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# An Examination of the Association of Religiosity, Purity Culture, and Religious Trauma with Symptoms of Depression and Anxiety

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# AN EXAMINATION OF THE ASSOCIATION OF RELIGIOSITY, PURITY CULTURE, AND RELIGIOUS TRAUMA WITH SYMPTOMS OF DEPRESSION AND ANXIETY

By

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## Abstract

While no consistent definition yet exists for religious trauma, *religious abuse* is typically defined as a misuse of authority by a spiritual leader to coerce, control, or exploit those under their leadership, which may in turn lead to the experience of religious trauma. Numerous studies suggest that experiencing abuse within a religious environment is a both global phenomenon and common experience. The impact of religious abuse has recently gained greater media attention, specifically related to the social and psychological impact of leaving high-cost religious groups (i.e., those with rigid rules or groups from which departure leads to isolation and rejection from the group members), influence on sexual behavior, and poor mental health outcomes among those who leave high-cost groups. The Spiritual Abuse Questionnaire (SAQ) is a self-report measure initially developed to assess for religious abuse across clinical practice and research settings. However, the SAQ has not yet been validated in racially or gender diverse or significantly non-Christian samples. For my thesis, I examined the factor structure of the SAQ, conducted measurement invariance to determine equivalence of the factors across gender, then evaluated the relationships between religious abuse, religiosity, purity culture, depression, and anxiety. Specifically, I conducted both exploratory factor analysis and confirmatory factor analyses to test and verify the factor structure of the SAQ, as well as testing the one-week test-retest reliability. Once I identified the configural model, I then conducted measurement invariance analyses to investigate the validity of the SAQ across gender (male, female). Next, I examined the prevalence of religious trauma among a diverse sample of undergraduate university students, as well as examined the relationships among religious trauma, and depression and anxiety symptoms. Research findings will help inform clinicians and researchers of the

prevalence of religious trauma, its potential impact on mental health, and the suitability of a measure for assessing religious trauma in young adults.

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## Introduction

Prior literature suggests that religiosity, defined as behavioral engagement with faith practices in addition to faith affiliation (Kohut & Štulhofer, 2018; Borgogna et al., 2020), has a complex influence on mental health. For example, some studies have demonstrated that religiosity is a protective factor against depression and life stressors, while religiosity may also be associated with increased, decreased, or have no relationship with anxiety (Dein et al., 2012). Hartz and Everett (1989) found that individuals leaving fundamentalist religious groups may experience significant emotional and adjustment difficulty, particularly groups with an authoritarian leadership style. Christian fundamentalism often refers to those who adhere to beliefs such as the inerrancy of the Bible, divinity of Jesus, and belief in the second coming of Jesus. This definition has expanded with the creation of the "Moral Majority" in the United States, forming a cultural fundamentalism, defined as individuals engaging in public activism due to a desire to defend and expand a traditional lifestyle to all individuals within a given culture. Finally, fundamentalism may be viewed as a mindset, associated with or independent from religious belief, comprised of an inability to tolerate ambiguity and uncertainty, desire for simplistic and quick solutions, and lack of tolerance for heterogeneity (Hartz & Everett, 1989).

Oakley and Kinmond (2014) defined spiritual abuse as coercion and control of one individual by another, within a spiritual context. This abuse can be experienced as a deeply emotional and personal attack, and may include manipulation, exploitation, censorship of decisions or speech, pressure for conformity, misuse of scripture or leadership position to control behavior, or isolation (Oakley & Kinmond, 2014). For my thesis, I examined the psychometric properties of the Spiritual Abuse Questionnaire (SAQ), a self-report measure proposed to assess for religious abuse across clinical practice and research settings, to evaluate the relationships

between religious abuse, religiosity, purity culture, and symptoms of depression and anxiety among a diverse sample of young adult college students. Below, I have summarized the literature on religious trauma, existing measures of religious abuse and religious trauma, and the interaction of religious trauma with mental health and sexual behavior.

**Religious Trauma**

While no consistent definition yet exists for religious trauma, *religious abuse* is typically defined as a misuse of authority by a spiritual leader (e.g., pastor, priest, or other group leader) to coerce, control, or exploit those under their leadership, which in turn has been associated with the experience of religious trauma (Oakley, 2009). Religious abuse may also be perpetrated by a religious group more broadly, either directed to a specific individual or towards a group of people (e.g., lesbian, gay, bisexual, transgender, queer [LGBTQ+] individuals; Swindle, 2017). Abuse perpetrated by a religious leader may include physical, sexual, or emotional abuse, which may consist of or be accompanied by coercion, control, or manipulation (Swindle, 2017). For example, abuse perpetrated by a religious group often focuses on social issues (e.g., LGBTQ+ rights, reproductive rights, racial justice) or the targeting of marginalized or minoritized groups and may include using religious teachings intended to oppress a group, such as LGBTQ+ individuals or racial minority groups (Swindle, 2017).

Ward (2011) identified six themes within experiences of religious abuse: a) leadership representing God (e.g., to obey leadership is to obey God and disagreement is opposition to God), b) spiritual bullying (e.g., leadership dictating strict standards of behavior, lack of accountability for harmful behavior from leadership), c) acceptance via performance (e.g., pressure to live up to high standards, with appreciation and acceptance contingent on performance), d) spiritual neglect (e.g., members in need of help, including physical or mental,

may be seen as spiritually "slipping" rather than encouraged to seek care), e) expanding external and internal tension (e.g., demands of the group conflicting with natural drive for expressing individuality), and lastly, f) manifestation of internal states (e.g., somatization due to tension, demands, conflict, or other stressors related to the religious group). As reflected by these categories, religious abuse may be also attributed to institutional policies or practices (e.g., excommunication, banishment), individual behaviors (e.g., criticism, gossip, rejection), or a combination of these two factors.

As with other forms of abuse, a qualitative study by Oakley and colleagues (2018) included a participant comment that religious abuse may be widespread, and some individuals may experience religious abuse over a period of time without recognizing it as abuse. Numerous studies described here suggest that experiencing abuse within a church or religious environment is both a global phenomenon and common experience among those affiliated with organized religions. Sexual abuse within religious environments has been extensively documented and publicized in the media; yet there remains a general lack of information on physical, emotional, and verbal abuse also committed by religious or spiritual leaders. The overall prevalence of sexual abuse across religious environments is difficult to identify due to lack of standardized documentation and reporting.

Choruby-Whiteley and Morrow (2021) identified themes of harm from Christian purity culture (i.e., defined as value connected to virginity, often taught through "object lessons" such as being a flower plucked of petals after sexual activity) and gender role messaging (i.e., defined as roles for the husband and wife within heterosexual marriage, including primary responsibility for nurturing children for women and presiding over and providing financially for the family for men) within the Church of Jesus Christ of Latter-day Saints (LDS) interfering with healing from

child sexual abuse. Catholic church leaders have been accused of child sexual abuse in a number of countries, including Austria, Australia, and Ireland (Lueger-Schuster et al., 2013; Gleeson, 2018; Pang et al., 2021). One study of Iranian young adults identified a prevalence rate of 12.5% for religious or ritual abuse (Nobakht & Dale, 2018). Dehan and Levi (2009) identified spiritual abuse, defined as any attempt to impair spiritual life, spiritual self, or spiritual well-being, among a group of Haredi Jewish women in Israel. While the Christian-influenced culture in the United States may create unique pressures for believers, this international span of research suggests that religious abuse and trauma are not a USA-exclusive phenomenon.

The interaction of religiosity and trauma is especially relevant when considering the #ChurchToo movement, an extension of the #MeToo movement, which illustrates the prevalence of sexual abuse and culture of permissiveness toward sexual misconduct within many churches and denominations (Colwell & Johnson, 2020). #ChurchToo movement reflects that the experience of trauma, particularly in relation to religious beliefs or the church environment, is common among churchgoers. For example, US university students who were abused by religious authorities during childhood were more likely to leave their religious communities and reported reduced religiosity compared to students who reported parental, other adult, or no childhood abuse (Stevens et al., 2019).

Another group identified as being particularly at risk for traumatic experiences and sexual difficulty due to non-affirming messages and culture (e.g., homophobia, heterosexism) present within many Christian churches are LGBTQ+ individuals (Ginicola et al., 2017). Non-affirming messages can harm individuals with internalized beliefs against their identity as well as increasing the risk that they will hear harmful messaging or behavior from others due to their LGBTQ+ identity. LGBTQ+ individuals from conservative religious backgrounds (e.g.,

Evangelical Christian, Islam, LDS) may feel shame and guilt related to their sexual identity when attempting to reconcile with their religious beliefs; the incongruity between sexual identity and religious belief may have a detrimental impact on religious affiliation, identity formation, mental wellbeing, and self-concept (Wood & Conley, 2014). The influence of Christian beliefs on mainstream society, particularly in the United States, is also important as it may impact individuals, particularly LGBTQ+ individuals, even if they do not participate in specific congregations or beliefs themselves (Ginicola et al., 2017). For example, discrimination by religiously affiliated organizations against same-sex couples attempting to foster or adopt children has been well documented in the literature (Lund, 2020).

As one example of religious abuse, Scheitle and Adamczyk (2010) identified a pattern within high-cost religious groups wherein the social and psychological stakes are raised if a member decides to leave the group, resulting in strained relationships, isolation, stress, and loss of personal identity. This loss can be particularly impactful on those within LDS, Christian Science, and Jehovah's Witnesses religious groups, as there are not comparable groups to which members can switch, unlike a Christian within a more mainstream denomination who may find an alternative denomination or church (Scheitle & Adamczyk, 2010). Individuals who leave a high-cost religious group report worse health outcomes compared to those who stay within high-cost groups (Scheitle & Adamczyk, 2010). Themes collected from interviews with individuals who left high-cost religious groups included a) living with fear and guilt, b) experiencing sorrow and pain over what they have lost, c) feeling broken as a human being, d) beginning a lifelong process of building a new identity, and e) experiencing a life of freedom and joy – that is, while leaving a religious group includes significant difficulty, it may also be a source of growth and positivity (Björkmark et al., 2021). Ransom and colleagues (2021) also identified a similar

trajectory for individuals leaving the Jehovah's Witnesses, in that the experience of ostracism following their decision to leave the religious group is associated with negative mental health impact (e.g., anxiety, suicide, low self-esteem); however, increased sense of autonomy and establishing new social connections can also mitigate these consequences.

Overall, these studies suggest the impact on mental health, social connections, physical health, and general wellbeing when leaving a religious group can vary widely across religious groups, the availability of resources and supports on leaving a group, and individual differences. Additionally, this separation from a religious group can be a time of significant isolation and emotional difficulty, potentially exacerbating any previous traumatic experience related to the group. Given the documented experiences of individuals reporting religious abuse and at times subsequent religious trauma with organized religions as well as the variety of outcomes on leaving a religious group, there is a pressing need for the development of reliable and valid measures assessing religious abuse and trauma across various religious identities, particularly as recent media coverage has uncovered widespread abuse across many religious institutions (e.g., child sexual abuse by Catholic priests). Thus far, researchers have developed a limited selection of self-report measures for the assessment of religious abuse and trauma, and limited psychometric work and validation exist for these available scales.

### *Measures of Religious Trauma and Abuse: Preliminary Evidence of the Spiritual Abuse Questionnaire*

Nobakht and Dale (2018b) created the seven-item Religious/Ritual Abuse Questionnaire (RAQ) to assess experience of reported abuse within religious practices among Iranian young adults. Their study included 200 university students (male $N$=100 $M_{age}$=25, female $N$=100, $M_{age}$=25 years). Approximately 12.5% of the sample reported experiencing at least one of the

RAQ items with no significant difference reported between men and women. For the RAQ, respondents are asked to provide a yes/no response to a prompt regarding whether they have experienced a given abuse (e.g., "Have you ever been subject to physical abuse, confinement, and neglect under the guise of religion, pseudo-religion, newly emerged religions, and mystical movements and Satanism?"). If respondents mark yes, they are asked to explain the duration, severity, type, and details. While this self-report questionnaire may provide information regarding any given experience of religious/ritual abuse, the qualitative and relatively unstructured nature of the follow-up prompt may lend this questionnaire better to clinical work or qualitative research rather than quantitative research. The current questionnaire, particularly the yes/no response option for answering items, unfortunately makes scale scores difficult to compare across different religious and faith groups, thus limiting its overall generalizability for research and clinical practice. A subsequent study utilizing the Religious/Ritual Abuse Questionnaire identified recent experience (i.e., within the prior three years) of violence and experience of religious/ritual abuse were predictors of dissociative behavior, over childhood abuse or other forms of trauma (Nobakht & Dale, 2018a).

Similar measures include the 10-item yes/no Institutional Betrayal Questionnaire (IBQ; Smith & Freyd, 2013), modified to assess betrayal from a church or religious group. The original scale assesses general institutional betrayal (e.g., *Creating an environment in which this experience seemed more likely to occur?, Covering up the experience?*). The IBQ version 2 (IBQ.2) has been modified for use in other studies assessing religious abuse by prompting participants to consider a religious institution or group when responding to the 10 items (Keller, 2016). Institutional betrayal is associated with increased dissociation, anxiety, and other outcomes associated with trauma (Smith & Freyd, 2014).

