Spirituality and Depression in Young Adult Survivors of Childhood Physical and Sexual Abuse

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ABSTRACT

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There has been a large body of literature on the robust protective benefits of religion and spirituality against mental illness. The majority of these studies have looked at the buffering effects of religiosity against depression and the positive association between a religious worldview and wellbeing. A primary understanding of this relationship has been that religiosity increases one's ability to cope with life's stress as well as make meaning out of suffering yet little research has been done with survivors of trauma, a population at increased risk for mental illness. Furthermore, there is evidence that the pathway to developing the protective buffer of intrinsic religiosity inherently includes periods of depression and spiritual searching which serve as the catalyst for the process yet it is not well understood how trauma may impact this development. The primary aims of this study are to investigate the relationship between religiosity and depression in adult survivors of childhood physical and sexual abuse across several religious and spiritual dimensions. Results suggest that 1) In the overall sample, high attendance and high religious faith importance are protective against a diagnosis of depression while high spiritual life importance, having a religious experience, childhood physical abuse, and childhood sexual abuse are associated with a depression diagnosis; 2) For individuals without a reported abuse history, high attendance and high religious faith importance are protective against depression while having a religious experience and rating one's spiritual life as highly important were shown to be associated with depression; 3) Childhood physical abuse significantly impacts the protective relationship between high attendance and depression diagnosis and high religious

faith importance and depression diagnosis and survivors of childhood physical abuse who also rated their religious faith as important and reported high attendance were more likely to have a depression diagnosis; 4) When childhood physical abuse survivors endorse strongly agreeing that their religious/spiritual beliefs are a guide to daily living they are less likely to have a diagnosis of depression; 5) In survivors of childhood sexual abuse, high religious faith importance and being led spiritually are protective against a depression diagnosis.

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DEDICATION

This dissertation is dedicated to my family who each inspired me to become a psychologist in their own way. I would like to thank my father for always encouraging me to do what I love in life and lovingly supporting me in that path. To my mother, thank you for the sacred gift of unconditional love. Thank you to my sister, for always believing in me more than I ever could hope to believe in myself. Finally, to Mike, thank you for giving me reason to feel perfect joy and endless gratitude everyday.

Introduction

Studies have consistently shown associations between higher levels of religious belief, greater overall wellbeing, and lower instances of depression (Koenig, 2007; Moreira-Almeida, Neto, & Koenig, 2006; Paloutzian & Park, 2005; Pargament & Saunders, 2007). The literature suggests that religion and spirituality improve emotional functioning and can serve as an important source of positive coping in the face of difficulties (Cole & Pargament, 1999; Koenig et al., 2001; Pargament & Saunders, 2007; Pargament et al., 1998; McCullough & Larson, 1999; Miller & Thoresen, 2003; Smith et al., 2003; Wink & Dillon, 2008). Given this robust protective benefit, it is important to understand how this construct may function in populations that are at greater risk for the development of pathology, particularly survivors of childhood sexual abuse and physical abuse. These survivors show a greater likelihood of developing depression in adulthood (Beautrais et al., 1996; Brown et al., 1999; Dinwiddie et al., 2000; Farber et al, 1996; Lipschitz et al., 1999) and also experienced trauma in childhood, a time that has been shown to be crucial in the transmission of religion and spirituality within the family system (Bengston, et al., 2010; Brelsford & Mahoney, 2008; Jacobs et al., 2012; Mahoney et al., 2003; Mahoney et al., 2010). The growing theory of posttraumatic growth posits that people who are exposed to trauma may go through a process of important meaning making shifts that ultimately leads to a more positive and resilient worldview, yet this concept has not been studied longitudinally in cases where the trauma occurred in childhood (Silva, Crespo, & Canavarro, 2012; Grasso et al., 2012; Tedeschi & Calhoun, 2004.) Given the important needs of this population, and the protective benefits they might gain from religiosity, it is imperative to understand the relationship between the different dimensions of religion and spirituality and adult depression in young adult survivors of childhood abuse.

There is a large literature of research on the protective qualities of religion and spirituality against depression (Kendler et al., 1997; Kendler et al., 2003; Koenig et al., 2001; Larson & Larson, 2003; McCullough & Larson, 1999; Miller & Thoresen, 2003; Pargament & Saunders, 2007; Wink & Dillon, 2003.) Larson and Larson (2003) conducted a large review showing that there exists an inverse relationship between levels of religiousness and depression. There is some evidence showing that this relationship is stronger for individuals who are struggling with more stressful circumstances (Smith et al., 2003). The *post hoc* explanation for this finding tends to follow the logic that when people are exposed to stressful circumstances, they tend to turn to religion or spirituality to create meaning out of their suffering or receive support, ultimately protecting them against the development of psychopathology. However, this pathway is less clear when the trauma or stressful circumstance occurs in childhood and how that trauma may not only impact whether individuals develop a sense of religion and spirituality but how it then functions in young adulthood.

Religion and spirituality are largely transmitted within the family structure (Bengston, et al. 2010; Brelsford & Mahoney, 2008; Jacobs et al., 2012; Mahoney et al., 2003; Mahoney et al., 2010); therefore, childhood is a crucial stage for developing some of the groundwork for a sense of spirituality across the lifetime. There is evidence that when this religious transmission occurs within a maladaptive environment, such as in cases of childhood physical or sexual abuse, religiosity and spirituality in survivors can be related to poorer mental health outcomes (Garbarino & Bedard, 1996). Conversely, there is also evidence that facing great struggle and suffering in the face of highly challenging life circumstances can lead to positive change and spiritual transformation, a concept known as posttraumatic growth (Silva, Crespo, & Canavarro, 2012; Grasso et al., 2012; Tedeschi & Calhoun, 2004).

In addition, religiosity and spirituality are complex constructs and it is possible that certain aspects are more or less protective under specific circumstances in different individuals. For example, there exists a long-standing distinction in the field highlighted by Allport and Ross (1967) as the difference between intrinsic and extrinsic motivated religiousness. They describe intrinsic motivation as something that involves the internalized personal religiousness outside of communal or psychosocial factors, whereas extrinsic religiousness involves a more externalized practice. Studies have shown differential associations with depressive symptomatology based on this distinction (Allport, 1967; Braam et al., 1997; Koenig, et al., 1998; Moreira-Almeida, et al., 1999; Smith, et al., 2003), indicating that the specific type of religiousness may have a different impact. Given that there are many dimensions to religiosity that will have different impacts on individuals, it is important to understand how these constructs function in adults with and without childhood abuse histories.

The following study seeks to better understand the relationship between several dimensions of religiosity and spirituality and depression in adults with and without a history of childhood physical or sexual abuse. We have the unique opportunity to look at the differential impact of a wider range of religion and spirituality factors than previously studied in individuals during the important developmental phase of emerging adulthood. The phase of emerging adulthood has been shown to be particularly salient for spiritual individuation, and is also a time that often marks the onset of depressive symptomatology that may not be related to depression across the lifespan (Schulenberg et al., 2006). Miller (2014) has proposed that during this period, individuals often will vacillate between spiritual yearnings and symptoms of depression, and has hypothesized that these two aspects may in fact represent different components of the

same process, which can lead to integrated spiritual worldview and protective benefits across the lifespan.

Religiosity and Depression

There is strong evidence for an inverse association between depressive symptomatology and religiosity (Kendler et al., 1997; Kendler et al., 2003; Koenig et al., 2001; Larson & Larson, 2003; McCullough & Larson, 1999; Miller & Thoresen, 2003; Pargament & Saunders, 2007; Wink & Dillon, 2003.) A 2001 review by Koenig and colleagues, which included several studies on levels of religiousness, meaning, purpose, and aspects of overall wellbeing including depression revealed that 15 studies showed that individuals who were more religious at baseline were less likely to have depression at follow up. Two studies followed subjects over the period of one year and found an association between higher levels of religiousness and the remission of depressive symptomatology in elderly patients (Braamet al., 1997; Koenig et al., 1998). This pattern also emerged in a study by Desrosiers and Miller (2007) on adolescent girls showing that forgiveness, daily religious experiences, and religious coping were all associated with lower rates of depression. A meta-analysis of 147 studies by Smith and colleagues (2003) showed an inverse association between depression and religiousness, and pointed to several pathways by which religiousness reduces vulnerability to depression including appraisal of life events, social support, lower substance use, and positive coping.

Although there seems to be robust evidence for an association between depression and religiousness, there are many dimensions to religion and spirituality and research has only begun to tease out the specific components. It is difficult to conclude with certainty whether it is the more intrinsic and internalized experience of religiousness that is protective or whether the actions of worship or going to religious services are equally protective.

A study by Miller and colleagues (1997) showed that sense of personal importance of religion and/or spirituality, but not attendance at religious services, was protective against depression. In the study, the authors found that rating religion or spirituality as highly important was associated with a 93% decreased risk for Major Depressive Disorder (MDD) over the previous ten-year period in a study of adults with and without a history of depression. The authors attempted to replicate the finding in the next generation and found that offspring who reported that religion or spirituality was highly important to them initially were 76% less likely than the rest of subjects to have an episode of major depression over the ten-year follow-up period (Miller et al., 2012). For those offspring who were at high risk for depression due to having a depressed parent, the effect was even stronger and they were 91% less likely to have an episode of depression over the ten-year follow-up period. In this study, the protective effect of personal importance tended to be primarily against recurrence of depression rather than onset, leading the authors to hypothesize that the developmental process involved with incorporating a protective religious worldview may inherently include periods of depression. These periods of depression and sorrow may in fact lead individuals towards spiritual searching and individuation.

Similarly, other studies have shown that extrinsic factors such as religious attendance, which exist independent of intrinsic value of religion, do not appear to be protective and can be more related to "negatively evaluated characteristics" of depression (Donahue, 1985). Furthermore, a study conducted by Burris (1994) showed that extrinsic religiousness could be positively associated with depressive symptomatology unless it exists with extremely high or extremely low intrinsic religiousness. These studies point to the existence of several different constructs within religiosity and the need to specify which aspect is protective and how it is so. In particular, many studies posit that the association exists because people turn to religion to

cope with negative events in life; however, the empirical evidence for this interpretation is often cross-sectional.

Religious Coping

The protective quality of religion and spirituality against depression is often explained through the concept of positive religious coping. This concept involves the idea that people turn to their religious faith, spiritual beliefs, or religious activities in order to cope with life's daily stressors (Ano & Vasconcelles, 2005; Harrison, et al., 2001;Pargament et al., 2004; Zwingmann et al., 2006). The understanding is that in life all people experience difficulties and struggles, but that the means by which one processes, makes meaning, and tries to tolerate the negative impact can influence whether or not depression or psychopathology develops.

Several positive religious coping methods, such as spiritual support, benevolent religious reframing, collaborative religious coping, and congregational support have been associated with better spiritual, psychological, and physical health (Bush et al., 1999; Harrison et al., 2001; Koenig, Pargament, & Nielson, 1998, Mickley, Pargament, Brant, & Hipp, 1998; Pargament, Cole, Vandercreek, Belavich, Brant & Perezm 1999; Thompson & Vardamann, 1997; Smith et al., 2000; Thune-Boyle et al., 2006; Zwingmann et al., 2006). Pargament and colleagues (1990) found that religious coping efforts involving the belief in a just and loving God, the experience of God as a supportive partner, involvement in religious rituals, and the search for spiritual and personal support were significantly related to better mental health outcomes and spiritual growth.

