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The Role of Social Response to Disclosure in Relgious and Spiritual Coping and Recovery From Sexual Assault

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ABSTRACT

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Many factors can discourage survivors of sexual assault from reporting their assaults. Even those survivors who disclose, their reporting experiences may not leave them feeling empowered or that they have received adequate support to begin the healing process after disclosure. Using a mixed methods approach, we examined the relationship between religious and spiritual coping strategies, the experience of social disclosure, and symptoms of posttraumatic stress disorder (PTSD) and depression using confirmatory factor analysis (CFA) and structural equation modeling (SEM). We further used qualitative data examining the ways that participants used religious/spiritual coping strategies in response to the trauma of sexual assault. In total, 94 female or non-binary participants were enrolled. The CFA showed good model fit for all latent factors except positive religious coping and positive social responses. The SEM path analysis found a significant relationship between the latent factor Distract and PTSD symptoms. No other variables were significant in the SEM model, likely due to the small sample size. Qualitative data themes were identified such as respondent-supported healing, responses promoting shutting down/isolation, and responses affecting self-blame for social disclosure and positive and negative religious coping. Finally, this study substantiates the importance of research assessing the needs and experiences of sexual assault survivors, as this is a population that is particularly vulnerable, and struggles to get adequate support and resources. An increase in understanding about the experiences, needs, and coping strategies of sexual assault survivors will help both informal and formal interventions become more effective.

Keywords: spirituality, religiosity, religious/spiritual coping, sexual assault, posttraumatic stress disorder, depression, social disclosure

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CHAPTER ONE

Introduction

The experience of sexual assault often causes a traumatic disruption of survivors' sense of meaning and world view. In this study, the term sexual assault refers to nonconsensual sexual contact, attempted penetration, or penetration without consent, with a threat of bodily harm, or at a time when the survivor is not able to give consent due to mental illness, intellectual disability, or intoxication (Ullman, 2010). The trauma of sexual assault and associated disclosure of sexual assault may result in symptoms of posttraumatic stress disorder (PTSD), depression, and anxiety that are particularly challenging to overcome (Relyea & Ullman, 2015). A study investigating patterns of recovery from sexual assault compared to nonsexual assault showed that sexual assault survivors experienced initial and peak reactions significantly more severe than those of nonsexual assault victims on all measures of psychopathology (Gilboa-Schechtman & Foa, 2001). Survivors who experienced a delayed peak reaction to the trauma also exhibited more severe pathology in the final assessment (Gilboa-Schechtman & Foa, 2001).

Religiosity and spirituality may significantly impact recovery process of sexual assault survivors. In this study, the term spirituality refers to a belief in the existence of a higher being or a life force that transcends everyday sense-bound reality (Bryant-Davis et al., 2011). It could also be a belief in a divine order, or faith that is used to make meaning of life experiences and increase in self-awareness (Connor et al., 2003; Bryant-Davis et al., 2011; Yick, 2008). Religiosity refers to outward expression of spiritual beliefs with involvement in organized religion (Bryant-Davis et al., 2011). Higher levels of religiosity and spirituality are often associated with greater levels of attachment security, self-control, comfort, and greater satisfaction and life meaning (Bryant-Davis et al., 2012).

One study found that sexual assault impacted over 15% to 30% of adult women, while another study found 17% to 24% of women have been sexually assaulted in their lifetime (Ullman, 2010). This traumatic experience significantly increases the risk that survivors will experience related mental health problems, including anxiety, depression, PTSD, and health risk behaviors such as substance abuse (Mgoqi-Mbalo et al., 2017; Nguyen-Feng et al., 2017; Sherman et al., 2015). Sexual assault results in a significantly higher risk of PTSD when compared to other traumatic events such as combat exposure or experiencing natural disasters (Nguyen-Feng et al., 2017). The impact of sexual assault often results in long-lasting and life altering changes in which the victim can experience a debilitating sense of self-blame, sleep disorders, flashbacks, panic attacks, heightened risk of suicide, and physical health problems which can become chronic over time. Sexual assault can also result in increased use of avoidant coping strategies to manage stressors and distress (Aldao et al., 2010). Survivors also score higher on measures of neuroticism, which is related to greater avoidant coping and an increased perceived lack of control over life events, which often results in higher levels of distress (Nguyen-Feng et al., 2017; Ullman et al., 2014; Ullman, 2010). Additionally, sexual assault increases the risk that the sexual assault survivor will be sexually assaulted again as survivors may engage in increased risky sexual behaviors and have decreased levels of self-efficacy to engage in assertive resistance behaviors, leading to increased vulnerability to completed sexual assault (Littleton, 2017; Bryant-Davis et al., 2011).

Common maladaptive behaviors that often result from sexual assault, such as cognitive disengagement, behavioral disengagement, denial, or the use of substances to cope, can create a deep and lasting negative impact on the victim's sense of wellbeing and physical and mental health. Such maladaptive behaviors may perpetuate the distress beyond that of the initial assault for long periods of time without ever addressing or alleviating the source of the problem (Ullman

et al., 2014). Further, the severity of the sexual assault experience (e.g., if there was threat of use of a weapon or a weapon used during the assault, if the survivor were punched or kicked, the location of the assault, etc.) resulted in survivors reporting higher mean scores for PTSD and depression symptomatology (Mgoqi-Mbalo et al., 2017; Ullman & Filipas, 2001).

Social Disclosure of Sexual Assault

Following sexual assault, an increased focus on the experience of social disclosure (telling someone) of trauma and sexual assault to others, and the impact of both positive and negative experiences of reaching out to others for help and support can occur (Relyea & Ullman, 2015). There are many reasons why survivors seek social support as an initial step in the recovery and healing process. A study found that the desire to get help or receive medical attention, prevent further crime, and protect others from experiencing similar assaults from the perpetrator, and ensuring that the offender was reported and punished for their crime were the main motivators to overcome barriers preventing social disclosure (Paul et al., 2013). The process of disclosure cannot be viewed as a single distinguishing event but rather a process. The amount of disclosure that occurs can vary from brief, subtle references to friends or family to formal statements made to law enforcement or other professional sources of help. Frequency of disclosure also varies depending on to whom the survivors disclose (Ullman, 2010).

Despite the many overwhelming mental health challenges survivors of sexual assault face, studies indicate that in the general population, only one half to two thirds of women disclose their experiences of sexual assault to someone during their lifetime, whether within their social network or to professionals (e.g., police, physicians, or health care providers) available in their communities (Ullman, 2010). Studies estimate that only 5% to 30% of sexual assaults that take place in college age populations are reported to the police (Ullman, 2010; Fisher et al.,

2003). The National Women's Study of 4008 women reported that only 16% of survivors reported to police, and only 26% reported to doctors (Ullman, 2010). Despite variability in the statistics, most studies suggested that survivors are least likely to report sexual assault to law enforcement, medical personnel, or rape crisis center professionals. Research consistently shows a much higher disclosure rate amongst survivors to informal sources that they trust, such as friends, family members, or partners (Fisher et al., 2003).

Barriers to social disclosure not only decrease the number of survivors who feel safe enough to disclose their experience, but also often create significant delays in when they do disclose. Many survivors will wait months or years before disclosing, and even then, only disclose to individuals who they view as informal sources of support such as friends or family, while rarely reporting to formal sources of support (Ullman, 2010). There are several significant, complex, and interacting factors that contribute to low rates of disclosure. Factors that affect disclosure include age, race, ethnicity, culture, acculturation, gender, interactions between race and gender, social class, conformity to rape stereotypes, history of abuse, psychological distress and self-blame, parental communication about healthy sexual behavior, social expectations to seek help, and methodology used to access disclosure (Ullman & Foynes et al., 2010; Ullman et al., 2007).

One of the most intimidating barriers to disclosure comes from the beliefs survivors have regarding how the social disclosure of their assault will be received by family, friends, and help professionals. Research has shown that socioeconomic status factors such as income or education have a significant influence on whether survivors will receive more sympathetic attitudes towards survivors of sexual assault, as SES indicators such as income and education are related to more sympathetic attitudes towards survivors of sexual assault, as well as a greater likelihood

of rejecting rape myths (Ullman, 2010). The details surrounding the sexual assault, such as whether it could be viewed as a "stereotypical stranger assault" also have been shown to influence the likelihood of disclosure to others. "Non-stereotypical" situations, such as whether the victim had a relationship with the perpetrator, whether there was drinking involved, how the victim was dressed, where the assault occurred, etc., increases the likelihood that the victim will hesitate to disclose, and increases the likelihood that survivors will anticipate negative reactions before disclosing (e.g., that their disclosures will be disbelieved, questioned, or become negative experiences; Spencer et al., 2020; Ullman, 2010). There is also the complexity of unpredictability of social responses from support providers regardless of being formal or informal (Ahrens et al., 2009). If individuals who disclose sexual assault receive negative reactions to disclosing, this can then reinforce feelings of self-blame, and even cause them to question their legitimacy as a sexual assault victim. (Ullman, 2010; Ahrens, 2006). One of the most worrying impacts of negative responses to disclosure that could occur is secondary victimization, which can result in the victim being revictimized for speaking about their assault experience (Ullman, 2010).

One aspect of the impact of sexual assault and how people respond to disclosure that is not as frequently discussed, is how sexual assault affects the survivor's overall perspective on life. Spirituality refers to the process of finding spiritual meaning in life events and involves how religiosity can positively or negatively influence the recovery process (Hill & Pargament, 2003). Importantly, both religion and spirituality are means by which people strive to understand, cope with, and transcend our daily lives, highlighting the integral role religion plays in processing and coping with trauma (Hill & Pargament, 2003). For individuals who are adversely affected by

traumatic events, questioning and sense-making after experiencing trauma are often strongly influenced by spiritual or religious themes (Calhoun et al., 2000).

Statement of Problem

Many of the immediate and long-term effects of sexual assault can be crippling in their intensity and have a lasting influence on survivors' quality of life and their ability to live the ways they would prefer. There are many diverse impacts of sexual assault. Social disclosure is often a significant and vulnerable initial step toward healing that survivors take to initiate the recovery process by reaching out to individuals they trust for aid, resources, and a safety network of support through understanding and empathy to trusted individuals (Ullman, 2010). Religiosity and spirituality also serve as protective factors in the recovery process and can be influenced by social support and response to disclosure (Bryant-Davis et al., 2011). This study is meant to increase understanding of the impacts of responses experienced by sexual assault disclosure and religious/spiritual coping strategies on survivors of sexual assault during the recovery process. Formal and informal sources of support may effectively and mindfully meet the diverse and multi-faceted needs of survivors.

Statement of Purpose

This study seeks to explore the following:

- Improve understanding of the impact of sexual assault survivors' experiences as they disclose their sexual assault to others.
- Improve understanding of the religious and spiritual coping methods that sexual assault survivors use during the recovery process.

- Analyze how religious and spiritual coping methods and reactions to social disclosure responses are correlated with symptoms of depression and posttraumatic stress disorder (PTSD).
- Explore through open ended qualitative questions how participants' unique perspectives and experiences enhance insights from the quantitative data analysis.

Hypotheses

Five hypotheses are outlined for this study:

1. Positive spiritual and religious coping and high levels of positive social responses to disclosure will positively correlate with fewer symptoms of depression and PTSD.
2. Positive responses to disclosure will positively correlate with positive religious coping.
3. Negative religious coping and negative social responses will positively correlate to symptoms of depression and PTSD.
4. Qualitative data will help us better understand subject perspectives and experiences through open-ended questions.
5. A causal relationship will exist between social disclosure and PTSD and depression symptoms, and causal relationships between religious/spiritual coping and PTSD and depression symptoms. This will be found through an SEM causal analysis of the latent factors.

CHAPTER TWO

Literature Review

To build a thorough understanding of the impact of social disclosure, this literature review will outline research on the current climate that surrounds societal views of sexual assault that may shape the perspectives of survivors concerning the assault and their views of themselves. This review will discuss the experience of social disclosure to both formal and informal help sources and the impact of positive and negative responses to disclosure. This paper will then discuss the role of spirituality and religiosity in terms of coping and making sense of sexual assault, as well as how survivors make sense of their self-worth and what they have experienced. We will also review how other factors are connected to the experience of sexual assault and how they impact the recovery process.