The Religious and Spiritual Struggles Scale (RSS; Exline et al., 2014) is a 26-item five-point Likert response (1=Not at all/does not apply, 5=a great deal) scale was developed to assess personal religious difficulties and perception of judgment by God. Subscales include Divine, Demonic, Interpersonal, Moral, Ultimate Meaning, and Doubt as specific types of religious/spiritual struggle. All RSS subscales were associated with emotional distress. US Christians reported higher total RSS scores and Divine, Demonic, and Moral subscale scores compared to those who identified as spiritual but not religious or identified as atheist, agnostic, or none. Christians additionally had higher scores on the Demonic subscale compared to Jewish participants and higher Doubt subscale scores compared to those who identified as spiritual but not religious.

Currently, there is only one measure proposed to measure religious abuse among those who have left a religious group; this measure is written primarily towards Christian experiences. Keller (2016) developed the 17-item Spiritual Abuse Questionnaire (SAQ) to assess experience of religious abuse within Christian or Bible-based groups on a four-point Likert scale (1=strongly disagree, 4=strongly agree). Although this measure does not collect additional open-response data, its structure lends to standardized quantitative assessment, creation of sum scores, and allows for comparison across participants. Participants for the creation of the SAQ were 18 years or older, who were currently or previously part of a Christian or Bible-based church or group for at least one year. Both Studies 1 and 2 consisted of mostly White, heterosexual women (89-92%). Women and heterosexual individuals made up approximately 80% of both study samples.

In Study 1, Protestant Christians ($n$=324, 60.60%) were the most represented religious identity, followed by Evangelical Christian ($n$=97, 18.10%), Liberal/Progressive Christian

(*n*=54, 10.10%), Catholic (*n*=25, 4.70%), other Christian (e.g., LDS, Seventh Day Adventists; *n*=20, 3.70%), 23.3% agnostic, atheist, or spiritual but not religious (*n*=125), and <2% Jewish, Muslim, Hindu, and Buddhist participation (*n*=12). Measures included the SAQ, RSS (Exline et al., 2014), National Stressful Events Survey PTSD Short Scale (NSESS-PTSD; Kilpatrick et al., 2013), Institutional Betrayal Questionnaire Version 2 (IBQ.2; Smith & Freyd, 2013), and Marlow-Crowne Social Desirability Scale - Form C (Reynolds, 1982). Keller conducted a series of Pearson product correlations to assess relationships between the SAQ and study variables, as well as to evaluate evidence of convergent and divergent validity of the scale. Reliability for the SAQ in Study 1 was excellent (*a*=.98). Results from the exploratory factor analysis (EFA) revealed four factors (Abuse of Power, Conditionality, Spiritual Injury, Suppression of Expression) and led to the removal of 29 items due to dual-loading, low factor loading (<.4), and ensuring equal numbers of items in each subscale; through these steps, the scale was reduced from 49 to 20 items. The SAQ demonstrated convergent validity through significant positive relationships with the RSS (*r*=.75, *p*<.01), NSESS-PTSD (*r*=.73, *p*<.01), and IBQ.2 (*r*=.62, *p*<.01).

In Study 2, Keller (2016) recruited Protestant Christians who were the most represented religious group (*n*=155, 57.20%), followed by Liberal/Progressive Christian (*n*=59, 21.80%), Evangelical Christians (*n*=54, 19.90%), and agnostic, atheist, or spiritual but not religious (*n*=88, 32.5%), and <3% Jewish, Muslim, Hindu, and Buddhist participation (*n*=7). Data were collected, consisting of 271 participants, to conduct a confirmatory factor analysis (CFA). Reliability for the SAQ in Study 2 was also excellent (*a*=.95). Two CFAs were performed with both forced four-factor structure and unforced solution to further assess the factor structure of the SAQ, resulting in the removal of three items due to poor fit. The four EFA-identified factors were

Abuse of Power, Conditionality, Spiritual Injury, and Suppression of Expression. Ultimately two factors were identified with the subsequent CFAs and were named Power-based Affective Wounding and Conditionality. The remaining 17 items on the SAQ demonstrated convergent validity by robust correlations with the RSS ($r$=.76, $p$<.01), NSESS-PTSD ($r$=.70, $p$<.01), and IBQ.2 ($r$=.57, $p$<.01). Discriminant validity was demonstrated by performing a correlation with the Marlow-Crowne Social Desirability Scale - Form C, results indicating no significant relationship ($r$=-.09).

Current limitations for the SAQ include a general lack of diversity (e.g., racial, gender, religious affiliation) within both samples which consisted of mostly White, Christian young women. Furthermore, Keller (2016) did not perform any measurement invariance (i.e., demonstrating that the same questionnaire completed by different groups measures the same construct in the same way) of the SAQ regarding gender. Given the limited scope of the original SAQ study and existing literature, my thesis evaluated the SAQ in a more diverse sample of university students regarding religious, racial, sexual orientation, and gender identity.

**Religiosity and Religious Practices: Correlates with Mental and Sexual Health**

Religiosity is often defined as behavioral engagement with faith activities, such as reading sacred texts, time in prayer, or attendance of religious or spiritual services, in addition to affiliation with a religious or spiritual belief (Kohut & Štulhofer, 2018; Borgogna et al., 2020). In the United States, 23% of the population identifies as unaffiliated, atheist, or agnostic, 16% as White non-evangelical Protestant, 14% White evangelical Protestant, 12% White Catholic, 8% Hispanic Catholic, 7% Black Protestant, 4% Hispanic Protestant, 4% other Protestant of color, 2% other Catholic of color, 1% Jewish, 1% Muslim, 1% Buddhist, 1% LDS, 0.5% Hindu, and 1% other religion (PRRI, 2020). Young adults (ages 18-29) are the most religiously diverse age

group in the United States with 36% religiously unaffiliated, 12% White mainline Protestant, 8% White Catholic, 7% White evangelical Protestant, 9% Hispanic Catholic, 5% Hispanic Protestant, 5% Black Protestant, 2% multiracial Christian, 2% AAPI Christian, 1% Native American Christian, 2% Jewish, 2% Muslim, 1% Buddhist, 1% Hindu, and 1% another religion (PRRI, 2020). College graduates are primarily Christian (42% Protestant, 20% Catholic), 25% unaffiliated "nones", 2% LDS/Mormon, 3% Jewish, 1% Muslim, 1% Buddhist, 1% Hindu, 1% Orthodox Christian, and <1% Jehovah's Witness (Pew Research Center, 2014).

Within the United States, the percentage of religious group members who state the importance of religion in their life is "very important" varies significantly across groups. Thirty three percent of Buddhists state religion is "very important" in their life, 58% of Catholics, 79% of Evangelical Protestants, 26% of Hindus, 85% of historically Black Protestants, 90% of Jehovah's Witnesses, 35% of Jewish individuals, 53% of mainline protestants, 84% of LDS/Mormon, 64% of Muslims, 52% of Orthodox Christians, and 13% of the unaffiliated or religious "nones" rate religion as "very important" in their life (Pew Research Center, 2014). Forty seven percent of men surveyed reported religion was "very important" in their life whereas 59% of women reported religion was "very important" in their life (Pew Research Center, 2014). Within a sample of adults in the United States, 31% of men in the United States attend religious services at least once a week, 46% pray at least daily, and 21% participate in prayer, study of religious texts, or religious education groups at least once a week. 40% of women attend religious services at least once a week, 64% pray at least daily, and 27% participate in prayer, study of religious texts, or religious education groups at least once a week (Pew Research Center, 2014). Among surveyed US adults, those within racial/ethnic groups who reported religion is "very important" were 49% of White individuals, 75% of Black individuals, 36% of Asian

individuals, 59% of Latino individuals, and 54% of "other/mixed" individuals (Pew Research Center, 2014).

Within a group of lesbian, gay, and bisexual religious individuals, no difference was found in religiosity between men and women (Barnes & Meyer, 2012). Forty eight percent of lesbian women and 39% of gay men reported no religious affiliation and 84% of lesbian women and 82% of gay men who reported attending religious services attend LGBTQ+ non-affirming services (Barnes & Meyer, 2012). White individuals had the highest rate of no religious affiliation at 58%, compared to 36% for Black individuals and 35% for Latino individuals (Barnes & Meyer, 2012).

Catholic and Protestant individuals who report high importance of religion or spirituality have a reduced risk of experiencing major depression (Miller et al., 2012). Research suggests religious affiliation may be a protective factor against suicidal ideation and attempts; however, this protection may apply only to those in the dominant (i.e., majority) religious group (Lawrence, 2016). For example, Ikizler and Szymanski (2018) found that Middle Eastern and Arab American Muslims with higher levels of religiosity experienced more discrimination compared to those with lower levels of religiosity. This increased discrimination is associated with psychological distress, counter to the common perception of religiosity as a psychologically protective factor (Ikizler & Szymanski, 2018). Stevens and colleagues (2019) found that the levels of depression and anxiety in US university students who were previously abused by religious authorities were comparable to those who were previously abused by parents, both groups more symptomatic than the control group.

Girls (6-to-12 years old) who experienced parental neglect or abuse and reported high importance of religious belief have lower levels of internalizing symptomatology (e.g., social

withdrawal, somatic complaints, anxiety, depression), and attendance of religious services is associated with lower levels of externalizing symptomatology (e.g., aggressive behaviors, delinquent behaviors) among non-maltreated boys (Kim, 2008). Individuals affiliated with the minority religious group in a given area may be at increased risk for suicidal ideation or attempt due to lack of belongingness or feelings of ostracization (Lawrence et al., 2016). Participation in non-affirming religious settings is associated with increased internalized homophobia, which in turn predicted depressive symptoms and decreased psychological wellbeing for lesbian, gay, and bisexual individuals (Barnes & Meyer, 2012). Exposure to religious anti-gay sentiment predicted increased anxiety, stress, shame, problematic alcohol use, and exposure to physical and verbal abuse for lesbian, gay, and bisexual individuals (Sowe et al., 2017). In addition to examining the relationships between religious practices and religiosity as risk and protective factors for mental health, researchers are also investigating religious practices and religiosity as potential influences on sexual behavior.

A recent area of study includes the body of research examining the relationships between religiosity (often specific to Christianity) and sexual behavior and risk taking among youth and young adults. Familial religiosity, a significant determinant for personal adult religiosity, is related to delayed sexual onset and having fewer sexual partners (Manlove et al., 2006; Manlove et al., 2008). Greater religious participation, regardless of the denomination, has been found to be associated with negative attitudes about sex (McKelvey et al., 1999; Pearce & Thornton, 2007). For instance, individuals who are more religious tend to hold more conservative sexual values, defined as unfavorable attitudes toward masturbation, pornography, oral sex, multiple sexual partners, and premarital sexual activity (Ahrold et al., 2011).

Among US adolescents, emerging adults, and college undergraduates, increased religiosity has been found to be negatively associated with sexual intercourse (Gannon et al., 2013). This association may be due to the themes of sexual purity and abstinence that are important in many religious teachings, particularly evangelical Christianity (Moslener, 2012). Maintaining sexual abstinence until marriage first became heavily emphasized as a core component of Christianity with the strong "purity culture" movement in the 1990s (Gillis, 2020). Purity culture within the evangelical Christian church conflated sexuality, morality, and relationship with God, strongly encouraging abstinence as an essential component of faith (Gillis, 2020). Pate (2022) utilized interpretive phenomenological analysis following interviews with eight women who previously took an Evangelical Christian purity pledge. Results indicated a number of lasting physical and mental health difficulties due to purity culture teachings, including anxiety, dissociation, shame, and guilt. Similarly, Pikel (2018) analyzed essays regarding experience with purity culture and identified common themes of fear and guilt.

## The Present Study

Although the experience of religious trauma has been documented in different organized religious and faith traditions and generally is associated with negative emotional and psychological wellbeing (Ward, 2011), the SAQ has yet to be replicated in a gender and ethnically/racially diverse sample of young adults. Therefore, the present study evaluated the relationships between religiosity, religious trauma, purity culture, and mental health to better understand these experiences and their associations in a large sample of young adults.

The current study aimed to add to the literature by:

1) After dividing my sample into two even sections, I first conducted an EFA to evaluate the factor structure of the SAQ because my sample contains greater gender and ethnic/racial diversity compared to the original study by Keller (2016). Using the second random split half of the sample, I then conducted a CFA to verify factor structure and establish configural model with the SAQ. Based on the original study (Keller, 2016), I anticipated a two factor structure would load with the SAQ items.

By taking consideration of gender and religious affiliation into account, both clinicians and researchers may improve their utilization and interpretation of the SAQ and their understanding of the structure and nature of religious trauma in a racially diverse sample of college students.

2) Using the full sample, I conducted measurement invariance analyses to examine the measurement validity of the configural model of the SAQ across gender (0=male, 1=female) in undergraduate university students.
3) Using the full sample, I examined item endorsement of the SAQ, including scale scores, to determine the prevalence of religious trauma among a diverse sample of undergraduate university students.

4) Using the full sample, I investigated group differences (i.e., gender, sexual orientation, race, religiosity, and religious affiliation) as a function of SAQ scores.
5) Using the full sample, I extended the literature by also examining the relationships between religiosity (as measured by the DUREL; Koenig & Büssing, 2010), religious trauma (Keller, 2016), and depression and anxiety symptoms (Kroenke et al., 2001; Spitzer et al., 2006).

