and practical reasons such as social support from the church body and assistance in coping from clergy members (Galen & Rogers, 2004). Patock-Peckham et al. (1998) investigated the effect of religiosity on alcohol use among college students. The results demonstrated that non-religious students reported significantly higher levels of drinking frequency and quantity than students of Catholic or Protestant religious affiliation. Further, intrinsic religiosity was negatively correlated with drinking problems and was significantly positively correlated with drinking control.

After examining multiple mechanisms of the inverse relationship between religiosity and alcohol consumption, Galen & Rogers (2004) determined that religiosity may have direct effects that reduce alcohol consumption, as well as indirect effects through alcohol expectancies and motivation to drink. Consistent with previous studies, Galen & Rogers found that intrinsic religiosity proved to have the strongest inverse relationship with alcohol consumption indicating that religiosity may guard against risky drinking behavior through providing expectations that alcohol will have negative effects (e.g., lowered self-perception, cognitive impairment).

Although alcohol use is prevalent among college students (Read, Wood, Davidoff, McLacken, & Campbell, 2002), the existing evidence suggests that higher levels of religious faith provide more adaptive coping responses, higher resilience to stress, a more optimistic view on life, and serve as a buffer against the negative effects associated with trauma (Arevalo, Prado, Amaro, 2008). Moreover, research has demonstrated that religion and spirituality provide protective factors against alcohol and drug use (Stewart, 2001).

Association of Religiosity to Trauma Exposure

Religious faith is important to most Americans, with approximately 78% of Americans reporting belief in God, while 61% reported being a member of a church and a majority of Americans reported believing that religion can answer all or most of today's problems (Gallup Poll, 2008). Despite this widespread belief in God and level of religiosity, research has often neglected to examine thoroughly the role religiosity plays after trauma, more specifically the utilization of religious coping strategies.

However, religiosity has been associated with better outcomes following trauma and life stressors (Schiff, 2006) and provides inner strength and meaning during times of extreme stress (Arevalo et al., 2008). Religiosity also provides beneficial effects on individual's physical and mental well-being. Individuals with a high level of devotion to religiosity tend to have reduced tendencies for risky behavior and aggression, as well as reduced levels of depression, suicide, and use of substances (Pajevic, Sinanovic, & Hasanovic, 2005).

Existential Crises after Trauma

The occurrence of a traumatic event in an individual's life overwhelms the person's coping skills depleting their sense of control and meaning in life (Farley, 2007). In addition, trauma has the potential to shatter a person's foundational worldview and their sense of safety in the world (Blakley, 2007). The trauma victim is confronted with uncertainty and instability (Smith, 2004) and may challenge their fundamental assumptions in relation to living in a just world and question the meaning of life and suffering. In addition, the victim's religious beliefs in a benevolent, omnipotent God may be challenged and viewed as inconsistent with the traumatic experience (Harris, et al. 2008). This cycle may then lead the individual into a state of spiritual and existential crises that is often experienced as a weakening of religious faith (Fontana & Rosenheck, 2004).

Relationship of Religious Beliefs and PTSD Symptoms

A significant inverse relationship exists between strength of religious faith and severity of PTSD symptoms (Fallot & Heckman, 2005; Fontana & Rosenheck, 2004; Falsetti et al., 2003). Trauma victims are faced with reexamining ideas concerning responsibility, guilt, suffering, justice, and forgiveness, as well as their sense of trust and security in the world (Smith, 2004). They may find religion harmful and decide to reduce their involvement in religion or even abandon their religious faith altogether because God would not allow such horrible things to happen to them (Harris, et al. 2008; Falsetti et al., 2003). In 2003, Falsetti and colleagues examined the relationships of trauma, PTSD, and religious beliefs among 120 participants who had experienced a high magnitude stressor as defined by the DSM-III-R. Approximately 17% of the participants reported becoming

less religious after the traumatic experience and roughly 44% reported that their religious beliefs were not helpful or they did not use religion to help them cope with the event.

Harris et al. (2008) examined 327 church-going trauma survivors and explored the relationships among religious practices, behaviors, and posttraumatic adjustment. In addition, they identified two religious factors each reflecting either positive or negative mental health functions of religiosity. The first factor, “seeking spiritual support”, included positive religious coping strategies and seeking assistance, acceptance, and calm and focus in personal prayer. Participants scoring high in this factor were likely to work collaboratively with God and others within their faith community to cope with the trauma and viewed these relationships as a source of comfort and support. Conversely, the second factor, “religious strain” included separation from God, fear and guilt, religious rifts, and use of negative religious coping strategies. Participants with high scores were likely to feel that God was punishing them or angry at them, that God or their faith community had abandoned them, and likely had negative feelings toward God and members of their faith community. The “religious strain” factor was found to be a positive predictor of posttraumatic stress symptoms as measured by the PTSD Checklist-Civilian Version, whereas “seeking spiritual support” was related to posttraumatic growth.

Although it has been evidenced that traumatic exposure may have a weakening effect on religiosity, it has also been demonstrated to lead to a strengthening in the trauma victim’s religious faith as well (Fontana & Rosenheck 2004; Falot & Heckman, 2005; Falsetti, et al., 2003). Trauma may serve as a catalyst for victims to search for a new meaning and purpose in life, in addition to obtaining a means of coping that will

assimilate the traumatic experience into their existing schema. Religion provides individuals with a variety of additional resources such as support from a congregation, the ministry of clergy, and relevant religious literature. It also provides the victim with a means of redefining the traumatic event through religion as potentially beneficial (Pargament et al., 1998).

Use of Religious Coping Strategies after Trauma

Falot & Heckman (2005) examined the types of religious coping used by women trauma survivors. The participants consisted of 666 women with co-occurring mental health and substance use disorders who had a physical and/or sexual abuse history. Consistent with the existing literature, this study found that religious coping is a common way of dealing with trauma and that exposure to trauma may increase religious activities. Severity of posttraumatic stress symptoms and other mental health symptoms were associated with negative religious coping. Women who reported viewing the trauma as divine punishment or abandonment reported more extensive symptoms. On the other hand, women who drew on religion for support and strength reported fewer mental health symptoms. Among these participants, levels of positive religious coping methods were much higher than use of negative religious coping, which may indicate that women are more likely to view religion as a positive resource rather than reflecting God's punishment or conflict.

In addition to Falot & Heckman (2005), several other investigators have reported on the prevalence of religious coping strategies during stressful situations. Tepper, Rogers, Coleman, & Malony (2001) examined the prevalence of religious coping among persons with persistent mental illness and looked at the relationship between religious

coping and symptom severity. They found that eighty percent of the participants reported using some type of religious activity or belief to cope with their symptoms and distress. The results also indicated that specific religious coping strategies (e.g., prayer, meditation) is more common among individuals with more severe levels of suffering. A majority of the participants reported that religion became more important to them when their symptoms became worse. This suggests that more distressed individuals may be more likely to rely on religious coping strategies.

Pargament, et al. (1990) reported similar rates of religious coping among their participants. However, other studies have found only a minority of participants reported use of religion in dealing with stressful life events (Gurin, Veroff, & Feld, 1960; Bowker, 1988; LaGrand, 1985). These differences are likely due to differences in methodologies and measurement. The studies in which small percentages of religious coping have been found use very stringent methods of measurement (e.g., only counting those who mention religion as their first spontaneous response to the question of how they handle their worries), whereas higher percentages are reported in studies utilizing checklists or surveys (Pargament, 1997).

Use of Non-Religious Coping Strategies after Trauma

In addition to using religious coping strategies, it is important to point out that non-religious coping strategies may be employed as well during stressful situations. McCrae (1984) assessed twenty-eight coping mechanisms in response to a variety of stressful life events including loss (e.g., death of parent; divorce; robbery), threat (e.g., personal or family illness; problems finding a job; being sued), or challenge (e.g., job promotion or new career; marriage; having a baby). The results indicated that faith and

expression of feelings were used most often in responding to loss, whereas fatalism, wishful thinking, and seeking help were used most often in response to threats. Other forms of nonreligious coping included: hostile reaction; rational action (e.g., made and followed a plan); seeking help from a professional or others; isolation of affect (e.g., continuing as if nothing happened); intellectual denial; self-blame; self-adaptation; humor; and passivity among others. Interestingly, putting faith in God surfaced as the most commonly used coping mechanism in response to loss. In this study, loss was viewed as the more severe form of stress in comparison to threat or challenge. This may indicate that the severity of the stressor plays a significant role in the utilization of certain coping mechanisms, more specifically the use of religion to cope.

Methods of Religious Coping

Pargament and colleagues (1998) identified a variety of religious coping methods. They based these methods on the five basic religious functions that have been identified by religious scholars and include: the search for meaning; gaining control; gaining comfort and closeness to God; increase intimacy and social cohesiveness; and achieving a life transformation. In addition, they identified patterns of positive and negative religious coping (see Table 1) among three diverse samples including members of two churches in Oklahoma City at the time of the 1995 bombing of the Murrah federal building, a sample of college students who experienced a serious negative event, and patients from a hospital coping with medical illness.