Survivors of sexual assault often face significant and complex challenges during the recovery process. This traumatic experience can increase vulnerability to many negative factors that can impede the use of coping skills and the recovery process, ranging from increased mental health concerns to social problems that are impacted by feelings of shame, guilt, substance abuse, PTSD, depression, anxiety, suicidality, and other short- and long-term effects (Bryant-Davis et al., 2011; DeCou et al., 2017). PTSD refers to symptoms that are caused and maintained by an individual's cognitive efforts to cope with traumatic experiences (Wortmann et al., 2011). In contrast, survivors may also develop a notable increase in their resiliency as they develop higher levels of self-adjustment, self-acceptance, and hope (Bryant-Davis et al., 2011; Gall et al., 2007).

There has been an increase in studies exploring the roles that religious views and spirituality have on the process of recovery from trauma. However, more research in this area is

needed. A study in 2004 on formal help-seeking strategies found that the high frequency and relative helpfulness of prayer as a coping strategy showed that the integration of spirituality into mental health research and intervention efforts needs greater attention (El-Khoury et al., 2004). Having an intense sense of spirituality/religiosity is often associated with indices of well-being and serves as an integral coping strategy (El-Khoury et al., 2004). Religiosity and spirituality can also be influenced by negative coping strategies that can slow the recovery process. There is also evidence that religiosity may negatively influence responses to sexual assault. For example, religiosity has been shown to increase the likelihood of using passive strategies to confront harassers, as well as lower the probability of reporting. It may also serve as a determinant of rape myth acceptance (O'Connor et al., 2021). Rape myths are persistent social beliefs that are false and still widespread. They include beliefs such as that the sexual assault survivor is just making false allegations against the perpetrator, that rape is just sex, that they said no but meant yes, or that they asked for it, among other false beliefs.

Social Disclosure

Social disclosure is a critical factor in the recovery process from sexual assault. Social networks provide victims of trauma with a means to express their emotions and come to terms with their traumatic experience, decreasing the likelihood that survivors will experience prolonged PTSD symptomatology (Mgoqi-Mbalo et al., 2017). Sexual assault is considered one of the most underreported of all violent crimes (Orchowski & Gidycz, 2012). In 2020, the U.S. Department of Justice reported that from 2015-2019, only 31% of sexual assaults are reported to the police. Even more concerning is the statistic that among college women—the age group most likely to experience sexual assault—only about 20% of female students report being assaulted to police (U. S. Department of Justice, 2020). This is a critical issue, since unreported sexual assault

can impact survivor eligibility for assistance programs for medical and health care (Walsh & Bruce, 2014). A study reported that approximately one in four women are sexually assaulted in college (Holland & Cortina, 2017). Despite the evolving support structure for survivors with changes to Title IX and other laws where sexual assault policies have been overhauled with improved policies, procedures, and resources; the likelihood to report and refer varied, depending on knowledge of reporting procedures, resources, trust in the support available, and perceptions of mandatory reporting policy (Holland & Cortina, 2017).

Most studies do not specify to whom, specifically, survivors socially disclose, whether formal support such as mental health professionals, medical professionals, police, or religious leaders; or informal supports such as friends or family. A study found that two-thirds of survivors usually tell someone other than police (Fisher et al., 2003; Ullman, 2010). Many potential reasons exist why so few individuals feel comfortable or safe reporting their experiences and reaching out to others for help. Studies of social disclosure are beginning to provide a better understanding of the difficulty that still exists for social disclosure. For example, it is estimated that one third to two thirds of survivors experience one or more negative responses to disclosing their experience to others (Ullman, 2010; Ahrens et al., 2007; Starzynski et al., 2005). It has also been found that PTSD symptoms account for a significant proportion of the variance in reporting behavior. Increased avoidance symptoms were associated with decreased probability of reporting, which, in turn, negatively impacts the course of recovery from PTSD (Walsh & Bruce, 2014; Ehlers & Clark, 2000). Increased understanding of the factors that influence social disclosure encourages open discussions of the barriers that impede survivors' disclosure and prevent them from gaining access to social support.

The importance of social support that can come through survivors' disclosure was highlighted in a study that focused on African American women who had experienced sexual assault since the age of 14 (Bryant-Davis et al., 2011). They discussed the powerful influence of religiosity and spirituality on the recovery process and focused on the critical importance of social support. Social support is a factor that contributes to positive adaptation for survivors of sexual assault. Survivors described social support as a primary resource in recovering from traumatic or adverse experiences and played a protective role against development of post-traumatic stress disorder. Social support for survivors served a moderating role in the relationship between the number of lifetime traumas and post-traumatic stress symptoms. Finally, support resources for survivors eliminated the impact of trauma exposure, with additional trauma exposure no longer being related to increased post-traumatic stress symptoms (Bryant-Davis et al., 2011).

Inversely, survivors who felt the absence of social support reported greater post-traumatic stress symptoms. One study investigated how the severity of diverse types of PTSD symptoms in the acute post trauma period for survivors may be predictive of the course of PTSD over time (Carper et al., 2015). It found that sexual assault survivors who reported high levels of emotional numbing and reexperiencing, spending substantial amounts of time estranged from others, unable to experience positive emotions and disengaged from once enjoyable activities were more likely to develop problematic appraisals about the traumatic event (Carper et al., 2015). In Dr. Ullman's 2010 book *Talking About Sexual Assault*, she discussed significant factors that discourage social disclosure by survivors, and what can influence the likelihood of whether positive or negative responses to disclosure occur (Ullman, 2010). Some of the factors influencing the likelihood and timing of disclosure include age (older victims are more likely to

report sexual assault than younger victims), race, ethnicity and culture (White victims are more likely to report immediately), acculturation, gender (women are more comfortable disclosing than men), interactions between race and gender, social class, conformity to rape stereotypes, history of abuse, psychological distress, and self-blame, guardian communication about healthy sexual behavior, and social expectations to seek help (Ahrens, Rios-Mandel, et al., 2010; Ullman, 2010).

Depending on the type of responses survivors receive, social disclosure may either provide comfort, a sense of control and support, or exacerbate what is already a traumatic experience. Factors that determine whether disclosure will occur include being worried it "doesn't count" or fit in to sexual assault stereotypes, fear of being stigmatized or blamed by others, fear of reprisals from either the offender or others connected to the offender, and feelings of shame and self-blame (Sigurvinsdottir & Ullman, 2015). A study showed how survivors are more likely to disclose when their sexual assault fits the stereotypical "myth" of what such a sexual assault should be, such as the assailant being a stranger, using a weapon, with the survivor having fought back (Starzynski et al., 2005). Sexual assaults that did not fit with these myths were much less likely to be disclosed to sources of support, as they were viewed as less likely to be believed (Starzynski et al., 2005).

Another significant and concerning barrier is whether survivors view what happened to them as actual sexual assault. This could result from their social networks not believing them when they disclose their experience, when they suggest that their assault was just a misunderstanding, or when they blame the survivor (Ullman, 2010). Other factors that influence the likelihood and timing of social disclosure include age, race/ethnicity, culture, acculturation, gender, interactions between race and gender, social class, conformity to rape stereotypes,

history of abuse, psychological distress, parental communication about healthy sexual behavior, and social expectations to seek help from others (Ullman, 2010).

Another factor to consider is the experience of disclosure itself. One third of social disclosures are not self-initiated by the survivor, and 75% of those disclosures are to informal support of family or friends (Ullman & Filipas, 2001). Survivors who actively reach out for help to informal sources are more likely to receive positive responses, whereas survivors who actively reach out for formal support are more likely to receive negative reactions. Power differential between the survivor and the support person also influences the type of response (Ullman & Filipas, 2001). Positive, negative, and ambiguous reactions may have a significant influence on symptoms of depression and PTSD and the recovery process from the trauma of sexual assault, particularly negative social responses (Hakimi et al., 2018). Doctors and police often underestimated the negative impact that their responses were having on survivors who disclosed to them, despite their intentions to provide help and support (Ullman, 2010). Negative social reactions were more common when disclosing to formal support sources, and when disclosing to both formal and informal supports, survivors tended to receive more negative than positive reactions (Starzynski et al., 2005). Increasing awareness of the negative impact of social disclosure can help both formal and informal sources to better meet the needs of survivors.

Religiosity and Spirituality, Psychological Distress, and Wellbeing

Research has shown that many people turn to religion and spiritualty as a resource in their attempts to conceptualize and deal with traumatic events in their lives (Pargament et al., 2011). Research has also connected indices of religious coping to measures of health and well-being among diverse groups facing critical life stressors (Pargament et al., 2011). One study discussing the advancements in the conceptualization and measurement of religion and

spirituality described that although defining a construct as religious and spiritual is limiting, spirituality refers to searching for the sacred, where individuals seek to "discover, hold on to, and, when necessary, transform whatever they hold sacred in their lives," with the search often taking place in a larger religious context, whether traditional or nontraditional (Hill & Pargament, 2003). The importance of emphasizing both religiosity and spirituality was shown in a study on battered women's formal help seeking strategies, where seeking help from clergy and prayer were considered separate constructs, since women could pray without necessarily seeking guidance of clergy (El-Khoury et al., 2004). Despite the significant roles religiosity and spirituality play as sources of support and coping, they are, at times, avoided topics in psychological and social research (Hill & Pargament, 2003). This lack of research can have a significant impact on our ability to gain clear insight on how individuals process and cope with psychological distress due to the prominent role that religion and spirituality play in many individuals' lives. In the United States in 2011, 92% of Americans reported believing in God or some form of higher power (ter Kuile & Ehring, 2014; Newport, 2011).

Religiosity and spirituality can help individuals make meaning of distressing events, seek spiritual support from a divine being, seek social support from their religious community, and use religious or spiritual beliefs to promote healing, resilience, and well-being (Bryant-Davis et al., 2012). For many individuals, religion and spirituality can be powerful resources in recovering from traumatic events and PTSD. Conversely, life stressors and traumatic events can affect spirituality both positively and negatively (Knapik et al., 2008). Religious coping can have multifaceted results in individuals. A study of 572 Jewish adults showed that positive religious coping predicted higher subjective well-being, but not higher or lower levels of depression or anxiety (Rosmarin et al., 2017). Positive religious coping refers to methods where individuals

use religious beliefs to adapt to or reduce stress. Negative religious coping refers to poor adaptation when faced with stressors. Negative religious coping predicted lower subjective well-being, as well as higher levels of depression and anxiety (Rosmarin et al., 2017). Similarly, Ben-Ezra and colleagues (2010) found that there were changes in belief patterns after sexual assault (Ben-Ezra et al., 2010). Another study found that positive religious coping was related to higher levels of well-being and lower levels of depression, while negative religious coping was related to higher levels of depression (Ahrens, Abeling et al., 2010). A study that explored positive and negative life changes following sexual assault showed that most survivors that participated in their study reported positive changes even two weeks after the assault, with positive changes increasing over time as negative changes decreased (Frazier et al., 2001). These positive changes occurred in areas such as one's sense of self, improved relationships (increased closeness to others), and changes in spirituality or life philosophy. However, both positive and negative changes followed different courses and showed significant variability in change patterns depending on the individual (Frazier et al., 2001).

In previous studies, relationships between spiritual struggles and poorer mental health and well-being have been found (Exline & Rose, 2013; Currier et al., 2017). Assumptions about worldview and values connected with religion and spirituality can be challenged and threatened in a way that impacts how people respond to trauma. The way people respond to psychological distress and trauma can be influenced by the spirituality or religiosity of the survivor either by experiencing spiritual struggles or finding their beliefs as a source of positive support. In a study conducted by Abu-Raiya et al. (2015) the relationship between religious and spiritual struggles, psychological distress, and general levels of well-being was explored in a nationwide sample of American adults. Religious struggles in this study were defined as tension, strain, conflict with

other people in the individual's religious community, or conflict within themselves concerning what the individual considered sacred or supernatural. Five specific types of spiritual struggles were assessed: *divine struggles* - tension or conflict centered around beliefs in God or perceived relationships with God, *demonic struggles*-concern that the devil or evil spirits were causing negative events in the person's life, and *interpersonal struggles* –negative experiences with religious people or institutions or conflict with others around religious issues. Interpersonal struggles were divided further into three subcategories: *moral struggles, doubt struggles, and ultimate meaning struggles* (Abu-Raiya et al., 2015). Such struggles were less prevalent in healthy individuals who identified strongly with their community. Related research has highlighted how the prevalence of religious or spiritual struggles are more or less present depending on certain demographics (Johnson & Hayes, 2003). In individuals struggling with illness, 15% experienced religious struggles. Further, religious struggles were much more widespread among college students, with about 25% of 5,000 surveyed students reporting significant distress associated with religious or spiritual concerns (Johnson & Hayes, 2003).