Using the full sample of undergraduate university students, I also tested the following hypotheses:

1) LGBQ+ students would have higher SAQ scores compared to heterosexual individuals.
2) Women, relative to men, would have higher SAQ scores.
3) Higher SAQ scores would be associated with increased anxiety and/or depression symptomatology.
4) In support of convergent validity, I expected a positive and robust correlation between scores on the DUREL and SAQ.
5) In support of convergent validity, I expected a positive and robust correlation between scores on the Purity Culture Beliefs Scale (PCBS) and SAQ.

The data for the current study is part of a larger study in the laboratory (described in Method section). The dataset included the SAQ, DUREL, PCBS, current and childhood religious identity, as well as measures of depression, and anxiety in a sample of undergraduate men and women between the ages of 18 to 35 years old.

## Method

### Participants

Participants included male and female undergraduate students (*N*=1,383, ages 18-35) from two universities in the South and Southwest regions of the United States who were recruited from introductory psychology courses and received course credit upon completion of the survey. The sample was comprised of 74% female, 25% male, and 1% genderqueer participants. The sample was diverse in terms of ethnicity and race. Forty eight percent of the sample identified as non-Hispanic/Latino White, 8% Black, 19% Hispanic/Latino, 9% Asian/Pacific Islander, 16% multiracial. The remaining subgroups contained too few participants to be included in analyses (e.g., Native American (*n*=4), Middle Eastern (*n*=16), Other (*n*=12)) or preferred not to share their ethnic or racial group (*n*=9).

Twenty two percent of the sample was heterosexual men, 0.6% bisexual men, 1.7% gay men, 67.2% heterosexual women, 5.1% bisexual women, and 1.4% of the sample was lesbian women. Fifty nine percent of the sample reported their current religion was Protestant or Christian, 23.6% of the sample reported current religion as Roman Catholic, 1.4% Buddhist, <1% Latter Day Saints/Mormon, <1% Orthodox such as Greek or Russian Orthodox, <1% Jewish, <1% Muslim, <1% Hindu, and 9.7% spiritual but not committed to one religion.

Participants who declined to answer sex at birth or gender (*n*=2) or race (*n*=2) were removed from the sample. Due to small sample sizes, participants who reported their race as Middle Eastern (*n*=16), Native American (*n*=4), or preferred not to share their ethnic or racial group (*n*=9) were also removed from the sample. Participants who reported childhood religion as atheist, agnostic, spiritual but not committed to one religion, or nonreligious (*n*=270) were removed from the sample due to low means indicating irrelevance of the SAQ. Participants who

reported present religion as atheist, agnostic, or nonreligious ($n$=303) were removed from the sample due to low DUREL scores. See Figure 1 for all participants removed from the sample.

Data for the current project is part of a larger study in the laboratory: *Sexual Behavior, Religiosity, & Shame*.

## Measures

### *Demographic Questionnaire*

I used a general demographic questionnaire to collect information regarding biological sex, gender, sexual orientation, age, race and ethnicity, and religion (see Appendix A).

### *Spiritual Abuse Questionnaire (SAQ)*

The Spiritual Abuse Questionnaire (SAQ; Keller, 2016) was used to assess participants' potential religious trauma. As no measure specifically assessing the presence of religious trauma exists, this scale assessed for the presence of spiritual abuse, a potential indicator for religious trauma. The SAQ is a two-factor 17-item measure scored on a one to four scale (1=Strongly disagree, 4=Strongly agree). Measure items include "I believed God would punish me if I didn't do what my church/group encouraged me to do," and "My religious leaders used fear to control people," (see Appendix B). Internal consistency across the 17 items was excellent (α=.95; Keller, 2016).

### *Duke University Religion Index (DUREL)*

The Duke University Religion Index (Koenig & Büssing, 2010) was used to assess participants' level of religiosity. There are five items on the DUREL which focus on engagement with organizational religious activities, non-organizational religious activities, and intrinsic religiosity, rated on a one to six scale (1=Rarely or never, 6=More than once/week or More than once a day) or one to five scale (1=Definitely *not* true, 5=Definitely true of me) for a total score

range between 5 and 27. Internal consistency has been reported as high, with Cronbach's alpha between 0.78 and 0.91 (Koenig & Büssing, 2010). For the current study, the alpha coefficient indicated that internal consistency was good, $\alpha$=.85. See Appendix D for details.

***Patient Health Questionnaire-9 (PHQ-9)***

The PHQ-9 (Kroenke et al., 2001) was used to assess past two-week depression on a one to four scale (0=Not at all, 3=Nearly every day). Sum scores were created from participant responses, with cut-points of 1-4 indicating minimal depression, 5-9 mild depression, 10-14 moderate depression, 15-19 indicating moderately severe depression, and a score of 20-27 indicating severe depression. See Appendix E for details. The PHQ-9 has good internal reliability (α=0.86-0.89) (Kroenke et al., 2001). For the present study, the alpha coefficient indicated good internal consistency, $\alpha$=.89.

***Generalized Anxiety Disorder-7 (GAD-7)***

The GAD-7 (Spitzer et al., 2006) was used to assess past two-week anxiety on a zero to three scale (0=Not at all, 3=Nearly every day). Sum scores were created and cut points utilized to assess participant anxiety. Cut points were 0-4 indicating minimal anxiety, 5-9 mild anxiety, 10-14 moderate anxiety, and a total score of 15-21 indicating severe anxiety (see Appendix F). GAD-7 scale reliability is good (ρ=.85) (Rutter & Brown, 2016). For the current study, the alpha coefficient indicated excellent internal consistency, $\alpha$=.90.

***Purity Culture Beliefs Scale (PCBS)***

The PCBS (Ortiz, 2019) assesses participants' agreement with common purity culture principles (e.g., Women should dress modestly to avoid sexually tempting men, Sex outside of marriage will make you damaged goods) on a 5-point scale (1=Strongly Disagree, 5=Strongly Agree). This three-factor 24-item measure was used to assess belief in purity culture principles

and the influence these beliefs may have on the experience of spiritual abuse. The three subscales for this measure are Shame & Guilt, Gender Roles, and Idealization. Factor alphas showed adequate internal consistency (α=.83-.85) but excellent for the entire measure (α=.90; Ortiz, 2019). For the present study, the alpha coefficient indicated excellent internal consistency, $\alpha$=.90.

## Procedures

Participants signed up for the study through the Psychology Department subject pool system (i.e., SONA) at UNLV and Texas Tech University. Participants completed the survey online and it took approximately one hour to complete. Prior to beginning, participants were asked to read through the consent form. Study procedures were approved by the Institutional Review Board of the University of Nevada, Las Vegas, and Texas Tech University. To minimize participant fatigue, some survey sections utilized skip-logic to hide irrelevant questions based on previous responses (e.g., if a participant indicated they have never viewed pornography, subsequent pornography questions were not provided).

## Statistical Analyses

### *Descriptive Statistics*

I conducted means and standard deviations of the factors (as derived from the factor analysis described above) on R (R Core Team, 2021).

### *Item Analysis*

Before conducting an EFA, I examined the skewness and kurtosis for each of the 17 SAQ items (see Table 3). Consistent with maximum likelihood methods, data is considered normal if the skewness is between -2 and +2 and kurtosis is between -7 and +7 (Ryu, 2011).

Next, I evaluated the inter-item correlations of the 17 items for the SAQ (see Table 4). Any highly correlated ($r$>.80) items were examined for possible deletion due to multicollinearity

(Field et al., 2013). Here, I determined which of the two correlated items to retain by examining which item received higher endorsement by participants as well as which of the items related most to the construct (i.e., religious abuse) based on theory. Items that correlated weakly ($r$<.30) were also examined for possible deletion due to the bias in results that can be caused by small correlations (Field et al., 2013).

***Sample Split***

I randomly divided the sample into two equal groups; I used these two mutually independent samples for conducting the EFA and CFA.

***Exploratory Factor Analysis (Sample 1)***

Given the lack of prior studies examining the SAQ factor structure (see Table 1), I used R (R Core Team, 2021) to conduct an exploratory factor analysis ($n$=691) to determine the number of factors within the SAQ and to conduct a parallel analysis using the R package 'fa.parallel' (Horn, 1965). The parallel analysis compared eigenvalues from my sample correlation matrix with the eigenvalues from a random correlation matrix in which there are no expected factors (Lim & Jahng, 2019). Parallel analysis has been supported as a highly accurate method for identifying the number of factors to retain (Velicer et al., 2000). Despite its accuracy, parallel analysis has been questioned for its theoretical justification in which the eigenvalues of the reduced correlation matrix with communalities of the variables in the main diagonal have a direct relation to the number of factors; however, using the full correlation matrix with ones in the diagonal improves its performance (Lim & Jahng, 2019).

I also employed the Kaiser-Guttman rule and Cattell's (1966) Scree test as multiple approaches in conducting factor extraction are recommended (Williams et al., 2010). The Kaiser-Guttman rule (Kaiser, 1960) is widely used. However, a limitation of this method is that its rule

of retaining factors with eigenvalues just above one has been suggested to be arbitrary (Fabrigar et al., 1999). The scree test examines eigenvalues utilizing a plot on which major factors create a steep "cliff," followed by a break or "scree" which contains components with minor factors (Hayton et al., 2004).

Next, I used the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy to determine adequacy of sampling for each variable in the model and for the complete model. Kaiser's recommended threshold is above 0.6 (Kaiser, 1974). Bartlett's Test of Sphericity was conducted to determine whether the correlations between items were sufficiently large to perform an EFA (i.e., $p<.05$). Common factors were extracted using a principal axis factoring method and direct oblimin rotation. Oblimin (oblique) rotation is often used when it is assumed that factors are correlated and provides estimates of the correlations among factors (Fabrigar et al., 1999). Items that did not load on any factor or cross loaded on more than one factor were removed to improve the overall model fit.

***Confirmatory Factor Analysis (Sample 2)***

Using the second half of the sample ($n$=692), I employed R (R Core Team, 2021) to perform tests of confirmatory factor analysis (CFA) using the 'lavaan' (Rosseel, 2012) and 'semTools' (Jorgensen et al., 2018) packages. To conduct a CFA, a minimum of five cases per parameter is needed (Kline, 2016). Specifically, I used the maximum likelihood robust estimator (MLR) to investigate the fit of the factor model identified from the EFA above. The Chi-square statistic ($\chi^2$; cutoff for good fit $p>.05$), Comparative Fit Index (CFI), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and Tucker-Lewis Index (TLI) were used to establish model fit. Good model fit is suggested by a CFI and TLI >.95, RMSEA<.05, and SRMR under .05 (Hu & Bentler, 1999; Hu & Bentler, 1998). Acceptable

model fit is indicated by a CFI and TLI >.90, RMSEA<.08, and SRMR<.10 (Hu & Bentler, 1999; Hu & Bentler, 1998). I used the factor structure obtained from the CFA as the configural model for the assessment of measurement invariance by gender within the full sample.

***Test-retest Validity (Sub-sample)***

I also assessed the test-retest reliability of the SAQ using a subsample ($n$=36) recruited from UNLV psychology courses specifically to collect test-retest data. Participants completed a brief two-part survey with one week between part one and part two. The survey included demographic information (i.e., age, sex, gender, race, sexual attraction, relationship status, current religion, and childhood religion), the DUREL, SAQ, and PCBS.

***Measurement Invariance (Full Sample)***

Using the full sample ($N$=1,383), I utilized multi-group confirmatory factor analysis to perform measurement invariance by gender (i.e., men and women) in R (R Core Team, 2021) using the maximum-likelihood estimation with robust standard errors (MLR; Satorra & Bentler, 2001). Measurement invariance is typically tested in four steps, as described below (Borgogna et al., 2021).

1) *Configural Invariance*: Participant responses demonstrated the same factor structure across the groups.
2) *Metric Invariance*: Once I attained configural invariance, I next tested whether the items in the measure have the same relationship to the underlying latent construct across both groups (i.e., equivalent factor loadings; Xu & Tracey, 2017). When metric invariance has been attained, the factor structure and the factor loadings are equivalent across the groups.

3) *Scalar Invariance*: Once I met metric invariance, I tested the equivalence of intercepts between the groups. When scalar invariance is supported, it suggests the means are equivalent between groups. Attainment of scalar invariance shows that the factor structure, factor loadings, and factor intercepts are equivalent across the groups.
4) *Residual Invariance*: Lastly, since scalar variance was found, I tested the equivalence of errors. Residual is the most challenging form of invariance. Achieving residual invariance suggests that the scale measures the same underlying construct between groups with an equivalent degree of accuracy (Borgogna et al., 2021).

I used several alternative global fit indices (i.e., CFI, TLI, RMSEA, and SRMR) to evaluate the relative/incremental goodness-of-fit of my models based on the robust maximum likelihood estimator (MLR) because of the limitation of the chi-square test overestimating the discrepancy in goodness-of-fit in large samples (Davidov et al., 2014). To assess for differences between the four measurement invariance models, I examined the CFI (i.e., ΔCFI) and RMSEA (i.e., ΔRMSEA) statistics for changes. A decline in CFI greater than 0.01 and increases in RMSEA greater than 0.015 indicated a significant worsening of fit (Chen, 2007). If the model did not achieve metric, scalar, or strict invariance, I then planned to examine the modification indices to identify the loadings, intercepts, or residuals that caused the lack of invariance (van de Schoot et al., 2013).

***Correlations***

I conducted Pearson correlations to evaluate SAQ scores with the PCBS and DUREL to further assess convergent validity of the SAQ and assess for relationships between religiosity, purity culture beliefs, religious trauma, anxiety, and depression. A correlation of .1 or less

indicates a small effect, .11 to .49 indicates a medium effect, and .5 or greater indicates a large effect size.