Positive patterns of religious coping methods included: seeking spiritual support; religious forgiveness; collaborative religious coping; spiritual connection; religious purification; benevolent religious reappraisal; and religious focus. Pargament and

colleagues (1998) defined this pattern as “an expression of a sense of spirituality, a secure relationship with God, a belief that there is meaning to be found in life, and a sense of spiritual connectedness with others” (p. 712). These methods of religious coping were associated with more optimistic outcomes including fewer symptoms of psychological distress, reporting posttraumatic growth (both psychologically and spiritually), and greater levels of cooperation.

On the other hand, negative patterns of religious coping included: spiritual discontent; punishing God reappraisals; interpersonal religious discontent; demonic reappraisal; and reappraisal of God’s power. This pattern was viewed as “an expression of a less secure relationship with God, a tenuous and ominous view of the world, and a religious struggle in the search for significance” (p. 712). In contrast to the positive methods of coping, these coping strategies were associated with symptoms of psychological and emotional distress (e.g., depression), poorer quality of life, and callousness towards others. These results demonstrate how coping with stressful life experiences can be ineffective, as well as effective depending upon the methods chosen to deal with the stressor.

The Present Study

It is important to acknowledge that most of the research on religiosity, more specifically religious coping, has been conducted within a Judeo-Christian background and little empirical data exists on non-mainstream religions in the United States. The current body of literature has demonstrated the following relationships: increased alcohol use after trauma; increased utilization of both positive and negative religious coping strategies after trauma; and decreased alcohol consumption among individuals with

higher levels of religiosity. However, the literature has failed to combine these three bodies of research. The goal of the current study is to investigate whether the use of religious coping strategies after trauma is related to alcohol consumption, alcohol-related problems, and symptoms of posttraumatic stress among college students. Specifically, it is hypothesized that individuals who utilize positive religious coping strategies after traumatic experiences will engage in less risky alcohol use, experience fewer alcohol-related problems and will experience lower levels of post-traumatic psychological symptoms compared to their counterparts who employ negative religious coping strategies.

CHAPTER III

METHODOLOGY

Participants

Three-hundred ninety-five college students from a 4-year university located in the southwestern United States were recruited from a research participation pool. Students who agreed to participate received research credit in partial fulfillment of course requirements for completion of a web-based survey. The participants' ages ranged from 17-42 with a mean age of 19.97 ($SD = 2.478$). Participants' designation in school was reported as 46.1% ($n = 182$) freshmen, 23.3% ($n = 92$) sophomores, 13.4% ($n = 53$) juniors, 17% ($n = 67$) seniors, and 0.3% ($n = 1$) graduate/special. Thus, the majority of participants were freshmen or sophomores (see Table 2).

Participants' religious affiliation was reported as 61.8% ($n = 244$) protestant, 12.7% ($n = 50$) Roman Catholic, 5.3% ($n = 21$) Agnostic, 2.8% ($n = 11$) Atheist, 0.8% ($n = 3$) Buddhist, 0.5% ($n = 2$) Greek Orthodox or Mormon, 0.3% ($n = 1$) Jewish, 0.3% ($n = 1$) Hindu, and 4.3% ($n = 17$) reporting "other." Therefore, a strong majority of the sample reported a Judeo-Christian background. Further, 28.6% ($n = 113$) participants indicated attending church a few times a year, 20.3% ($n = 80$) reported attending church a few times a month, 14.9% ($n = 59$) reported attending church once a week, 11.9% ($n = 47$) reported attending church more than once a week, 6.8% ($n = 27$) reported attending

church once a year or less, and 17.5% ($n = 69$) indicated that he/she has never attended church. Moreover, 53.9% ($n = 213$) of the sample reported high levels of intrinsic religiosity.

Measures

Demographics. A demographic questionnaire was completed by participants for descriptive purposes. The questionnaire assessed age, gender, ethnicity, designation in school, and religious affiliation.

Duke Religion Index. The Duke Religion Index (DRI; Koenig, Parkerson, & Meador, 1997) is a brief five-item self-report scale that comprehensively and briefly measures three major dimensions of religiosity: organizational, non-organizational, and intrinsic religiosity dimensions. Organizational religiosity is defined by the frequency in which the respondent attends religious meetings. Response choices range from “never” to “more than once a week.” Non-organizational religiosity is characterized by the amount of time spent engaging in private religious activities such as prayer and meditation. Response choices range from “rarely or never” to “more than once a day.” Intrinsic religiosity is defined as an individual who integrates his/her religiousness into his/her everyday thoughts and actions (Allport & Ross, 1967) and is measured by three-items. Response choices range from “definitely not true of me” to “definitely true of me” with higher scores corresponding to greater religiousness. The DRI has demonstrated the ability to measure the construct of religiosity across samples of college students (Storch, Roberti, Heifgerken, Storch, Lewin, et al., 2004). The DRI has strong internal consistency (Cronbach’s $\alpha = .91$) and concurrent validity ($r = .86$; Storch et al., 2004).

Frequency-Quantity Questionnaire. The Frequency-Quantity Questionnaire (FQQ; Dimeff, Baer, Kivlahan & Marlatt, 1999) is used to assess the typical frequency and quantity of alcohol use among participants within a specified period of time. The response options extend to 19 drinks or more in order to include binge drinking tendencies of some students. The questionnaire is a very brief 3-item scale that takes approximately two minutes to administer. Participants are asked to indicate how many drinks they consumed on one occasion during the last month (peak quantity) and how much alcohol they typically consume on a given weekend evening (typical quantity). For these two questions, response choices are given from 0, “no drinks” to 10, “19 or more” drinks. The third question assesses how often the participants drank alcohol during the past month (frequency of use). Response choices range from 1, “I do not drink at all” to 6, “once a day or more.”

Brief RCOPE. The Brief RCOPE (Pargament, Smith, Koenig, & Perez, 1998) is a brief and psychometrically sound measure that was designed to assess positive and negative patterns of religious coping methods. It is a 14-item Likert scale measure yielding two religious coping subscales predictive of adjustment. It was developed as a shorter form of the more comprehensive, theoretically based RCOPE. Positive and negative religious coping scales were formed by selecting a subset of items from each of two factors. Positive methods of religious coping include: seeking spiritual support, religious forgiveness, collaborative religious coping, spiritual connection, religious purification, benevolent religious reappraisal, and religious focus; whereas negative methods of religious coping include: spiritual discontent, punishing God reappraisals, interpersonal religious discontent, demonic reappraisal, and reappraisal of God’s powers

(Pargament et al., 1998). Items are rated on a 4-point Likert scale ranging from 0 “not at all” to 3 “a great deal.” Respondent’s total scores range from 0 to 42. Higher scores reflect greater use of religious coping methods. The Brief RCOPE has high internal consistency for both the positive religious coping (Cronbach’s alpha = .90) and negative religious coping (Cronbach’s alpha = .81) scales (Pargament, et al. 1998). In the current study, this measure demonstrated similar levels of consistency for both positive religious coping (Cronbach’s alpha = .95) and negative religious coping (Cronbach’s alpha = .83). This measure was included to assess the utilization of positive and negative religious coping strategies after a traumatic experience.

Life Events Checklist (LEC). The Life Events Checklist was developed at the National Center for PTSD to assess exposure to potentially traumatic events (Gray, Litz, Hsu, & Lombardo, 2004). The LEC inquires about multiple types of exposure to each event (i.e., did the event happen directly to the participant or did they witness it or learn about it happening). The LEC is a brief and psychometrically sound measure of 16 types of potentially traumatic events including natural disasters, exposure to warfare, assault with a weapon, physical abuse and fire or explosion. The LEC is a 17-item self-report measure designed to assess prior exposure to potentially traumatic events. For each of the 16 events, the respondents rate their experience of that event on a 5-point nominal scale (1 = “*happened to me*”, 2 = “*witnessed it*”, 3 = “*learned about it*”, 4 = “*not sure*”, 5 = “*does not apply*”). Further, the measure includes an item inquiring about any other exceedingly stressful experience not captured by the previous items. This allows the LEC to elicit information about potentially traumatic events that may otherwise be overlooked and further allows participants to endorse multiple types of trauma exposure.

The LEC has demonstrated strong convergence with measures of psychopathology associated with trauma exposure (Gray, et al., 2004). This measure was used to classify whether or not participants had experienced one or more potentially traumatic events. Further, three groups were created with the LEC. The groups included participants who reported no history of a traumatic experience, participants who reported experiencing only one trauma, and participants who reported experiencing two or more traumas.