A study that focused on spiritual struggles and suicide in veterans who sought treatment for PTSD symptoms found spiritual struggles were the most predictive of suicide (Raines et al., 2017). Thus, trauma can often result in either a loss of faith or spiritual struggles, and that these were both associated with a significantly increased risk of suicide among veterans. The study also found that there were specific types of spiritual struggles that significantly increased the risk of suicide. Using a religious and spiritual struggle scale the authors found that divine struggles and struggles with the "ultimate meaning" of life events were most predictive of suicide. In addition, trauma may affect spirituality and religiosity by threatening established spiritual values and beliefs, which lead to distress. Finally, there was a positive correlation between spiritual

struggles and alcohol misuse, drug abuse, and PTSD symptomatology, as well as suicidal behavior (Raines et al., 2017).

Religiosity, Spirituality, and Post-Traumatic Stress Disorder

A study investigated how veterans' health was affected by spiritual struggles (Kopacz & Connery, 2015). In exploring the positive aspects that spirituality can provide when it is a source of strength instead of struggle, it was found that spiritual well-being mitigated suicide risk as it reduced dissonance in how participants perceived, interacted with, and experienced the external world. Many participants in this study had a need to make meaning after experiencing wartime trauma. One of the sources that veterans often seek out is spiritual support, often through organized religion and pastoral care services (Kopacz & Connery, 2015). In trauma survivors, spiritual health was positively associated with physical and mental health and well-being and was also inversely related to a variety of pathologies. In addition, negative spiritual coping has been associated with greater PTSD symptom severity (Kopacz & Connery, 2015). The veterans who scored higher on the spiritual distress scale had an increased likelihood of being found with a significant suicide risk factor (Kopacz & Connery, 2015). Further, those veterans who already possessed a history of suicide ideation on average rated themselves as worse in spiritual health than those who had no previous suicide ideation tendencies. Thus, guilt may often be grounded in a religious context and reasoning (Kopacz & Connery, 2015). Moral injuries are often sustained through perpetrating, failing to prevent from occurring, witnessing, or even learning about acts that went against deeply held moral beliefs and expectations. This study shows the critical role of the spiritual dimension to PTSD and clarifies how spiritual functioning dimensions can be used with a significant level of accuracy in predicting the severity and chronicity of PTSD symptoms (Kopacz & Connery, 2015). It also found that spiritual struggles

may occur throughout life, and that the importance of promoting spiritual well-being in survivors was an essential aspect of addressing suicide ideation, as spiritual well-being proved to be a protective factor against suicide (Kopacz & Connery, 2015).

Wilt et al., 2016 explored the relationship between beliefs and suffering, as well as divine struggle and mental health. They found spiritual struggles can potentially mediate the associations of beliefs about suffering with psychological distress and mental health, highlighting the critical relationship of how the survivors view the cause and purpose of suffering trauma in relation to their beliefs of divinity. In addition, such associations can have a dramatic impact on their resultant distress levels as well as rate of progression towards recovery (Wilt et al., 2016). This research emphasizes how religious beliefs can affect the impact of distress from trauma.

Beliefs About Suffering and Implications for Psychological Health

A study that examined both undergraduate and US adult populations found that divine struggle and heightened levels of distress were positively associated with beliefs of God's involvement in suffering as non-benevolent, and a benevolent God was associated with increased mental well-being and lower levels of distress (Wilt et al., 2016). Further, nuances present in the beliefs held by participants could have a significant impact on the levels of distress and divine struggle they experienced. For example, *unorthodox* beliefs (in this study, unorthodox beliefs refer to beliefs in a divine being who is not completely benevolent and therefore causes and/or allows suffering) about God's role in suffering related to significantly higher levels of distress, divine struggle, and a lower psychological well-being. Further, beliefs that place God in a benevolent role regarding suffering were also related to increased divine struggle, which served as a mediator between these beliefs and levels of well-being and distress. Belief that God has

limited knowledge of the future and therefore cannot foresee or prevent suffering was linked to higher well-being (Wilt et al., 2016).

Alternatively, divine struggle was frequently found in participants who believe that God plays a benevolent role in suffering, as well as for those who believe God is not completely benevolent (Wilt et al., 2016). In attempting to determine why a belief of God's benevolent role in suffering could still result in increased negative divine struggle and distress, it was suggested that participants who had a positive relationship with God may view protests, complaints, negative emotion or conflict, and self-assertion as acceptable ways to connect with God, and may be a sign of greater involvement in spiritual life. Different beliefs regarding why suffering occurs and God's role in it may influence cognitive reactions, as well as subsequent adaptive or maladaptive coping strategies (Wilt et al., 2016). This complexity of belief interactions with religious coping strategies important to consider in answering the hypothesis of the relationship of positive and negative religious coping with symptoms of PTSD and depression.

The Effects of Trauma on Spirituality

PTSD symptoms are often the result of basic assumptions about the safety of the self and the environment being contradicted in a way that is both profound and shattering because of traumatic events (ter Kuile & Ehring, 2014). These events can also serve to reinforce negative beliefs that were already pre-existing. Since memories of trauma often cannot be easily reconciled with prior beliefs, PTSD symptoms can persist, while traumatic memories remain for a prolonged period in active memory (ter Kuile & Ehring, 2014).

Religiosity and spirituality can have a significant impact on trauma and recovery (Smith, 2004). A study conducted by Wortmann et al. (2011) serves as an illustration of the importance of religious and spiritual cognitions in relation to traumatic events, as they often comprise a

considerable part of people's global meaning system. The study tested the role of spiritual struggle (a set of negative cognitions related to interpreting and responding to stress causing events) in the development and maintenance of PTSD symptoms and found that spiritual struggle is an important cognitive mechanism for those who experience trauma, suggesting relevance for therapy treating PTSD (Wortmann et al., 2011). Although religion often serves as a source of comfort and stability, it can also become a source of stress if beliefs or attributions lead to maladaptive ways of interpreting traumatic events. This could include believing that stressful events are punishments from God, are the work of evil forces, or are proof of God's diminishing power or lack of involvement.

To explore the often-unexamined factors that spiritual struggles contribute to PTSD symptoms; current research focuses primarily on cognitive factors that affect PTSD symptoms. A study focused on spiritual struggle in trauma victims, specifically examining how spiritual struggle affects the development and maintenance of PTSD symptoms (Wortmann et al., 2011). College first-year students and women were surveyed to assess the traumatic and non—traumatic events they had experienced during their first year of college, spiritual struggles they experienced in relation to their reported traumatic events, and the specific PTSD symptoms that they experienced because of the traumatic events. Results found that spiritual struggles partially mediated the relationship that exists between trauma and PTSD symptoms. Views of punishment, the world being malevolent, or that God can be cruel or capable of abandoning participants during traumatic events was associated with poorer well-being. Specific spiritual discontent associated with anger towards God, questioning of God's love, wondering whether one was abandoned by God, or feeling betrayed and let down were related to higher levels of depression, suicidality, and PTSD symptoms. Both malevolent worldviews and a sense of a

disrupted relationship with God were considered potential causes of both the appearance of PTSD symptoms and their persistence over time. Parallels were drawn between negative spiritual struggles and negative cognitions associated with PTSD symptoms. The main conclusion of the study was that spiritual struggle (Wortmann et al., 2011), which previous studies have shown to be common in college students (Bryant & Astin, 2008), is a significant factor to consider in relation to traumatic events. Trauma exposure heightened spiritual struggles, which related to higher levels of PTSD symptoms.

In a study focusing on spiritual struggles and reconciliation, 100 Vietnam veterans were studied to determine how spiritual struggles influenced the severity of PTSD symptoms and affected the recovery process (Sherman et al., 2015). Negative religious coping related to higher levels of PTSD symptoms, poorer quality of life, lower levels of physical health, and poorer overall cognitive functioning (Sherman et al., 2015). Veterans are subject to a unique type of spiritual struggle labeled in this study as "moral injury," acquired during the experience of combat, particularly during instances in which veterans were expected to engage in actions that they considered "wrong" from a spiritual standpoint, such as killing or wounding others, or witnessing such events. From the 100 veterans surveyed, 74% struggled to reconcile their religious beliefs with their experiences in combat. A total of 51% lost their religious faith, and 50% experienced guilt and diminished religious faith (Sherman et al., 2015). Another study determined that veterans who felt their faith was weakened requested mental health services at a significantly increased level over the course of their lives, which could possibly be due to a desire to search for meaning and purpose to their traumatic experiences (Fontana & Rosenheck, 2004).

Although many of the studies mentioned focus on the impact of trauma on adults, it is also pertinent to examine the impact of events that occurred during childhood. A study was conducted in India to explore the effects of adverse childhood experiences in relation to religiosity and spirituality, with a comparison of these effects by gender (Santoro et al., 2016). From the 139 adolescents surveyed, it was determined that despite some differences in how religiosity and traumatic events affected participants according to their gender, adversity and existential well-being were significantly and inversely related for both sexes, while adversity predicted an increased desire to connect with a higher power for support. Childhood adversity impacted health and functioning throughout the lifespan, and religiosity and spirituality were characterized by a reciprocal relationship (Santoro et al., 2016). While religiosity and spirituality often functioned as a buffer that reduced the impact of adversity, it also was influenced by the adversity. Abuse could therefore result in a decrease of religiosity or spirituality and cause a weakening of the attachment to a higher power by increasing insecurity. Differences between sexes were characterized by responses to adversity, with boys experiencing a greater desire to connect with a higher power, and girls experiencing an increased reliance on religious coping strategies (Santoro et al., 2016). Importantly, this study found adversity can interfere with the development of religiosity and spirituality, lessening its ability to serve as a buffer to future traumatic events.

Trauma, Religiosity, Spirituality, and Psychiatric Disorders

For consumers of mental health services who suffer from psychiatric disabilities, a high number also have experienced traumatic events. A study was created to explore how trauma and spirituality intersected for individuals diagnosed with severe psychiatric disorders (Starnino, 2016). In Switzerland, 155 people with schizophrenia were surveyed, of which 71% utilized

personal and community-based spiritual and religious beliefs in their efforts to cope with traumatic events. Spiritual struggles were also experienced by participants. For 14% of those studied, the reliance on spiritual and religious coping was associated with negative effects. These effects included increased substance use, suicide risk, depression, and delusions (Starnino, 2016).

Spirituality and religion often could become either a positive source of support that encourages an increased rate of recovery from traumatic events or could also become an area of struggle and uncertainty (Starnino, 2016). Three types of spiritual struggle were discussed as sources of increased distress and poor psychological adjustment, including interpersonal conflicts with spiritual communities, intrapersonal religiously related doubts, guilt, or fear, or divine struggles such as feeling abandoned or otherwise punished by a divine source (Starnino, 2016). For individuals who deal with these spiritual struggles for an extended period, they face a greater risk of developing lasting mental health difficulties. However, if spiritual struggles are addressed successfully with the proper support, these struggles can be brief and serve as growing experiences. Negative religious coping was strongly associated with repeated childhood sexual abuse, particularly concerning the spiritual struggle of feeling abandoned by God or other sacred sources (Starnino, 2016).

One study found a relationship between prayer and posttraumatic growth, finding that those who experienced interpersonal trauma such as sexual abuse found a significantly greater difficulty in using prayer for positive coping (Harris et al., 2010). Another study found that women who were diagnosed with both a DSM mental health issue and substance abuse would often question their religious faith after experiencing trauma (Fallot & Heckman, 2005).

A review of 34 studies was completed to identify how abuse that occurred during childhood had a lasting impact on spirituality and religion (Walker et al., 2009). The lasting

impact on religion could often be either positive or negative, depending on a variety of factors. Some abuse survivors turned to religious leaders, church members, or God for support and comfort, while others rejected the notion of a benevolent God and did not rely on religious services or prayer as coping skills, often avoiding attendance or prayer altogether. There were also many survivors that lived life between these two extremes, dealing with continued uncertainty and struggling to create personal meaning or reconcile it with beliefs and practices. Interestingly, a tendency was found in quantitative studies in this review on abuse and spirituality that emphasis was frequently placed on loss of religious beliefs, while the qualitative studies often described study participants as experiencing a mixture of both increases and decreases in spirituality in distinct aspects of their lives. However, most studies reviewed indicated that a decreased religiousness or spirituality was often significantly correlated with childhood abuse (Walker et al., 2009). The most common findings were a damaged view of and relationship with God, with survivors increasingly viewing him as punitive, distant, wrathful, unfair, and less loving when compared with those who had not experienced abuse. Further, the degree that the victim associated the abuser with their religion increased the negative effects and spiritual decline resulting from abuse. For example, abusers who were priests, carriers of priesthood or other religious authority, were identified by survivors result survivors having a greater difficulty in trusting other religious authority figures and God (Walker et al., 2009).