### *Mean Comparisons*

Using the full sample (*N*=1,383), I conducted a series of one-way between-subjects Analysis of Variance (ANOVAs) on SPSS 27.0 (SPSS, Inc. Chicago, IL) to examine group differences on religious abuse across race/ethnicity (i.e., non-Hispanic/Latino White, Hispanic/Latino, multiracial). I utilized welch *t*-tests to examine group differences on religious abuse across sex (i.e., male and female), and sexual orientation (i.e., heterosexual or LGBQ+; binary groupings utilized due to small LGBQ+ sample size). Bonferroni's post hoc was used to examine group differences for race/ethnicity. I also used Holm-Bonferroni method to reduce familywise error rates due to multiple comparisons. Effect sizes are reported by partial eta square (partial $\eta^2$). An effect size of .01 or less indicates a small effect, .11 to .13 indicates a medium effect, and .14 or greater indicates a large effect.

### *Power Analysis*

According to the "rules of thumb" for conducting a factor analysis, the minimum sample per group to achieve adequate statistical power is $n>200$ (Kyriazos, 2018).

## Results

### Descriptive Statistics

Means, standard deviations, skewness, and kurtosis of the 17-items in the SAQ are displayed in Table 4. No significant outliers were detected across the 17 items.

### Inter-item Correlations Across the SAQ

Next, I evaluated the inter-item correlations for all 17 items in the SAQ. Inter-item correlations ranged from 0.01 to 0.65 (total inter-item correlation $r$=0.15) indicating that items, overall, did not fit together well conceptually (see Table 5). However, I identified no items that were suitable for deletion prior to conducting the EFA.

### Exploratory Factor Analysis (EFA) – First Half of the Sample

The dataset was randomly split in half ($n$=691) via computer-generated random seed on R. I first calculated the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity to assess the appropriateness of the data. The KMO was 0.92 and the Bartlett's test was significant ($\chi 2(136)=6451.57$, $p<0.001$), indicating that the data was suitable for factor analysis. The Kaiser-Guttman rule suggested three factors. Scree suggested two strong and a weak third factor. Parallel analysis suggested that two factors should be utilized. Given the lack of prior research on the SAQ factor structure and identification of two clear factors and a potential third factor, I decided to test both the two-factor and three-factor solutions (described below).

All 17 items in the SAQ were entered into the EFA and tested in two-factor and a three-factor models. I utilized iterative principal axis factoring in R with the "fa" function in the psych package and oblique (Direct Oblimin) rotation, which allows the factors to be correlated with one another while providing simple structure (Grieder & Steiner, 2021). The two-factor analyses

showed fit indices below acceptable in the 17-item and 15-item EFAs. Fit indices improved to acceptable in the three-factor model and showed additional improvements above the two-factor model.

Items were retained if the factor loading was ≥.40 and only loaded onto one factor. That is, items that loaded ≥.30 on more than one factor were considered cross loaded and removed. Two "trials" were conducted with the two-factor model to remove items that did not meet the above criteria (items 10 and 12). Given the poor fit of these two-factor models, I performed two "trials" to test a three-factor model. One item (item 12) was removed because it did not meet the above criteria (see Table 7). Consistent with these conditions, 16 items were retained, accounting for 44% of the variance. No items cross-loaded on more than one factor following the removal of item 12 for the final model (Table 8).

The first factor, labeled *Mistrust*, was comprised of eight items that assessed feelings of emotional harm, betrayal, and invasion of privacy. The second factor, labeled *Power-Based Affective Wounding*, comprised of four items, assessed emotional harm and feelings of dependence or restriction. The third factor, labeled *Conditional Acceptance*, comprised of four items assessed feelings of conditional care or inclusion based on obedience and cooperation.

**Confirmatory Factor Analysis (CFA) – Second Half of the Sample**

Next, I conducted a CFA utilizing the other half of the randomly split data set ($n$=692). While chi-square is the most often used global fit index, its sensitivity to large sample sizes can decrease the p-value and therefore reject a model with good fit (Alavi et al., 2020). Due to this, other modification indices are recommended (i.e., CFI, TLI, RMSEA, SRMR); I assessed all of these in combination to establish goodness of fit, since they are less sensitive to sample size (Fan & Sivo, 2007). In the overall sample the three-factor, 16-item model displayed adequate fit

($\chi^2(101) = 315.07$, $p<0.001$; CFI=0.92 and TLI=0.90; RMSEA=0.07; SRMR=0.06). Additionally, the three-factor, 16-item model displayed acceptable fit by gender (see Table 9). Overall, given the adequate fit in the whole CFA sample, the three-factor, 16-item model was retained as the configural model to test measurement invariance for gender.

To assess for a potential sum score across the 16 items, I also tested a one-factor model. However, the fit significantly worsened in the one-factor model ($\chi^2(104)=837.70$, $p<0.001$; CFI=0.82 and TLI=0.78; RMSEA=0.10), indicating that a sum score for the SAQ should not be utilized, but each subscale assessed individually.

**Measurement Invariance – Full Sample**

The configural model fit the data well and allowed factor loadings and intercepts to vary by gender (see Table 9). When the loadings were constrained to be equal between genders in the metric model, the fit did not appear to worsen compared to the configural model, as shown in the small changes in CFI and RMSEA. Scalar invariance indicates equality of item thresholds, meaning that no item responses are consistently higher or lower in one group compared to other groups (Borgogna et al., 2021). Strong invariance for gender showed acceptable model fits (i.e., ΔRMSEA and ΔCFI never exceeded critical values of 0.015 and 0.01, respectively; see Table 9). Finally, the residual variances of each item are shown to be similar across all groups in strict invariance. In the strict measurement invariance model for gender, the fit indices (i.e., CFI, TLI, SRMR) remained excellent and differences in CFI and RMSEA were small. Given these results, measurement invariance for gender of the three-factor, 16-item model was supported at a strict level.

**Correlations**

Using the full sample, I examined the modified 16-item, three-factor SAQ with the three PCBS factors, DUREL sum, anxiety, and depression scores, gender, and LGBQ+ status. SAQ factors showed weak to moderate correlations with PCBS factors and the DUREL. SAQ factors were weakly correlated with anxiety and depression. Positive Spiritual Experiences was negatively correlated with both anxiety and depression. LGBQ+ negatively correlated with Mistrust and positively correlated with Positive Spiritual Experiences. Correlation results partially supported the hypothesis that higher SAQ scores would be associated with increased anxiety and depression and supported criterion validity with significant correlations between the SAQ and DUREL and the SAQ and the PCBS. The strength of the relationship is short of achieving convergent validity, however, criterion validity was supported. See table 10 for the correlation matrix.

**Mean Comparisons**

Using the full sample, I performed Welch's *t*-test (due to unequal group sizes) to assess for differences in SAQ scores based on gender and sexual orientation. Specifically, I identified a significant difference based on LGBQ+ status for the *Mistrust* factor, with higher mean scores for LGBQ+ participants compared to heterosexual participants. However, I found no significant difference between men and women on this factor. Further mean comparison revealed a significant difference on *Positive Spiritual Experiences* as a function of sexual orientation, with a higher mean for heterosexual participants. No significant differences were noted based on gender. No differences were found based on sexual orientation or gender for *Conditional Acceptance* (see Table 11). These results partially support my hypothesis that LGBQ+ participants would have higher SAQ scores compared to heterosexual participants. Results did not support my hypothesis that women would have higher SAQ scores compared to men.

To assess differences in SAQ scores based on race/ethnicity, I performed several one-way between-subjects analyses of variance (ANOVAs). ANOVAs and Bonferroni post hoc tests were performed for White, Black, Hispanic or Latino, Asian or Pacific Islander, and multiracial participants. On the *Positive Spiritual Experiences* factor, I found a significant difference by race ($M_{White}$=7.46, $M_{Black}$=6.22, $M_{Hispanic\ or\ Latino}$=6.40, $M_{Asian/Pacific\ Islander}$=6.52, $M_{Multiracial}$=6.64, $p$<.001). The Bonferroni post hoc test revealed significant differences between White and Black, White and Hispanic or Latino, and White and multiracial participants. On *Conditional Acceptance* no significant differences were found for any of the groups ($M_{White}$=3.40, $M_{Black}$=3.99, $M_{Hispanic\ or\ Latino}$=3.36, $M_{Asian/Pacific\ Islander}$=3.48, $M_{multiracial}$=3.67, $p$=.329). See Tables 12-14.

**Test-Retest of the SAQ**

To assess the one-week test-retest reliability of the SAQ, I performed an intraclass correlation on participants' ($N$=36) SAQ scores from survey one with their scores on survey two. An intraclass correlation coefficient (ICC) is a value between 0 and 1, in which a value below 0.5 indicates poor reliability, a value between 0.5 and 0.75 moderate reliability, 0.75 to 0.9 indicates good reliability, and a value above 0.9 indicates excellent reliability (Koo & Li, 2016). The intraclass correlation coefficients (ICC) indicated that the three factors of the SAQ yielded good to excellent test-retest reliability. Mistrust had good test-retest reliability, $r(22)$=.85, $p$<.001. Positive Spiritual Experiences had excellent test-retest reliability, $r(20)$=.90, $p$<.001. Conditional Acceptance had good reliability, $r(35)$=.78, $p$<.001.

## Discussion

The current study examined the psychometric properties of the SAQ to assess differences in experiences of spiritual abuse across gender and ethnicity/race, and sexual orientation in a large and diverse sample of young adult US university students. To accomplish my study aims, I first conducted an EFA on half of the sample, followed by a CFA on the remaining randomly split half of the sample. This established the best fitting model of the SAQ. Following this, I tested for measurement invariance on the configural model across gender. Finally, I performed intraclass correlations to assess for test-retest reliability of the SAQ. Overall, my results add to the limited body of research on spiritual abuse and the lack of available measurement tools for assessing spiritual abuse in young adults. In the following sections, I will review and summarize the findings for my study aims, discuss implications for the modified three-factor, 16-item SAQ, and provide recommendations for utilization of the SAQ and future research.

### Aim 1: Factor Structure of the Spiritual Abuse Questionnaire

Through a series of analyses, my results suggested that a modified three-factor model fit the data best. This is a modification from the suggested two-factor model in the original study (Keller, 2016), with the additional alteration of removing one item because it was cross-loaded on two factors. Items in Factor 1 were related to experiences of betrayal, invasion of privacy, and broken trust within a religious group or by a religious leader. For this reason, I have named Factor 1: *Mistrust*. This factor appears to be similar to the original *Power-based Affective Wounding* factor (Keller, 2016). Factor 2 contained items related to experiences of trust, accountability, openness, and freedom within religious environments. These items were reverse coded on the measure. I have named Factor 2: *Positive Spiritual Experiences*. Factor 3 contained items related to rigid standards, obedience, and performance within a religious group. I named

Factor 3: *Conditional Acceptance*. This factor appears to be similar to the original *Conditionality* factor (Keller, 2016).

Overall, the findings from both the EFA and CFA support the use of a modified reduced-item model for the SAQ, particularly when examining a diverse sample of American university students.

**Aim 2: Measurement Invariance of the Spiritual Abuse Questionnaire**

The modified, reduced-item, three-factor structure achieved strict (residual) invariance in gender. This is the most difficult form of invariance to attain and had not previously been demonstrated with the SAQ by Keller (2016). These results indicate that the residual that is associated with latent variables, factor loadings, and intercepts are equal across gender. Given this, any differences in item responses across gender are due to group differences, rather than item bias. As the current study is the first to examine measurement invariance of the SAQ and the first to examine measurement invariance across the reduced-item, three-factor SAQ, this is a significant contribution to the limited body of literature on spiritual abuse. Given the limited body of research in this area, establishing the utility of the SAQ across gender provides researchers a measure to further examine the experience of spiritual abuse.

**Aim 3: Gender, Racial/Ethnic, and Sexual Orientation Differences on the Spiritual Abuse Questionnaire**

I first performed Welch's t-tests for uneven group sizes to assess for differences on SAQ factors based on gender and sexual orientation. Consistent with my hypotheses, LGBQ+ individuals had higher means on the *Mistrust* factor, indicating increased experiences with lack of privacy and broken trust within religious environments. Heterosexual participants had significantly higher means on *Positive Spiritual Experiences*. No significant differences were

noted between men and women on the three factors. Together, these results indicate that LGBQ+ status may increase risk for experiencing spiritual abuse, important identities to consider for prevention, treatment, and research of spiritual abuse. Given the original study (Keller, 2016) examined the SAQ primarily in women it is notable that no significant differences exist for the SAQ factors, supporting its use with both men and women.

Overall, my results are consistent with existing literature suggesting that LGBQ+ individuals may experience additional harms in a religious environment due to non-affirming messaging and exclusion due to their sexual orientation (Ginicola et al., 2017; Wood & Conley, 2014).

Next, through a series of ANOVAs, I identified limited differences based on race/ethnicity on the SAQ factors. Given the primarily White sample in the original study (Keller, 2016), assessing race and ethnicity provides improved understanding of the suitability of the SAQ across potential racial/ethnic differences without assuming all items would be perceived and applicable equally across groups. *Positive Spiritual Experiences* also showed significant differences based on race. Bonferroni post hoc tests revealed differences between White and Black, Hispanic, Latino, and Multiracial participants. *Conditional Acceptance* did not vary significantly by race. The existing literature supports the ubiquity of conditional acceptance, as the experience of spiritual abuse has been identified in numerous races and countries (e.g., Nobakht & Dale, 2018a; Dehan & Levi, 2009; Stevens et al., 2019).