PTSD Checklist-Civilian Version (PCL). The PTSD Checklist-Civilian Version (Weathers, Litz, Huska, & Keane, 1994) is a self-report instrument that assesses symptoms of posttraumatic stress disorder as defined by the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The PCL is a 17-item measure that is easy to administer and score. An additional strength to the PCL is its efficiency of administration; the mean administration time for this measure is approximately five minutes in comparison to other PTSD measures which estimate roughly 20-60 minutes for completion (Ruggiero, Del Ben, Scotti, & Rabalais, 2003). Participants choose from responses on a 5-point Likert-type scale ranging from 1, “Not at all” to 3, “Moderately” to 5, “Extremely”. Total response scores range from 17 to 85 with cutoff scores for a probable PTSD diagnosis at 44 and above (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Ruggiero et al, 2003). Further, utilizing a mixed scoring system of either a 3 or 4 on individual symptom items to meet DSM-IV-TR diagnostic criteria has been demonstrated to provide the best diagnostic efficiency (.96; Blanchard et al., 1996). The psychometric properties of the PCL have been extensively examined (Blanchard et al., 1996; Ruggiero et al., 2003; Elhai, Gray, Docherty, Kashdan, & Kose, 2007). Analysis of the PCL has revealed strong internal consistency (.94;

Blanchard, et al., 1996; Ruggiero et al., 2003) and good test-retest reliability (.88; Ruggiero et al., 2003). An optimal cutoff score of 44 and above has been found to provide the highest level of diagnostic efficiency (.96) among treatment-seeking trauma survivors (Blanchard et al., 1996; Ruggiero et al., 2003). In the current study, this measure demonstrated similar levels of consistency (Cronbach's alpha = .91). This measure was used to assess the participant's level of PTSD symptom severity.

Brief Young Adult Alcohol Consequences Questionnaire (B-YAACQ). The Brief Young Adult Alcohol Consequences Questionnaire is a 24-item scale assessing problems related to drinking (Kahler, Strong, & Read, 2005). The B-YAACQ was developed using the Rasch model (Rasch, 1960) from the Young Adult Alcohol Consequences Questionnaire (YAACQ; Read, Kahler, Strong, & Colder, 2006). The B-YAACQ uses a dichotomous response format with questions that encompass social-interpersonal consequences, impaired control, self-perception, self-care, risk behaviors, academic/occupational problems, excessive drinking, and physiological dependence. Total scores on the B-YAACQ range from 0-24. Respondents who score a 1 are very unlikely to endorse severe symptoms or consequences from drinking. A score of 5 indicates that most significant consequences are unlikely although there is some risk for potential serious consequences. At a score of 10 respondents are likely to report some important psychosocial consequences. A score of 15 indicates the presence of symptoms of alcohol abuse and dependence; whereas, at a score of 20 the respondent is likely experiencing significant distress and impairment from drinking in a variety of areas in their lives. The B-YAACQ has demonstrated good internal consistency (Cronbach's alpha = .89) and strong convergent validity with the YAACQ ($r = .95$) and the Rutgers

Alcohol Problem Index (RAPI; White & Labouvie, 1989; $r = .78$). In the present study, this measure demonstrated similar levels of consistency (Cronbach's alpha = .90).

Alcohol Use Disorders Identification Test (AUDIT). The Alcohol Use Disorders Identification Test is a 10-item scale assessing recent alcohol use, alcohol dependence, and alcohol-related problems. It was developed by the World Health Organization and evaluated in six countries (Norway, Australia, Kenya, Bulgaria, Mexico, and the United States of America; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). It is a brief, rapid, and flexible measure that has proven to be an accurate measure of alcohol risk across gender, age, and cultures; more specifically, detecting alcohol risk and dependence among college students. For each item the respondent chooses from a set of responses, and each response has a score ranging from 0 to 4. Items 1, 2, and 3 assess for risky drinking behavior (e.g., frequency; quantity; binge drinking). Items 4, 5, and 6 evaluate symptoms of alcohol dependence (impaired control; failure to carry out responsibilities; morning drinking). Finally, items 7, 8, 9, and 10 determine alcohol-related problems (e.g., guilt after drinking; blackouts; alcohol-related injuries; others' concern about drinking). Total scores can range from 0 to 40 with scores of 8 or higher indicating hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor et al., 2001). The AUDIT has demonstrated high internal consistency ($\alpha = .80$; Fleming, Barry & MacDonald, 1991) and strong test-retest reliability ($r = .86$) among a sample of non-hazardous drinkers, cocaine abusers, and alcohol dependent participants (Allen, Litten, Fertig, & Babor, 1997; Babor et al., 2001). In the present study, this measure demonstrated similar levels of consistency (Cronbach's alpha = .82). This measure was included to assess risky alcohol use and alcohol-related problems.

Design and Procedure

Participants were recruited from a research participant pool (SONA) and received course credit for completion of the web-based survey. Individuals who chose to participate were asked to read a consent form prior to beginning the online survey. Before participants could complete any measures or demographic information they were required to click a box stating that they had read and understood the consent form and sign it freely and voluntarily. Considering the sensitive information that participants were asked during the study, specific provisions were implemented to ensure confidentiality. Participants were designated a unique identification code. This code consisted of the last four digits of the participant's social security number followed by the participant's two-digit birth month and the participant's two-digit birth day.

After informed consent had been obtained and participants had been assigned their unique identification number, all participants completed an assessment that included the Demographic Questionnaire, the Frequency-Quantity Questionnaire (FQQ), the Brief RCOPE Questionnaire, the Life Events Checklist Questionnaire (LEC), the PTSD Checklist-Civilian Version (PCL), and the Alcohol Use Disorders Identification Test (AUDIT), Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ).

Web-based survey. All paper-and-pencil versions of each measure were changed into the web-based version of the questionnaire. Therefore, the web-based survey administered questions verbatim from the previously described Frequency-Quantity Questionnaire, the brief RCOPE, the Life Events Checklist, the PTSD Checklist-Civilian Version, and the Alcohol Use Disorders Identification Test. Participants were provided with the same response choices as specified on the original paper-and-pencil version of

the survey. In addition, the web-based survey asked participants to enter their unique identification code, age, ethnicity, gender, designation in school, and religious affiliation.

CHAPTER IV

RESULTS

Preliminary Analyses

Prior to tests of study hypotheses, comparisons of several additional study variables were examined. Chi-square tests were calculated among the demographic variables (gender, ethnicity, academic year, Greek affiliation, marital status) and number of traumas experienced designated by total scores on the LEC (see Table 3). In the current sample, the total number of traumatic experiences ranged from 0 to 13, with total possible scores for the LEC ranging from 0 to 17. The mean of LEC total scores was 2.81 ($SD = 2.07$). Due to the nature of the hypotheses being tested, three categories were formed from the LEC variable: (1) no history of a traumatic event; (2) experienced only one traumatic event; and (3) experienced two or more traumatic events. Results indicated a significant difference between trauma exposure and academic year $\chi^2(8, 395) = 26.64, p < .001$ with seniors and freshmen being more likely to experience two or more traumas than sophomores and juniors; therefore, academic year was controlled for during the primary analyses. No other demographic variables were significantly associated with number of traumatic experiences.

One-way analyses of variance (ANOVAS) were conducted for effects of demographic variables on five dependent variables (alcohol-related problems and

consequences, symptoms of PTSD, positive and negative methods of religious coping) with Tukey HSD post-hoc tests for pairwise differences. The results indicated a small but significant difference between genders on use of positive religious coping ($p < .05$) in which females reported engaging in higher levels of positive religious coping methods ($M = 11.72, SD = 6.85$) than men ($M = 10.24, SD = 7.11$). Further, a significant difference was found between gender and reported symptoms of PTSD (see Table 4), in which females reported significantly more symptoms of PTSD ($M = 33.30, SD = 12.04$) than males ($M = 28.79, SD = 10.22$). In regards to ethnicity, results indicated a significant difference ($p < .01$) between the use of negative religious coping strategies (see Table 5). Moreover, a significant difference was found between Greek affiliation and alcohol-related problems and use of positive religious coping strategies (see Table 6). Participants who reported being a member of a Greek organization reported more alcohol-related problems ($M = 7.44, SD = 5.23$) and risky alcohol use ($M = 6.92, SD = 5.19$) compared to participants who were not members of a Greek organization. Participants reporting a Greek affiliation also indicated using positive religious coping strategies significantly more ($M = 12.39, SD = 6.72$) than non-Greek participants ($M = 10.62, SD = 7.02$). Given these results, gender, ethnicity, and Greek affiliation were controlled for during the test of hypotheses.

Primary Analyses

General Analysis Strategy

For hypotheses one and two, partial correlations were examined as the primary test of the study hypothesis. Variables found to covary with one of the dependent variables in the correlation were controlled for in the partial correlation analysis. To

further describe the association between traumas experienced and alcohol consumption and related problems, three groups were created with the LEC variable. The groups included participants who reported no traumas experienced ($n = 41$), participants who reported experiencing a single trauma ($n = 80$) and participants who reported two or more traumas ($n = 274$). A one-way ANOVA was conducted for each of the alcohol consumption and problem variables, with Tukey HSD post hoc analyses to determine specifically how participants differed for each variable. Since this test was more descriptive than a test of the hypothesis, no corrections to preserve a conservative alpha were made. Hypothesis three was examined using only partial correlation.

For hypotheses four and five, participants were excluded for the analyses if they reported no history of a traumatic experience. These hypotheses were then examined using partial correlations.