Summary of Literature Review

Previous research shows that the traumatic experience of sexual assault increases the vulnerability of sexual assault survivors to further negative experiences during the recovery process, including responses to sexual assault disclosure, lack of social support, and religious coping that increases feelings of shame, guilt, posttraumatic stress disorder, depression,

suicidality, anxiety, and other negative effects. Survivors may also increase in their resiliency as they engage in coping strategies that result in higher levels of self-adjustment, self-acceptance, and hope. Social disclosure is considered a critical factor in the recovery process and helps healing from the traumatic experience and decrease prolonged symptoms of PTSD. Social disclosure can become a source of comfort and support or exacerbate symptoms of trauma depending on the type of response received. Religiosity and spiritualty may also be critical factors in the recovery process, as they are often significant global systems of meaning. Religious and spiritual beliefs help individuals conceptualize and deal with traumatic events, and therefore may help in both positive and negative ways during the recovery process depending on how traumatic events are interpreted in relation with systems of belief. This study was designed to increase our understanding of the effects of social disclosure reactions as well as the influence of religious and coping strategies, with the hope that gathering data from these factors will increase insights into how we can better support survivors of sexual assault and understand the unique ways that factors interact as survivors begin the healing process.

CHAPTER THREE

Method

Study Participants and Recruitment Procedure

Participants who were age 18 and older were recruited for this study. To be eligible for the study, participants had to have experienced sexual assault from the age of 14 or older. Participants who completed the study (online questionnaires) were compensated for their time with a $15.00 Amazon gift card which was accessible to any participants who provided an email address to which the card could be sent.

Participants were recruited through women's support centers for sexual assault survivors that provide counseling, shelter, and other support in a western mountainous region of the United States. Study recruitment was done using a digital flyer that was sent to directors of sexual assault survivor support groups and centers, which described the purpose of the study and offered voluntary participation for any interested participants. Directors for two online support groups for sexual assault were also contacted to share the flyer with any interested individuals who received support from them. The flyer provided a link to the Qualtrics internet survey that assessed religious/spiritual coping, depression, social support, and PTSD.

This study was approved by the Brigham Young University Institutional Review Board and conformed to institutional and federal guidelines for the protection of human subjects. The Student Development Services department of Brigham Young University provided funding for this study. The first page of the survey included information about the study, protection of privacy, and survey completion indicated implied consent.

Demographics

Demographic information was collected as part of the online survey. Participant information collected included age, marital status, socioeconomic status, race, ethnicity, religion, if they have children, sexual orientation, gender, education level, if currently a student, if currently employed, the age which the sexual assault occurred, time of disclosure (from same day to over one year later), and to whom they disclosed their experience.

Instruments

The Brief Religious Coping Questionnaire (RCOPE)

The RCOPE is a short 14-item measure assesses religious coping with major life stressors. It is used as a measure of religious coping to increase understanding of the role religion serves in the process of dealing with life transitions, crises, and trauma. Items were generated through interviews with people who experienced major life stressors. Both positive and negative forms of religious coping are measured. There are 7 items for positive religious coping subscale and 7 items for negative religious coping subscale. The items were identified through factor analysis of the full RCOPE. The full RCOPE has 28 items that are rated on a 4-point Likert scale, with 0 indicating *not at all* and 3 indicating *a great deal*. Scores for each subscale are summed, with higher scores indicating better coping. Positive religious coping indicates having a secure relationship with a transcendent force, feeling a sense of spiritual connectedness with others, and having a benevolent world view. Negative religious coping indicates the presence of underlying inner struggles and spiritual tensions with oneself, others, and with what participants consider the divine.

Both the positive and negative subscales have documented internal consistency by an empirical study (Pargament et al., 2011). There is significant support for construct validity,

predictive validity, and incremental validity of the subscales. The median alpha for the positive religious coping scale was 0.92. Alphas for the negative religious coping scale were generally lower than the positive religious coping scale, and the median alpha for the negative religious coping scale was 0.81 (Pargament et al., 2011). The positive religious coping scale is positively related to posttraumatic growth with an *r* of 0.37 but is unrelated to PTSD symptoms. The Negative Religious Coping scale measured by the Brief RCOPE survey, which was included in this study's questionnaire, is a robust predictor of health-related outcomes. The negative religious coping scale is significantly related to symptoms of anxiety, depression, PTSD symptoms, negative affect, and pain (Pargament et al., 2011). The Brief RCOPE has also been shown to be an effective evaluative tool that is sensitive to the effects of psychological interventions, demonstrating usefulness for research and practice in the psychology of religion and spirituality (Pargament et al., 2011).

Center for Epidemiological Studies Depression Scale (CES-D)

The CES-D assesses symptoms of depression. This is an 8-item version, in which participants rate the extent that they experience eight specific depressive symptoms in the last week. This is based on a 4-point scale from *never* to *every day*. The Likert scale ranges from 0 to 3 with higher scores indicating greater symptoms of depression. A score of greater than or equal to 16 is considered an indicator of depression. This measurement has a confidence interval of .81 (Abu-Raiya et al., 2015). Another study found a Cronbach's alpha of .90 (Cosco et al., 2017).

The Social Reactions Questionnaire (SRQ)

The Social Reactions Questionnaire assesses positive and negative social relations. This 48-item self-report instrument developed from an initial checklist of positive and negative social reactions experienced by survivors of sexual assault and was constructed from a literature search

and pilot tested with sexual assault survivors. The SRQ was designed to assess specific types of positive and negative social reactions that go beyond the positive and negative distinction reported by previous surveys in sexual assault literature to rectify lack of measures assessing social reactions to sexual assault victims (Ullman, 2010). There are 48 items with three general scales which include turning against, unsupportive acknowledgement, and positive reactions. The item responses are based on a 5-point scale. The Likert scale ranges from 0 to 4 with 0 being *never* and 4 being *always*. The scores are calculated by adding total response numbers and then averaging them for each scale. The SRQ has seven specific subscales including emotional support, tangible aid, blame, stigma, control, egocentric, and distract. The definitions for each subscale follow. Emotional support refers to providing comfort and support to the victims and getting them assistance. Tangible aid refers to assistance provided to the survivors such as providing or connecting with resources. Blame refers to overt statements that the assault is due to the survivor's behavior. Stigma refers to treating the survivor differently or like 'damaged goods' after the assault. Control refers to trying to take control of the survivor or the situation following the assault. Egocentric refers to when support providers respond in a selfish way that reflects their concern about the effect of the victim's assault on themselves. Distract refers to responses of discouraging the victim from talking about the assault (Ullman, 2010).

Internal consistency reliability was calculated using Cronbach's alpha for the seven social reaction subscales derived from a factor analysis. Alphas for the seven subscales were .93 for emotional support/belief, .86 for treat differently, .80 for distraction/discourage talking, .83 for taking control, .84 for tangible aid/information support, .80 for victim blame, and .77 for egocentric reactions. Correlations for subscales were expected, with negative social subscales significantly positively correlated with each other (r ranges from .15 to .72, with $p < .001$) and

positive social reaction subscales significantly positively correlated with each other, with an *r* of .58, $p < .001$. Negative social reaction subscales were unrelated or negatively correlated with the emotional support/belief reaction subscale, and unrelated or positively correlated with the tangible aid/information support scale. Tangible aid was related to more negative reactions of distraction and egocentrism. Test-retest reliability correlations were statistically significant with $p < .001$. Values of Pearson's *r* were .74 for distraction/discourage talking, .75 for emotional support/belief, .78 for tangible aid/information support, .64 for victim blame, .81 for treat differently, .78 for taking control, and .80 for egocentric reactions (Ullman, 2000).

The PTSD Checklist, Civilian Version (PCL-C)

The PCL-C is a 17-item self-report measure of symptoms of PTSD based on the Diagnostic and Statistical Manual-IV (DSM-IV) and is derived from the PCL-Military Version. Responses range from 1 to 5, and the total score is computed by adding all items. It is identical to the military version except that it includes an inquiry about a "stressful experience from the past" instead of using the words "military trauma." It has excellent retest reliability after two to three days with an *r* of .96. The PCL-C also has excellent internal consistency with an alpha of .97 and good convergent validity as reflected by high correlations with the CMS for PTSD with an *r* of .93 and the PTSD subscale of the MMPI-2 with an *r* of .77, as well as the Impact Events Scale with a *r* of .90 (Conybeare et al., 2012). A total score greater than or equal to 50 predicts a clinical diagnosis of PTSD. The PCL is one of the most widely studied self-report measures of PTSD. The psychometric properties have also been good among undergraduates that were selected for pre-existing trauma, as well as undergraduates from the general population (Conybeare et al., 2012).

Qualitative Survey Questions

To better understand the experiences of sexual assault survivors, study participants were given the option to voluntarily respond to two open-ended questions about their experiences disclosing to others. These qualitative questions were provided in writing at the end of the online questionnaire. These questions assess telling others about their sexual assault and how responses from others affected survivor religiosity and spirituality. The first open-ended question was, "If you feel comfortable sharing your experience, briefly describe your experience disclosing your sexual assault to others, and how it influenced your recovery process." The second open-ended question was, "Please describe how the responses you received from others when disclosing your sexual assault influenced your spirituality or religiosity. For example, how did telling others about your sexual assault impact your beliefs about God or a higher power and/or any of your religious devotion or practices?" Of the 94 participants, 65 (69%) submitted qualitative responses to at least one of those two questions.

Data Analysis

Descriptive statistics were calculated for all demographic variables. The statistical software SPSS was used to analyze the demographics of participants as well as descriptive statistics.

Individual Confirmatory Factor Analysis

In the following paragraphs, latent variables are capitalized for clarity. The statistical modeling program Mplus was used for the analysis of both the confirmatory factor analysis (CFA) model as well as the structural equation model (SEM). Individual CFA analyses were completed for each individual latent variable (Brief RCOPE (latent factors Positive Religious Coping, Negative Religious Coping), CESD (latent factor Depression), Social and Response

Questionnaire (latent factors Distract, Control, Egocentric, Stigma, and Blame), and the PTSD Checklist (latent variable PTSD). (Bryant-Davis et al., 2011; Abu-Raiya et al., 2015; Conybeare et al., 2012; Pargament et al., 2011)

In determining the criterion for evaluating models in CFA and SEM and to obtain a relatively good fit between the hypothesized models and observed data, the Bentler Comparative Fit Index (CFI, a measure of fit in SEM analysis) was checked with a value of greater than .90 considered ideal (Hu & Bentler, 1999); the Root Mean Squared Error of Approximation (RMSEA, a measure of fit in SEM analysis) was checked with the expectation of it being close to or less than .10 with an upper bound of the 90% CI of .10 (Browne & Cudeck, 1993).

Combined Confirmatory Factor Analysis and Structural Equation Modeling Causal Analysis

After the individual CFAs were performed, a larger CFA was completed to provide a structural model with the system of paths and correlations among the all the latent variables and determine whether there was a good model fit. The latent variables included negative social reaction latent factors Distract, Egocentric, Blame, Stigma, Control, Positive Religious Coping, Negative Religious Coping, Depression Symptoms, and PTSD Symptoms. Finally, an SEM analysis was performed to determine causal relationships.

Qualitative Content Analysis

Participant responses were analyzed using qualitative content analysis (Mayring, 2014) by a researcher with previous experience using this method. The qualitative content analysis involved reading through all the participant responses to determine meaningful categories or themes from the text for each item individually. The reviewer first read each response once to familiarize themselves with the data. The reviewer then read each response again, this time tracking meaningful sections or units of text present in the responses into themes. A general

name, usually consisting of a few words was used to distill and capture the meaning of each theme. A third reading involved reviewing each response to further analyze the fit of the themes with the data and to ensure that responses which fit with a particular theme were coded accordingly.

Once these readings were completed, the reviewer used Microsoft Word software to search for key terms in each of the major themes to ensure that no relevant response had been missed. Then two researchers not involved in the coding reviewed the quotes and tallies for each theme. For any unit of meaning to become a theme it had to be mentioned by at least two participants, therefore themes with only one mention were set aside. Finally, the reviewer analyzed the themes to ascertain related themes and organized them in a hierarchal fashion into major themes, themes, and subthemes and presented these themes to two other researchers for conceptual review and approval. It should be noted that the two other researchers did not tally theme frequencies independently. Therefore, there it is not possible to check for inter-rater reliability. This qualitative portion of the study was not intended to be an in-depth analysis, but instead functioned to gather unique perspectives of participants to better understand their experiences and find meaningful connections with quantitative data.