**Modified Item-Reduced SAQ as a Screening Tool**

The shortened 16-item SAQ may be useful as a screening tool in clinical work and research, particularly on college campuses and in environments targeting university students and young adults. It may be particularly useful for religious organizations to implement the SAQ to

screen for spiritual abuse to aid in establishing prevention and intervention of spiritual abuse among their members. In particular, religious groups with strict guidelines or limited alternatives for engagement with the religious community (e.g., LDS, Jehovah's Witnesses, Muslims) may benefit from utilizing the SAQ to monitor potentially harmful experiences and implement interventions to reduce spiritual abuse. Similarly, other programs or offices (e.g., medical providers, community centers, sport clubs) working with young adults may find the SAQ useful for assessing for harmful religious experiences, need for services, or overall well-being. Its relatively short length, demonstrated use, and confirmed test-retest validity in a diverse college student sample supports its effectiveness in assessing for experience of spiritual abuse. Although no sum or cutoff score exists, the measure may be used to further explore subscales and endorsed items or indicate a student's need for additional support. Finally, variation in scores on the three factors of the SAQ may be useful in more precisely identifying the abuse and individual has experienced and the subsequent resources or support that may be needed.

**Anxiety and Depression**

Correlation analyses demonstrated relationships between spiritual abuse and anxiety and depression. Specifically, anxiety and depression were significantly negatively correlated with the Positive Spiritual Experiences factor, supporting prior literature indicating that religion can be psychologically supportive (Miller et al., 2012; Lawrence, 2016; Dein et al., 2012). However, anxiety and depression were significantly positively correlated with the Mistrust and Conditional Acceptance factors, supporting the hypothesis that negative spiritual experiences will have a negative psychological impact.

**Limitations and Future Directions**

The present study has limitations. First, additional analyses specifically targeting the use of the SAQ across religious groups and LGBTQ+ individuals would significantly add to the religious abuse literature. The present sample provides some insight into this area with a diverse sample; however, it did not contain a sufficient sample size to investigate specific hypotheses regarding religious affiliation and LGBTQ+ identity. Second, the results are cross-sectional and come from a sample of young college students who largely fall in the WEIRD (Western, Educated, Industrialized, Rich, and Democratic) demographic. Due to this, the findings may not generalize across other populations, including non-college students, children, adolescents, or older adults, or those living in other countries. To explore the potential impact of age on these effects, future research should examine reported spiritual abuse in other samples across the lifespan. Specifically, further research examining the SAQ and experience of spiritual abuse among Catholics, Latter Day Saints, Muslims, and similar religious groups with strict guidelines or limited alternative communities would be beneficial in better understanding the use of the measure and scope of spiritual abuse.

Third, not all individuals who report a history of spiritual abuse or other negative experiences within religion are willing and comfortable to openly disclose their experiences. Due to the sensitive nature of this topic, as well as the possibility of social desirability bias in responding or perceived risk of ostracism based on disclosing religious abuse, participants may adjust their responses on a direct questionnaire such as the SAQ. Future research and measures could identify less overt methods for measuring negative religious experiences to reduce potential impression management and socially desirable responding effects. Assessing the experience and impact of spiritual abuse in a more subtle way could greatly improve

understanding of prevalence rates as well as the influence that willingness to identify an experience as spiritual abuse may have on well-being.

Fourth, the acceptance of SAQ items as reflective of spiritually abusive practices as perceived by religious leaders, believers, or those who have experienced spiritual abuse or spiritual trauma has not yet been assessed. Future research examining the acceptance of these items and willingness to utilize the measure within religious organizations, community groups, and other spaces would contribute greatly to the understanding of feasibility of scale implementation.

**Conclusion**

Present study findings provide a new contribution to the limited field of spiritual abuse, as this scale has not previously been explored in men or racially diverse college students. This is one of the first studies to examine a link between spiritual abuse and anxiety and depression. My thesis results suggest that a shortened version of the SAQ is more psychometrically sound, improving future use and reducing questionnaire burden on the participant. In light of these findings, the newly established 16-item SAQ can be useful for clinical and research purposes moving forward, and additional research should be conducted to inform potential SAQ cutoff scores and its utility in a variety of samples.

## Appendix A: Demographic Questionnaire

1. What is your current gender identity? (Check all that apply)
    a. Male
    b. Female
    c. Female-to-Male (FTM)/Transgender Male
    d. Male-to-Female (MTF)/Transgender Female
    e. Gender Queer, neither exclusively male nor female
    f. Other (please specify) _____
    g. Decline to answer, please explain why _____

2. What sex were you assigned at birth on your original birth certificate? (Check one)
    a. Male
    b. Female
    c. Decline to answer, please explain why _____

3. What is your race? (Select all that apply)
    a. White
    b. Black or African American
    c. Hispanic or Latino
    d. Native American or American Indian
    e. Asian/ Pacific Island
    f. Middle Eastern
    g. Other (please specify)
    h. Prefer not to share

4. What is your age? _____

5. People are different in their sexual attraction to other people. Which best describes your feelings? Are you:
    a. Only attracted to females
    b. Mostly attracted to females
    c. Equally attracted to females and males
    d. Mostly attracted to males
    e. Only attracted to males
    f. Asexual
    g. Pansexual
    h. Not sure

## Appendix B: Spiritual Abuse Questionnaire

Spiritual Abuse Questionnaire (Keller, 2016)

**Instructions**: Please consider your current or previous involvement in a church or spiritual group (ex: a church, student organization, missions organization, etc.). Respond by checking the box that most closely matches your experiences in that group. **If you have been involved in more than one church or group, please answer according to the church/group that stands out to you the most.** If the church/group that stands out to you the most is one in which you are currently involved, please answer the items as if they are written in the present (felt-->feel, etc).

Response options: Strongly disagree  Disagree  Agree  Strongly agree

1. It was acceptable to express my true emotions in my church/group ®
2. Leaders in my group acknowledged harm they caused to others ®
3. I know some religious leaders shared information about other people (through prayer requests or otherwise) that should have been kept private
4. I believed that God's love and acceptance of me was dependent upon my performance in the church/group
5. I currently have no trouble trusting religious leaders/churches/groups ®
6. I no longer trust myself to find a good spiritual community
7. I was harshly criticized by religious leaders or church/group members
8. I felt like a spiritual failure and I depended on my leader/church group to "get it right"
9. I believed God would punish me if I didn't do what my church/group encouraged me to do
10. I now feel cynical about church/religious groups
11. I felt freedom to ask questions or express concerns in my church/group ®

12. I felt dependent on the church/group
13. My religious leaders used fear to control people
14. I know that I or others were asked to serve as the “eyes and ears” for our leader to get information about our members
15. At times, I was scolded by my leader and made to feel ashamed and helpless
16. I believed I could be totally surrendered to God if I did everything perfectly according to the church/group’s instructions
17. I now feel lonely and misunderstood because of my church/group experiences

Note: Reverse scored items indicated with ®

## Appendix C: Brief Pornography Screen

**Directions**: In the last 6 months, have any of these situations happened to you in regards to your use of pornography.

1. You find yourself using pornography more than you want to.

Never Occasionally Very Often

2. You have attempted to "cut back" or stop using pornography, but were unsuccessful.

Never Occasionally Very Often

3. You find it difficult to resist strong urges to use pornography.

Never Occasionally Very Often

4. You find yourself using pornography to cope with strong emotions (e.g., sadness, anger, loneliness, etc.).

Never Occasionally Very Often

5. You continue to use pornography even though you feel guilty about it.

Never Occasionally Very Often

## Appendix D: Duke University Religion Index

1. How often do you attend church or other religious meetings?

Never Once a year or less A few times a year A few times a month Once a week More than once/week

2. How often do you spend time in private religious activities, such as prayer, meditation or Bible study?

Rarely or never A few times a month Once a week Two or more times/week Daily More than once a day

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

Definitely not true Tends not to be true Unsure Tends to be true Definitely true of me

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

Definitely not true Tends not to be true Unsure Tends to be true Definitely true of me

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

Definitely not true Tends not to be true Unsure Tends to be true Definitely true of me

## Appendix E: Patient Health Questionnaire 9

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Response options: Not at all  Several days  More than half the days  Nearly every day

1. Little interest or pleasure in doing things?
2. Feeling down, depressed, or hopeless?
3. Trouble falling or staying asleep, or sleeping too much?
4. Feeling tired or having little energy?
5. Poor appetite or overeating?
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down?
7. Trouble concentrating on things, such as reading the newspaper or watching television?
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?
9. Thoughts that you would be better off dead or hurting yourself in some way?

## Appendix F: Generalized Anxiety Disorder 7

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Response options: Not at all  Several days  More than half the days  Nearly every day

1. Feeling nervous, anxious, frightened, worried, or on edge?
2. Feeling panic or being frightened?
3. Avoiding situations that make you anxious?
4. Trouble relaxing
5. Being so restless that it is hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

## Appendix G: Tables

**Table 1. Review of Religious Trauma Measures**

| Scale, Authors (year) | Sample | Domains | Findings |
|---|---|---|---|
| Religious/Ritual Abuse Questionnaire Nobakht & Dale (2018) | 200 Iranian university students, *n*=200, male *N*=100 $M_{age}$=25, female *N*=100, $M_{age}$=25 years | Physical abuse or neglect, sexual abuse, emotional or psychological abuse, excessive fear or threatened by religious matters, other abuses. | 12.5% of the sample (*n*=25, men *n*=16, women *n*=9) reported experiencing at least one of the RAQ items, with no significant difference between men and women. |
| Institutional Betrayal Questionnaire, Smith & Freyd (2013)<br><br>Psychometric Properties of the Institutional Betrayal Questionnaire, Version 2: Evidence for a Two-Factor Model<br>Reffi, Piniciotti & Orcutt (2021) | Survivors of sexual assault (N=426) recruited through Amazon Mechanical Turk. Age range 18-74, *M*=35.60, *SD*=12.10, 73.7% female, 26.1% male, 0.2% other. 79.0% White, 8.5% Black, 5.2% Asian, 2.3% American Indian or Alaska Native, 0.7% Native Hawaiian or Pacific Islander, 3.1% mixed race, 1.2% other racial background. 8.4% identified as Hispanic or Latino. | Two factor structure: leading to sexual victimization, response to sexual victimization | The two-factor model has adequate fit to the data; however, this remains an improvement from prior poor fitting single factor models. The IBQ.2 demonstrated discriminant validity against timing of survivor's first disclosure, adherence to rape myths, and world beliefs about randomness and controllability of outcomes. IBQ.2 was not related to PTSD, stress, anxiety, depression. |
| Religious and Spiritual Struggles Scale, Exline et al. (2014) | Study 1: U.S. adult samples, *N*s=400, 483. Study 2: U.S. undergraduate students *N*=1141 | Six domains of r/s struggle: divine, demonic, interpersonal, moral, doubt, ultimate meaning | CFA indicated a very good fit for the six factor model, and good internal consistency, convergent, discriminant, and predictive validity were shown. R/s struggles were found to be common, although supernatural struggles (divine |

| | | | |
|---|---|---|---|
| | | | and demonic) had lower endorsement among both samples. Subscales correlated significantly with depression, anxiety, and anger. |
| Spiritual Abuse Questionnaire, Keller (2016) | Study 1: U.S. adult sample *N*=535, age *M*=41.97, *SD*=12.68, 79.1% female, 79.1%, 88.6% heterosexual, 92.3% White, .6% Black, 2.2% Hispanic/Latino, .6% Asian/Pacific Islander, .6% Biracial/Multiracial, .2% Native American/Indigenous, 3.5% Other.<br>Study 2: U.S. adult sample *N*=271, age *M*=39.91, *SD*=12.7, 77.90% female, 79.70% heterosexual, 89.70% White, 2.60% Black, 0.70% Hispanic/Latino, 1.10% Asian/Pacific Islander, 1.80% Biracial/Multiracial, 1.10% Native American/Indigenous, 3% Other. | Study 1 initially identified four factors with an EFA: Abuse of Power, Conditionality, Spiritual Injury, and Suppression of Expression. Study 2 reduced this to a two factor structure using a CFA: Conditionality and Power-based Affective Wounding, originally the three factors Abuse of Power, Spiritual Injury, and Suppression of Expression in Study 1. | The 17-item two-factor scale was created. Study 1 generated measure items utilized an EFA to assess the factor structure and conducted Pearson correlations to assess scale validity. Study 2 utilized a CFA to assess the factor structure of the revised measure and conducted Pearson correlations to assess scale validity. This study did not assess for relationships with mental health, sexual behavior, or other variables. |

**Table 2. Sample Demographics**

| Characteristics (*n*=1383) | Frequency | Percentage | Mean (SD) |
|---|---|---|---|
| Age | | | 19.24 (2.14) |
| 18-19 | 1019 | 73.6% | |
| 20-21 | 238 | 17.2% | |
| 22-23 | 67 | 4.9% | |
| 24-25 | 22 | 1.6% | |
| 26-27 | 17 | 1.2% | |
| 28-29 | 10 | 0.7% | |
| 30-31 | 5 | 0.4% | |
| 32-33 | 2 | 0.1% | |
| 34-35 | 4 | 0.2% | |
| Gender | | | |
| Men | 341 | 24.6% | |
| Women | 1043 | 75.4% | |
| Race/Ethnicity | | | |
| White | 660 | 47.7% | |
| Black | 114 | 8.2% | |
| Hispanic | 258 | 18.6% | |
| Asian/Pacific Islander | 124 | 9.0% | |
| Multiracial | 218 | 15.8% | |

| | | |
|---|---|---|
| Present Religion | | |
| Protestant/Christian | 821 | 59.4% |
| Roman Catholic | 327 | 23.6% |
| Latter Day Saints/Mormon | 11 | 0.8% |
| Orthodox (e.g., Greek or Russian Orthodox) | 5 | 0.4% |
| Jewish | 11 | 0.8% |
| Muslim | 11 | 0.8% |
| Buddhist | 20 | 1.4% |
| Hindu | 8 | 0.6% |
| Spiritual but not committed to one religion | 134 | 9.7% |
| Childhood Religion | | |
| Protestant/Christian | 845 | 61.1% |
| Roman Catholic | 419 | 30.4% |
| Latter Day Saints/Mormon | 25 | 1.8% |
| Orthodox (e.g., Greek or Russian Orthodox) | 10 | 0.7% |
| Jewish | 9 | 0.7% |
| Muslim | 11 | 0.8% |
| Buddhist | 19 | 1.4% |
| Hindu | 8 | 0.6% |
| Sexual Orientation | | |
| Straight man | 305 | 22% |
| Bisexual man | 8 | 0.6% |
| Gay man | 23 | 1.7% |
| Straight woman | 930 | 67.2% |
| Bisexual woman | 70 | 5.1% |
| Gay woman | 19 | 1.4% |

*Note*. SD=standard deviation.