Hypothesis One

It was hypothesized that participants who reported experiencing more traumatic life events would report more frequent alcohol use, heavier consumption of alcohol, and more alcohol-related problems. To test this hypothesis, partial correlations were conducted among the LEC total score, alcohol consumption characteristics (FQQ variables of peak quantity, typical quantity, and frequency of use), and alcohol-related problems (AUDIT, BYAACQ). Since preliminary analyses indicated significant differences between academic year and number of traumatic experiences, as well as gender, ethnicity, and Greek affiliation, these variables were controlled for in the primary analyses. Results (see Table 7) revealed a significant positive relationship between participant's peak quantity ($pr = .16; p < .01$), typical quantity ($pr = .14; p < .01$), and

frequency of alcohol consumption ($pr = .15; p < .01$) with scores on the LEC. Further, results indicated a significant positive relationship between participant's alcohol-related problems as measured by the AUDIT ($pr = .17; p < .001$) and the BYAACQ ($pr = .26; p < .001$). As predicted, participants who reported experiencing more traumas also reported more alcohol consumption and alcohol-related problems. Results from the one-way ANOVA and Tukey HSD post hoc analyses demonstrated a significant difference between participants reporting no trauma history and only one trauma with participants reporting two or more traumas on the BYAACQ, $F(2, 382) = 9.412, p < .01$.

Hypothesis Two

It was hypothesized that participants who reported experiencing more traumatic events would report higher levels of PTSD symptoms. To test this hypothesis, partial correlations controlling for academic year, gender, ethnicity, and Greek affiliation were conducted among the LEC total score and PCL total score. Results demonstrated a significant positive relationship ($pr = .35, p < .001$) between numbers of traumatic experiences and total symptoms of PTSD. The follow-up ANOVA demonstrated significant differences in PCL scores among the three trauma groups, $F(2, 394) = 11.55, p < .001$. Tukey HSD post hoc analyses revealed that individuals with no history of a traumatic experience were not significantly different from participants reporting experiencing only one traumatic event; however, participants who reported experiencing two or more traumas reported significantly more symptoms of PTSD than participants reporting experiencing only one traumatic event and participants reporting no trauma history.

Hypothesis Three

It was hypothesized that participants who reported more PTSD symptoms would report more frequent alcohol use, heavier consumption of alcohol, and more alcohol-related problems. In order to test this hypothesis, participants were excluded for the analyses if they did not report any symptoms of PTSD. Three-hundred forty-one participants were examined for this hypothesis. Partial correlations were conducted among the total scores from the PCL and FQQ, AUDIT, and BYAACQ scores. AUDIT ($pr = .20, p < .001$) and BYAACQ ($pr = .28, p < .001$) scores were positively correlated with scores on the PCL, indicating that participants reporting more symptoms of PTSD also encountered more problems related to alcohol use (see Table 8). Further, participants reporting more PTSD symptoms also reported more frequent alcohol consumption ($pr = .13, p < .05$). However, typical quantity of alcohol consumption ($pr = .09, p = .09$) and peak quantity of alcohol consumption ($pr = .10, p = .06$) were not significantly related to symptoms of PTSD.

Hypothesis Four

It was hypothesized that participants who used positive religious coping strategies after traumatic experiences would have lower rates of alcohol consumption (quantity and frequency) and lower rates of alcohol-related problems compared to their counterparts who used negative religious coping strategies. Partial correlations were examined between positive and negative religious coping and FQQ, AUDIT, and BYAACQ scores. The results demonstrated a significant negative correlation between positive religious coping and FQQ and AUDIT scores (see Table 9). This suggests that participants who utilized more positive methods of religious coping engaged in less alcohol consumption

and reported fewer alcohol-related problems. The analyses did not reveal a significant association between use of negative religious coping strategies and alcohol-related variables as predicted. Although nonsignificant, there was a positive correlation between negative religious coping methods and alcohol-related problems.

Hypothesis Five

It was hypothesized that participants who reported higher rates of negative religious coping strategies would have significantly more symptoms of posttraumatic stress disorder compared to participants who reported higher rates of positive religious coping. In order to test this hypothesis, participants were excluded for the analyses if they reported no history of a traumatic experience. Partial correlations were examined among 351 participants between positive and negative religious coping strategies and total scores from the PCL (see Table 10). The results indicated a nonsignificant relationship between use of positive religious coping strategies and total symptoms of PTSD. Conversely, a significant positive correlation ($r = .27, p < .001$) was observed between total PTSD symptoms and use of negative religious coping methods. This suggests that participants who engage in negative religious coping strategies also report more symptoms of PTSD.

CHAPTER V

DISCUSSION

Traumatic experiences often result in psychological sequelae, and victims of traumatic experiences engage in a range of coping mechanisms in order to alleviate the negative symptoms associated with trauma. The use of alcohol and religion are among the most prevalent methods of coping used to reduce symptoms of posttraumatic stress, such as avoidance, hyperarousal, and re-experiencing of the event (Kessler et al., 1995; Pargament et al., 1990). Further, trauma victims may experience challenges to their fundamental beliefs and assumptions about the world. This, in turn, may initiate the use of one or more positive and negative methods of religious coping. Examples of positive religious coping strategies include seeking spiritual support, religious forgiving, and redefining the stressor through religion as potentially beneficial. Negative methods of religious coping may include expressing confusion or dissatisfaction with God or with clergy members, redefining the trauma as the act of the devil, or as punishment from God for one's sins. The current literature has demonstrated the following associations: exposure to trauma and increased alcohol use; exposure to trauma and utilization of positive and negative religious coping methods; and symptoms of posttraumatic stress disorder and increased alcohol use. However, the body of literature lacks examination of

whether engaging in methods of positive or negative methods of religious coping after exposure to trauma influences the use of alcohol and symptoms of posttraumatic stress.

The purpose of this study was to examine the use of positive and negative religious coping strategies after traumatic experiences among college students and the influence of these coping strategies on alcohol use and psychological symptoms. Specifically, it was proposed that individuals who used positive methods of religious coping after traumatic experiences would engage in less risky alcohol consumption compared to their counterparts who employed negative religious coping strategies and would experience lower levels of posttraumatic psychological symptoms and fewer alcohol-related problems. In an effort to assuage or escape the negative symptoms associated with trauma, individuals would increase their alcohol consumption. It was hypothesized that religious coping may serve as a moderator between trauma exposure, PTSD symptoms, and alcohol consumption and related problems.

Findings from the test of hypothesis one are consistent with the current literature, revealing that exposure to traumatic events is associated to more alcohol consumption and alcohol-related problems. Further, exposure to greater number of traumatic experiences is associated with more problematic use of alcohol. Interestingly, the analyses did not display a significant association between participants reporting no trauma history and participants reporting a history of only one traumatic experience. However, participants reporting two or more traumas reported significantly more alcohol-related problems. A couple of implications may be drawn from these results. First, exposure to multiple traumatic events may result in more intense psychological distress which, in turn, may lead to increased consumption of alcohol to cope with those

symptoms. Second, the effect described above may be a result of the measures used in this study. The Life Events Checklist (LEC) used to examine participant's exposure to traumatic experiences does not assess how the person viewed the traumatic experience (i.e., did the event result in intense fear, helplessness, or horror). Participants may have reported experiencing one or more traumatic events (i.e., car accidents, natural disaster), yet would not meet DSM-IV-TR criteria for a traumatic event. Further, the LEC is not an exhaustive list of life experiences. It assesses for 16 stressful life events and provides a category for "other" experiences. Participants may have experienced other events, yet failed to list them in the "other" category. Moreover, the wording of some of the events listed may not capture each participant who experienced an event that would fall under that category. For example, one of the LEC items lists "sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)." This question may fail to capture participants who experienced childhood sexual abuse. Future studies should aim to clarify between participants who experienced the event as traumatic (e.g., involving intense fear, helplessness, or horror) and those participants who experienced a stressful life event.

Consistent with the current body of literature, results from the analysis of hypothesis two provide support for the idea that individuals experiencing more traumatic events also may experience more symptoms of posttraumatic stress disorder. However, participants reporting only one trauma history did not display significantly more symptoms of posttraumatic stress in comparison to participants with no trauma history as predicted. Only participants reporting two or more traumatic events reported significantly more PTSD symptoms than the other two groups. As previously noted, this

is likely a reflection of the measure used to assess exposure to traumatic life events. On the other hand, these results may suggest that after exposure to one trauma, positive coping resources may be depleted and victims may present with more symptoms of PTSD when exposed to multiple traumatic events.

The third hypothesis predicted that participants who reported more PTSD symptoms would report more frequent alcohol use, heavier consumption of alcohol, and more alcohol-related problems. Support was found for this hypothesis as evidenced by the significant positive association between PTSD symptoms and alcohol-related problems. Further, frequency of alcohol use and higher levels of peak quantity were also positively associated with PTSD symptoms. Interestingly, however, the results did not support an association between higher levels of alcohol consumption on typical drinking occasions with symptoms of PTSD. It appears that individuals reporting more symptoms of PTSD also engaged in significantly more consumption of alcohol on peak occasions and had more frequent drinking occasions. Moreover, these individuals also experienced more alcohol-related problems.