CHAPTER FOUR

Results

Descriptive Statistics

Of the initial 117 individuals who responded, only participants who completed all the questionnaires were included in the study, leaving 96 participants. Two further participants were removed from the data because they reported being under 18 years of age. Thus, a total of 94 women and non-binary individuals between the ages of 18– 49 years (M = 25.87 years, SD =6.426 years) who are survivors of sexual assault that occurred from the age of 14 or greater, participated in this study. The majority of participants had at least some college education (*n*=90, 95.8%), were currently single (*n*=61, 64.9%), did not have children (*n*= 77, 81.9%), and more than half identified as heterosexual (*n*=62, 66.0%), with the second largest percentage identifying as bisexual (*n*=23, 24.5%). Table 1 summarizes the demographics characteristics of the sample. Some of the percentages are slightly higher than 100% due to rounding in SPSS.

Table 1

Demographic Characteristics

Variable	Frequency	Percentage
Gender (*n*=94)		
Female	92	97.9
Non-Binary	2	2.1
Age (*n*=94)		
18-24	52	55.3
25-34	33	35.1
35-44	7	7.5
45-54	2	2.1
Education (*n*=94)		
High School Graduate	4	4.3
Some College	45	47.9
College Graduate	33	35.1
Advanced Graduate	12	12.8
Currently in School (*n*=91)		
No	48	51.1

Variable	Frequency	Percentage
Yes	46	48.9
Current Employment Status (*n*=94)		
No	26	27.7
Yes	68	72.3
Race/Ethnicity (*n*=94)		
White	62	66.0
Biracial/Multi-ethnic	11	11.7
Hispanic	6	6.4
Asian	6	6.4
Black/African American	1	1.1
American Indian/Alaska Native	1	1.1
Other	7	7.4
Sexual Orientation (*n*=94)		
Heterosexual	62	66.0
Bisexual	23	24.5
Pansexual	3	3.2
Questioning	2	2.1
Gay/lesbian	1	1.1
Asexual	1	1.1
Queer	1	1.1
Self-identified	1	1.1
Marital status (*n*=94)		
Single	61	64.9
Married	23	24.5
Cohabiting/living with someone	8	8.5
Divorced/separated	2	2.1
Children (*n*=94)		
No	77	81.9
Yes	17	18.1
Total household income (*n*=94)		
US $10,000 or less	15	16.0
US $10,001-$30,000	19	20.2
US $30,001-$50,000	20	21.3
US $50,001-$70,000	10	10.6
US $70,001-$90,000	12	12.8
US $90,001-$110,000	8	8.5
Above US $110,000	9	9.6
Unknown	1	1.1
Religion (*n*=94), multiple responses permitted		
Latter-Day Saint	23	20.0
Other Christian	21	18.3
Other Religion/Spirituality	21	18.3
Agnostic	19	16.5
Catholic	13	11.0
Atheist	8	7.0

Variable	Frequency	Percentage
Protestant	5	4.3
Muslim	3	2.6
Jewish	1	0.9
Buddhist	1	0.9
Age When Sexually Assaulted (*n*=94, Multiple responses permitted)		
14-17	47	38.5
18-24	58	47.5
25-34	14	11.5
35-44	3	2.5
When Did Survivors Disclose (*n*=94, Multiple responses permitted)		
Same Day	19	12.6
Same Week	16	10.6
One Week to One Month Later	19	12.6
Over One Month to Six Months Later	24	15.9
Over Six Months to a Year Later	22	14.6
Over a Year Later	51	33.8
Individuals Disclosed To (*n*=94, multiple responses permitted)		
Friend	69	24.1
Mental Health Professional	50	17.5
Mother	39	13.6
Father	24	8.4
Clergy/bishop/spiritual leader	21	7.3
Sibling	20	7.0
Medical Professional	20	7.0
Law Enforcement	18	0.3
Other Help Source	15	5.2
Other Relative	10	3.5

Of the 94 participants 88 (93.6%) met criteria for symptoms of depression (CES-D score $\geq$ 16), with a mean score of 27.12. For the PCL-C PTSD total scores greater than or equal to 50 are considered as diagnosable PTSD. The mean score (*n*=94) was 52.26, with 59 (62.8%) scoring at or above the cutoff score of 50.

Scores on the Brief RCOPE were calculated by adding the seven items in each sub-scale. For positive religious coping, the mean score was 6.41, with scores ranging from 0 to 20, and a standard deviation of 6.21. For negative religious coping, the mean score (*n*=94) was 5.84, with scores ranging from 0 to 19, and a standard deviation of 5.54.

Examining the general scales of the Social Responses questionnaire (SRQ), we found that for the Turning Against scale, the mean score (n=94) was 1.29, with scores ranging from 0 to 3.76, and a standard deviation of .83. For the Unsupportive Acknowledgement scale, the mean score was (n=94) 1.32, with scores ranging from .15 to 3.15, and a standard deviation of .72. For the Positive Reactions scale, the mean score (n=94) was 1.97, with scores ranging from .50 to 3.35, and a standard deviation of .52.

The SRQ also has two positive social response subscales, and five negative social response subscales. Emotional Support (n=94) had a mean score of 2.22, with scores ranging from .67 to 3.47, and a standard deviation of .55. Tangible Aid (n=94) had a mean score of 1.22, with scores ranging from 0 to 3.20, and a standard deviation of .70. The negative subscale Blame (n=94) had a mean score of 1.07, with scores ranging from 0 to 3.33, and a standard deviation of .98. Stigma (n=94) had a mean score of 1.34, with scores ranging from 0 to 3.83. Control (n=94) had a mean score of 1.33, with scores ranging from 0 to 3.71, and a standard deviation of .89. Egocentric (n=94) had a mean score of 1.35, with scores ranging from 0 to 3.25, and a standard deviation .77. Distract (n=94) had a mean of 1.33, with scores ranging from 0 to 3.67, and a standard deviation of .90.

Confirmatory Factor Analysis

Separate confirmatory factor analyses were conducted for each of the latent variables (Brief RCOPE (latent factors Positive Religious Coping, Negative Religious Coping), CESD (latent factor Depression), Social Response Questionnaire (latent factors Distract, Control, Egocentric, Stigma, and Blame), and the PCL-C (PTSD Checklist, Civilian Version; latent factor PTSD). Results of the models are described in the paragraphs below. In a CFA analysis, stronger factor loadings indicate more discriminating items, and shows the item correlation with the latent

factor. It helps determine that the items being measured are a good model fit for the latent factors. The CFA analysis also shows correlations among latent factors. Significant correlations among latent factors help address the hypotheses of how these latent factors correlate with each other

Brief RCOPE Model (Religious Coping)

The Brief RCOPE measuring positive and negative religious coping provided participants with a four-point Likert scale. Because the four options were less than the five minimum required for continuous analysis, the Brief RCOPE was run as a categorical CFA analysis. The negative religious coping CFA had satisfactory fit statistics: RMSEA: 0.08, CFI: 0.991, TLI: 0.987. The positive religious coping CFA was also run as a categorical analysis, with the following fit statistics: RMSEA: 0.000, CFI: 1.000, TLI: 1.000. Although this would technically be considered 'perfect' fit statistics based on criteria specified above, having an RMSEA of 0 and CFI/TLI of 1 could indicate problems with the data, which became clearer in the larger CFA analysis. The positive religious coping variable was still included in the final CFA model for theoretical reasons which have demonstrated the significance of positive religious coping in recovery from trauma (Bryant-Davis & Wong, 2013). However, factor loadings in the larger CFA all had *p*-values larger than .05 and were therefore not considered significant. Table 2 shows the factor loadings of items onto the latent variables for the Brief RCOPE questions.

Table 2

Confirmatory Factor Analysis for Religious Coping

Religious Coping Items (n=94)	Question from Brief RCOPE	Standardized Factor Loading
Positive Religious Coping		
1.	Looked for a stronger connection with God.	0.943***
2.	Sought God's love and care.	0.937***
3.	Sought help from God in letting go of my anger.	0.913***
4.	Tried to put my plans into action together with God.	0.878***
5.	Tried to see how God might be trying to strengthen me in this situation.	0.812***
6.	Asked forgiveness for my sins.	0.715***
7.	Focused on religion to stop worrying about my problems.	0.660***
Negative Religious Coping		
8.	Wondered whether God had abandoned me.	0.915***
9.	Felt punished by God for my lack of devotion.	0.861***
10.	Wondered what I did for God to punish me.	0.857***
11.	Questioned God's love for me.	0.896***
12.	Wondered whether my church had abandoned me.	0.647***
13.	Decided the devil made this happen.	0.351***
14.	Questioned the power of God.	0.673***

*Note. * p <.05, ** p < .01, *** p < .001*

CES-D Model (Depression)

In performing initial CFA models on individual latent variables, the CES-D questionnaire was analyzed as categorial data, since the responses for the questionnaire are a Likert scale which had only had four options. As mentioned previously, the CES-D Depression Scale was analyzed as a categorical variable CFA. Table 3 shows the CFA factor loadings for the items from the CES-D for latent variable depression.

Table 3

Confirmatory Factor Analysis for Depression

Depression Symptom Items (*n*=94)	Question from CES-D	Standardized Factor Loading
1.	I was bothered by things that usually don't bother me.	0.671***
2.	I did not feel like eating; my appetite was poor.	0.578***
3.	I felt that I could not shake off the blues even with help from my family or friends.	0.755***
4.	I felt I was just as good as other people.	-0.568***
5.	I had trouble keeping my mind on what I was doing.	0.608***
6.	I felt depressed.	0.842***
7.	I felt that everything I did was an effort.	0.606***
8.	I felt hopeful about the future.	-0.667***
9.	I thought my life had been a failure.	0.775***
10.	I felt fearful.	0.689***
11.	My sleep was restless.	0.485***
12.	I was happy.	-0.772***
13.	I talked less than usual.	0.636***
14.	I felt lonely.	0.671***
15.	People were unfriendly.	0.500***
16.	I enjoyed life.	-0.724***
17.	I had crying spells.	0.611***
18.	I felt sad.	0.793***
19.	I felt that people dislike me.	0.651***
20.	I could not get "going."	0.771***

Note. *** $p < .001$

SRQ Model (Social Responses)

The latent variable Positive Social Responses that was measured by the SRQ questionnaire was excluded. This was based in part on particularly poor fit statistics when the CFA model for this latent variable was run: RMSEA: 0.132, CFI: 0.791, TLI: 0.767. This decision was strengthened by data from previous studies in which only the negative social response subscales were included in analyses due to lack of significant relationships between positive social responses and negative symptom outcome measures (Ullman & Filipas, 2001; Ullman et al., 2007). Individual CFAs were run for each latent factor with the items theoretically

assigned to it by Dr. Ullman, who developed the questionnaire that has a 5-point Likert scale. The first CFA was run on the latent factor subscale Distract, which refers to responses of discouraging the victim from talking about the assault (Ullman, 2010). Model fit statistics were satisfactory: RMSEA: 0.168, CFI: 0.970, TLI: 0.950. The latent factor Egocentric (based on the Social Response Questionnaire negative subscale egocentric responses) refers to when support providers respond in a selfish way that reflects their concern about the effect of the victim's assault on themselves (Ullman, 2010). Model fit statistics were not excellent, but still considered as satisfactory for inclusion: RMSEA: 0.277, CFI: 0.869, TLI: 0.606. The latent factor Blame refers to overt statements that the assault is due to the survivor's behavior (Ullman, 2010). The model fit statistics were as follows: RMSEA: 0.000, CFI: 1.000, TLI: 1.000. It is thought that these unusually 'perfect' model fit statistics are an indicator that there weren't sufficient items in the CFA analysis, as a minimum of four items is often required for a successful analysis. However, this latent variable was still included in the final CFA analysis for theoretical reasons, as it is considered a significant subscale item in the SRQ measure. The next latent factor is Stigma, which refers to treating the survivor differently or like 'damaged goods' after the assault (Ullman, 2010). The model fit statistics were satisfactory: RMSEA: 0.152, CFI: 0.975, TLI: 0.959. The final negative social response latent variable is Control, which refers to trying to take control of the survivor or the situation following the assault (Ullman, 2010). The fit statistics were satisfactory: RMSEA: 0.124, CFI: 0.980, TLI: 0.969. Table 4 Shows the CFA factor loadings for items from the Social Response Questionnaire for latent variables of negative social responses, as defined theoretically by the SRQ.