However, using religion and spirituality as a means to cope with life's stressors does not necessarily ensure better outcomes. There is also evidence for the construct of negative religious coping, which is associated overall with poorer outcomes (Pargament et al., 1997; Pargament et al., 2003; Zwingmann et al., 2006). In cases of negative religious coping, individuals may often

view God as punishing, see evil in their lives as the work of the devil, or have difficulty with forgiveness; this particular style of making meaning may in fact be related to higher levels of distress (Pargament, Smith, Koenig, & Perez, 1998; Witvliet et al., 2005).

In an attempt to clarify the many different facets of religious coping and psychological adjustment, Ano and Vasconcelles (2005) completed a meta-analysis of 49 studies addressing religious coping. The findings indicated that as predicted, positive religious coping was related to better overall psychological adjustment. However, the authors did not find an inverse association between negative religious coping and positive psychological adjustment. The results did not support the hypothesis that people who felt punished by God, attributed their situation to the work of the devil, etc. would show significantly lower levels of self-esteem, less purpose in life, or lower spiritual growth. The authors posited that perhaps some forms of negative religious coping might in fact be indications of spiritual struggles that are necessary for transformation. These struggles may be co-occurring with distress and may indicate that individuals are on a pathway towards spiritual growth, which may offer important protection to individuals later in life.

The concept that religion and spirituality are often used in different ways to cope with difficulties and process hardship is not clearly understood in the face of trauma in childhood. It is clear that there may be differential effects depending on the ways in which people internalize religion and employ the construct in the face of challenges. However, it is unclear how religion and spirituality may function in individuals who are not coping merely with stress, but a traumatic event in childhood which may have impacted their religious and spiritual development as well as their overall ideas about themselves and the world around them.

Posttraumatic Growth

The idea that in the face of struggle and trauma, individuals can experience a shift in their way of making meaning that may in fact be related to more positive outcomes is widely studied around the concept of posttraumatic growth. The concept can be defined as positive psychological change experienced as a result of the struggle with highly challenging life circumstances (Calhoun & Tedeschi, 1999, 2001; Grasso et al., 2012; Palmer, Graca & Occhietti, 2012; Tedeschi & Calhoun, 2004).

In the face of major life stresses and difficult circumstances, it is somewhat normative and expected that individuals experience distress and negative emotions as a result. However, the idea of posttraumatic growth is based around several findings that show that in the face of difficult events, one's beliefs systems may be shaken in a way that can often provide fertile ground for shifts in the individual's meaning making, cognitive processing, value systems, and overall means of processing and tolerating life's stressors that can lead to growth and lasting positive change (Silva, Crespo & Canavarro 2012; Grasso et al., 2012; Tedeschi & Calhoun, 2004).

The growth and shift that occurs is different from the concept of resilience, which refers to the ability to go on with life and tolerate adversity and hardship or maintain stability and overall health in the face of difficult life circumstances (Garmezy, 1985; Rutter, 1987.) In contrast, posttraumatic growth has a quality of transformation and a shift in overall experience of the world. The individuals do not simply survive the trauma or event and return to baseline; rather, there is an increase in their overall wellbeing (Park, Riley, & Snyder, 2012). This general understanding that suffering can lead to growth and transformation can be seen across wide range of religious and spiritual belief systems such as Christian traditions, teachings of Hinduism, Buddhism, and Islam (Tedeschi & Calhoun, 1995).

This construct has largely remained unstudied in children and adolescents, in part, due to the fact that posttraumatic growth generally refers to an overall shift in established belief systems that occurred in the face of challenging schemas (Milam, Ritt-Olson, Ungar, 2001). However, in one important study that was done with urban adolescents, Ickovics and colleagues (2006) found that when they controlled for emotional distress at baseline, posttraumatic growth was associated with lower levels of emotional distress.

Furthermore, relatively little is known about Posttraumatic Growth in cases of childhood trauma and its effect on outcomes in adulthood. However, there is some evidence of certain positive change pathways that, when present in the therapy of adult survivors of childhood abuse, may lead to better outcomes (Lev-Wiesel, Amir & Besser, 2004; Woodward & Joseph, 2003). Overall, the occurrence of childhood trauma and its impact on the development of belief systems, which may or may not protect individuals in adulthood against depression and psychopathology, is not widely understood.

Childhood Trauma and Adult Depression

Children who are exposed to significant adverse life experiences or experience trauma at an early age have been shown to be at significant risk for a wide variety of problems throughout their lives. In particular, childhood trauma can lead to negative health outcomes such as substance abuse, depressive disorders, and attempted suicide among adolescents and adults (Brodsky et al, 1999; Gladstone et al., 2004; Heim & Nemeroff, 2001; Heim et al., 2008; Kingree et al., 1999; Styron, T. & Janoff-Bulman, R., 1997; van der Kolk et al., 1991). Furthermore, adults who report sexual or physical abuse in their childhood show higher instances of psychopathology in general and are at an increased risk for suicide across the lifespan

(Beautrais et al, 1996; Bifulco et al., 2002; Brown et a., 1999; Dinwiddie et al., 2000; Farber et al, 1996; Heim et al., 2008; Lipschitz et al., 1999).

A large study by Dube and colleagues (2001) looked at childhood abuse, household dysfunction, and attempted suicide in a large sample and discovered that adverse childhood experiences significantly increased the risk for a multitude of negative outcomes such as drug use, depressed affect, suicidality, and alcoholism. Through their analyses the authors were able to establish a temporal relationship between exposure to childhood trauma and risk factors for suicide in adulthood, establishing that these childhood traumas often stay with individuals and the risk for depression and suicide continues well into adulthood and across the lifespan.

There are important gender differences that have been found to alter the relationship between childhood trauma and the development of adult depression. In general, depression is twice as common in women as men (Kessler, 2003). Furthermore, women more frequently develop depression in response to childhood trauma as compared with men (Gladstone et al., 2004; Weiss et al., 1999), yet the mechanisms for these differences are still not widely understood.

Not all children who experience trauma grow up to have depression in adulthood, which has generated interest in understanding why some children are resilient in the face of trauma and do not show the same poor mental health outcomes as others. Religiosity is one possible difference which may promote resiliency and there is some evidence that religion and spirituality can offer protective benefits to adults who report childhood abuse. This is evidenced in the study by Kanita and colleagues (2006), which showed that in depressed adults who reported childhood abuse, those who had higher religious beliefs were less likely to attempt suicide. It is crucial that more is understood about factors that can perhaps buffer and protect children from developing

depression in adulthood. Given the concept of posttraumatic growth as well as the robust protective benefits of religion against adult depression, it is important to understand the role of religious and spiritual development in children who experience trauma and how their belief systems may function in young adulthood.

Childhood Trauma and Religiosity

There are several challenges that children exposed to trauma face in terms of overall development as well as spiritual development. In particular, many risk factors have been found to be highly correlated with childhood trauma, suggesting that often there is an overall household and environmental dysfunction and chaos that can negatively impact individuals in a variety of ways across the lifespan (Dube et al., 2001).

Moreover, a child's first exposure to religion and spirituality often occurs in the family. In a recent study, Jacobs and colleagues (2012) found that child offspring who were concordant with their mothers on religious denomination were significantly less likely to experience depression or anxiety, even with the additional risk factor of maternal depression. This finding suggests that in children it is often family religion that is most significantly protective. In contrast, however, Gur (2005) found that when adult offspring of depressed mothers were concordant with their mothers on how important they rated their religious faith, the offspring were significantly more likely to experience depression. Therefore, evidence exists that there is a "joint effect" of religion within families (Kent, 1990) wherein spirituality develops for the individual within the context of their familial relationships as well as their own personal spirituality. Although this may offer a protective benefit, there does appear to be evidence that the spiritual transmission can be altered by the qualities of the messenger, which may lead to a depressogenic effect for spirituality in adulthood (Gur et al., 2005). Therefore it would follow

that in cases where abuse and exposure to religion is occurring within the same context, this might hinder spiritual development; however, this has yet to be systematically studied.

Childhood trauma may also impact spiritual development because in these instances children are faced with overwhelming arousal and negative experiences at a time when the spiritual task may be to make meaning out of their life. In children with less well-developed cognitive abilities, confronting a crisis of meaning at a stage when it cannot be effectively acknowledged and mastered could lead to more distress and overall negative outcomes (Garbarine & Bedard, 1996). Furthermore, children may be experiencing trauma at a fragile stage that could alter or change their belief in an all-benevolent higher power and lead them to be increasingly vulnerable to negative religious coping (Capps, 1992; Garbarine & Bedard, 1996). In a recent cross-sectional study by Sansone and colleagues (2012) on internal medicine outpatients, it was found that abused participants consistently evidenced lower religiosity/spirituality scores.

In an important study on childhood trauma and religion by Doxey, Jensen, and Jensen (1997), 5,417 survey respondents were studied on multiple dimensions, including childhood sexual abuse, religion, and mental health. The results supported the hypothesis that victims of childhood sexual abuse showed lower outcomes on several levels of overall wellbeing and mental health than those participants who did not report childhood sexual abuse. As predicted, the results indicated that the highest mean mental health variable scores belonged to individuals who had no sexual abuse and high levels of religiosity. Interestingly, women who reported sexual abuse in childhood and high levels of religiosity represented the second highest mean mental health outcome score, higher than women who did not report abuse but had medium to

low levels of religiosity. The results indicate that religiosity provides a strong buffering effect against emotional distress even with the added risk factor of childhood sexual abuse.

Several studies have shown that higher levels of religiosity and positive religious coping are associated with better mental health outcomes in adulthood for trauma survivors (Ahrens et al., 2010; Galea et al., 2007; Grossman et al., 2006; Harris, 2005). There seems to be some emerging evidence that although abuse survivors show overall lower levels of religiosity (Sansone et al., 2012), when they are religious, it tends to be associated with better mental health (Doxey, Jensen, & Jensen, 1997). However, this has yet to be studied in youth and emerging adults specifically focusing on depression.

It is still largely unclear how childhood trauma may impact spiritual development and levels of religiosity, and how that might be related to adult depression. Given that individuals who experience trauma are at an increased risk for depression, and that religion and spirituality are known to be protective factors, it is imperative to understand how spirituality may be impacted by childhood trauma. There seems to be evidence for the notion of positive change in the face of trauma; however, this phenomenon is not as well known in children. Furthermore, it is not understood how the development of spirituality and religion in the face of trauma might impact its relationship to depression in emerging adulthood.

The Current Study

The primary aim of this study is to examine the impact of religion and spirituality on a lifetime diagnosis of depression, and current depression symptoms in a sample of emerging adults. We first seek to understand if religiosity is protective against depression in the overall sample. Further, we will examine if the relationship between religiosity and depression is different in adult survivors of childhood sexual or physical abuse when compared to participants

who do not report any abuse. Lastly, we seek to understand if there are significant differences between religiosity and depression outcomes in males as compared to females. Across all of our analyses, we are interested in any possible differences between the many complex dimensions of personal religiosity and spirituality and we seek to understand if different dimensions are differentially protective for different individuals. We have the unique opportunity to study the relationship between several dimensions of religiosity, spirituality, and depression in emerging adults with and without a history of childhood physical or sexual abuse.