Hypothesis four predicted that participants who employ positive religious coping methods after traumatic experiences would have lower rates of alcohol consumption and alcohol-related problems compared to their counterparts who use negative religious coping methods. Partial support was found for this hypothesis, as participants who utilized more positive religious coping strategies demonstrated less alcohol consumption (quantity and frequency) and alcohol-related problems. Conversely, the results did not demonstrate a significant relationship between the use of negative religious coping methods and alcohol consumption and related problems. This suggests that use of

positive religious coping strategies may buffer risky alcohol consumption and alcohol-related problems, whereas negative religious coping strategies may not increase the risk for hazardous drinking behaviors.

The fifth hypothesis predicted that participants reporting higher rates of negative religious coping strategies would have more PTSD symptoms compared to participants reporting higher rates of positive religious coping. As expected, the results revealed a nonsignificant relationship between positive religious coping methods and symptoms of PTSD. Further, results demonstrated that participants engaging in negative religious coping methods reported more PTSD symptoms, suggesting that negative religious coping methods may intensify PTSD symptoms.

Overall, it appears that findings from the current study provide support that the use of religious coping strategies after trauma exposure may be associated with alcohol consumption, alcohol-related problems, and symptoms of posttraumatic stress disorder among college students. This suggests that positive religious coping may moderate the negative symptoms associated with trauma and serve as a protective factor against risky alcohol consumption and related behaviors. On the other hand, it also appears that employing negative religious coping strategies is associated with an increase in symptoms of posttraumatic stress disorder and may serve as a risk factor for these symptoms.

Although the model proposed was supported by the analyses, several limitations should be taken into consideration. First, a large number of participants reported experiencing two or more traumatic events (69.1%) while only approximately 10% reported a history of no traumatic experiences and almost 21% indicated experiencing

only one trauma in their lifetime. The extant literature indicates that exposure to traumatic events is common with approximately 50-95% of individuals being exposed to at least one traumatic event during their lifetime (Breslau, Kessler, Chilcoat, Schultz, Davis, & Andreski, 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Although these numbers are consistent with the percentages found in this study, participants' reports of the number of traumas experienced may not meet criteria for a traumatic experience. The measure used to assess traumatic experiences, the Life Events Checklist does not assess for DSM-IV-TR criteria of a traumatic event. For example, for the events listed, participants cannot indicate if the event involved threatened death or serious injury (i.e., natural disaster or transportation accident). Further, it does not indicate whether the participant experienced "intense fear, helplessness, or horror" as designated in the DSM-IV-TR criteria for a traumatic event (APA, 2000). Thus, it is possible that the number of participants reporting exposure to two or more traumas is higher than actual traumatic experiences defined by the DSM-IV-TR.

An additional limitation of the current study is the sampled population. This study was sampled on relatively young, predominantly Caucasian college students. It is widely known that alcohol abuse is a major problem among college students (Task Force, 2002). With this in mind, the current study may overestimate the relationship between the study variables and alcohol consumption (frequency and quantity) and alcohol-related problems. Further, the young age of the sample limits the generalizability of the present findings to other populations.

Although these limitations should be taken into consideration, this study possesses multiple strengths. Prior to the development of hypotheses a thorough

literature review was conducted regarding religious coping, alcohol use and related problems, and posttraumatic stress disorder after trauma exposure. This study was the first to combine these three bodies of literature. Further, the measures chosen for this study were highly reliable and valid measurements of each construct. Finally, the sample size was adequate to demonstrate statistical power.

Future research should aim at better understanding the role of religious coping strategies and its influence on psychological symptoms in the aftermath of trauma. Studies should further investigate the use of positive religious coping as a protective factor for alcohol consumption and problems. Finally, further investigation of the relationships among these variables in which the nature of traumatic events is more clearly defined is warranted.

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TABLES

Table 1

Patterns of Religious Coping Methods

Positive Religious Coping

Benevolent Religious Reappraisal: Redefining the stressor through religion as benevolent and potentially beneficial.

Collaborative Religious Coping: Seeking control through a partnership with God in problem solving.

Seeking Spiritual Support: Searching for comfort and reassurance through God's love and care.

Religious Focus: Seeking relief from the stressor through a focus on religion.

Religious Purification: Searching for spiritual cleansing through religious actions.

Spiritual Connection: Seeking a sense of connectedness with transcendent forces.

Seeking Support from Clergy or Members: Searching for comfort and reassurance through the love and care of congregation members and clergy.

Religious Forgiving: Looking to religion for help in letting go of anger, hurt, and fear associated with an offense.

Negative Religious Coping

Punishing God Reappraisal: Redefining the stressor as a punishment from God for the individual's sins.

Demonic Reappraisal: Redefining the stressor as the act of the Devil.

Reappraisal of God's Powers: Redefining God's powers to influence the stressful situation.

Spiritual Discontent: Expressions of confusion and dissatisfaction with God.

Interpersonal Religious Discontent: Expressions of confusion and dissatisfaction with clergy or members.

Table 2*Demographic Characteristics of Participants (N = 395)*

Characteristic	<i>n</i>	%
Gender		
Male	149	37.7
Female	246	62.3
Ethnicity		
Caucasian	333	84.3
African-American	6	1.5
American Indian	27	6.8
Hispanic or Latino	9	2.3
Asian	13	3.3
Biracial/Mixed	3	0.8
Academic Year		
Freshman	182	46.1
Sophomore	92	23.3
Junior	53	13.4
Senior	67	17.0
Graduate/Special	1	0.3
Greek		
Greek Affiliation	112	28.4
Non-Greek	282	71.4
Marital Status		
Never Married	384	97.2
Married	3	0.8
Separated	1	0.3
Divorced	2	0.5
Common Law	1	0.3
Widowed	1	0.3
Domestic Partnerships	3	0.8

Table 3*Demographic Characteristics of Participants by Group*

Variable	<i>n</i>	No Traumas Experienced	Only 1 Trauma Experienced	2 or More Traumas Experienced	Test
Gender					$\chi^2=.061$
Male	149	10.1%	20.8%	69.1%	
Female	246	10.6%	19.9%	69.5%	
Ethnicity					$\chi^2=15.20$
Caucasian	333	11.4%	19.5%	69.1%	
African-American	6	0%	16.7%	83.3%	
American Indian	27	7.4%	14.8%	77.8%	
Hispanic or Latino	9	0%	55.6%	44.4%	
Asian	13	7.7%	38.5%	53.8%	
Biracial/Mixed	3	0%	0%	100%	
Academic Year					$\chi^2=26.64^*$
Freshman	182	6.0%	19.2%	74.7%	
Sophomore	92	17.4%	23.9%	58.7%	
Junior	53	7.5%	32.1%	60.4%	
Senior	67	14.9%	7.5%	77.6%	
Graduate/Special	1	0%	100%	0%	
Greek					$\chi^2= 8.64$
Greek	112	5.4%	23.2%	71.4%	
Non-Greek	282	12.4%	18.8%	68.8%	
Marital Status					$\chi^2=5.89$
Never Married	384	10.4%	20.6%	69.0%	
Married	3	0%	0%	100%	
Separated	1	0%	0%	100%	
Divorced	2	0%	0%	100%	
Common Law	1	0%	0%	100%	
Widowed	1	0%	0%	100%	
Domestic Partnerships	3	33.3%	33.3%	33.3%	

* $p<.001$

Table 4

Means, Standard Deviations, and One-Way Analyses of Variance (ANOVA) for Effects of Gender on Five Dependent Variables

Variable	Male		Female		ANOVA	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i> (1, 393)	η^2
AUDIT	5.57	4.95	4.98	4.59	1.46	.004
BYAACQ	5.65	4.81	6.38	5.41	1.77	.005
Positive Religious Coping	10.24	7.11	11.72	6.85	4.23*	.01
Negative Religious Coping	3.40	3.81	3.14	3.85	.427	.001
PTSD Symptoms	28.79	10.22	33.30	12.04	14.51**	.04

Note: η^2 = effect size.

* $p < .05$. ** $p < .001$

Table 5

Means, Standard Deviations, and One-Way Analyses of Variance (ANOVA) for Effects of Ethnicity on Five Dependent Variables

Variable	Caucasian	African-American	American Indian	Hispanic or Latino	Asian-American	Biracial/Mixed	ANOVA	
							<i>F</i> (7,394)	η^2
AUDIT	5.36 (4.66)	4.50 (6.09)	4.29 (5.82)	4.11 (3.91)	4.53 (4.19)	6.33 (6.80)	.73	.007
BYAACQ	6.24 (5.10)	10.28 (10.43)	4.51 (5.29)	5.11 (3.43)	5.64 (6.19)	5.33 (6.80)	1.73	.024
Positive Religious Coping	11.07 (6.98)	14.33 (7.06)	13.70 (6.37)	11.88 (5.18)	9.53 (7.28)	5.00 (7.81)	1.91	.02
Negative Religious Coping	3.17 (3.79)	6.83 (4.53)	3.18 (3.24)	4.77 (2.90)	1.46 (2.22)	10.33 (9.60)	3.26*	.054
PTSD Symptoms	31.47 (11.71)	40.83 (15.58)	31.07 (8.61)	28.88 (7.68)	30.30 (6.22)	40.66 (23.07)	1.16	.016

Note: η^2 = effect size.