Table 4

Confirmatory Factor Analysis for Social Response Questionnaire

SRQ Items (n=94)	*Questions from SRQ*	Standardized Factor Loading
Distraction Items		
1.	Distracted you with other things.	0.344**
2.	Told you to go on with your life.	0.829***
3.	Told you to stop thinking about it.	0.857***
4.	Told you to stop talking about it.	0.853***
5.	Tried to discourage you from talking about the experience.	0.879***
6.	Encouraged you to keep the experience a secret.	0.718***
Egocentric Items		
7.	Wanted to seek revenge on the perpetrator.	0.479***
8.	Said he/she feels personally wronged by your experience.	0.484***
9.	Expressed so much anger at the perpetrator that you had to calm him/her.	0.911***
10.	Has been so upset that he/she needed reassurance from you.	0.564***
Blame Items		
11.	Told you that you were to blame or shameful because of this experience.	0.898***
12.	Told you that you could have done more to prevent this experience.	0.818***
13.	Told you that you were irresponsible or not cautious enough.	0.864***
Stigma Items		
14.	Pulled away from you.	0.836***
15.	Treated you differently in some way than before you told him/her.	0.780***
16.	Focused on his/her own needs and neglected yours.	0.655***
17.	Avoided talking to you or spending time with you.	0.919***
18.	Acted as if you were damaged goods or somehow different now.	0.781***
19.	Said he/she feels you're tainted by this experience.	0.753***
Control Items		
20.	Told others about your experience without your permission.	0.589***
21.	Tried to take control of what you did/decisions you made.	0.836***
22.	Made decisions or did things for you.	0.852***
23.	Treated you as if you were a child or somehow incompetent.	0.803***

SRQ Items (*n*=94)	*Questions from SRQ*	Standardized Factor Loading
24.	Minimized the importance or seriousness of your experience.	0.724***
25.	Said he/she knew how you felt when he/she really did not.	0.615***
26.	Made you feel like you didn't know how to take care of yourself.	0.927***

*Note. * p <.05, ** p < .01, *** p < .001*

Posttraumatic Stress Disorder Checklist Model

The PTSD Checklist data was originally analyzed as continuous, since the Likert scale consisted of five options, which is the minimum number required for a continuous variable analysis. However, in running the initial CFA model, fit statistics did not meet minimum requirements specified (RMSEA: .108, CFI: .0.816, TLI: 0.789). There is ongoing academic debate over whether when Likert scales should be considered categorical vs. continuous variables, with arguments both for and against considering Likert data as continuous or categorical (Bishop & Herron, 2015). In the case of the PTSD Checklist, the Likert scale involved ordinal data as participants ranked perceived frequency of symptoms from 1 = "Not at all" to 5 = "Extremely", which is not considered as interval data. When the PTSD checklist data CFA was an analyzed as categorical data, the fit statistics improved significantly: RMSEA: 0.105, CFI: 0.908, TLI: 0.895. Based on these results, it was decided to continue with a categorical analysis of that data. Table 5 shows the CFA factor loadings for the items from the PTSD Checklist.

Table 5

Confirmatory Factor Analysis for PTSD

PTSD Symptom Items (*n*=94)	Question from PTSD Checklist	Standardized Factor Loading
1.	Repeated, disturbing memories, thoughts, or images of a stressful experience from the past.	0.689***
2.	Repeated, disturbing dreams of a stressful experience from the past.	0.634***
3.	Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it).	0.806***
4.	Feeling very upset when something reminded you of a stressful experience from the past.	0.756***
5.	Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past.	0.712***
6.	Avoid thinking about or talking about a stressful experience from past or avoid having feelings related to it.	0.662***
7.	Avoid activities or situations because they remind you of a stressful experience from the past.	0.695***
8.	Trouble remembering important parts of a stressful experience from the past.	0.521***
9.	Loss of interest in things that you used to enjoy.	0.787***
10.	Feeling distant or cut off from other people.	0.739***
11.	Feeling emotionally numb or being unable to have loving for those close to you.	0.652***
12.	Feeling as if your future will somehow be cut short.	0.621***
13.	Trouble falling asleep or staying asleep.	0.601***
14.	Feeling irritable or having angry outbursts.	0.672***
15.	Having difficulty concentrating.	0.692***
16.	Being “super alert” or watchful on guard.	0.731***
17.	Feeling jumpy or easily startled.	0.656***

*Note. * p <.05, ** p < .01, *** p < .001*

Combined Confirmatory Factor Analysis Test for Model Fit

In a previous study (Relyea & Ullman, 2015), two separate exploratory and confirmatory analysis models were developed and evaluated based on the SRQ questionnaire. Relyea and Ullman’s (2015) tested bi-factor models which had either one general negative reaction latent variable on one side and the five negative factor latent factors on the other side, or a two negative

factor model on one side using general scales “Turning Against” and “Unsupportive Acknowledgement” on one side and the five-factor negative latent variables on the other side. Although in our current study a bi-factor model is not being explored, Relyea and Ullman’s models highlighted the complexities of trying to accurately depict the experience of negative social responses, bringing up theoretical questions of how many latent variables should be included in the study. Because of this, two alternative models were compared for this study in Mplus, with the intention of picking the model which was indicated as the best fit for this data set.

In the first CFA, the factor model included one general latent factor named “Negative Reactions,” and the alternative model had five latent factors for the five subscales developed in the SRQ. Monte Carlo simulation studies were completed in Mplus, and it was determined that the five-subscale latent factor model was the better fit. As these were non-nested models, Akaike parameters and Bayesian parameters were used in the comparison, with smaller values considered the better fit. The initial model with just one latent factor for negative reactions had the following output: Akaike (AIC): 5924.186, Bayesian (BIC): 6255.956. The negative subscales factor model had the following model fit information: Akaike (AIC): 5843.805, Bayesian (BIC): 6198.369. Based on the lower values indicating a better model fit for the five-factor model. The five-factor model was used in the combined CFA analysis using the same latent variables. The results with latent variable correlations are described below in Table 6a and Table 6b),

Table 6a

Estimated Standardized Correlation Matrix for the Latent Variables Part 1

	Distract	Egocentric	Blame	Stigma	Control
Distract	1.000***				
Egocentric	0.528***	1.000***			
Blame	0.825***	0.357***	1.000***		
Stigma	0.748***	0.619***	0.717***	1.000***	
Control	0.840***	0.563***	0.859***	0.906***	1.000***
Positive Religious Coping	-0.014	-0.072	-0.112	-0.136	-0.110
Negative Religious Coping	0.311***	0.283**	0.381*	0.275**	0.324**
Depression	0.426***	0.334**	0.366**	0.300**	0.443***
PTSD	0.574***	0.394***	0.449***	0.438***	0.494***

*Note. * p <.05, ** p < .01, *** p < .001*

Table 6b

Estimated Standardized Correlation Matrix for the Latent Variables

	Positive Religious Coping	Negative Religious Coping	Depression	PTSD
Positive Religious Coping	1.000***			
Negative Religious Coping	0.209	1.000***		
Depression	-0.156	0.218*	1.000***	
PTSD	0.087	0.354**	0.801***	1.000***

*Note. * p <.05, ** p < .01, *** p < .001*

All correlations between latent factors in the CFA were considered statistically significant, except for the correlations with positive religious coping. Lower correlations are considered ideal, as it would indicate that each of these latent factors is measuring a distinct and significant form of negative social response. The highest correlations were between the latent factors Depression and PTSD, Control and Blame, Control and Stigma, Control and Distract, and Blame and Distract. However, it is still theoretically plausible that these latent factors are measuring distinct forms of negative social responses (Relyea & Ullman, 2015), and an increased sample size could help clarify whether these latent variables should remain distinct.

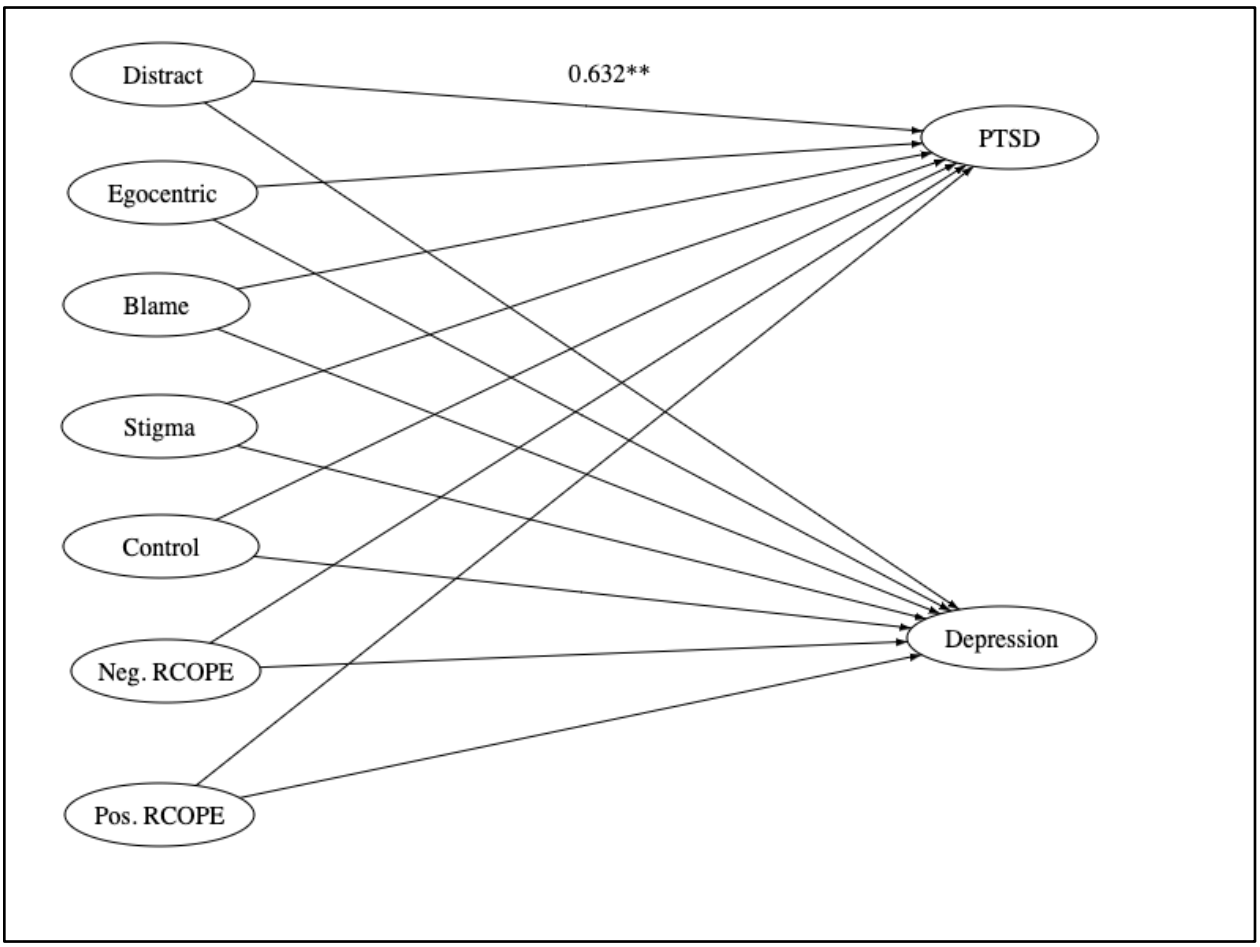
These correlations are also significant for the research questions of this study. Positive spiritual and religious coping did not show strong correlations with symptoms of PTSD and depression, and had weak, non-significant, negative correlations with all negative social response latent factors. Although correlations with positive spiritual and religious coping were weak and not statistically significant, it is important to note that there were not significant strong correlations between these latent factors. Further, negative religious coping was significantly correlated with all negative social response latent factors as well as symptoms of PTSD and depression.

Structural Equation Modeling Path Analysis

Using an SEM path analysis, we explored potential causal relationships between negative social response latent factors and PTSD and Depression latent factors, as well as possible causal relationships between Positive and Negative Religious Coping and PTSD and Depression latent factors (Figure 1). At least in part, due to the small sample size (n=94), the only causal relationship that was statistically significant was the causal path between the latent factor Distract and PTSD symptoms. The standardized beta coefficient of PTSD on Distract was 0.632, with a p value of <.05. No other latent variables showed significant relationships with this sample size.