Specifically, we ask the following research questions:

1. Is religiosity related to a lower likelihood of lifetime depression diagnosis or current depression symptoms in the overall sample?
2. Is there a difference in the relationship between religiosity and a lifetime depression diagnosis or current depression symptoms based on different dimensions of religion and spirituality?
3. Do survivors of childhood physical or sexual trauma show differential rates of depression or religiosity than individuals who do not report childhood abuse?
4. Does the relationship between religiosity and depression differ based on the experience of childhood physical or sexual trauma?
5. Does the relationship between religiosity and depression differ based on the experience of childhood physical or sexual trauma and gender?

Methods

The data for this study comes from the National Longitudinal Study of Adolescent Health (Add Health), which is a longitudinal study of a nationally representative sample of adolescents in grades seven through twelve in the United States during 1994-1995. The cohort was followed into young adulthood with four waves of in-home interviews over a period of twelve years. For our study purposes we selected participants in Wave 3 in order to observe depressive symptomatology and religiosity in early adulthood. The Wave 3 sample was interviewed during the fieldwork period from August 2001-2002 when the participants were between eighteen and twenty six years old. Data collection was conducted nationwide and to maintain confidentiality no paper questionnaires were used. Data was recorded on laptop computers and the average length of the interview was one hundred and thirty four minutes. Most interviews were conducted in the respondents' home.

Participants

At the initial interview Wave 1, participants included 90,000 students between grades seven to twelve in high schools nation-wide. They were administered an in-school questionnaire and the parents were informed in advance and could direct that their child not participate. Each participating school provided a student roster and project staff assigned an identification number to each name. All students who completed the in-school questionnaire were eligible to be selected into the core in-home sample. This resulted in a nationally representative sample of adolescents in grades seven through twelve in the United States interviewed during the 1994 to 1995 school year. Students in each school were stratified by grade and sex. About 17 students were randomly chosen from each stratum so that a total of approximately 200 adolescents were selected from each of the 80 pairs of schools. A total sample of 27,000 adolescents was drawn

consisting of 12,105 core sample from each community plus selected special oversamples. The in-home Wave 3 sample consists of 15,170 Wave 1 respondents who could be located and re-interviewed six years later.

For the purpose of this study we included participants who were re-interviewed at Wave 3 who completed the religion and spirituality measures, depression measures, and childhood physical and sexual abuse assessments. Our sample includes 2,253 males and 2,629 females. The mean age of the participants is 21.86 and all participants were between the ages of 18 and 28 at Wave 3. The sample is 10.7% Hispanic, 69.7% Caucasian, 24.8% African American, 4.6% American Indian/Native American, and 4.7% Asian.

Assessments

The assessments for this study include items from the in-home interview. That interview covered a broad range of social, economic, and health-related behaviors. The following topics were included in the questionnaire: health status, health-facility utilization, nutrition, peer networks, decision-making processes, family composition and dynamics, educational aspirations and expectations, employment experience, romantic partnerships, sexual behavior, substance use, criminal activities, religion and spirituality. Relevant controls of the demographic information analyses included biological sex, age, highest level of education completed, and reported current religious denomination.

For the purpose of this study, religiosity was measured using the following broad range of questions about personal religious and spiritual beliefs, attendance and religious practices, and personal importance of religion and spirituality: (1) *Attendance:* "How often have you attended church/synagogue/mosque or other religious services in the past month?" (At least once a month versus less than once a month) (2) *Religious Importance:* "How important is your religious faith

to you?" (More important than anything else and very important versus somewhat important or not important) (3) *Spiritual Importance:* "How important is your spiritual life?" (More important than anything else and very important versus somewhat important or not important) (4) *Led Spiritually:* "What seem to be coincidences in my life are not really coincidence; I am being led spiritually." (Strongly agree versus agree, neither agree not disagree, disagree, or strongly disagree) (5) *Religious/Spiritual Beliefs Guide:* "I employ my religious or spiritual beliefs as a basis for how to act and live on a daily basis." (Strongly agree versus agree, neither agree not disagree, disagree, or strongly disagree) (6) *Religious Experience:* "Did you ever have a religious experience that changed your life?" (Yes versus no) (7) *Religious person:* "To what extent are you a religious person? (Very religious versus moderately religious, slightly religious, or not religious) (8) *Spiritual Person:* "To what extent are you a spiritual person? (Very spiritual versus moderately spiritual, slightly spiritual, or not spiritual).

Lifetime Depression: Lifetime Depression was measured based on participants' response to the following yes or no question: "Have you ever been diagnosed with Depression?" *Current Depression:* Depressive symptoms were measured via 9 items taken from the Center for Epidemiological Studies Depression Scale (CES-D; Radloff 1991). Each response was measured on a 4-point scale (0 = Never or rarely, 1 = Sometimes, 2 = A lot of the time, 3 = Most of the time or all of the time). Items were summed to form a scale where higher scores indicated higher levels of depressive symptoms ($\alpha = 0.80$) (Dubois & Silverthorn, 2005).

Child Physical Abuse was measured based on participants' answers to the question, "(Before Grade 6) How often have your parents or other adult care-givers slapped, hit, or kicked you?" The data was then coded as 0 = no abuse and 1 = presence of any abuse. *Childhood Sexual Abuse* was assessed using participants' answer the question, "(Before Grade 6) How often

have your parents or other adult care-givers touched you in a sexual way, forced you to touch him or her in a sexual way, or forced you to have sexual relations?" The responses were then coded as 0 = no sexual abuse and 1 = presence of any abuse.

Procedure

The majority of interviews were conducted in the respondents' homes. For less sensitive topics, the interviewer read the questions aloud and entered the respondent's answers. For more sensitive topics, the respondents listened through earphones and entered the answers directly. In addition to maintaining data security, this minimized the potential for interviewer or parental influence.

Data Analysis

Descriptive analyses were run to determine frequencies of each variables and participant demographics. The demographic information and the frequencies of each of the variables were assessed, as were any differences between abuse survivors and participants who did not report abuse.

Cross-sectional associations between religiosity, lifetime depression diagnosis, childhood physical abuse, and childhood sexual abuse were assessed using Multivariate Logistic Regression. Each of the religion and spirituality variables (religious importance, spiritual importance, led spiritually, beliefs guide, religious experience, religious person, and spiritual person), childhood sexual abuse, and childhood physical abuse were entered as predictors with lifetime diagnosis of depression entered as the outcome. Biological sex, age, education, and religious denomination were included as controls in the model.

The interactions between the religion and spirituality variables and childhood physical abuse variables were assessed by entering an interaction term for the significant religion or

spirituality variables (attendance, religious importance, spiritual importance, and religious experience) and childhood physical abuse and running Multivariate Logistic Regressions controlling for all other religion and spirituality variables, biological sex, age, education, and religious denomination.

Similarly, the interactions between the religion and spirituality variables and childhood sexual abuse variables were assessed by entering an interaction term for the significant religion or spirituality variables (attendance, religious importance, spiritual importance, and religious experience) and childhood sexual abuse and running Multivariate Logistic Regressions controlling for all other religion and spirituality variables, biological sex, age, education, and religious denomination.

The data was then stratified by childhood physical abuse and childhood sexual abuse respectively, and separate Multivariate Logistic Regressions were run predicting lifetime depression by the religion and spirituality variables while controlling for age, biological sex, education, and religious denomination. The data was then stratified again by gender and Multivariate Logistic Regressions were run predicting lifetime depression by the religion and spirituality variables while controlling for age, biological sex, education, and religious denomination.

To examine the associations between current depression symptoms and religion and spirituality, Multivariate Linear Regressions were run predicting current depression by the religion and spirituality variables (attendance, religious importance, spiritual importance, and religious experience), childhood physical abuse, and childhood sexual abuse entered simultaneously controlling for lifetime depression, biological sex, age, education, and religious denomination.

The data was then stratified by childhood physical abuse and childhood sexual abuse respectively and separate Multivariate Linear Regressions were run predicting lifetime depression by the religion and spirituality variables while controlling for age, biological sex, education, and religious denomination. The data was then stratified again by gender and Multivariate Linear Regressions were run predicting lifetime depression by the religion and spirituality variables while controlling for age, biological sex, education, and religious denomination.

Results

Characteristics of Sample

The overall sample consisted of 4882 participants with a mean age of 21.82 (SD = 1.811). The sample was 46.1% male and 53.8% female (2253/4882 and 2629/4882 respectively). The different races represented in the sample were as follows: 10.7% Hispanic (522/4875), 69.7% White (3376/4843), 24.9% Black or African American (1213/4877), 4.6% American Indian (226/4876), and 4.6% Asian (227/4877). 55.6% achieved some college or higher educational degrees. 25.4% (1241/4633) of the sample had experienced some amount of physical abuse before grade 6 and 4.1% (200/4677) of the sample experienced sexual abuse before grade 6. 11.1% (543/4874) had a lifetime diagnosis of depression.

Table 1 displays the demographics and frequencies of each variable of interest by the three groups: no childhood abuse reported, childhood physical abuse, and childhood sexual abuse. Analyses were completed to assess for any differences between the groups of childhood physical abuse survivors and participants who did not report abuse, as well as childhood sexual abuse survivors and participants who did not report childhood abuse. The results are displayed in Table 1. Participants who reported childhood physical abuse were significantly more likely to have a lifetime of depression diagnosis and significantly higher levels of current depression symptoms than those participants who did not report childhood abuse (Chi-Square = 16.520, $p<.01$; $T = -6.193$, $p<.01$). There was a significant group difference found on gender wherein childhood physical abuse survivors were more likely to be male than those who did not report childhood abuse (Chi-Square = 6.291, $p<.01$). There were significant group differences on race and survivors of childhood physical abuse were more likely to be Hispanic, American Indian, and Asian (Chi-Square = 26.359, $p<.01$; Chi-Square = 7.542, $p<.01$; Chi-Square=11.848, $p<.01$).

Further, a significant group difference was found between childhood physical abuse survivors and participants who did not report abuse on Religious Denomination whereby childhood physical abuse survivors showed a higher percentage of Catholic participants (Chi-Square = 57.591, $p<.01$). The group of childhood physical abuse survivors differed significantly from non-abuse survivors on several dimensions of religiosity. As compared to participants who did not report childhood abuse, the childhood physical abuse survivors showed a lower frequency of high attendance at religious services (Chi-Square = 23.499, $p<.01$), a lower likelihood of rating their religious faith as very important or more important than anything else (Chi-square = 21.624, $p<.01$), a lower likelihood at the level of a trend of rating their spiritual life as very important or more important than anything else (Chi-Square = 2.915, $p<.10$), a lower likelihood of strongly agreeing that their religious or spiritual beliefs are a guide to daily living (Chi-Square = 6.335, $p<.05$), and a lower likelihood of participants rating themselves as very religious (Chi-Square = 16.115, $p<.01$) .