* $p < .01$.

Table 6

Means, Standard Deviations, and One-Way Analyses of Variance (ANOVA) for Effects of Greek Affiliation on Five Dependent Variables

Variable	Greek Affiliation		Non-Greek Affiliation		ANOVA	
	M	SD	M	SD	F(2,394)	η^2
AUDIT	6.92	5.19	4.53	4.36	10.91***	.05
BYAACQ	7.44	5.23	5.57	5.10	5.38**	.03
Positive Religious Coping	12.49	6.72	10.62	7.02	3.26*	.01
Negative Religious Coping	3.29	3.68	3.23	3.90	.37	5.7
PTSD Symptoms	31.35	12.90	31.74	11.03	.64	2.3

Note: η^2 = effect size.

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 7

Means, Standard Deviations, and Correlations for Scores on Alcohol Consumption, Alcohol-Related Problems, and Total Traumas Experienced

Measure	AUDIT	BYAACQ	Peak	Typical	Frequency	LEC	<i>M</i>	<i>SD</i>
AUDIT		.77**	.79**	.70**	.76**	.17**	5.31	4.71
BYAACQ			.61**	.52**	.60**	.26**	6.10	5.20
Peak				.75**	.75**	.16*	3.50	2.43
Typical					.69**	.14*	2.79	2.31
Frequency						.15*	2.55	1.24
LEC							2.82	2.08

Note: AUDIT = Alcohol Use Disorders Identification Test; BYAACQ = Brief Young Adult Alcohol Consequences Questionnaire; FQQ1 = Peak Quantity of Alcohol Consumption; FQQ2 = Typical Quantity of Alcohol Consumption; FQQ3 = Frequency of Alcohol Consumption; LEC = Life Events Checklist
 p<.01. **p<.001

Table 8

Means, Standard Deviations, and Correlations for Scores on Alcohol Consumption, Alcohol-Related Problems, and PTSD Symptoms

Measure	AUDIT	BYAACQ	Peak	Typical	Frequency	PCL	M	SD
AUDIT		.77**	.78**	.71**	.75**	.20**	5.46	4.81
BYAACQ			.61**	.53**	.61**	.28**	6.37	5.26
Peak				.76**	.74**	.10	3.55	2.47
Typical					.69**	.09	2.82	2.34
Frequency						.13*	2.56	1.25
PCL							32.37	11.66

Note: AUDIT = Alcohol Use Disorders Identification Test; BYAACQ = Brief Young Adult Alcohol Consequences Questionnaire; FQQ1 = Peak Quantity of Alcohol Consumption; FQQ2 = Typical Quantity of Alcohol Consumption; FQQ3 = Frequency of Alcohol Consumption; PCL = PTSD Checklist-Civilian Version

*p < .05, **p < .001

Table 9

Means, Standard Deviations, and Correlations for Scores on Alcohol Consumption, Alcohol-Related Problems, and Methods of Religious Coping

Measure	AUDIT	BYAACQ	Peak	Typical	Frequency	Positive RCOPE	Negative RCOPE	M	SD
AUDIT	1.00	.77**	.78**	.71**	.75**	-.21*	.05	5.46	4.81
BYAACQ		1.00	.61**	.53**	.61**	-.09	.07	6.37	5.26
Peak			1.00	.76**	.74**	-.22**	-.004	3.55	2.46
Typical				1.00	.69**	-.19*	-.03	2.82	2.34
Frequency					1.00	-.26**	-.05	2.56	1.25
Positive RCOPE						1.00	.18**	11.33	6.93
Negative RCOPE							1.00	3.43	3.92

Note: AUDIT = Alcohol Use Disorders Identification Test; BYAACQ = Brief Young Adult Alcohol Consequences Questionnaire; FQQ1 = Peak Quantity of Alcohol Consumption; FQQ2 = Typical Quantity of Alcohol Consumption; FQQ3 = Frequency of Alcohol Consumption; Positive RCOPE = Positive Religious Coping; Negative RCOPE = Negative Religious Coping

*p<.01. **p<.001

Table 10

Means, Standard Deviations, and Correlations for Scores on Methods of Religious Coping and PTSD Symptoms

Measure	Positive RCOPE	Negative RCOPE	PCL	M	SD
Positive RCOPE	1.00	.18**	.04	11.41	6.88
Negative RCOPE		1.00	.27**	3.47	3.94
PCL			1.00	32.33	11.68

Note: Positive RCOPE = Positive Religious Coping; Negative RCOPE = Negative Religious Coping; PCL = PTSD Checklist-Civilian Version

* $p < .01$. ** $p < .001$

APPENDICES

Informed Consent

[SURVEY PREVIEW MODE] - Windows Internet Explorer

http://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=UdwehDIwCB7rUaGhJ5ea%2Fz0ByrLE%2Fz96ypZy6nq034t4%3d#q1

File Edit View Favorites Tools Help

This project is designed to investigate methods of coping with life experiences and is being conducted by Kasey Claborn, B.S. and Thad R. Leffingwell, Ph.D. in the Department of Psychology at Oklahoma State University. You have been invited to participate because you are a college student over the age of 18.

Participants will be asked to answer questions regarding alcohol use, religion, and traumatic life experiences in an online survey. This involvement will include completing an online questionnaire for about 45-minutes to 1 hour. Questionnaires will ask participants to respond to questions primarily related to their personal alcohol use and related behaviors, traumatic life experiences, and religious beliefs.

Some people may experience discomfort when responding to sensitive questions about their alcohol use and life experiences. Information about professional services available to you on-campus and in the community will be made available upon request.

Participation in this study will require you to share some information that you may consider private and sensitive. All data will be submitted anonymously and is transmitted to a computer server for processing, but the data is carefully protected against piracy and is accessible only via a secure server, requiring log-in. For participants under 21 years of age who report drinking alcohol, this may be perceived as a legal risk. However, all data will be submitted anonymously. Therefore, participants will not experience legal repercussions as a result of participation in this study.

The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored securely and only researchers and individuals responsible for research oversight will have access to the records. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.

All participants will receive 1 unit of SONA research credit for your participation in completing the online questionnaire. The alternative is to not participate. Your participation is completely voluntary. There is no penalty for choosing not to participate. If you are eligible for research credit in a course due to your participation, the instructor of that course will make comparable options available to you. You may choose to not participate now. Participation in this study should NOT be viewed as a substitute for professional evaluation or treatment of problems related to alcohol use or mental or physical health.

If you have questions you may contact Thad R. Leffingwell, PhD at 405-744-7494 or 116 N. Murray Hall, Stillwater, Oklahoma 74078 or Kasey Claborn, B.S. at kasey.claborn@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu.

I understand that my participation is voluntary and that I will not be penalized if I choose not to participate. I also understand that I am free to withdraw my consent at any time and my participation in this project without penalty.

I have read and understand the consent form. I sign it freely and voluntarily.

Yes

7%

Next

Done Internet 100%

Unique Identification Number

[SURVEY PREVIEW MODE] - Windows Internet Explorer
http://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=UdwehDWCb7rUaGhj5ea%2fz0ByrLE%2fx96ypZy6nq034t4%3d

File Edit View Favorites Tools Help

Before beginning, you will need to create a unique 8-digit code to serve as your personal ID number for this study. This code will be used each time you complete questionnaires for this study (instead of your name) in order to help protect your confidentiality. Your eight-digit code will consist of a combination of your birthday (mm/dd) and the last four digits of a personal ID number (####). For your personal ID, you may choose to use the last four digits of your social security number (ssn) or campus-wide ID (cwid), but you MUST use the same number EVERY time you complete measures.

Example:
If your birthday was August 27, 1990; and your SSN was 123-45-6789
Your personal ID would be: 08 27 6789

Please enter your birth month and date (for confidentiality, you will not be asked for your birth year)

Month Date

Birthdate

Please enter the last four digits of your personal ID number (you may use either your SSN or CWID, but you must use the same number throughout the study).

13%

Prev Next

Done Internet 100%

Demographics

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Age:

Gender:
 Male
 Female

Ethnicity:
 Caucasian or White
 African-American or Black
 American Indian
 Other (please specify)

 Hispanic or Latino
 Asian
 Pacific Islander
 Biracial/Mixed
 Prefer not to respond

Current academic classification:
 Freshman
 Sophomore
 Junior
 Senior
 Graduate/special
 Non-degree seeking
 Prefer not to respond

Are you a member of a Greek organization?
 Yes
 No
 Prefer not to respond

Marital status:
 Never married
 Remarried
 Married
 Separated
 Divorced
 Common Law
 Widowed
 Domestic Partnership

Religious affiliation:
 Protestant
 Buddhist
 Atheist
 Roman Catholic
 Other (please specify)

 Greek Orthodox
 Jewish
 Agnostic
 Muslim
 Mormon
 Hindu
 Prefer not to respond

20%

Done Internet 100%

Duke Religion Index

[SURVEY PREVIEW MODE] - Windows Internet Explorer
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File Edit View Favorites Tools Help

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

In my life, I experience the presence of the Divine (i.e., God).