Figure 1

Structural Equation Model Showing Relationship Between Distract and PTSD



Note. SEM path analysis showing the one significant standardized causal factor loading of Distract on PTSD. No other loadings produced significant causal relationships, due to lack of sufficient participants for the SEM analysis. The measurement model (individual items) was removed from this diagram, leaving only the structural model (the latent variables) for conceptual purposes but not for analysis. *Note. * $p < .05$, ** $p < .01$, *** $p < .001$*

For this SEM causal analysis, Bayesian parameter estimation was used in Mplus. The Bayesian parameter estimates works better with smaller sample sizes and was selected for this study. Bayes treats parameters as variables and combines prior distributions for parameters with

the data likelihood to form posterior distributions for parameter estimates (Muthén, 2010). The SEM analysis resulted in most factor loadings with *p* values higher than .05, which were not significant given the sample size (*n*=94). Further studies with a larger participant group are needed to determine if they may result in significant findings. In other words, these results do not reflect on the lack of a causal relationship between the latent factors of Negative Social Responses and Religious coping and PTSD/Depression symptoms, but that further investigation is needed. The R^2 for the latent variables Depression and PTSD were also significant. The R^2 estimate for Depression was 0.489, and for PTSD the R^2 was 0.474, both with a *p* value of < .001. The R^2 statistic indicates the amount of variance that the model explains.

Qualitative Results

Of the 94 participants, 65 responded to the first qualitative item: "If you feel comfortable sharing your experience, briefly describe your experience disclosing your sexual assault to others, and how it influenced your recovery process." All participants were 18 years old or older and had experienced sexual assault at the age of 14 or older. Of these respondents, 64 (98.5%) identified as female and 1 (1.5%) as non-binary. The primary ethnicity was White/European American (67.7%) followed by Biracial/Multiracial (12.3%), Hispanic/Latinx (4.6%), Asian/Asian American (4.6%), and American Indian/Alaskan Native (1.5%).

A total of 56 participants responded to the second qualitative item of, "Please describe how the responses you received from others when disclosing your sexual assault influenced your spirituality or religiosity. For example, how did telling others about your sexual assault impact your beliefs about God or a higher power and/or any of your religious devotion or practices?". All participants were 18 years old or older and had experienced sexual assault at the age of 14 or older. These participants included 55 (98.2%) females and 1 (1.8%) non-binary

person; 40 (71.4%) White/European Americans, 9 (16.1%) Biracial/Multiracial persons, 3 (5.4%) Hispanic/Latinx persons, and 1 (1.8%) American Indian/Alaskan Native; and 16 (23.5%) who identified as Latter-day Saints/Mormons, 13 (19.1%) as agnostic, 10 (14.7%) as other Christian, 7 (10.3%) as atheist, 6 (8.8%) as Catholic, 3 (4.4%) as Protestant; 1 (1.5%) as Jewish, and 12 (17.7%) who identified as other.

Qualitative Content Analysis identified three major themes: Negative Outcomes, Neutral Outcomes, and Positive Outcomes. The qualitative analysis shows preliminary results based on a cursory review. Figure 2 shows the major themes and representative quotations.

There were 65 responses from participants to the following prompt: “If you feel comfortable sharing your experience, briefly describe your experience disclosing your sexual assault to others, and how it influenced your recovery process.” Qualitative Content Analysis identified three major themes: Respondent-Supported Healing, Responses Promoting Shutting Down/Isolation, and Responses Affecting Self-Blame. Figure 3 shows the major themes and representative quotations.

Figure 2

Participant Survey Responses for Question 1

Negative Outcomes (number of responses 28)
Leaving Religious Community or Loss of Faith "When I told others about my sexual assault, I was blamed by religious people a lot. They claimed that I was now impure and that what happened to me was [my] fault because I must have "tempted" my boyfriend…. I was already angry at God for allowing this to happen to me…. This harmed my faith and my ability to believe that God was good…. I ended up taking a step back from attending church and I'm now on a journey of deconstructing my former faith."
Religious Victim Blaming (Negative experiences with Church leaders) "My [clergy] at the time told me I was responsible for any parts of my rape that I enjoyed. I will never forget that. He asked me completely inappropriate questions. This was my final push to remove my records from the church…. I believe this is extremely harmful and absolutely NOT discussed enough" (caps in original)
Neutral Outcomes (number of responses 19)
No effect on spirituality or religiosity "I don't see how telling others at all impacted my beliefs in God or organized religion. My relationship with God is personal and the influence of its experience on my spirituality feels independent of my relationships with others." "I do not believe in God and my belief in the universe was not at all impacted by my sexual assault."
Positive Outcomes (number of responses 17)
Healing or comfort through spirituality "I had to dig past every negative feeling, experience, and person and pray that the one being who understood all things and called all unto Him would be the one being who accepted me. It was a LONG journey, but I found God at the bottom of it because ultimately he knew what it meant to be rejected, scorned, abused, and put below all things and yet He loves perfectly. He loves imperfect me perfectly. Because of His love I came to know Him and felt drawn to religion as a way to better practice my spirituality. He alone has accepted my experience- point blank- no exceptions."
Religious community members contributed to healing "I couldn't feel anything like I did before. I was confused why I couldn't feel God's love, even though I knew he loved me. Certain friends and a therapist helped me identify that God actually was with me the whole time, it was just different then what I was used to. I noticed Him in the people that helped me…. During that dark time I was unable to feel, but I was helped to see God's hand in my life…. my friends and family that knew… what I went through always helped me know that God was on my side and loves me no matter what. And even though what happened to me was horrible, He helped me get out and get help."

Figure 3

Participant Survey Responses for Question 2

Respondent Supported Healing (number of responses 25)
Importance of other victims/survivors "Learning to identify symptoms of PTSD in a setting where others are sharing and encountering their own experiences was really healing. I didn't feel alone. I didn't have to explain myself or justify anything. It was a welcoming space where we supported each other and learned from one another's stories. I don't think I would've gotten better if not for that group."
Disclosing as a catalyst for healing, acceptance, and empowerment "I spoke to the senate directly. I talked about how this rape had impacted my life. I have told friends and family before about my experience and it helped. But speaking to the people that could potentially change the law was very empowering. I felt strong and proud of myself for using my voice that the rapist tried to silence. This happened, I'm here and I won't be quiet."
Supportive Others who had gone through the same experience/Supportive therapists/professionals "My mother was the catalyst in getting me into counseling and incredibly supportive. It was difficult for her because I was conceived through rape in a similar situation. There were times she projected this onto me because she would say how she never had any support or help. I tried to support her and encourage her to take the steps that I was."
Responses Promoting Shutting Down/Isolation (number of responses 17)
Responses from others leading to isolation "My friends didn't understand what was going on and they blamed me for what had happened to me. They attacked my character and reputation, which led me to withdraw, become secretive, isolated, distrustful, and elusive. I began to lie a lot and felt very alone. Later, I would mention some parts of my past to current partners and they either didn't react, had nothing to say and changed the subject, were dismissive, or used my experiences against me."
Discouraged from reporting "Our mutual friends saw evidence and still chose to stay his friends, i was told often 'not everything is about you' and 'you need to let it go already' and 'what if you ruin his life by reporting it' because we went to the same uni. I have no friends left from that experience. My recovery process was specifically painful because my childhood abandonment triggers were further lit by how so many people especially women i was close to were willing to side with the rapist."

Figure 3 continued

Negative/blaming responses "The first person I told, told me "why did you go to his house?" Because of this experience I did not seek help or tell anyone for 5 years."
Responses Affecting Self-Blame (number of responses 7)
Response from others helping to reduce self-blame "I was so confused by why he would have ignored my requests and then yells and cries, that I was convinced it was my own fault. I told no one it was assault until about 3 years later. I only told good close friends and eventually a priesthood holder and everyone was very supportive. I went to therapy with a specialized therapist on sex before I was married to make sure I had worked through it. It's still there but for the most part I've rid myself of the shame and fear."
Negative responses cause/further survivor self-blame "The positive responses were important to validate my experiences and were integral to my healing and acceptance that it wasn't my fault, however, it was the negative response that stuck with me. I used it as a justification to blame myself."

General themes mentioned that "stood alone" in the experience of disclosure of sexual assault included the following: Sharing the story/details of their assault (*n*=5), multiple assaults (*n*=5), meeting with a therapist (*n*=1), receiving mixed responses to disclosure (*n*=5), complications of knowing the perpetrator (*n*=2), very selective disclosure (*n*=3), personal resilience (*n*=3), encouraging other survivors to tell their story and that they will eventually receive love and support (*n*=5), shift in response (for example 'overreacting' at first and later becoming more supportive; (*n*=3), importance of confidants not disclosing the assault to others without permission (*n*=2), invalidating 'dramatic' response (survivors being told that they were overreacting or being dramatic) (*n*=2), parents acting uncomfortable, insecure, blaming, distracting, shutting down (*n*= 5), sharing publicly for support (social media, #metoo, honeyishere.org; *n*=3), difficulty disclosing (*n*=2), negative responses from best friends and trusted people (*n*=2), harmful responses from those they felt were supposed to support them (*N*=3), disclosures which are not believed (*n*=2), and formal reporting being considered as

criteria for others to believe survivors ("If I wasn't willing to report it, then it couldn't have been rape or assault;" n=2).

Summary of Findings

This study highlights the complexity of disclosure of sexual assault, the recovery process, the importance of understanding the impact of specific forms of social support, and the significance of religious/spiritual coping strategies. The main findings are listed below. The discussion section describes how these findings addressed the specific hypotheses of this study.

1. The CFA analysis resulted in a good model fit with significant factor loadings for all latent factors except for positive religious coping and positive social reactions.
2. The CFA analysis showed significant correlations between all the latent factors for negative social response to disclosure, indicating that participants often experienced multiple types of negative social responses when disclosing the sexual assault to others.
3. The latent factor Negative Religious Coping had weak but significant positive correlations with all negative social response latent factors, as well as weak but significant positive correlations with the latent factors Depression and PTSD.
4. The latent factor Positive Religious Coping had weak negative correlations with negative social response latent factors as well as a weak negative correlation with the latent factor Depression. However, all the Positive Religious Coping correlations were statistically not significant ($p>.05$).
5. The latent factors Depression and PTSD had strong positive correlations with each other, indicating that participants often experienced symptoms of both.

6. The SEM path analysis resulted in a significant causal relationship between the latent factor Distract and PTSD symptoms.
7. Qualitative data showed significant themes in participant responses in both social disclosure experiences and religious coping, representing a spectrum of positive and negative experiences. The qualitative data also showed how social responses were received longitudinally during the recovery process, and how many participants experienced responses to disclosure over time in the days, weeks, months, or years after the sexual assault.

CHAPTER FIVE

Discussion

Significant correlations found in the CFA analyses allowed us to better understand the relationships between the latent factors of this study, although this did not allow us to make causal relationship connections between the latent factors. As previously stated, the study hypotheses are: H_1 Positive spiritual and religious coping and high levels of positive social responses to disclosure will positively correlate with fewer symptoms of depression and PTSD. H_2 Positive responses to disclosure will positively correlate with positive religious coping. In response to these hypotheses, due to poor model fit and possibly a sample size that was not of sufficient size, we were unable to find whether positive spiritual and religious coping and high levels of positive social responses to disclosure positively correlated with fewer symptoms of PTSD and depression. This study hypothesized that positive social support would be positively related to positive religious coping. With this study's sample size, we were not able to obtain a good model fit for the initial CFA analyses of either positive religious coping or positive social responses and, as such, this hypothesis could not be answered conclusively.

The main purpose of the individual CFA analyses was to explore whether the measures selected for this study were able to measure what was intended from the collected data. The CFA also allowed us to explore correlations between the latent factors, which increased understanding of how these factors may co-occur. These correlations address the study hypotheses about latent factor correlations. The CFA analyses resulted in a good model fit, indicating that the items we were measuring were loading significantly onto distinct latent factors. Many of the Social Response Questionnaire items were loading significantly at around .70 onto the social response latent variables outlined in previous studies and theoretical

research (Ullman, 2010), as well as many of the items from the other measures at around .60-.70. The exceptions to good model fit were Positive Social Reactions and Positive Religious Coping latent factor items.

The significant correlations from the CFA analysis showed strong correlations between the negative social response latent factors, which could indicate that when survivors receive one type of negative social response, they often experience other negative social responses, as well, either from the same individual or from multiple others. There were also significant correlations between all negative social response latent factors and negative religious coping, PTSD, and depression symptoms. These correlations, though not causal, respond to the original research questions by showing significant correlations between negative religious coping and negative social support, and symptoms of depression and PTSD.

As a reminder, H_3 states that negative religious coping and negative social responses will be positively correlated to symptoms of depression and PTSD. Study results show weak but significant correlations between negative religious coping and negative social responses, and negative religious coping and PTSD and depression symptoms. Negative social responses of Egocentric, Blame, and Stigma show weak but significant correlations with depression symptoms, while negative social responses. Distract and Control show moderate significant correlations with depression symptoms. The negative social response Egocentric shows a weak but significant correlation with PTSD symptoms, while negative social responses Distract, Blame, Stigma, and Control show moderate significant correlations with PTSD symptoms. Of the negative social responses, Distract and Control showed the highest correlations with symptoms of PTSD and depression symptoms.