Participants who reported childhood sexual abuse were significantly more likely to be female than those who did not report childhood abuse (Chi-Square = 11.173,$p<.01$), and significantly more likely than participants who did not report abuse to have a lifetime depression diagnosis and significantly higher levels of current depression symptoms (Chi-Square = 13.843, $p<.01$; $T = -3.064$, $p<.01$). Survivors of childhood sexual abuse showed a significantly lower frequency of identifying as White (Chi-Square=4.732, $p<.05$). Survivors of childhood sexual abuse differed significantly from participants who did not report childhood abuse in that they were more likely to report that they strongly agreed that they were being led spiritually (Chi-Square = 6.586, $p<.05$) and more likely to report that they believed their religious and spiritual beliefs are a guide to daily living (Chi-Square = 8.320, $p<.01$).

Table 2 includes the correlations between the religiosity and depression variables. Overall, the religiosity variables were highly correlated with each other and highly inversely correlated with both lifetime depression and current depressive symptomatology.

Lifetime Depression Analyses

Multivariate logistic regression analyses were conducted to predict a lifetime diagnosis of depression and the results are displayed in Table 3. In the overall sample, participants who endorsed attending religious services at least once a month were significantly less likely to have been diagnosed with depression (OR=.698; 95%CI=.544-.894; p<.01) than participants who reported less frequent attendance at religious services. Participants who rated their religious faith as very important or more important than anything else were significantly less likely to have been diagnosed with depression than those who did not rate their religious faith as important (OR=.524; 95%CI=.393-.700; p<.01). There was a significant association between spiritual importance and depression wherein those participants who rated their spiritual life as very important or more important than anything else were significantly more likely to have a diagnosis of depression than those who did not (OR=1.435; 95%CI=1.081-1.905; p<.01). There was an association at the significance level of a trend whereby those participants who strongly agreed that their religious and spiritual beliefs were a guide to daily living were less likely to have a diagnosis of depression (OR=.722; 95%CI=.510-1.023; p<.10). Participants who reported that they had experienced a religious experience that changed their lives were significantly more likely to have a lifetime diagnosis of depression (OR=1.692; 95%CI=1.341-2.134; p<.01). There were significant positive associations between childhood sexual abuse and lifetime depression diagnosis as well as childhood physical abuse and lifetime depression diagnosis (OR=2.007 95%CI=1.370-2.941; p<.01 and OR=1.448; 95%CI=1.168-1.796; p<.01). Lastly, in the overall

sample, there was a significant gender effect wherein female participants were significantly more likely to have a diagnosis of depression in their lifetime (OR=2.544 95%CI=2.054-3.152; p<.01). The other religion and spirituality variables (being led spiritually, considering oneself to be a religious person, or considering oneself to be a spiritual person) did not yield significant results in predicting lifetime depression. The model was adjusted for biological sex, education level, age, and religious denomination.

Analyses of Childhood Physical Abuse, Religiosity, and Lifetime Depression

To test for interactions between childhood physical abuse and religion and spirituality, four multivariate logistic regressions were run, including an interaction term for childhood physical abuse and the four religion and spirituality variables that yielded significant main effects. The results are displayed in Table 4. Frequency of attendance and childhood physical abuse each showed significant main effects with lifetime depression (OR=.579; 95%CI=..432-.776; p<.01 and OR=1.670; 95%CI=1.121-1.771; p<.05). The interaction term yielded a significant association with lifetime depression (OR=1.670; 95%CI=1.077-2.589; p<.05). The model examining the relationship between importance of religious faith, childhood physical abuse, and lifetime depression showed a significant main effect for religious importance as well as a significant interaction. Those participants who rated their religious faith as very important or more important than anything else were significantly less likely to have a diagnosis of depression than those who did not (OR=.445; 95%CI=.323-.614; p<.01). The interaction term showed a significant association with lifetime diagnosis of depression (OR=1.673; 95%CI=1.117-2.505; p<.05). The two other multivariate regression models that included interaction terms for spiritual importance and childhood physical abuse and religious experience

and childhood physical abuse did not yield significant results for interactions. Each model controlled for age, biological sex, education, and religious denomination.

Table 5 displays the results after the data was stratified by childhood physical abuse and multivariate logistic regressions were re-run. Each model controlled for age, biological sex, education, and religious denomination. In participants who endorsed experiencing childhood physical abuse before sixth grade, those who reported that they strongly agreed that their religious or spiritual beliefs were a guide to daily living were 82% less likely to have received a diagnosis of depression than those who did not (OR=.174; 95%CI=.035-.866; p<.05). In survivors of physical abuse, there was a positive association at the significance level of a trend between reported religious experience and lifetime depression diagnosis (OR=2.086; 95%CI=.892-4.876; p<.10). For those participants who did not endorse experiencing childhood physical abuse, frequency of attendance and importance of religious faith were shown to be associated with a lower likelihood of a lifetime depression diagnosis (OR=.626; 95%CI=..460-.852; p<.01 and OR=.456; 95%CI=.321-.648; p<.01). Spiritual importance and having had a religious experience showed a significant positive association with a lifetime diagnosis of depression in those participants who denied experiencing physical abuse (OR=1.421; 95%CI=1.007-2.004; p<.05 and OR=1.618; 95%CI=1.212-2.161; p<.01).

To examine the pattern of association by gender, the data was then stratified by biological sex and the results are displayed in Table 6. Multivariate logistic regressions were run predicting lifetime depression by the religion and spirituality variables and controlling for age, biological sex, education, and religious denomination. In male survivors of childhood physical abuse, those who strongly agreed that their religious or spiritual beliefs were a guide to daily living were significantly less likely to have been given a diagnosis of depression than those who did not

(OR=.275; 95%CI=.081-.935; p<.05). In female survivors of physical abuse there was a positive association at the level of a trend between having had a religious experience and lifetime diagnosis of depression (OR=1.506; 95%CI=.933-2.431; p<.10). In male participants who did not endorse experiencing childhood physical abuse, those who rated their religious faith as very important or more important than anything else were significantly less likely to have a lifetime diagnosis of depression (OR=.414; 95%CI=.217-.792; p<.01). Males who did not endorse childhood physical abuse and strongly agreed that they were being led spiritually showed an inverse association at the level of a trend with lifetime depression (OR=.387; 95%CI=.125-1.193; p<.10). Females who did not experience childhood physical abuse who endorsed frequent religious attendance and high religious importance were less likely to have a lifetime diagnosis of depression (OR=.616; 95%CI=.432-.879; p<.01 and OR=.478; 95%CI=.313-.730; p<.01). In females who did not report experiencing childhood physical abuse there was a significant positive association between having had a religious experience and a lifetime diagnosis of depression (OR=1.828; 95%CI=1.307-2.556; p<.01).

Analyses of Childhood Sexual Abuse, Religiosity, and Lifetime Depression

To test for interactions between childhood sexual abuse and religion and spirituality, four multivariate logistic regressions were run, including an interaction term for childhood physical abuse and the four religion and spirituality variables that yielded significant main effects. The results are displayed in Table 7. Each of the four models displayed significant main effects for the childhood sexual abuse and attendance, religious importance, spiritual importance, and religious experience respectively; but the interaction term did not yield significant results in any of the four models. Each model controlled for age, biological sex, education, and religious denomination.

Table 8 displays the results after the data was stratified by childhood sexual abuse and multivariate logistic regressions were re-run controlling for age, biological sex, education, and religious denomination. In survivors of childhood sexual abuse, participants who rated their religious faith as very important or more important than anything else were significantly less likely to have a lifetime diagnosis of depression than those survivors of sexual abuse who did not rate their religious faith as important (OR=.237; 95%CI=.075-.750; $p<.01$). Those survivors of childhood sexual abuse who strongly agreed that they were being led spiritually were significantly less likely to have a lifetime diagnosis of depression than those who did not (OR=.239; 95%CI=.061-.943; $p<.05$). At the level of a trend, there was a significant positive association between rating one's spiritual life as highly important or more important than anything else and a lifetime diagnosis of depression (OR=2.688; 95%CI=.890-8.118; $p<.10$). In participants who did not endorse experiencing childhood sexual abuse, frequent attendance, and religious importance were shown to be associated with a significantly less likelihood of lifetime depression (OR=.693; 95%CI=.536-.896; $p<.01$ and OR=.531; 95%CI=.394-.715; $p<.01$). Of those participants who denied experiencing childhood sexual abuse, those who rated their spiritual life as very important or more important than anything else showed a significantly greater likelihood of a lifetime diagnosis of depression than those who did not rate their spiritual life as important (OR=1.418; 95%CI=1.059-1.899; $p<.01$). At the significance level of a trend, there was a positive association between feeling that one is being led spiritually and having a lifetime diagnosis of depression in those participants who reportedly did not experience childhood sexual abuse (OR=1.348; 95%CI=.955-1.903; $p<.10$). Of those participants who did not experience childhood sexual abuse, those who strongly agreed that their religious or spiritual beliefs are a guide to daily living were significantly less likely to have a lifetime diagnosis of

depression than those who did not (OR=.656; 95%CI=.454-.947; p<.01). There was a significant positive association between having a religious experience and a lifetime diagnosis of depression in those participants who reportedly did not experience childhood sexual abuse (OR=1.713; 95%CI=1.348-2.177; p<.01).

To examine the pattern of association by gender, the data was then stratified by biological sex and the results are displayed in Table 9. When the data was stratified by males and females, none of the religious or spirituality variables were shown to have a significant relationship with lifetime depression in participants who endorsed experiencing sexual abuse before grade six. Of note, due to the small number of male participants who reported experiencing childhood sexual abuse, multivariate logistic regressions were not possible and each variable was entered separately predicting lifetime diagnosis of depression. In male participants who denied experiencing childhood sexual abuse, those who rated their religious faith as very important or more important than anything else were significantly less likely to have received a lifetime diagnosis of depression than those who did not rate their religious faith as important (OR=.531; 95%CI=.313-.899; p<.01). At the significance level of a trend, male participants who did not report experiencing childhood sexual abuse and rated their spiritual life as very important or more important than anything else were more likely to have received a diagnosis of depression than those who did not (OR=1.594; 95%CI=.956-2.657; p<.10). Male participants who denied experiencing childhood sexual abuse and reportedly had a religious experience were significantly more likely to have a diagnosis of depression than participants who did not report having a religious experience (OR=1.608 95%CI=1.027-2.517; p<.01). In females who did not report childhood sexual abuse, frequent attendance and high ratings of religious importance were both associated with significantly lower likelihood of depression diagnosis (OR=.640; 95%CI=.474-

.865; $p<.01$ and OR=.552; 95%CI=.384-.792; $p<.01$). Female participants who did not report childhood sexual abuse and reportedly strongly agreed that they were being led spiritually were significantly more likely to have a diagnosis of depression (OR=1.556; 95%CI=1.053-2.334; $p<.01$). Female participants who did not report childhood sexual abuse and reported that they strongly agreed that their religious and spiritual beliefs are a guide to daily living were significantly less likely to have a diagnosis of depression (OR=.628; 95%CI=.409-.963; $p<.01$). Those female participants who did not report childhood sexual abuse and endorsed having a religious experience were significantly more likely to have a lifetime diagnosis of depression than those who did not report a religious experience (OR=1.771; 95%CI=1.333-2.355; $p<.01$).