- Definitely true of me
- Tends to be true of me
- Definitely NOT true
- Tends to NOT be true
- Unsure

My religious beliefs are what really lies behind my whole approach to life.

- Definitely true of me
- Tends to be true of me
- Definitely NOT true
- Tends to NOT be true
- Unsure

I try hard to carry my religion over into all other dealings in life.

- Definitely true of me
- Tends to be true of me
- Definitely NOT true
- Tends to NOT be true
- Unsure

 33%

Prev Next

Done Internet 100%

Life Events Checklist

[SURVEY PREVIEW MODE] - Windows Internet Explorer
 http://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=UdwehDw/d87/Uachy5ea%2f2b8rLE%2f%96yp2y6ng34k%3d

File Edit View Favorites Tools Help

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event, check one or more of the boxes to the right to indicate that: (a) It happened to you personally, (b) you witnessed it happen to someone else, (c) you learned about it happening to someone close to you, (d) you're not sure if it applies to you, or (e) it doesn't apply to you. Mark only one item for any single stressful event you have experienced. For events that might fit more than one item description, choose the one that fits best. Be sure to consider your entire life (growing up, as well as adulthood) as you go through the list of events.

Natural disaster (for example, flood, hurricane, tornado, earthquake)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Fire or explosion

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Transportation accident (for example, car accident, boat accident, train wreck, plane crash)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Serious accident at work, home, or during recreational activity

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Exposure to toxic substance (for example, dangerous chemicals, radiation)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Other unwanted or uncomfortable sexual experience

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Combat or exposure to a war-zone (in the military or as a civilian)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Life-threatening illness or injury

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Severe human suffering

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Sudden, violent death (for example, homicide, suicide)

Witnessed it Learned about it Not sure Does not apply

Rating:

Sudden, unexpected death of someone close to you

Witnessed it Learned about it Not sure Does not apply

Rating:

Serious injury, harm, or death you caused to someone else

Check here if you were directly involved Witnessed it Learned about it Not sure Does not apply

Rating:

Any other stressful event or experience

Happened to me Witnessed it Learned about it Not sure Does not apply

Rating:

Other (please specify)

40%

Prev Next

Done Internet 100%

Frequency Quantity Questionnaire

[SURVEY PREVIEW MODE] - Windows Internet Explorer
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File Edit View Favorites Tools Help

Instructions: Please choose the answer that best describes your answer to each question. Your answers will remain confidential so please be honest.

Think of the occasion you drank the most this past month. How much did you drink?

On a given weekend evening, how much alcohol do you typically drink? Estimate for the past month.

How often in the past month did you drink alcohol?

47%

Prev Next

Done Internet 100%

AUDIT

[UNREVIEWED] - Windows Internet Explorer
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File Edit View Favorites Tools Help

Instructions: Please choose the answer that best describes your answer to each question. Your answers will remain confidential so please be honest.

How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you failed to do what was normally expected of you because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly

How often during the last year have you been unable to remember what happened the night before because of your drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

Have you or someone else been injured because of your drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

- No
- Yes, but not in the last year
- Yes, during the last year

53%

Prev Next

Done Internet 100%

BYAACQ

[SECURITY PREVIEW MODE] - Windows Internet Explorer
http://www.spry.com/.../PREVIEW_PAGE=00_NOT_USR_THIS_LINK_FOR_COLLECTION=1&id=2&id=7&id=9&id=10&id=11&id=12&id=13&id=14&id=15&id=16&id=17&id=18&id=19&id=20&id=21&id=22&id=23&id=24&id=25&id=26&id=27&id=28&id=29&id=30&id=31&id=32&id=33&id=34&id=35&id=36&id=37&id=38&id=39&id=40&id=41&id=42&id=43&id=44&id=45&id=46&id=47&id=48&id=49&id=50&id=51&id=52&id=53&id=54&id=55&id=56&id=57&id=58&id=59&id=60&id=61&id=62&id=63&id=64&id=65&id=66&id=67&id=68&id=69&id=70&id=71&id=72&id=73&id=74&id=75&id=76&id=77&id=78&id=79&id=80&id=81&id=82&id=83&id=84&id=85&id=86&id=87&id=88&id=89&id=90&id=91&id=92&id=93&id=94&id=95&id=96&id=97&id=98&id=99&id=100&id=101&id=102&id=103&id=104&id=105&id=106&id=107&id=108&id=109&id=110&id=111&id=112&id=113&id=114&id=115&id=116&id=117&id=118&id=119&id=120&id=121&id=122&id=123&id=124&id=125&id=126&id=127&id=128&id=129&id=130&id=131&id=132&id=133&id=134&id=135&id=136&id=137&id=138&id=139&id=140&id=141&id=142&id=143&id=144&id=145&id=146&id=147&id=148&id=149&id=150&id=151&id=152&id=153&id=154&id=155&id=156&id=157&id=158&id=159&id=160&id=161&id=162&id=163&id=164&id=165&id=166&id=167&id=168&id=169&id=170&id=171&id=172&id=173&id=174&id=175&id=176&id=177&id=178&id=179&id=180&id=181&id=182&id=183&id=184&id=185&id=186&id=187&id=188&id=189&id=190&id=191&id=192&id=193&id=194&id=195&id=196&id=197&id=198&id=199&id=200&id=201&id=202&id=203&id=204&id=205&id=206&id=207&id=208&id=209&id=210&id=211&id=212&id=213&id=214&id=215&id=216&id=217&id=218&id=219&id=220&id=221&id=222&id=223&id=224&id=225&id=226&id=227&id=228&id=229&id=230&id=231&id=232&id=233&id=234&id=235&id=236&id=237&id=238&id=239&id=240&id=241&id=242&id=243&id=244&id=245&id=246&id=247&id=248&id=249&id=250&id=251&id=252&id=253&id=254&id=255&id=256&id=257&id=258&id=259&id=260&id=261&id=262&id=263&id=264&id=265&id=266&id=267&id=268&id=269&id=270&id=271&id=272&id=273&id=274&id=275&id=276&id=277&id=278&id=279&id=280&id=281&id=282&id=283&id=284&id=285&id=286&id=287&id=288&id=289&id=290&id=291&id=292&id=293&id=294&id=295&id=296&id=297&id=298&id=299&id=300&id=301&id=302&id=303&id=304&id=305&id=306&id=307&id=308&id=309&id=310&id=311&id=312&id=313&id=314&id=315&id=316&id=317&id=318&id=319&id=320&id=321&id=322&id=323&id=324&id=325&id=326&id=327&id=328&id=329&id=330&id=331&id=332&id=333&id=334&id=335&id=336&id=337&id=338&id=339&id=340&id=341&id=342&id=343&id=344&id=345&id=346&id=347&id=348&id=349&id=350&id=351&id=352&id=353&id=354&id=355&id=356&id=357&id=358&id=359&id=360&id=361&id=362&id=363&id=364&id=365&id=366&id=367&id=368&id=369&id=370&id=371&id=372&id=373&id=374&id=375&id=376&id=377&id=378&id=379&id=380&id=381&id=382&id=383&id=384&id=385&id=386&id=387&id=388&id=389&id=390&id=391&id=392&id=393&id=394&id=395&id=396&id=397&id=398&id=399&id=400&id=401&id=402&id=403&id=404&id=405&id=406&id=407&id=408&id=409&id=410&id=411&id=412&id=413&id=414&id=415&id=416&id=417&id=418&id=419&id=420&id=421&id=422&id=423&id=424&id=425&id=426&id=427&id=428&id=429&id=430&id=431&id=432&id=433&id=434&id=435&id=436&id=437&id=438&id=439&id=440&id=441&id=442&id=443&id=444&id=445&id=446&id=447&id=448&id=449&id=450&id=451&id=452&id=453&id=454&id=455&id=456&id=457&id=458&id=459&id=460&id=461&id=462&id=463&id=464&id=465&id=466&id=467&id=468&id=469&id=470&id=471&id=472&id=473&id=474&id=475&id=476&id=477&id=478&id=479&id=480&id=481&id=482&id=483&id=484&id=485&id=486&id=487&id=488&id=489&id=490&id=491&id=492&id=493&id=494&id=495&id=496&id=497&id=498&id=499&id=500

While drinking, I have said or done embarrassing things.

Yes
 No
 Prefer not to respond

I have had a hangover (headache, sick stomach) the morning after I had been drinking.

Yes
 No
 Prefer not to respond

I have felt very sick to my stomach or thrown up after drinking.

Yes
 No
 Prefer not to respond

I often have ended up drinking on nights when I had planned not to drink.

Yes
 No
 Prefer not to respond

I have taken foolish risks when I have been drinking.

Yes
 No
 Prefer not to respond

I have passed out from drinking.