**Table 3. Descriptive Statistics for the 17-item Spiritual Abuse Questionnaire**

| Item | Mean (SD) | Skewness | Kurtosis |
|---|---|---|---|
| 1 | 1.76 (1.02) | -0.390 | -0.947 |
| 2 | 1.41 (0.98) | -0.041 | -1.052 |
| 3 | 1.27 (1.02) | 0.266 | -1.063 |
| 4 | 1.08 (1.02) | 0.482 | -0.960 |
| 5 | 1.53 (1.02) | -0.088 | -1.115 |
| 6 | 0.86 (0.81) | 0.776 | 0.224 |
| 7 | 0.80 (0.94) | 0.961 | -0.078 |
| 8 | 0.74 (0.85) | 0.959 | 0.155 |
| 9 | 0.79 (0.91) | 0.970 | 0.057 |
| 10 | 1.07 (1.01) | 0.517 | -0.873 |
| 11 | 1.74 (0.99) | -0.393 | -0.865 |
| 12 | 0.96 (0.83) | 0.487 | -0.443 |
| 13 | 0.83 (0.99) | 0.907 | -0.354 |
| 14 | 0.73 (0.88) | 0.987 | 0.029 |
| 15 | 0.61 (0.83) | 1.279 | 0.841 |
| 16 | 0.97 (0.94) | 0.581 | -0.670 |
| 17 | 0.66 (0.83) | 1.107 | 0.447 |

*Note.* Skewness (-2.0 to +2.0) and kurtosis (-7.0 to +7.0).
SD=standard deviation.

**Table 4. Inter-item Correlations of the 17-item Spiritual Abuse Questionnaire**

| Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | | | | | | | | | | | | | | | | |
| 2 | .53 | - | | | | | | | | | | | | | | | |
| 3 | -.15 | -.09 | - | | | | | | | | | | | | | | |
| 4 | -.07 | -.07 | .20 | - | | | | | | | | | | | | | |
| 5 | .54 | .38 | -.23 | -.00 | - | | | | | | | | | | | | |
| 6 | -.29 | -.16 | .36 | .23 | -.31 | - | | | | | | | | | | | |
| 7 | -.38 | -.30 | .41 | .22 | -.38 | .50 | - | | | | | | | | | | |
| 8 | -.15 | -.08 | .27 | .35 | -.15 | .42 | .49 | - | | | | | | | | | |
| 9 | -.21 | -.15 | .25 | .44 | -.16 | .39 | .44 | .57 | - | | | | | | | | |
| 10 | -.41 | -.30 | .32 | .22 | -.42 | .46 | .55 | .39 | .40 | - | | | | | | | |
| 11 | .60 | .46 | -.23 | -.13 | .52 | -.33 | -.43 | -.18 | -.23 | -.40 | - | | | | | | |
| 12 | .25 | .17 | -.00 | .17 | .21 | -.01 | -.05 | .25 | .18 | -.03 | .34 | - | | | | | |
| 13 | -.46 | -.36 | .37 | .22 | -.39 | .43 | .62 | .40 | .42 | .52 | -.45 | -.01 | - | | | | |
| 14 | -.25 | -.18 | .40 | .23 | -.23 | .38 | .52 | .42 | .35 | .41 | -.25 | .13 | .53 | - | | | |
| 15 | -.32 | -.24 | .41 | .27 | -.27 | .43 | .64 | .46 | .47 | .48 | -.36 | .06 | .63 | .64 | - | | |
| 16 | -.12 | -.03 | .22 | .41 | -.11 | .24 | .27 | .41 | .51 | .25 | -.14 | .20 | .29 | .31 | .37 | - | |
| 17 | -.34 | -.22 | .35 | .29 | -.30 | .46 | .56 | .49 | .50 | .53 | -.34 | .04 | .53 | .43 | .57 | .41 | - |

**Table 5. Two Factor 17 Item SAQ Exploratory Factor Analysis**

| Item | PA1 | PA2 |
|---|---|---|
| 1. It was acceptable to express my true emotions in my church/group. | | 0.69 |
| 2. Leaders in my group acknowledged harm they caused to others. | | 0.49 |
| 3. I know some religious leaders shared information about other people (through prayer requests or otherwise) that should have been kept private. | 0.42 | |
| 4. I believed that God's love and acceptance of me was dependent upon my performance in the church/group. | 0.58 | 0.22 |
| 5. I currently have no trouble trusting religious leaders/churches/groups. | | 0.67 |
| 6. I no longer trust myself to find a good spiritual community. | 0.48 | -0.27 |
| 7. I was harshly criticized by religious leaders or church/group members. | 0.56 | -0.33 |
| 8. I felt like a spiritual failure and I depended on my leader/church group to "get it right." | 0.77 | |
| 9. I believed God would punish me if I didn't do what my church/group encouraged me to do. | 0.74 | |
| **10. I now feel cynical about church/religious groups.** | **0.46** | **-0.44** |
| 11. I felt freedom to ask questions or express concerns in my church/group. | | 0.68 |
| **12. I felt dependent on the church/group.** | **0.41** | **0.54** |
| 13. My religious leaders used fear to control people. | 0.54 | -0.37 |
| 14. I know that I or others were asked to serve as the "eyes and ears" for our leader to get information about our members. | 0.62 | |
| 15. At times, I was scolded by my leader and made to feel ashamed and helpless. | 0.69 | |
| 16. I believed I could be totally surrendered to God if I did everything perfectly according to the church/group's instructions. | 0.68 | 0.25 |
| 17. I now feel lonely and misunderstood because of my church/group experiences. | 0.63 | |
| SS Loadings | 4.59 | 2.63 |
| Proportion Variance | 0.27 | 0.16 |
| Cumulative Variance | 0.27 | 0.43 |

*Note.* Cutoff = 0.2; Bolded items were dropped for cross loading. Tucker-Lewis Index=0.883, Root mean square error of approximation=0.078

**Table 6. Two Factor 15 Item SAQ Exploratory Factor Analysis**

| Item | PA1 | PA2 |
|---|---|---|
| 1. It was acceptable to express my true emotions in my church/group. | | 0.74 |
| 2. Leaders in my group acknowledged harm they caused to others. | | 0.54 |
| 3. I know some religious leaders shared information about other people (through prayer requests or otherwise) that should have been kept private. | 0.43 | |
| 4. I believed that God's love and acceptance of me was dependent upon my performance in the church/group. | 0.58 | |
| 5. I currently have no trouble trusting religious leaders/churches/groups. | | 0.67 |
| 6. I no longer trust myself to find a good spiritual community. | 0.48 | |
| 7. I was harshly criticized by religious leaders or church/group members. | 0.55 | |
| 8. I felt like a spiritual failure and I depended on my leader/church group to "get it right." | 0.76 | |
| 9. I believed God would punish me if I didn't do what my church/group encouraged me to do. | 0.74 | |
| 11. I felt freedom to ask questions or express concerns in my church/group. | | 0.67 |
| 13. My religious leaders used fear to control people. | 0.51 | |
| 14. I know that I or others were asked to serve as the "eyes and ears" for our leader to get information about our members. | 0.61 | |
| 15. At times, I was scolded by my leader and made to feel ashamed and helpless. | 0.70 | |
| 16. I believed I could be totally surrendered to God if I did everything perfectly according to the church/group's instructions. | 0.69 | |
| 17. I now feel lonely and misunderstood because of my church/group experiences. | 0.61 | |
| SS Loadings | 4.16 | 2.27 |
| Proportion Variance | 0.28 | 0.15 |
| Cumulative Variance | 0.28 | 0.43 |

*Note.* Cutoff = 0.4; Items 10 and 12 were dropped due to cross loadings >.3 on the prior EFA.
Tucker-Lewis Index=0.878, Root mean square error of approximation=0.084

**Table 7. Three Factor 17 Item SAQ Exploratory Factor Analysis**

| Item | PA1 | PA2 | PA3 |
|---|---|---|---|
| 1. It was acceptable to express my true emotions in my church/group. | | 0.74 | |
| 2. Leaders in my group acknowledged harm they caused to others | | 0.58 | |
| 3. I know some religious leaders shared information about other people (through prayer requests or otherwise) that should have been kept private. | 0.52 | | |
| 4. I believed that God's love and acceptance of me was dependent upon my performance in the church/group. | | | 0.57 |
| 5. I currently have no trouble trusting religious leaders/churches/groups. | | 0.58 | |
| 6. I no longer trust myself to find a good spiritual community. | 0.56 | | |
| 7. I was harshly criticized by religious leaders or church/group members. | 0.78 | | |
| 8. I felt like a spiritual failure and I depended on my leader/church group to "get it right." | | | 0.52 |
| 9. I believed God would punish me if I didn't do what my church/group encouraged me to do. | | | 0.69 |
| 10. I now feel cynical about church/religious groups. | 0.47 | | |
| 11. I felt freedom to ask questions or express concerns in my church/group. | | 0.74 | |
| **12. I felt dependent on the church/group.** | | **0.41** | **0.41** |
| 13. My religious leaders used fear to control people. | 0.52 | | |
| 14. I know that I or others were asked to serve as the "eyes and ears" for our leader to get information about our members. | 0.72 | | |
| 15. At times, I was scolded by my leader and made to feel ashamed and helpless. | 0.80 | | |
| 16. I believed I could be totally surrendered to God if I did everything perfectly according to the church/group's instructions. | | | 0.72 |
| 17. I now feel lonely and misunderstood because of my church/group experiences. | 0.41 | | |
| SS Loadings | 3.16 | 2.20 | 1.91 |
| Proportion Variance | 0.19 | 0.13 | 0.11 |
| Cumulative Variance | 0.19 | 0.32 | 0.43 |

*Note*. Cutoff = 0.4; Bolded item was dropped for cross loading. Tucker-Lewis Index=0.919, Root mean square error of approximation=0.064

**Table 8. Three Factor 16 Item SAQ Exploratory Factor Analysis**

| Item | PA1 | PA2 | PA3 |
|---|---|---|---|
| 1. It was acceptable to express my true emotions in my church/group. | | 0.77 | |
| 2. Leaders in my group acknowledged harm they caused to others | | 0.61 | |
| 3. I know some religious leaders shared information about other people (through prayer requests or otherwise) that should have been kept private. | 0.52 | | |
| 4. I believed that God's love and acceptance of me was dependent upon my performance in the church/group. | | | 0.58 |
| 5. I currently have no trouble trusting religious leaders/churches/groups. | | 0.59 | |
| 6. I no longer trust myself to find a good spiritual community. | 0.55 | | |
| 7. I was harshly criticized by religious leaders or church/group members. | 0.77 | | |
| 8. I felt like a spiritual failure and I depended on my leader/church group to "get it right." | | | 0.51 |
| 9. I believed God would punish me if I didn't do what my church/group encouraged me to do. | | | 0.70 |
| 10. I now feel cynical about church/religious groups. | 0.47 | | |
| 11. I felt freedom to ask questions or express concerns in my church/group. | | 0.70 | |
| 13. My religious leaders used fear to control people. | 0.52 | | |
| 14. I know that I or others were asked to serve as the "eyes and ears" for our leader to get information about our members. | 0.71 | | |
| 15. At times, I was scolded by my leader and made to feel ashamed and helpless. | 0.79 | | |
| 16. I believed I could be totally surrendered to God if I did everything perfectly according to the church/group's instructions. | | | 0.75 |
| 17. I now feel lonely and misunderstood because of my church/group experiences. | 0.40 | | |
| SS Loadings | 3.10 | 2.07 | 1.79 |
| Proportion Variance | 0.19 | 0.13 | 0.11 |
| Cumulative Variance | 0.19 | 0.32 | 0.44 |

*Note*. Cutoff = 0.4; Bolded items were dropped for cross loading. Tucker-Lewis Index=0.926, Root mean square error of approximation=0.065

*Note.* Item 12 was removed due to cross loadings >.3 on prior exploratory factor analysis.