Current Depression Symptoms Analyses

Table 10 displays a multivariate linear regression that was run predicting current depression symptoms by the religion and spirituality variables, childhood physical abuse, childhood sexual abuse, lifetime depression diagnosis, and biological sex controlling for age, education, and religious denomination. At the level of a trend, those participants who reported attending religious services at least once a month had significantly lower current depression symptoms ($\beta=-.033$; 95%CI= -.173-.002; $p<.10$) than participants who reported less frequent attendance. There was a significant positive association between reportedly experiencing a religious experience and current depression symptoms ($\beta=.057$; 95%CI=.068-.246; $p<.01$), and participants who had a past diagnosis of depression showed significantly higher current depression symptoms ($\beta=.181$; 95%CI=.608-.840; $p<.01$). Female participants were significantly more likely to experience higher levels of current depression ($\beta=.094$; 95%CI=.163-.310; $p<.01$) than males and childhood physical abuse survivors, and childhood sexual survivors

both showed higher levels of current depression symptoms than participants who did not report abuse (β=.085; 95%CI=..156-.324;p<.01 and β=.045; 95%CI=.097-.466; p<.01.)

Analyses of Childhood Physical Abuse, Religiosity, and Current Depression

Formal tests of interactions were run between childhood physical abuse and religion and spirituality by conducting multivariate linear regressions including an interaction term for childhood physical abuse and the religion and spirituality variable that yielded a significant main effect, religious experience; but the analysis did not yield a significant result for the interaction.

The data was then stratified by childhood physical abuse and multivariate linear regressions were run predicting current depression symptoms by the religion and spirituality variables controlling for lifetime depression, sex, education, and religious denomination and the results are displayed in Table 11. At the level of a trend, there was a significant positive association between those who reported a religious experience and current depression in survivors of childhood physical abuse (β=.056; 95%CI=.-.022-.378; p<.10). In participants who did not report childhood physical abuse, participants who reported a religious experience had significantly higher levels of current depression (β=.055; 95%CI=.043-.237; p<.01).

Table 12 displays the results of the multivariate linear regressions predicting current depression symptoms by religion and spirituality, stratified by childhood physical abuse and gender, controlling for lifetime depression, age education, and religious denomination. Male childhood physical abuse survivors who reported that they strongly agreed that their religious and spiritual beliefs are a guide to daily living showed significantly lower levels of current depression symptoms then those who did not (β=-.108; 95%CI=-.770--.028; p<.05). At the level of a trend, male childhood physical abuse survivors who reported having a religious experience showed significantly higher levels of current depression than those who did not report a religious

experience (β=.085; 95%CI=-.019-.479; p<.10). Female participants who did not report childhood sexual abuse and rated their religious faith as very important or more important than anything else showed lower levels of current depression symptoms than those who did not rate their religious faith as highly important (β=-.067; 95%CI=-.354--.001; p<.05).

Analyses of Childhood Sexual Abuse, Religiosity, and Current Depression

To examine the relationship between childhood sexual abuse, religiosity, and current depression, a formal test of interactions was run between childhood sexual abuse and religion and spirituality by conducting a multivariate linear regression including an interaction term for childhood sexual abuse and the religion and spirituality variable that yielded a significant main effect, religious experience, but the analyses did not yield a significant interaction result.

The data was then stratified by childhood sexual abuse and multivariate linear regressions were run predicting current depression symptoms by the religion and spirituality variables, controlling for lifetime depression, sex, education, and religious denomination and the results are displayed in Table 13. In participants who did not report childhood sexual abuse, those who reported attending religious services at least once a month showed significantly lower levels of current depression (β=-.040; 95%CI=-.188--.044; p<.05). Participants who did not report childhood sexual abuse and reportedly had a religious experience displayed significantly higher levels of current depression (β=.055; 95%CI=.061-.239; p<.01).

Table 14 displays the results of the multivariate linear regressions predicting current depression symptoms by religion and spiritualty stratified by childhood sexual abuse and gender controlling for lifetime depression, age education, and religious denomination. Male survivors of childhood sexual abuse who reported having a religious experience showed significantly higher levels of current depression than male survivors of sexual abuse who did not report a

religious experience (β=.278; 95%CI=.043-1.283; $p<.05$). Female participants who did not report childhood sexual abuse and reported attending religious services at least once a month showed significantly lower levels of current depression than those who did not report frequent attendance (β=-.049; 95%CI=-.260--.006; $p<.05$). Females who did not report childhood sexual abuse and reported having a religious experience showed significantly higher levels of current depression symptoms than those who did not (β=.064; 95%CI=.057-.314; $p<.01$).

Discussion

The present analyses suggest that 1) In the overall sample, high attendance and high religious faith importance are protective against a diagnosis of depression, while high spiritual life importance, having a religious experience, childhood physical abuse, and childhood sexual abuse are associated with a depression diagnosis; 2) For individuals without a reported abuse history, high attendance and high religious faith importance are protective against depression, while having a religious experience and rating one's spiritual life as highly important were shown to be associated with depression; 3) Childhood physical abuse significantly impacts the protective relationship between high attendance and depression diagnosis and high religious faith importance and depression diagnosis and survivors of childhood physical abuse who also rated their religious faith as important and reported high attendance were more likely to have a diagnosis of depression; 4) When childhood physical abuse survivors endorse strongly agreeing that their religious/spiritual beliefs are a guide to daily living they are less likely to have a diagnosis of depression; 5) In survivors of childhood sexual abuse, high religious faith importance and being led spiritually are protective against a depression diagnosis.

Spirituality and Depression

In our sample of individuals who did not report childhood abuse, the findings suggest that rating one's religious faith as highly important and attending church frequently are associated with lower frequency of depression, while rating one's spiritual life as highly important or having a religious experience is associated with having been given a diagnosis of depression.

The individuals in our sample have a mean age of approximately 21 years old and therefore fall within the rich stage in development of emerging adulthood. This time period has been shown to be an important stage for many psychological processes in that it marks the

transitional period between the end of adolescence and beginning adulthood (Galambos, Barker, & Krahn, 2006). Involved in this time period are several important developmental tasks of identity development and individuation (Roisman et al., 2004; Luyckx, Goossens, & Soenens, 2006). Individuals are in a window when they are often struggling with questions about their own sense of identity as well as their own value systems and how theirs might differ from those of their families of origin (Damon et al., 2003; Mariano & Damon, 2008; Markstrom, 1999).

Research has shown that this period often involves periods of depression and the emergence of psychopathology that may not necessarily lead to poorer mental health outcomes longitudinally (Schulenberg et al., 2006). Therefore, certain individuals may experience clinically significant distress, move through this period, and not necessarily display mental health difficulties in the long run. For example, in a study on emerging adults, Nelson and Barry (2005) found that individuals who self-identified as perceived adults showed lower depressive symptoms than same-age emerging adult peers, leading to hypotheses that the period of emerging adulthood may in itself include depressive periods that might be viewed as developmentally expected. Adolescents and emerging adults must face the question of defining a sense of self within a larger context of family, culture, and society (Arnett, 2007). As the authors on a study looking at spiritual development in youth write, “The quest for identity in adolescence is marked by yearnings and behaviors that simultaneously bond them to or locate them within something beyond themselves while affirming their sense of uniqueness and independence” (King, Clardy, & Ramos, 2013).

This rich period of development has been shown to include periods of questioning, and individuals can vacillate between symptoms of depression and aspects of personal spirituality (Miller, 2014). For example, both personal spiritual experiences and depression have been

shown to be associated with qualities that are burgeoning during this period such as a tendency towards internality, openness, absorption, and meaning making (Bateson, Klopher, & Thompson, 1993; Gallermore, Wilson, & Throads, 1969; Levin, Wickremesekera & Hirchberg, 1998). Furthermore, research has shown that in adolescents, personal spirituality offers a 50% greater protective effect as compared with adults (Miller, Davies, & Greenwald, 2000; Miller & Gur, 2002). In a study on relational spirituality and depression, the authors posit a reservoir model wherein there are certain psychological qualities that exist in this developmental stage, which if supported and nurtured, can be channeled into a robust and protective individualized spiritual worldview. However, these same qualities, if not integrated into a personal sense of religious perspective, can lead to further depression (Desrosiers & Miller, 2007). Therefore, a hypothesis for spiritual development follows that when individuals in the window of adolescence and emerging adulthood experience a depression, their experience can lead to spiritual questioning and the development of an integrated spiritual worldview emerging out of the period of depression.

Given that this period of development is inherently rich with turmoil and questioning, it would follow that individuals who had a framework and rich support network for answering their questions and helping them to individuate might be more successful in navigating this time period and avoid periods of depression. The variables of religious faith importance and frequency of attendance that were shown to be protective in non-abuse survivors both represent aspects of a particular religious meaning system. High attendance has been shown to be associated with greater social support and higher levels of wellbeing (D'onofrio, et al., 1999, Kessler et al., 1994, Strayhorn, Weidman, & Larson, 1990, Hertal & Donahue, 1995, Mauger, et al., 1992). Furthermore, studies have found evidence for a "social religious" factor that offers

protective benefits through a community infused with sacred and spiritual meaning (Kendler et al., 2003; Krause, 2008; Rasic et al., 2008). Mahoney and colleagues (2003) have proposed a theory based on their research in families and couples involving the idea that religion uniquely influences family dynamics through the construct of "sanctification." The authors propose that this is a psychological process in which aspects of life are perceived as having a spiritual character and significance. This process may include increasing levels of forgiveness, gratitude, and compassion. If individuals in emerging adulthood are attempting to evaluate their values and morals and go through a process of spiritual individuation, it would follow that conditions that offer guidance, social support, and a safe space to raise and grapple with spiritual questions might make it more likely that individuals receive these protective benefits. This idea is consistent with Fowler's model of adolescent faith individuation wherein individuals explore their personal spiritual experience in the context of religious understandings transmitted through aspects of their environment such as creed, community, and family. Guidance by members of these communities in the form of interest and receptivity to questions facilitates this individuation (1981).

Miller (2014) proposed a theory of understanding developmental depression and relational spirituality in a developmental context by highlighting that relational spirituality, which involves the more personal aspects of a dialogue with God and a lived experience of the sacred, may not receive as much attention, guidance, or support. This lack of guidance or support may cause periods of disconnection from others and alienation in relationships which may be interwoven with periods of depression (Gilligan, 1982). Therefore, for individuals navigating this important stage of development who do not already have a strong religious framework in place, the pathway to developing a spiritual worldview may involve going through

a period of depression which causes one to awaken to spiritual yearnings and a lived experience of the divine.

In looking at our findings through this lens, it follows that rating one's spiritual life as highly important may be representative of this construct of relational spirituality. This finding is consistent with literature showing evidence of a positive association between attaching high personal importance to spiritual values and lifetime depression (Baez, et al., 2006). Individuals who rate their spiritual life as highly important may be in the midst of asking those important questions and experiencing spiritual yearnings for which they may not be finding the support in an interpersonal context. Furthermore, indicating that one has experienced a religious experience also seems to be indicative of a personal experience with the divine and a lived experience of some form of dialogue with God. This may be representative of being in the midst of a period of normative developmental depression that can cause one to seek spiritual meaning and to attend to sacred or religious experiences. This is consistent with the literature showing that people often search out spiritual understanding and meaning in the context of illness (Norris & Inglehart, 2004; Pargament, 2002; Moriera-Almeida & Koenig, 2005).