Yes
 No
 Prefer not to respond

I have found that I needed larger amounts of alcohol to feel any effect, or that I could no longer get high or drunk on the amount that used to get me high or drunk.

Yes
 No
 Prefer not to respond

When drinking, I have done impulsive things that I have regretted later.

Yes
 No
 Prefer not to respond

I've not been able to remember large stretches of time while drinking heavily.

Yes
 No
 Prefer not to respond

I have driven a car when I knew I had too much to drink to drive safely.

Yes
 No
 Prefer not to respond

I have not gone to work or missed classes at school because of drinking, a hangover, or illness caused by drinking.

Yes
 No
 Prefer not to respond

My drinking has gotten me into sexual situations I later regretted.

Yes
 No
 Prefer not to respond

I have often found it difficult to limit how much I drink.

Yes
 No
 Prefer not to respond

I have become very rude, obnoxious, or insulting after drinking.

Yes
 No
 Prefer not to respond

I have woken up in an unexpected place after heavy drinking.

Yes
 No
 Prefer not to respond

BYAACQ (cont.)

I have felt badly about myself because of my drinking.

Yes
 No
 Prefer not to respond

I have had less energy or felt tired because of my drinking.

Yes
 No
 Prefer not to respond

The quality of my work or school work has suffered because of my drinking.

Yes
 No
 Prefer not to respond

I have spent too much time drinking.

Yes
 No
 Prefer not to respond

I have neglected my obligations to family, work, or school because of my drinking.

Yes
 No
 Prefer not to respond

My drinking has created problems between myself and my boyfriend/girlfriend/spouse, parents, or other near relatives.

Yes
 No
 Prefer not to respond

I have been overweight because of drinking.

Yes
 No
 Prefer not to respond

My physical appearance has been harmed by my drinking.

Yes
 No
 Prefer not to respond

I have felt like I needed a drink after I'd gotten up (that is, before breakfast).

Yes
 No
 Prefer not to respond

60%

Prev Next

Done Internet 100%

PTSD Checklist-Civilian Version

[SURVEY PREVIEW MODE] - Windows Internet Explorer
http://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=UdwehDwG67UaGdyJ5ea%2Fd08ytLE%2F%9eyp2y6nq0344%3d
File Edit View Favorites Tools Help

Instructions: Below is a list of problems and complaints that people sometimes have in response to stressful experiences. Please read each one carefully. Choose the response that indicates how much you have been bothered by that problem in the past month.

Repeated, disturbing memories, thoughts, or images of a stressful experience?

Repeated, disturbing, dreams of a stressful experience?

Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it).

Feeling very upset when something reminded you of a stressful experience.

Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience?

Avoiding thinking about or talking about a stressful experience or avoiding having feelings related to it?

Avoiding activities or situations because they reminded you of a stressful experience?

Trouble remembering important parts of a stressful experience?

Loss of interest in activities that you used to enjoy?

Feeling distant or cut off from other people?

Feeling emotionally numb or being unable to have loving feelings for those close to you?

Feeling as if your future will somehow be cut short?

Trouble falling or staying asleep?

Feeling irritable or having angry outbursts?

Having difficulty concentrating?

Being "super-alert" or watchful or on guard?

Feeling jumpy or easily started?

67%

Prev Next

Done Internet 100%

Brief RCOPE

[SURVEY PREVIEW MODE] - Windows Internet Explorer

Instructions: The following items deal with ways you coped with the negative event in your life. There are many ways to try to deal with problems. These items ask what you did to cope with this negative event. Obviously different people deal with things in different ways, but we are interested in how you tried to deal with it. Each item says something different about a particular way of coping. We want to know to what extent you did what the item says, how much or how frequently. Don't answer on the basis of what worked or not-just whether or not you did it. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Looked for a stronger relationship with God

Rating: 0 "Not at all" 1 2 3 "A great deal"

Sought God's love and care

Rating: 0 "Not at all" 1 2 3 "A great deal"

Sought help from God in letting go of my anger

Rating: 0 "Not at all" 1 2 3 "A great deal"

Tried to put my plans into action together with God

Rating: 0 "Not at all" 1 2 3 "A great deal"

Tried to see how much God might be trying to strengthen me in this situation

Rating: 0 "Not at all" 1 2 3 "A great deal"

Asked forgiveness of my sins

Rating: 0 "Not at all" 1 2 3 "A great deal"

Focused on religion to stop worrying about my problems

Rating: 0 "Not at all" 1 2 3 "A great deal"

Wondered whether God had abandoned me

Rating: 0 "Not at all" 1 2 3 "A great deal"

Felt punished by God for my lack of devotion

Rating: 0 "Not at all" 1 2 3 "A great deal"

Wondered what I did for God to punish me

Rating: 0 "Not at all" 1 2 3 "A great deal"

Questioned God's love for me

Rating: 0 "Not at all" 1 2 3 "A great deal"

Wondered whether my church had abandoned me

Rating: 0 "Not at all" 1 2 3 "A great deal"

Decided the devil made this happen

Rating: 0 "Not at all" 1 2 3 "A great deal"

Questioned the power of God

Rating: 0 "Not at all" 1 2 3 "A great deal"

73%

[Prev](#) [Next](#)

Debriefing Statement

The image shows a screenshot of a web browser window displaying a debriefing statement. The browser's address bar shows a URL from surveymonkey.com. The main content area has a yellow background and contains the following text:

Thank you for your participation. The purpose of this study was to examine the use of positive and negative religious coping strategies after traumatic experiences among college students and the influence of these coping strategies on subsequent alcohol use and psychological symptoms. Please do not discuss the details of this experiment with other potential participants because we will be conducting this study for several months. Your cooperation is sincerely appreciated.

This experimental study is unlikely to cause distress greater than that experienced through daily life, but if necessary, we have provided a list of mental health resources:

Therapy Resources for Oklahoma State University:

- Psychological Services Center
120 North Murray
Oklahoma State University
(405)744-5975
- University Counseling Services
320 Student Union
Oklahoma State University
(405)744-5458
- Counseling Psychology Clinic
408 Willard Hall
Oklahoma State University
(405)744-6980
- Alcohol & Substance Abuse Center
336 Student Union
Oklahoma State University
(405)744-2818

You can also contact your private physician or psychologist.

For additional information regarding this study please contact:
Kasey Claborn, Oklahoma State University, kasey.claborn@okstate.edu

At the bottom of the page, there is a progress bar that is 100% complete, with 'Prev' and 'Done' buttons. The browser's status bar at the very bottom shows 'Done' and a zoom level of 100%.

IRB Approval Letter

Oklahoma State University Institutional Review Board

Date: Wednesday, February 11, 2009
IRB Application No AS097
Proposal Title: Use of Religious Coping Strategies After Trauma Exposure as Predictors of Alcohol Use and Symptoms of Posttraumatic Stress among College Students
Reviewed and Processed as: Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 2/10/2010

Principal Investigator(s):
Kasey Claborn Thad Leffingwell
116 North Murray 405 N. Murray
Stillwater, OK 74078 Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Sheila Kennison, Chair
Institutional Review Board

VITA

Kasey Renee Claborn

Candidate for the Degree of

Master of Science

Thesis: USE OF RELIGIOUS COPING STRATEGIES AFTER TRAUMA
EXPOSURE AS PREDICTORS OF ALCOHOL USE AND SYMPTOMS OF
POSTTRAUMATIC STRESS AMONG COLLEGE STUDENTS

Major Field: Psychology

Biographical:

Education: Graduated from Trinity Christian High School, Lubbock, Texas in May 2002; received Bachelor of Science degree in Human Development and Family Studies from Texas Tech University in December 2005. Completed the requirements for the Master of Science in Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2009.

Experience: Clinical practicum at Psychological Services Center, Oklahoma State University, Stillwater, Oklahoma, 2007-Present.

Professional Memberships: American Psychological Association; Oklahoma Psychological Association; Association for Behavioral and Cognitive Therapies; Society for Psychophysiological Research

Name: Kasey Renee Claborn

Date of Degree: July, 2009

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: USE OF RELIGIOUS COPING STRATEGIES AFTER TRAUMA
EXPOSURE AS PREDICTORS OF ALCOHOL USE AND SYMPTOMS
OF POSTTRAUMATIC STRESS IN COLLEGE STUDENTS

Pages in Study: 84

Candidate for the Degree of Master of Science

Major Field: Psychology

Scope and Method of Study: The purpose of this study was to investigate whether the use of religious coping strategies after traumatic experiences is associated with alcohol consumption, alcohol-related problems, and symptoms of posttraumatic stress disorder

Findings and Conclusions: Findings from the present study revealed that employing positive religious coping strategies after traumatic experiences was associated with less alcohol consumption and fewer alcohol-related problems. Moreover, the use of negative religious coping methods after trauma was associated with more symptoms of posttraumatic stress disorder. Overall, it appears that findings from the present study provide support that the use of religious coping strategies after trauma exposure may be associated with alcohol consumption, alcohol-related problems, and posttraumatic stress disorder symptoms among college students.

ADVISER'S APPROVAL: Thad R. Leffingwell, Ph.D.