**Table 9. Overall Fit Statistics and Measurement Invariance of the Three-Factor, 16-item Spiritual Abuse Questionnaire by Gender**

| Model | $\chi^2$ (df) | CFI | TLI | RMSEA [90% CI] | SRMR | ΔCFI | ΔRMSEA | Difftest $\chi^2$ (df) |
|---|---|---|---|---|---|---|---|---|
| **Fit Statistics** | | | | | | | | |
| **Gender** | | | | | | | | |
| Men | 163.43 (101) * | 0.94 | 0.93 | 0.061 [0.046, 0.075] | 0.091 | - | - | - |
| Women | 376.41 (101) * | 0.92 | 0.90 | 0.072 [0.065, 0.079] | 0.125 | - | - | - |
| **Measurement Invariance** | | | | | | | | |
| **Gender** | | | | | | | | |
| Configural | 437.83 (202) * | 0.94 | 0.93 | 0.056 [0.049, 0.062] | 0.048 | | | |
| Metric | 463.11 (215) * | 0.94 | 0.93 | 0.055 [0.049, 0.061] | 0.054 | -0.003 | 0.000 | 25.061(13) |
| Scalar | 485.35 (228) * | 0.93 | 0.93 | 0.055 [0.049, 0.061] | 0.054 | -0.001 | -0.001 | 20.735 (13) |
| Strict | 4095.74 (240)* | 0.94 | 0.93 | 0.053 [0.047, 0.059] | 0.055 | 0.001 | -0.001 | 1.886 (3) |

*Note*. $\chi^2$ =chi-square; df=degrees of freedom; CFI=comparative fit index; TLI=Tucker–Lewis index; RMSEA=root mean square error of approximation; CI=confidence interval; SRMR=Standardized Root Mean Square Residual. *$p$<.001

**Table 10. Correlation Matrix for the SAQ, PCBS, DUREL, GAD-7, and PHQ-9.**

| | SAQ Mistrust | SAQ Positive Spiritual Experiences | SAQ Conditional Acceptance | PCBS Shame & Guilt | PCBS Gender Roles | PCBS Idealization | DUREL Sum | Anxiety Sum | Depression Sum | Gender |
|---|---|---|---|---|---|---|---|---|---|---|
| SAQ Mistrust | - | | | | | | | | | |
| SAQ Positive Spiritual Experiences | -.52** | - | | | | | | | | |
| SAQ Conditional Acceptance | .60** | -.21** | - | | | | | | | |
| PCBS Shame & Guilt | -.06 | .20** | .05 | - | | | | | | |
| PCBS Gender Roles | .09* | .07* | .16** | .64** | - | | | | | |
| PCBS Idealization | -.20** | .38** | -.01 | .71** | .52** | - | | | | |
| DUREL Sum | -.32** | .51** | -.16** | .28** | .06* | .50** | - | | | |
| Anxiety Sum | .23** | -.19** | .19** | -.10** | -.06* | -.09** | -.09** | - | | |
| Depression Sum | .28** | -.25** | .19** | -.10** | -.07* | -.10** | -.16** | .78** | - | |
| Gender | .01 | -.03 | .06 | -.16** | -.10** | -.05 | .10** | .19** | .17** | - |
| LGBQ+ | -.20** | .24** | -.05 | .15** | .16** | .20** | .21** | -.12** | -.15** | -.01 |

*Note.* **$p$<.001, *$p$<.05

**Table 11. Welch t-tests of the SAQ Factors Examining Gender and LGBQ+ Status**

| | Mean (SD) | *t* | Cohen's d |
|---|---|---|---|
| **Mistrust** | | | |
| *Gender* | | *t*(373.95)=-.51 | -.04 |
| Men (*n*=212) | 6.12 (4.83) | | |
| Women (*n*=685) | 6.32 (5.19) | | |
| *Sexual Orientation* | | *t*(99.59)=5.84** | -.74 |
| Heterosexual (*n=812)* | 5.93 (4.96) | | |
| LGBQ+ (*n*=85) | 9.61 (5.43) | | |
| **Positive Spiritual Experiences** | | | |
| *Gender* | | *t*(375.45)=1.04 | .08 |
| Men (*n*=213) | 7.15 (2.84) | | |
| Women (*n*=680) | 6.91 (3.04) | | |
| *Sexual Orientation* | | *t*(101.91)=-7.35** | -.87 |
| Heterosexual (*n*=807) | 7.21 (2.88) | | |
| LGBQ+ (*n*=86) | 4.69 (3.05) | | |
| **Conditional Acceptance** | | | |
| *Gender* | | *t*(437.22)=-1.84 | -.13 |
| Men (*n*=253) | 3.22 (2.62) | | |
| Women (*n*=817) | 3.57 (2.75) | | |
| *Sexual Orientation* | | *t*(117.80)=1.87 | .22 |
| Heterosexual (*n*=967) | 3.43 (2.67) | | |
| LGBQ+ (*n*=103) | 4.04 (3.18) | | |

*Note.* **$p$<.001, *$p$<.05

**Table 12. Analysis of Variance (ANOVA) of the Spiritual Abuse Questionnaire Mistrust Factor Across Race/Ethnicity**

| | **Dependent Variables** | **Group Differences** | **Effect Sizes** |
|---|---|---|---|
| | **Mistrust** *Mean (SD)* | **Significance Test** | **Partial Eta Squared ($\eta_p^2$)** |
| **Independent Variables** | | $F(4)=2.42$, $p=.047$ | .011 |
| **Race/Ethnicity** | | | |
| White ($n$=476) | 5.89 (5.16) | | |
| Black ($n$=66) | 7.42 (5.05) | | |
| Hispanic or Latino ($n$=152) | 6.17 (4.96) | | |
| Asian/Pacific Islander ($n$=62) | 6.19 (4.76) | | |
| Multiracial ($n$=136) | 7.10 (5.16) | | |

*Note*. SD=standard deviation

**Table 13. Analysis of Variance (ANOVA) of the Spiritual Abuse Questionnaire Positive Spiritual Experiences Factor Across Race/Ethnicity**

| | **Dependent Variables** | **Group Differences** | **Effect Sizes** |
|---|---|---|---|
| | **Positive Spiritual Experiences** *Mean (SD)* | **Significance Test** | **Partial Eta Squared ($\eta_p^2$)** |
| **Independent Variables** | | $F(4)=6.58$, $p<.001$ | .029 |
| **Race/Ethnicity** | | | |
| White (*n*=458) | 7.46 (2.97) | | |
| Black (*n*=77) | 6.22 (2.81) [a] | | |
| Hispanic or Latino (*n*=151) | 6.40 (2.94) [a] | | |
| Asian/Pacific Islander (*n*=62) | 6.52 (2.82) | | |
| Multiracial (*n*=139) | 6.64 (3.09) [a] | | |

*Note*. SD=standard deviation. a=significantly different from White on the Bonferroni post hoc test.

**Table 14. Analysis of Variance (ANOVA) of the Spiritual Abuse Questionnaire Conditional Acceptance Factor Across Race/Ethnicity**

| | **Dependent Variables** | **Group Differences** | **Effect Sizes** |
|---|---|---|---|
| | **Conditional Acceptance** *Mean (SD)* | **Significance Test** | **Partial Eta Squared** ($\eta_p^2$) |
| **Independent Variables** | | $F(4)=1.15$, $p=.329$ | .004 |
| **Race/Ethnicity** | | | |
| White (*n*=556) | 3.40 (2.79) | | |
| Black (*n*=89) | 3.99 (2.68) | | |
| Hispanic or Latino (*n*=179) | 3.36 (2.61) | | |
| Asian/Pacific Islander (*n*=82) | 3.48 (2.45) | | |
| Multiracial (*n*=158) | 3.67 (2.79) | | |

*Note*. SD=standard deviation.

## Appendix H: Figures

**Figure 1. Flow chart of missing data**

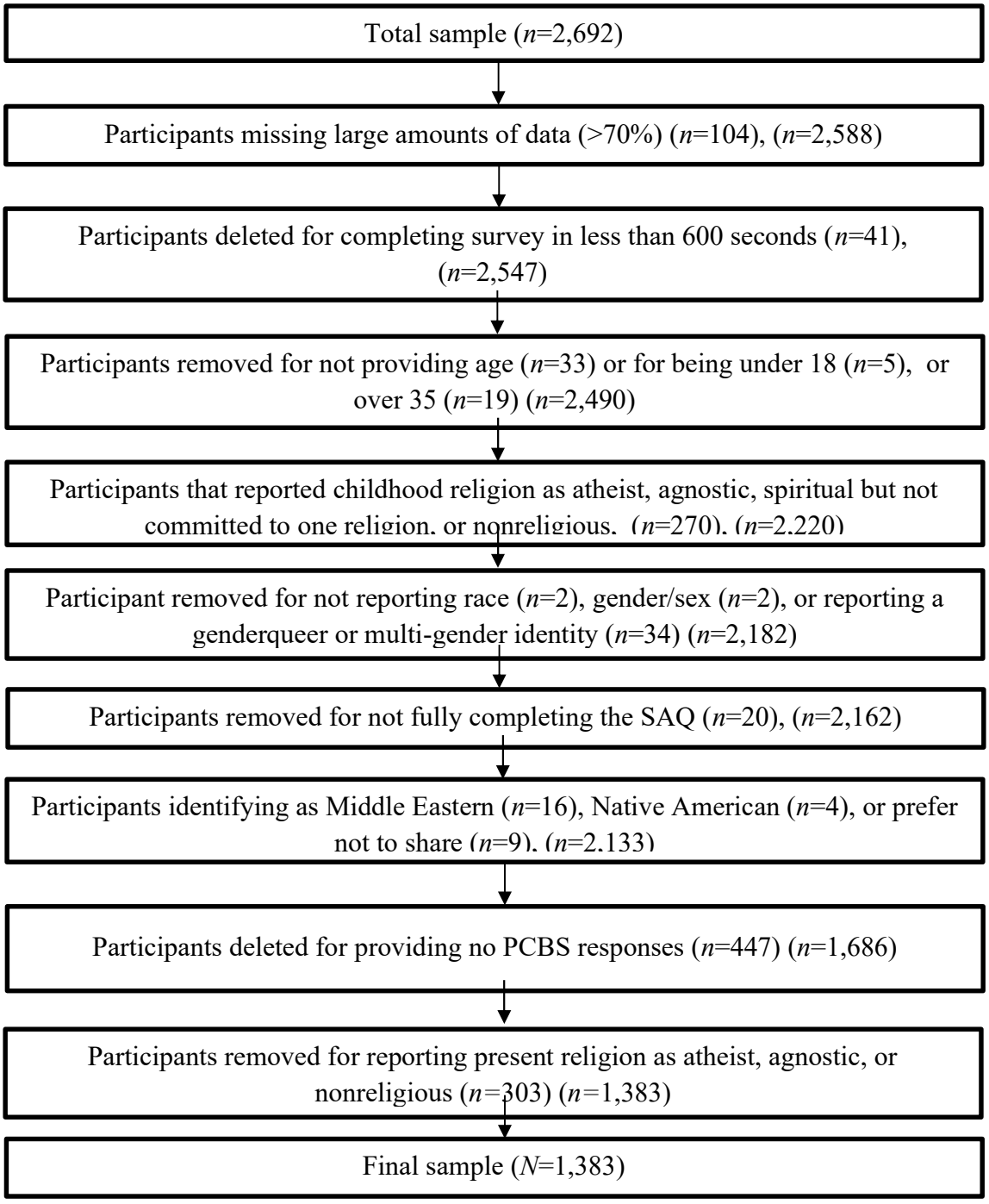
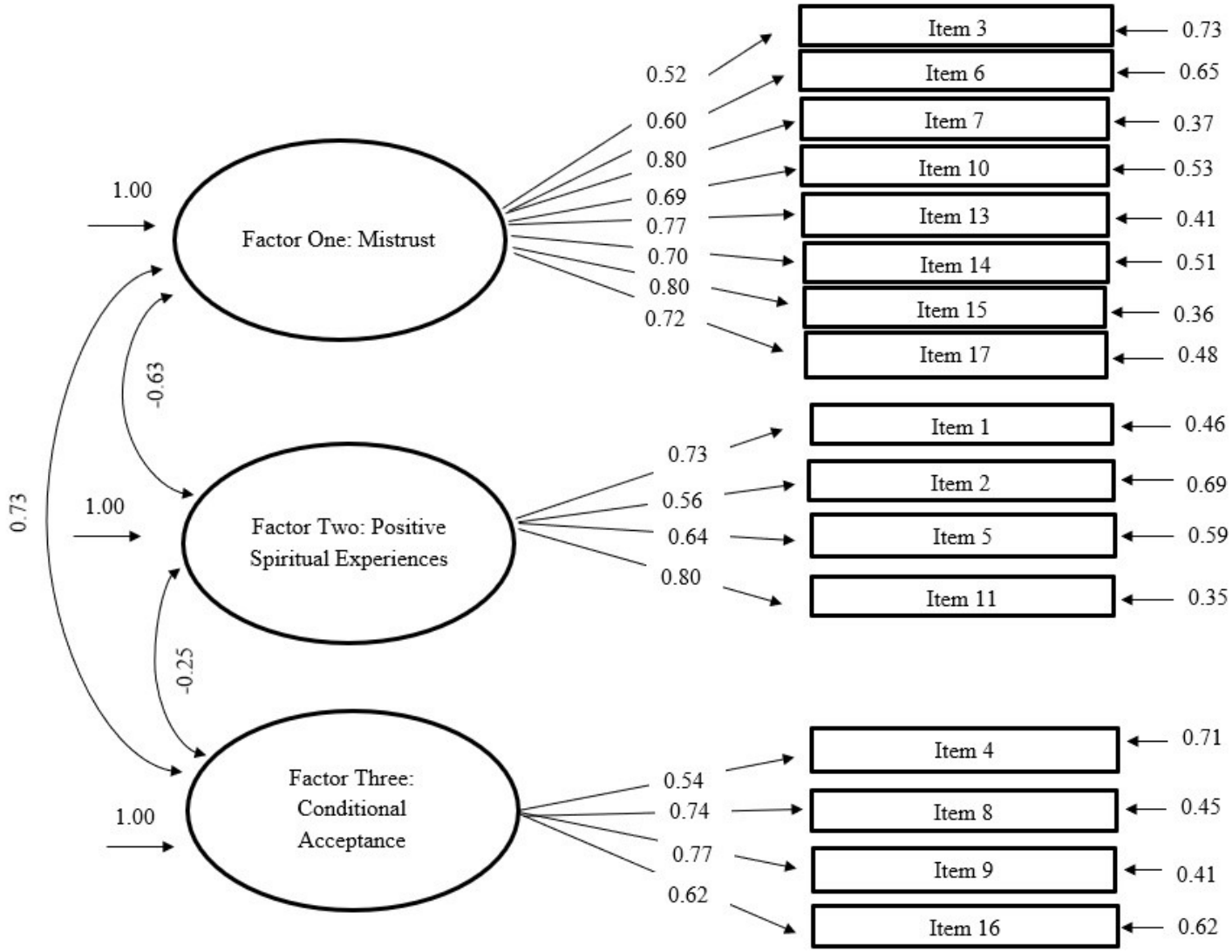