There is evidence to show that personal religiosity is particularly protective against recurrence of depression rather than onset (Miller, 2012). The reservoir theory (Desrosiers & Miller, 2007) and "kindling" hypothesis (Kendler, 2001) together posit that a normative period of depression can involve aspects of spiritual awakening and individuation that, if integrated, lead to a well-integrated and established worldview that is protective against depression. Moreover, in a recent study looking at MRI data on depressed and non-depressed women in a longitudinal sample, Miller and colleagues found that individuals at high genetic risk for depression who endorsed strong personal spirituality showed greater cortical thickness in in

regions of the brain that had previously shown thickening as an indication of endophenotype of genetic risk for depression. Therefore, the MRI data suggested that depression and spirituality involve the same regions of the brain but work in different directions. Miller has built on these findings to suggest the theory that depression and spiritual development are interwoven and often represent “two sides of the same coin” (Miller, 2013). Although our data is cross-sectional and it is difficult to make longitudinal conclusions, if we were to hypothesize based on these theories it would follow that those individuals who are high on spiritual importance and have had a depressive episode may be protected against later episodes of depression. Some evidence to support this was found in a longitudinal study by Rasic and colleagues (2011) that found that seeking spiritual comfort at baseline was primarily protective against subsequent suicidal ideation regardless of the presence of previous suicide attempts. For our sample, this would mean that through the experience of depression, they were awakened to spiritual questioning and yearning and which developed into a protective spiritual worldview. This would be consistent with findings that have shown that higher ratings spiritual and existential wellbeing are associated with lower depressive symptoms (Cotton, et al., 2005).

As Pargament (2002) points out in his large review on the costs and benefits of religious perspective, religion is most efficacious when it is integrated into people’s lives. He notes that is crucial to have a social context that supports one’s faith, be able to select religious appraisals and solutions that are tailored to the problem at hand, and blend religious beliefs, practices and motivations harmoniously with one another. This sustained and integrated sense of religious importance has been shown to be protective against depression (Rabins, Fitting, Eatham & Zabora, 1990; Braam, Beckman, Deeg, & Smit, & Tilburg, 1997; Shafer, 1997; Kendler, Gardner, & Prescott, 1997; Koenig, McCullough, & Larson, 2001; Miller et al., 2012). A theory

for this association is that individuals with a well-integrated religious worldview may perceive difficult life events as less stressful and be better able to maintain their wellbeing (Smith et al., 2003; Pargament, Smith, Koenig, & Perez, 1998).

Park (2010) proposes a theory of meaning making drawn from the work of several researchers (Bonnano & Kaltmen, 1999; Davis, Wortman, Lehman, & Silver, 2000; Janoff-Bulman, 1992; Joseph & Linley, 2005; Lepore & Helgeson, 1998; Neimeyer, 2001; Taylor, 1983; Thompson, & Janigian, 1988). Park writes that essentially meaning making rests on the tenets that people possess orienting systems or “global meaning”, that provide them with cognitive frameworks from which to understand their experiences. When encountering events or experiences that may challenge their meaning, individuals appraise the situations and make meaning out of them. The extent to which the appraised meaning is different or conflicting with their global meaning determines the level of distress the experience will cause. The distress that results from the discrepancy begins another process of meaning making by the individual. Through this meaning making, individuals attempt to reduce the discrepancy between appraised and global meaning and restore a sense of the world as meaningful and their own lives as worthwhile. Research has shown that this process, when successful, leads to better adjustment to the stressful event (Collie & Long, 2005; Gillies & Neimeyer, 2006; Greenberg, 1995; Lee, Cohen, Edgar, Laizner, & Gagnon, 2004; O’Connoe, 2002; Skaggs & Barron, 2006).

In applying the meaning making literature to the findings on religious coping, we might infer that a religious framework is possibly infused into the global meaning and that the process by which an individual makes meaning to reduce the discrepancy between appraised and global meaning involves a religious component. Therefore, religious people may tend to process

difficult life events such as death or divorce differently from people without this spiritual framework.

It is established that the normative period of depression that can occur in adolescence and emerging adulthood can lead individuals to towards spiritual questioning and religious individuation (Miller, 2004; Miller, 2013). Therefore, it might follow that in individuals who are exposed to trauma, this process might change or occur earlier. It might be expected, based on the literature around posttraumatic growth, that this process is accelerated (Calhoun & Tedeschi, 1999, 2001; Grasso et al., 2012; Palmer, Graca, & Occhietti, 2012; Tedeschi & Calhoun, 2004). However, this phenomenon has not been studied in in adults who experienced trauma in childhood. Our findings indicate that individuals who reportedly experienced physical abuse were more likely to have experienced an episode of depression and less likely to endorse high attendance, high religious faith importance, or rate themselves as very religious. This finding is consistent with literature that has shown that there are increased changes in religious beliefs for individuals following a traumatic experience. Particularly, Falsetti, Resnick, and Davis (2003) showed that in survivors of trauma, there was a greater likelihood of a change in religious belief after the first or only traumatic experience.

Spirituality and Depression in Survivors of Abuse

Our results indicate a significant interaction between childhood physical abuse and religious faith importance and childhood physical abuse and religious attendance when predicting depression. Overall, it appears that childhood physical abuse seems to hinder the likelihood that an individual may become religious. If the religiosity is transmitted, the abuse seems to impact the protective nature of the relationship between religiosity and depression and make individuals more likely to experience an episode of depression.

There are several possible explanations to this finding. First, it is important to note that the childhood physical abuse is measures as any physical abuse before grade 6. Research has shown that religiosity is mostly transmitted within the family system (Mahoney, 2010). Therefore, during the time period before grade 6, it is likely that children were receiving religious and spiritual teachings from their caregivers and family members. If most of the religious transmission is happening within the context of physical abuse, perhaps individuals grow into adulthood and seek to individuate from the pain of their past experiences. Therefore they might reject the system that they were brought into and seek more spiritual pathways that do not involve a particular religious dogma. Similarly, if familial religious transmission of religion and physical abuse are occurring simultaneously, it is possible that survivors of childhood physical abuse internalize a message of religion that is harsh or punitive. The context of abuse and strict rigidity of religion may lead individuals to develop a type of depressogenic religion that is actually harmful. There is some evidence for the depressogenic transmission of spirituality in the work by Gur and colleagues (2005). In this study, the researchers found that when religion was transmitted in the context of maternal depression, and the individuals strongly identified with their depressed mothers' beliefs, the individuals were at a greater risk for depression. Therefore, we might hypothesize that when the religious message is interwoven with pain and abuse in childhood, the religious belief system in adulthood may not be protective against depression.

However, childhood sexual abuse did not hinder the protective benefits of religious importance against depression. There is evidence showing that physical and sexual abuse share unique contributions to psychopathology (Cougle et al., 2009), so it would follow that the discrepancy is due to the differential impact of the type of abuse suffered. Moreover, individuals

who suffered from sexual abuse showed a higher percentage of being female. Given that it is established in the literature that women show a stronger orientation to aspects of personal relational spirituality (Desroisiers & Miller, 2007), it may be that the personal importance of religious faith in women was more robust and resilient against the risk factor of childhood sexual abuse.

Specifically in survivors of abuse, aspects of lived spiritual experience emerge as protective. Individuals who experienced childhood physical abuse and reportedly strongly agreed that one's religious/spiritual beliefs were a guide to daily living were less likely to have a diagnosis of depression and in survivors of childhood sexual abuse rating that one was being led spiritually was protective. Both these variables represent and aspect of a spiritual belief system that involve the day-to-day experiences of existing and negotiating the world. This attention to experiencing sacred moments and awakening to aspects of one's life that include spiritual qualities has been shown to increase overall psychological wellbeing and reduce stress (Goldstein, 2007). Perhaps the reason that this more tangible aspect of spiritual experience is protective is that it may involve the moment-to-moment intrinsic ego syntonic experience of the sacred separate from an individual's raised religious context.

In a study on posttraumatic growth, Calhoun and colleagues (2000) found that openness to religious change was positively associated with posttraumatic growth. Furthermore, aspects such as spiritual attachment and meaning making have been associated with increased levels of hope and optimism (Ciarrocchi, Liacco, & Deneke, 2008), which may be particularly important in individuals who have suffered from abuse. Studies have emphasized the importance of gratitude as a predictor of positive outcomes in individual's suffering from PTSD (Kashdan et al., 2006). Furthermore, several studies have shown that broadening one's scope of awareness

and inducing positive emotions can impact people's sense of "oneness" with the world around them (Waugh & Fredrickson, 2006). Therefore perhaps the awareness created by one's spirituality infused approach to daily lived experiences creates attention shifts to positivity in the environment and aspects of gratitude which can and promote hope in a way uniquely suited to the psychology of adult survivors of abuse. The presence of this variable emerging as protective may be an indication that the process of spiritual individuation and depression we see in the non-abuse sample has already concluded, and these individuals are left with an internalized sense of personal spirituality which is uniquely suited to their psychological makeup and is protective against depression.

To our knowledge this is the first study that looks at different dimensions of spirituality and religion and their impact on depression diagnosis in survivors of childhood physical and sexual abuse who are in the important window of emerging adulthood. Our findings add evidence to existing theories on depression and spiritual individuation often going hand in hand. Therefore, religious development may happen through a supported and established religious framework that is integrated into an individual's family and community context. Alternatively, it may develop through a normative period of depression in adolescence and emerging adulthood, which serves as the catalyst for questioning, meaning making, and spiritual yearning. In survivors of childhood abuse, we do not see the same pattern but rather see that aspects of lived day-to-day spirituality are uniquely protective. Therefore, we might hypothesize that these individuals already moved through a period of suffering and possibly experienced posttraumatic growth and an integrated sense of spirituality that is uniquely suited to their experience and offers protective benefits.

Clinical Applications

The findings in the study can be applied to clinical work in several different ways. The results highlight that in the window of the rich developmental phase of emerging adulthood, it is likely that individuals may present with depressive symptomatology that may in fact be a sign of spiritual exploration and a path towards a protective meaning-making viewpoint. Furthermore, there appears to be evidence that particularly in survivors of trauma, the lived sense of spiritual guidance and dialogue with the universe through a sacred viewpoint appears to offer protective benefits that should not be ignored.

William James, a psychologist and philosopher, emphasized the importance of studying religion and sacred awakenings as a key to understanding how individuals might find important sources of healing in times of suffering. It can be argued that his attention to mystical awareness and individuals' experience of spirituality represented the introduction of the study of religion into the field of mental health. However, although there remains an interest in individual spirituality and religion and how that might offer protective benefits, there is not a great emphasis on how these ideas might be put into clinical practice.

Given the findings on developmental depression and burgeoning spirituality in participants who did not report childhood abuse, it seems important that individuals find a space for their active questioning as they navigate this rich and somewhat difficult period. Although there are many forms of clinical practice that emphasize the treatment of depression symptomatology from a medical model, in which the goal of successful treatment is symptom reduction, it would seem that clinicians approaching emerging adults exclusively from this lens may be missing an important opportunity to promote growth and healing. Alternatively, if clinicians could approach individuals in this period with a sense of curiosity and an alliance

aimed at exploration and openness, rather than symptom reduction, individuals might benefit from the space to explore and clarify their spiritual values.

For example, Acceptance and Commitment Therapy (ACT) has been shown to be particularly effective in the treatment of depression (Zettle, 2007) and rests on several basic tenets that integrate some of the mindfulness techniques from Buddhism. ACT also infuses the ideas of clarifying one's value system and being adherent to those values into a cognitive behavioral framework. Similarly, Dialectical Behavior Therapy (DBT) emphasizes the importance of "building a life worth living" and employs tenets of mindfulness and "radical acceptance" to promote openness and flexibility (Linehan, 1993). Both these treatment techniques involve encouraging greater awareness in individuals as a means to help them clarify their value systems and learn to adhere to these systems. This technique of promoting awareness and holding space for the client to explore without merely rushing in to reduce symptoms would likely allow individuals to navigate this rich and tumultuous period more easily.

The findings from the survivors of childhood physical and sexual abuse both point to the notion that there may be types of nontraditional spirituality that uniquely suited to survivors of abuse and may offer protective benefits. These lived day-to-day aspects of the divine and an inner dialogue with a sense of personal spirituality seem to promote wellness in individuals. Clinicians working with trauma survivors would benefit from attending to individuals value system as well as exploring how their beliefs and value systems operate in their lives.

These aspects of the divine and lived sense of spirituality have been defined as "transcendent experiences" and involve extending beyond the limits of ordinary experience and receiving a subjective experience of the sacred (O' Grady & Bartz, 2011). There has been increasing attention to addressing these experiences in Psychotherapy and not necessarily

assuming that these experiences might be part of a psychotic or dissociative experience. In their chapter on transcendent experiences, O'Grady and Bartz argue that these experiences may move beyond the typical ways in which we conceptualize psychological change and that these processes may generate a sense of spiritual awakening and transformation that abruptly shifts the trajectory of people's lives (2011). Given that the survivors of abuse in our study showed a unique protective benefit from the more experiential aspects of spirituality, clinicians working with trauma survivors might attend to these experiences and support individuals in understanding the significance in their lives and systems of making meaning.

Limitations and Future Directions

The study has some limitations that offer opportunities for future areas of study. Our data is cross-sectional and therefore it is difficult to make longitudinal predictions. Future areas for study might include more data points across a longer time span in order to better observe the developmental trajectory of depression and religion and spirituality. Although we attempted to highlight some of the developmental aspects using a measure for current depression, the variable was only measured on the past seven days and therefore it is not a reliable indicator of recurrence of depression episodes. Furthermore, the lifetime depression variable is based on ever having received a diagnosis of depression and does not account for lifetime depressive symptomotology that has never been formally diagnosed. Although the research questions focused primarily on Depression, data on other mental health outcomes and comorbid disorders such as anxiety was not available and therefore could not be controlled for in our analyses. The analyses benefitted from a wide range of spirituality and religion variables, however the abuse variables were limited and therefore future research might benefit from including a broader variable which could

illuminate the differences that might exist based on types of abuse and period of time that abuse was occurring.

Conclusion

Given these limitations, to our knowledge this is the first study that examines the relationship between different dimensions of spirituality and depression in survivors of childhood abuse that are in the important developmental window of emerging adulthood. The findings show evidence that personal moment-to-moment aspects of a spiritual dialogue with the world may be an important source of protection and resiliency for survivors of trauma. Clinicians might benefit from attending to client's ways of making meaning and awareness of the world through a spiritually infused lens as an important source of strength for individuals who have suffered abuse in childhood.

Table 1. Demographics and Rates of Religiosity by No Childhood Abuse, Childhood Physical Abuse, and Childhood Sexual Abuse

		No Ch. Abuse	Ch. Physical Abuse[a]	Ch. Sexual Abuse[b]
Age	Mean	21.83	21.83	.21.87
	SD	1.817	1.807	1.811
Females		55.5% (1851/3334)	50.8% (630/1241)**	55.5% (111/200)**
MDD		9.4% (313/3327)	15.2% (188/1240)**	24.0% (48/200)**
Education				
<12th Grade		11.5% (184/3332)	14.0% (174/1240)	26.0% (52/200)
High School		32.3% (1076/3332)	29.7% (368/1240)	32.0% (64/200)
≥College		56.2% (1872/3332)	56.3% (698/1240)	42.0%(84/200)
Current Depression Sx				
Mean		.6452	.9716**	1.322**
SD		1.167	1.484	1.687
Religious Denomination				
None/atheist/ agnostic		17.8% (583/3283)	22.1% (270/1223)	23.0% (45/196)
Protestant		18.9% (619/3283)	11.9% (145/1223)	13.3% (26/196)
Catholic		20.3% (668/3283)	24.0% (294/1223)**	16.8% (33/196)
Jewish		.8% (27/3283)	1.1% (13/1223)	.5% (1/196)
Buddhist		.3% (9/3283)	.5% (6/1223)	0% (0/196)
Hindu		.1% (4/3283)	.2% (2/1223)	0% (0/196)
Muslim		.2% (5/3283)	.8% (10/1223)	0% (0/196)
Other		8.3% (277/3283)	8.1% (90/1223)	13.3% (26/196)
Christian		32.7% (1091/3283)	31.4% (3884/1223)	33.2% (65/196)
Race				
Hispanic		9.2% (305/3329)	14.4% (179/1226)**	14.5% (29/200)
White		70.9% (2349/3313)	69.3% (850/1226)	63.3% (126/199)*
Black/ Af. Am.		24.6% (821/3333)	23.0% (285/1238)	29.1% (58/199)
Am. Indian		4.1% (137/3332)	6.0% (74/1238)**	6.5% (13/199)
Asian		4.0% (132/3333)	6.4% (79/1159)**	4.0% (8/198)
Attends once a month		38.6% (1286/3310)	31.0% (383/1241)**	31.6% (62/200)
High Rel. Faith Importance		56.3% (1861/3303)	48.5% (599/1236)**	52.8% (105/200)
High Spir. Life Importance		56.3% (1860/3334)	52.6% (649/1235)**T**	52.3% (104/199)
Being Led Spiritually		14.4% (473/3274)	14.7% (180/1224)	21.0% (41/195)*
Rel./Spiritual Beliefs Guide		17.2% (565/3280)	14.5% (178/1229)*	19.9% (39/196)**
Had a Relig. Experience		28.3% (937/3313)	30.3% (375/1237)	35.2% (70.199)**T**

Religious Person	13.9% (457/3297)	9.5% (117/1232)**	12.2% (24/197)
Spiritual Person	17.6% (578.3292)	17.6% (216/1229)	20.8% (41/197)

[a]Chi-Square (categorical variables) or t-test (linear variables) comparing childhood physical abuse and no abuse; [b]Chi-Square (categorical variables) or t-test (linear variables) comparing childhood sexual abuse and no abuse *p<.05;**p<.01;**T<**.10

Table 2. Correlations of Religiosity and Depression Variables

	1	2	3	4	5	6	7	8	9	10
1. Attend	--									
2. Rel. Faith Imp.	.46**	--								
3.Spi Life Imp.	.42**	.71**	--							
4.Rel. Exp.	.25**	.32**	.36**	--						
5.Rel Person	.32**	.33*	.31**	.28**	--					
6.Spi. Person	.23**	.29**	.38**	.33**	.28**	--				
7. Led Spirit.	.21**	.29**	.31**	.32**	.33**	.36**	--			
8. Bel. Guide	.29**	.33**	.33**	.31**	.38**	.38**	.54**	--		
9. Life MDD	-.06**	-.06**	-.01	.04**	-.03	.01	.01	-.03*	--	
10. Current Dep. Sx.	.06**	-.03*	-.02	.04**	-.02	.01	.01	-.03	.23**	--

*p<.05;**p<.01

Table 3. Multivariate Logistic Regression Analysis of Religion and Spirituality predicting Lifetime Depression Status in Overall Sample N=4370.[a]

	OR	95% CI	X^{2b}
Attendance	.698**	.544-.894	8.066
Religious importance	.524**	.393-.700	19.203
Spiritual importance	1.435**	1.081-1.905	6.238
Led spiritually	1.202	.862-1.676	1.175
Beliefs guide	.722**T**	.510-1.023	3.353
Religious experience	1.692**	1.341-2.134	19.688
Religious person	.953	.637-1.425	.055
Spiritual person	1.061	.760-1.481	.119
Childhood sexual abuse	2.007**	1.370-2.941	12.772
Childhood physical abuse	1.448**	1.168-1.796	11.376
Biological sex	2.544**	2.054-3.152	72.973

[a]Adjusted for age, education, and religious denomination
[b]Wald's Chi-square
*p<.05;**p<.01;**T**<.10

Table 4. Multivariate Logistic Regression Analysis of Interactions between significant religion variables and Childhood Physical Abuse predicting Lifetime Depression N=4410

	OR	95% CI	X^{2a}
Model 1[b]			
Attendance	.579**	.432-.776	13.336
Childhood physical abuse	1.365*	1.121-1.771	6.333
Attendance*ch. physical abuse	1.670*	1.077-2.589	5.245
Model 2[c]			
Religious Importance	.445**	.323-.614	24.405
Childhood physical abuse	1.246	.941-1.650	2.356
Importance*ch. physical abuse	1.673*	1.117-2.505	6.240
Model 3[d]			
Spiritual Importance	1.249	.914-1.705	1.947
Childhood physical abuse	1.313**T**	.968-1.781	3.076
Sp. Importance*ch. physical abuse	1.411**T**	.938-2.122	2.739
Model 4[e]			
Religious Experience	1.532**	1.164-2.017	9.244
Childhood physical abuse	1.451**	1.127-1.869	8.307
Re. Exp.*ch. physical abuse	1.288	.845-1.964	1.384

[a]Wald's Chi-square
[b]Adjusted for religious importance, spiritual importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination
[c]Adjusted for attendance, spiritual importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination
[d]Adjusted for attendance, religious importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination
[e]Adjusted for attendance, religious importance, spiritual importance, led spiritually, beliefs guide, religious person, spiritual person, biological sex, age, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 5. Multivariate Logistic Regression Analysis of Religion and Spirituality predicting Lifetime Depression Status by Childhood Physical Abuse.[a]

	Childhood Physical Abuse N=1241		No Childhood Physical Abuse N=3225	
	OR	95% CI	OR	95%CI
Attendance	1.022	.425-2.462	.626**	.460-.852
Religious importance	.533	.170-1.743	.456**	.321-.648
Spiritual importance	2.116	.670-6.463	1.421*	1.007-2.004
Led spiritually	2.086	.674-6.6463	1.081	.703-1.662
Beliefs guide	.174*	.035-.866	.829	.542-1.268
Religious experience	2.086**T**	.892-4.876	1.618**	1.212-2.161
Religious person	2.922	.717-11.916	.733	.432-1.242
Spiritual person	.737	.199-2.734	1.203	.784-1.847

[a]Adjusted for age, biological sex, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 6. Multivariate Logistic Regression Analysis of Religion and Spirituality predicting Lifetime Depression Status by Childhood Physical Abuse and Gender.[a]