**Figure 2. Confirmatory Factor Analysis (CFA) of a Three-Factor, 16-item Model of the Spiritual Abuse Questionnaire with Standardized Factor Loadings and Residuals**



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**Curriculum Vitae**

Curriculum Vitae

# Kaelyn Griffin

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## Education

University of Nevada, Las Vegas
Clinical Psychology Doctoral Program, 2020 – *present*
*Anticipated graduation May 2025*

University of Nevada, Las Vegas
B.A. Psychology, '19
Minors – Human Services, German Studies

## Research Experience

August 2020 – present
**Behavioral Addictions Lab**
Supervisor: Shane Kraus, Ph.D.
*Graduate Research Assistant*
Responsibilities: Aid in data collection and management, publication and dissemination, constructing and running research projects. Tasks include:

- Preparing manuscripts for publication
- Cleaning and analyzing data
- Presenting findings at national and international conferences
- Writing IRB documents for new projects
- Creating posters for data dissemination
- Mentoring undergraduate students

May 2018 – May 2020
**The Optimum Performance Program**
Supervisor: Bradley Donohue, Ph.D.
University of Nevada, Las Vegas
*Research Assistant*
Responsibilities: Aid in publication editing and dissemination, lab organization and scheduling, constructing, proposing, and facilitating new research projects for the lab. Tasks include:

- Creating and formatting surveys in Qualtrics based on document versions
- Deidentifying data from closed studies
- Assisting in article searches and reviewing documents for errors
- Managing the Google calendar for lab and relevant campus events

- Recording minute notes for lab meetings
- Writing IRB protocol proposal forms
- Training new lab members
- Coordinating a new research project

## Clinical Practicum Experience

**VA Southern Nevada Healthcare System: Las Vegas Residential Recovery and Renewal Center**
July 2022 – Present
Supervisor: Eugene Olaiya, PsyD.
Delivered evidence-based individual and group psychotherapy services to adult veterans within an interdisciplinary residential unit for substance and gambling addiction recovery. Client presentations included SUD, PTSD, Bipolar Disorder, MDD. Interventions included CBT SUD, Anger Management, Seeking Safety, DBT, and Illness Management and Recovery.

**The PRACTICE: A UNLV Community Mental Health Training Clinic**
August 2021 – August 2022
Supervisors: Shane Kraus, Ph.D., Denise LaBelle, Ph.D., Amelia Black, Ph.D.
Delivered evidence-based assessment, individual therapy, and group therapy services to adult clients from the Las Vegas community within an interdisciplinary and collaborative clinic setting. Client presentations included PTSD, GAD, ADHD, SUD, MDD. Interventions included CBT, CPT, schema therapy, mindfulness and DBT skills.

## Relevant Experience

**Psychology Department, Psychology 210 Introduction to Statistical Methods**
August 2021 – May2022
Supervisor: Kimberly Barchard, Ph.D.
*Graduate Assistant*
Responsibilities: Provide support to students enrolled in the course and to instructor of record to ensure smooth progression throughout the semester. Tasks included:

- Grading student homework submissions
- Leading class computer lab
- Providing guidance to students on assignments
- Revising course assignments to utilize a new dataset in future years

**The PRACTICE**
January 2019 – May 2019
Supervisors: Michelle Paul, Ph.D., Andrew Gerthoffer
*Undergraduate Intern*

Responsibilities: Provide effective front desk management and communication within the clinic and to clients, treatment observations to enhance professional experience and knowledge, research current clinical treatment guidelines. Tasks included:

- Researching and presenting on updated APA guidelines
- Conducting new client phone intakes, gathering information and pairing client with a clinician or referring as appropriate
- Assisting clients with scheduling, payment, beginning therapy, and communication to clinicians

**Psychology Department, Psychology 101**
January 2018 - May 2018, August 2018 - December 2018
Supervisor: Maria Alicia Nuñez
University of Nevada, Las Vegas
*Teaching Assistant*
Responsibilities: Provide aid and support to instructor and students in psychology 101 courses, including:

- Proctoring exams
- Grading exams and assignments
- Offering study sessions for students prior to exams
- Guest lecturing as needed by instructor

**Jean Nidetch Care Center**
August 2018 – August 2020
Supervisor: Holly Ramella
University of Nevada, Las Vegas
*CARE Advocate*
Responsibilities: Advocate for survivors of interpersonal violence and sexual assault in-office and during hotline calls through:

- Active listening to client needs
- Providing resources appropriate for client's needs and situation
- Validating the client's emotions
- Assisting with next-steps planning or safety planning with the client
- Filling out intake forms following client interaction

**Outreach for Undergraduate Mentoring Program**
September 2018 – February 2020
Supervisors: Sarah Thoman, Paul Nelson, Ph.D, Gloria Wong-Padoongpatt, Ph.D
University of Nevada, Las Vegas
*Student Advisory Board Member*

Responsibilities: Plan and execute participatory action research (PAR) projects within OUMP, collecting and disseminating research opportunities for OUMP students. Assignments include:

- Compiling research lab and research presentation opportunity information
- Meeting with faculty and OUMP students to identify a focus for PAR
- Organizing a graduate school preparation panel
- Coordinating undergraduate research team
- Conducting surveys, interviews, observations to collect data
- Presenting research findings at campus research conference and other events

## Membership

*November 2017 – December 2018* Association for Psychological Science
*August 2017 – December 2019* UNLV Psychology Club
*August 2017 – December 2019* UNLV German Club
*January 2018 – present* Outreach Undergraduate Mentoring Program
*September 2018 – December 2019* Student Advisory Board Member
*May 2018 – present* Delta Phi Alpha, German Honor Society
*July 2018 – December 2018, 2020-2021* American Psychological Association
*August 2018 – present* Psi Chi, Psychology Honor Society
*October 2021 – present* Nevada Psychological Association Member
*January 2021 – present* UNLV Diversity and Inclusion Student Committee
*August 2021 – May 2022* Vice president
*August 2022 – May 2023* President

## Awards

Graduate and Professional Student Association Research Travel Funding (October 2021, November 2021, October 2022)
UNLV Dean's Honor List (Fall 2017, Spring 2018, Fall 2018, Spring 2019)
Office of Undergraduate Research Travel Funding (August 2018)
Regents Service Program Grant (September 2018)
Grad Rebel Advantage Program Placement (Fall 2018 - Spring 2019)

## Publications

Grubbs, J.B., Floyd, C.G., **Griffin, K.R.,** Jennings, T.L., Kraus, S.W. (2022). Moral incongruence and addiction: A registered report. *Psychology of Addictive Behaviors*.

Way, B.M., **Griffin, K.R**., & Kraus, S.W. (2022). Erectile dysfunction in a US national sample of male military veterans. *The Journal of Sexual Medicine*.

Borgogna, N.C., **Griffin, K.R**., Grubbs, J.B., Kraus, S.W. (2022). Understanding differences in

problematic pornography use: Considerations for gender and sexual orientation. *Journal of Mental Health and Addiction*.

**Griffin, K.R.**, Way, B.M. & Kraus, S.W. (2021). Controversies and clinical recommendations for the treatment of compulsive sexual behavior disorder. *Current Addiction Reports, 8*, 546-555. https://doi.org/10.1007/S40429-021-00393-5

## Presentations

Barchard, K.A. & **Griffin, K.** (2023, February). Teaching climate change during statistics. Brief recorded presentation, under review.

**Griffin, K.R.,** Way, B.M., Jennings, T.L., Habashy, J., Etuk, R., Kraus, S.W. (2022, June). *Strange bedfellows: Religion, problematic pornography use, and purity culture.* Accepted symposium talk at the International Conference for Behavioral Addictions Conference, Nottingham, UK.

Kraus, S.W., Way, B.M., **Griffin, K.R.** (2022, January). *Compulsive sexual behavior disorder and problematic pornography use.* Presented for Counseling and Psychological Services at the University of Nevada, Las Vegas.

Kraus, S.W., Way, B.M., **Griffin, K.R.** (2021, October). *Compulsive sexual behavior disorder in ICD-11: Clinical recommendations for treatment seeking clients.* Presented at the Society for the Advancement of Sexual Health Conference, Seattle, Washington.

**Griffin, K.,** Chiang-Lopez, C., Williams, S. (2020, September). *College age survivors: Implications for advocacy, empowerment, and safety.* Presented at the Nevada Coalition to End Domestic Violence (NCEDSV) annual conference. *Remote format due to COVID-19.

**Griffin, K.,** Mekonnen, S., Salcedo, J., Sheikh, R. (2020, February). *"Figuring out the unwritten rules:" Understanding the Career Development of Psychology Undergraduates from Underrepresented Groups.* Presentation at the Ethnographic & Qualitative Research Conference held at The Flamingo Hotel in Las Vegas, Nevada.

**Griffin, K.** (2019, November). *The relationship between military sexual trauma and identification with military culture.* Presentation at the Psi Chi Psych Talks event held at the University of Nevada, Las Vegas.

**Griffin, K**., & Lopez, R. (2019, May). *APA guidelines for psychological practice with boys & men.* Presentation on APA guidelines delivered for clinicians-in-training and licensed supervisors at The PRACTICE on the University of Nevada, Las Vegas' campus.

## Posters

**Griffin, K.R.,** Ellis, K., Way, B.M., Medina, L., Rairata, Y., & Kraus, S.W. (2022, October).

Examining sexual trauma as a risk factor for compulsive sexual behavior. Poster presented at the Society for the Advancement of Sexual Health conference, Atlanta, Georgia.

Way, B.M., Ellis, K., **Griffin, K.R.,** Rairata, Y., Medina, L., & Kraus, S.W. (2022, October). Don't yuck their yum: College student's pornography preferences. Poster presented at the Society for the Advancement of Sexual Health conference, Atlanta, Georgia.

**Griffin, K.R.**, Way, B.M., & Kraus, S.W. (2021, November). Oh god yes: The relationship between religious trauma, religiosity, and sexual behavior among university students. Poster presented at the Society for the Scientific Study of Sexuality conference, San Juan, Puerto Rico.

Way, B.M., **Griffin, K.R.**, & Kraus, S.W., (2021, November). The condom-drum: College student's attitudes toward condom use in pornography. Poster presented at the Society for the Scientific Study of Sexuality Conference, San Juan, Puerto Rico.

Way, B.M., **Griffin, K.R**., & Kraus, S.W. (2021, October). Erectile dysfunction in a national sample of male U.S. veterans. Poster presented at the Society for the Advancement of Sexual Health conference, Seattle, Washington.

Etuk, R., Xu, T., Abarbanel, B., Potenza, M.N., **Griffin, K.R**., & Kraus, S.W. (2020, October). Sports betting around the world: A systematic review. Poster presented at the International Center for Responsible Gambling Conference. *Remote format due to COVID-19.

**Griffin, K.,** Diaz, R., Mekonnen, S., Salcedo, J., Sheikh, R., & Oswinn, L. (2019, April). *Professional Development Experiences in Psychology: Undergraduates from Underrepresented Groups.* Poster presentation to the Office of Undergraduate Research Spring Conference, Las Vegas, NV.

Galante, M., Hussey, J., Corey, A., Stucki, K. B., Danlag, A., **Griffin, K.,** Donohue, B., & Allen, D. N. (2018, August). *Sport-specific problems and mental health in athletes: Screening for referral to treatment.* Poster presentation to the American Psychological Association, San Francisco, CA.