	Childhood Physical Abuse		No Childhood Physical Abuse	
	OR	95% CI	OR	95%CI
Males	N=579		N=1421	
Attendance	1.026	.493-2.136	.638	.338-1.205
Rel. import.	.591	.250-1.399	.414**	.217-.792
Spi. import.	1.846	.800-4.257	1.598	.864-2.954
Led spirit.	1.651	.619-4.403	.387**T**	.125-1.193
Beliefs guide	.275*	.081-.935	1.171	.490-2.802
Rel. exper.	2.001	1.025-3.906	1.103	.600-2.029
Relig. person	1.577	.505-4.924	.746	.248-2.242
Spirit. person	1.402	.584-3.365	1.604	.691-3.723
Females	N=606		N=1804	
Attendance	.793	.481-1.305	.616**	.432-.879
Rel. import.	.737	.405-1.341	.478**	.313-.730
Spi. import.	1.189	.659-2.146	1.327	.874-2.013
Led spirit.	1.470	.789-2.739	1.389	.856-2.255
Beliefs guide	.862	.433-1.715	.729	.447-1.190
Rel. exper.	1.506**T**	.933-2.431	1.828**	1.307-2.556
Relig. person	1.347	.628-2.889	.744	.406-1.365
Spirit. person	.524	.414-1.567	1.082	.656-1.785

[a]Adjusted for age, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 7. Multivariate Logistic Regression Analysis of Interactions between significant religion variables and Childhood Sexual Abuse predicting Lifetime Depression. N==4452

	OR	95% CI	X^{2a}
Model 1[b]			
Attendance	.676**	.524-.872	9.082
Childhood sexual abuse	2.142**	1.379	11.499
Attendance*ch. sexual abuse	1.497	.697-3.213	1.070
Model 2[c]			
Religious Importance	.503**	.375-.673	21.331
Childhood sexual abuse	2.301**	1.378-3.841	10.153
Importance*ch. sexual abuse	1.116	.544-2.288	.765
Model 3[d]			
Spiritual Importance	1.443**	1.084-1.920	6.318
Childhood sexual abuse	2.077**	1.193-3.617	6.673
Sp. Importance*ch. sexual abuse	1.322	.638-2.741	.564
Model 4[e]			
Religious Experience	1.701**	1.341-2.156	19.231
Childhood sexual abuse	2.315**	1.463-3.662	12.854
Re. Exp.*ch. sexual abuse	1.139	.543-2.393	.119

[a]Wald's Chi-square

[b]Adjusted for religious importance, spiritual importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination

[c]Adjusted for attendance, spiritual importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination

[d]Adjusted for attendance, religious importance, led spiritually, beliefs guide, religious experience, religious person, spiritual person, biological sex, age, education, and religious denomination

[e]Adjusted for attendance, religious importance, spiritual importance, led spiritually, beliefs guide, religious person, spiritual person, biological sex, age, education, and religious denomination

*$p<.05$;**$p<.01$;**T**<.10

Table 8. Multivariate Logistic Regression Analysis of Religion and Spirituality predicting Lifetime Depression Status by Childhood Sexual Abuse.[a]

	Childhood Sexual Abuse N=191		No Childhood Sexual Abuse N=4261	
	OR	95% CI	OR	95%CI
Attendance	.842	.332-2.133	.693**	.536-.896
Religious importance	.237**	.075-.750	.531**	.394-.715
Spiritual importance	2.688**T**	.890-8.118	1.418*	1.059-1.899
Led spiritually	.239*	.061-.943	1.348**T**	.955-1.903
Beliefs guide	2.292	.678-7.751	.656**	.454-.947
Religious experience	1.547	.613-3.909	1.713**	1.348-2.177
Religious person	2.846	.746-10.848	.844	.550-1.296
Spiritual person	1.078	.342-3.393	1.115	.785-1.583

[a]Adjusted for age, biological sex, education, and religious denomination
*p<.05;**p<.01;**T<**.10

Table 9. Logistic Regression Analysis of Religion and Spirituality predicting Lifetime Depression Status by Childhood Sexual Abuse and Gender.

	Childhood Sexual Abuse		No Childhood Sexual Abuse	
	OR	95% CI	OR	95%CI
Males[a]	N=85		N=1943	
Attendance	1.050	.253-4.352	.780	.478-1.272
Rel. import.	.463	.128-1.665	.531**	.313-.899
Spi. import.	1.333	.394-4.508	1.594**T**	.956-2.657
Led spirit.	.268	.032-2.215	.899	.439-1.840
Beliefs guide	.370	.044-3.091	.704	.341-1.455
Rel. exper.	1.401	.405-4.847	1.608**	1.027-2.517
Relig. person	1.511	.285-8.026	.785	.345-1.782
Spirit.person	1.906	.509-7.139	1.398	.741-2.638
Females[b]	N=107		N=2427	
Attendance	.803	.261-2.473	.640**	.474-.865
Rel. import.	.373	.094-1.481	.552**	.384-.792
Spi. import.	1.839	.479-7.055	1.291	.905-1.842
Led spirit.	.560	.117-2.682	1.568**	1.053-2.334
Beliefs guide	2.724	.730-10.158	.628**	.409-.963
Rel. exper.	1.572	.495-4.993	1.771**	1.333-2.355
Relig. person	2.945	.589-14.710	.868	.526-1.433
Spirit. person	.463	.108-1.990	.970	.639-1.472

[a]Due to the small number of males who experienced childhood sexual abuse and completed all the religion and spirituality questions, a multivariate analyses was not possible. The variables were entered separately and univariate analyses were completed for males with childhood sexual abuse.

[b]Multivariate analysis adjusted for age, education, and religious denomination.

*p<.05;**p<.01;**T**<.10

Table 10. Multivariate Linear Regression Analysis of Religion and Spirituality predicting Current Depression Symptoms in Overall Sample N=4359.[a]

	β	95% CI	t
Attendance	-.033**T**	-.173-.002	-1.911
Religious importance	-.006	-.123-.093	-.273
Spiritual importance	-.003	-.114-.098	-.150
Led spiritually	-.003	-.136-.112	-.195
Beliefs guide	-.021	-.190-.051	-1.124
Religious experience	.057**	.068-.246	3.458
Religious person	-.010	-.179-.105	-.506
Spiritual person	.024	-.046-.206	1.249
Lifetime Depression	.181**	.608-.840	12.237
Childhood sexual abuse	.045**	.097-.466	2.994
Childhood physical abuse	085**	.156-.324	5.585
Biological sex	.094**	.163-.310	6.330

[a]Adjusted for age, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 11. Multivariate Linear Regression Analysis of Religion and Spirituality predicting Current Depression Symptoms by Childhood Physical Abuse[a]

	Childhood Physical Abuse N=1167		No Childhood Physical Abuse N=3213	
	β	95% CI	β	95%CI
Attendance	-.048	-.354-.047	-.022	-.147-.043
Relig. import.	.016	-.198-.291	-.019	-.162-.072
Spirit. import.	.004	-.232-.252	-.008	-.135-.096
Led spiritually	.021	-.188-.364	-.017	-.192-.080
Beliefs guide	-.038	-.442-.124	-.010	-.159-.100
Relig. exper.	.056**T**	-.022-.378	.055**	.043 -.237
Relig. person	.023	-.219-.447	-.032	-.263-.047
Spirit. person	.016	-.209-.330	.042	-.014-.268
Life. MDD	.252**	.811-1.267	.148**	.445-.712

[a]Adjusted for age, biological sex, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 12. Multivariate Linear Regression Analysis of Religion and Spirituality predicting Current Depression Symptoms by Childhood Physical Abuse and Gender.[a]

	Childhood Physical Abuse		No Childhood Physical Abuse	
	β	95% CI	β	95%CI
Males	N=575		N=1416	
Attendance	-.041	-.371-.142	-.029	-.186-.065
Rel. import	-.015	-.338-.266	.041	-.067-.226
Spi. import.	.061	-.150-.447	-.060	-.262-.030
Led spirit.	.067	-.120-.609	-.027	-.263-.104
Beliefs guide	-.108*	-.770--.028	.041	-.062-.292
Rel. exper.	.085**T**	-.019-.479	.018	-.090-.172
Relig. person	-.026	-.564-.334	-.016	-.259-.164
Spirit. person	.036	-.218-.459	.027	-.119-.265
Life. MDD	.245**	.678-1.336	.076**	.096-.525
Females	N=604		N=1796	
Attendance	-.054	-.491-.120	-.018	-.182-.092
Rel. import	.031	-.278-.486	-.067*	-.354--.001
Spi. import	-.032	-.485-.272	.031	-.091-.254
Led spirit.	.003	-.399-.422	-.013	-.240-.147
Beliefs guide	-.002	-.430-.412	-.035	-.295-.072
Rel. exper	.040	-.170-.449	.071**T**	.057-.333
Relig. person	.053	-.212-.764	-.038	-.354-.083
Spirit. person	.006	-.390-.443	.053	-.028-.371
Life. MDD	.252**	.715-1.356	.174	.497-.843

[a]Adjusted for age, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 13. Multivariate Linear Regression Analysis of Religion and Spirituality predicting Current Depression Symptoms by Childhood Sexual Abuse.[a]

	Childhood Sexual Abuse N=189		No Childhood Sexual Abuse N=4233	
	β	95% CI	β	95%CI
Attendance	.045	-.425-.746	-.040*	-.188--.044
Religious importance	.021	-.610-.749	-.014	-.141-.074
Spiritual importance	-.024	-.768-.606	-.002	-.111-.101
Led spiritually	.025	-.670-.876	-.002	-.131-.118
Beliefs guide	-.032	-.901-.637	-.023	-.197-.046
Religious experience	.101	-.230-.941	.055**	.061-.239
Religious person	.105	-.355-1.432	-.024	-.231-.055
Spiritual person	.042	-.533-.882	.028	-.038-.216
Lifetime depression	.180*	.143-1.272	.182**	.613-.850

[a]Adjusted for age, biological sex, education, and religious denomination
*p<.05;**p<.01;**T**<.10

Table 14. Linear Regression Analysis of Religion and Spirituality predicting Current Depression Symptoms by Childhood Sexual Abuse and Gender[a].

	Childhood Sexual Abuse		No Childhood Sexual Abuse	
	β	95% CI	β	95%CI
Males	N=82		N=1936	
Attendance	-.193	-1.153-.167	-.024	-.170-.062
Reli. import.	-.067	-.876-.575	.024	-.086-.185
Spirit,import.	-.069	-.890-.577	-.013	-.161-.109
Led spirit.	-.032	-.948-.774	.004	-.157-.184
Beliefs guide	-.064	-1.142-.769	-.009	-.192-.139
Relig. Exper.	.278*	.043-1.283	.041	-.021-.217
Relig. person	.226	-.233-1.799	-.045	-.347-.045
Spirit. person	.020	-.724-.836	.037	-.066-.277
Life. MDD	.156	-.253-1.288	.149**	.436-.804
Females	N=106		N=2427	
Attendance	.127	-.434-1.446	-.049*	-.260--.006
Reli. import	.084	-.808-1.454	-.043	-.281-.046
Spirit,import	.024	-1.055-1.246	.006	-.142-.178
Led spirit.	.002	-1.309-1.325	-.005	-.196-.159
Beliefs guide	-.009	-1.185-1.106	-.030	-.276-.068
Relig. exper.	.040	-.809-1.131	.064**	.057-.314
Relig. person	.081	-.917-1.860	-.011	-.245-.159
Spirit. person	.053	-.929-1.860	.025	-.095-.268
Life. MDD	.193**T**	-.013-1.599	.194**	.611-.925

[a] Adjusted for age, education, and religious denomination.
*p<.05;**p<.01;**T**<.10

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