The combined CFA showed several high correlations between Negative Social Response latent factors (Table 6). It is important to investigate high correlations between latent factors in a CFA analysis to ensure that items (answers measured on the questionnaire) assigned to different latent variables are not unintentionally measuring the same latent variable. The final combined CFA included the following high correlations (.70 or greater): the standardized correlation between Blame and Distract was 0.825, the correlation between Distract and Control was 0.840, the correlation between Blame and Control was 0.859, the correlation between Stigma and Distract was 0.748, and between Stigma and Blame was 0.717. The high correlations between these items may be due to a high likelihood that survivors could have received multiple types of negative social responses during the disclosure process. For example, in qualitative descriptions given by participants, there were examples of several types of negative responses experienced from disclosing to one or multiple individuals, and that further responses occurred over time. A study exploring how negative social reactions relate to posttraumatic outcomes detailed several other reasons to keep in mind while considering correlations among Negative Social Reaction latent variables (Relyea & Ullman, 2015).

One potential limit to interpreting negative social reaction correlations is that survivors are recording their perceptions and categorizations of people's reactions but may not always accurately reflect the accurate portrayals of other's responses or actions, which could complicate an accurate assessment of correlations. Also, these latent variables can take on a different meaning when considering that these are aggregations of reactions from possibly multiple people that survivors disclosed to. Relyea and Ullman (2015) also highlighted that what is considered a negative reaction to some survivors can be seen as both hurtful and healing to others (Relyea & Ullman, 2015). Finally, the correlation between Depression and PTSD was 0.801, which is also

considered high which may be due to the high comorbidity between the occurrence of depression and PTSD (Bryant-Davis et al., 2011). This data mirrors similar findings in a study of co-occurring posttraumatic stress and depression symptoms after a sexual assault, which described co-occurring and comparatively severe symptoms of PTSD and depression pervasive among survivors of sexual assault (Au et al., 2013). This high correlation also reflects research that treatment for sexual assault survivors that incorporates interventions for both PTSD symptoms and depression symptoms as more effective than just focusing on either PTSD symptoms or depression symptoms, even for those who do not meet criteria for both PTSD and depression (Au et al., 2013).

Survivors of sexual assault often struggle to disclose their experience to others, and there is often great fear that they will not be supported in ways that will be validating and healing (Ullman, 2010). H_5 states that there will be causal relationship between social disclosure and PTSD and depression symptoms, and causal relationships between religious/spiritual coping and PTSD and depression symptoms. The original hypothesis of this study concerning the spectrum of positive and negative religious/spiritual coping included the idea that the latent variable SEM analysis would find that positive religious coping and high levels of social support would be protective factors against depression and PTSD symptoms. There were no significant correlations between positive religious coping and negative social support in this study, and since there was not a good model fit for positive social responses or positive religious coping, that part of the hypothesis was not investigated further.

Another study which explored the impact of positive and negative religious coping on posttraumatic stress symptoms and posttraumatic growth found that there was a moderate positive relationship between positive religious coping and positive psychological adjustment

after a traumatic event, but importantly this positive coping was less protective in relation to depression, anxiety, and stress symptoms (García et al., 2021). Results from a related study (Bryant-Davis et al., 2011) which measured social support as the frequency of social contact in the last year with individuals of their social support network, found that social support and religious coping were not correlated. The path loading between the religious coping factor and the positive religious coping indicator 'pray and meditate' was not significant, and that the path loading between latent variables religious coping and depression was not significant (Bryant-Davis et al., 2011). More research is needed in this area. One possible factor that is reflected in the qualitative writings of this study's participants is the very personal and individual ways in which may not always be impacted by the amount of social support they received. Similarly, some studies with larger samples have not found associations between religious coping and depression, anxiety, and stress symptoms. In reviewing the data specifically gathered by this study, one possibility is that enough participants indicated that religious and spiritual coping did not play a significant factor in their recovery process, that it may lower the level of significance in the results. Another factor to consider is the longitudinal nature of the recovery process. Religious and spiritual coping, particularly positive religious coping and meaning making, may occur weeks, months, or years after the initial traumatic event and initial symptoms of PTSD and depression. Other research where positive religious coping was a significant factor indicates that it may be more helpful in viewing the long-term effects of positive religious coping using measures of posttraumatic growth, as these two factors may have a stronger correlation (Gerber et al., 2011). Due to distinct differences in how this study was approached, as well as differences in sample sizes, demographics, etc., further study with a larger sample size is needed to better understand the causal relationships of these latent variables. Finally, the ambiguity of significant

correlations may be a clear indicator of the complexity of what is being measured, and the many ways other factors may uniquely influence participants' experiences, perceptions of support, coping strategies employed, and the perceived influences of these coping strategies in the recovery process.

For persons who experience sexual assault, the probability of reaching out for help to either informal or formal support is low (Ullman, 2010). With the underreporting of sexual assault and all the possible ways that survivors could struggle to get adequate support in their healing process, it is critical to increase our knowledge of the types of responses survivors receive when they reach out for support, as well as the unique strengths and challenges that come when survivors engage in religious/spiritual coping strategies during the recovery process. The importance of understanding the complexities of how religious/spiritual coping can influence the recovery process is shown in studies such as Bryant-Davis et al., 2011, which found individuals who endorsed greater use of religious coping also reported higher PTSD and depressive symptoms. Alternatively, positive religious involvement was associated with better social support, meaning, purpose, and life direction (Ano & Vasconcelles, 2005; Bryant-Davis et al., 2011). The complexity of these contradicting findings could be one reason that positive religious coping did not lead to significant factor loadings, as engaging in religious coping could result in diverse outcomes depending on the individual and how it leads to meaning making and support. It may also impact how individuals around them who engage in similar religious coping interpret the situation, which could lead to different kinds of social support responses (O'Connor et al., 2021).

H_5 states that there will be causal relationship between social disclosure and PTSD and depression symptoms, and causal relationships between religious/spiritual coping and PTSD and

depression symptoms. The one significant finding of the SEM causal analysis was a significant association of Distract (reported responses of discouraging the victim from talking about the assault) and PTSD symptoms. For every one unit (standardized) increase in the latent factor Distract, there is a 0.632 unit increase in the latent factor of PTSD. This finding is similar to the findings of a study completed in 2001 which assessed negative social responses with the Social Response Questionnaire on PTSD symptom severity which found that more negative social reactions after disclosing assault were related to greater PTSD symptom severity. Specifically, researchers found that while being treated differently and receiving stigmatizing responses from others were the strongest predictors of PTSD in their study, distraction also predicted greater PTSD symptom severity in the analysis, which is a similar finding in our study (Ullman & Filipas, 2001). Bryant-Davis et al. (2011) also found that greater social support led to less endorsement of PTSD symptoms. Although the relationship between the negative social response Distract and PTSD was the only significant result in this latent variable structural equation analysis, this does not mean that the other types of negative social responses are not important, or that positive or negative religious coping does not influence the endorsement of PTSD or depression symptoms. Previous studies show that the relationship between the negative social responses and PTSD symptoms likely would be significant with a larger sample size (Bryant-Davis et al., 2011; Ullman & Filipas, 2001). This could simply mean that the sample size was not adequate, and that more participants are needed.

There are many possibilities as to why the positive social reactions and positive religious coping were not able to produce models of good fit with significant statistics in either the individual CFA models for each latent factor, or the larger CFA/SEM causal models. One way that positive social responses could be influenced could be a negative reporting bias, as more

symptomatic survivors may be more likely to report negative responses as they have an increased level of distress (Ullman, 2010). Positive reactions may also be hard to measure because survivors may view the absence of negative reactions as a positive reaction (Ullman, 2010), which was not measured in this study, and therefore is not reflected in the collected data.

There is also confusion that could develop as survivors may disagree on what constitutes a positive or negative reaction. For example, having others take control (represented by the negative social response latent factor Control in this study) could be perceived as a negative response by some survivors, and a positive response by others (Ullman, 2010). Similarly, participants may disagree with the author of the RCOPE (religious coping questionnaire) as to what constitutes positive or negative religious/spiritual coping. It is also possible that survivors who received an initial negative social response to disclosure were less likely to reach out again (out of self-protection) in the future, preventing more potentially positive responses from other individuals. In addition, a study which also used the Social Response Questionnaire to measure the impact of social responses found that, contrary to their hypothesis that positive social responses would be associated with lower levels of psychological symptomatology, they found that positive social reactions to disclosure were not associated with any measure of subsequent psychological symptomatology (Orchowski & Gidycz, 2015).

We were not able to obtain significant findings for the positive religious coping model. A study exploring the psychometric status of the Brief RCOPE discussed a possibility for this. It described how the positive religious coping scale was most strongly and consistently related to measures of positive psychological constructs and spiritual well-being. However, it was only occasionally related to negative constructs such as depression or ill-health. Similarly, the positive religious coping scale was significantly and positively related to posttraumatic growth but was

unrelated to PTSD symptoms (Pargament et al., 2011). Based on this information, it is reasonable to conclude that if measures of positive psychological constructs were included such as posttraumatic growth, we may have been able to obtain a good model fit and significant correlations in the SEM causal model. It also is a possible explanation why this study was unable to obtain significant findings with only negative constructs of PTSD and Depression being measured to understand the current impact of the traumatic event of sexual assault on participants.

Finally, one aspect of disclosure that could have a significant impact in how social reactions are perceived, whether positive or negative, is the circumstances of the disclosure, which was not assessed in this study. As stated earlier, previous research has shown that more than one third of disclosures are not self-initiated, and it is also important to consider the level of power differential between the survivor and the person disclosed to (Ullman, 2010). Although initiation of disclosure and power differentials have not been connected to perception of positive social responses, these may be important things to include in future studies to get a better understanding of significant and non-significant results.

We need further research and dialogue on this critical topic, as these reported experiences of survivors demonstrate the wide spectrum of responses they receive during their recovery process, as well as the wide range of positive and negative religious coping strategies that they engage in during the healing process. The better we understand their experiences, the more likely we will be to provide meaningful support systems that will aid in the recovery process.

Participant Open-Ended Responses

*H*4 states that qualitative data will help us better understand subject perspectives and experiences through open ended questions**.** One of the main conclusions that can be made from

the qualitative response frequencies to the prompt exploring how responses to social disclosure influenced religiosity and/or spirituality is that the participants' experiences existed on a spectrum. Their responses help illustrate the complexities of religious and spiritual beliefs are interwoven with many other aspects of the disclosure and recovery experience. For example, positive religious or spiritual outcomes helped support survivors in creating meaning, finding comfort, feeling validated and understood, and connecting them with a strong social support network that provided a protective environment for healing. This is similar to findings in a study that found that positive religious coping was associated with healthy psychological adaptation to stress (Ano & Vasconcelles, 2005; García et al., 2021).

However, negative outcomes could result in feelings of isolation, abandonment by a higher power, feelings of judgment, loss of trust, and separation from potential religious community support. This finding was similar to a study which found more religious coping predicted higher levels of PTSD symptoms, showing how religious and spiritual coping can have complex effects on recovery (Bryant-Davis et al., 2011). It also aligns with the finding that negative religious coping has punitive and demoralizing characteristics, as well as underlying spiritual tensions and struggles within oneself, others, and the divine (Pargament et al., 2011).

Most of the participant responses strongly emphasize that responses to sexual assault disclosure matter, and that they can have a significant impact on the spirituality and religiosity of the survivor. However, they also illustrate the diversity of experiences, with some survivors describing a profound impact of the traumatic event and disclosure experience on their religious and spiritual beliefs, and others describing them as separate (as in the quote from neutral outcomes, above) and therefore uninfluenced by positive or negative social responses. This finding is similar to a study which found that positive religious coping was related to having a

secure relationship with a transcendent force, a spiritual connectedness with others, and a benevolent world view (Pargament et al., 2011). There was a connection that was expressed in these responses between spirituality/religiosity and healing. For those with spiritual or religious beliefs and particularly those with a supportive and validating religious community, their religious and spiritual perspectives could be a source of comfort, validation, and strength, echoing the finding that a social support network (such as a religious community) could be a protective factor against PTSD and depression symptoms (Bryant-Davis et al., 2011).

The responses show the devastating impact that religious victim blaming can have on survivors, as well as how validating and empowering it can be for survivors to receive responses of validation and care from religious leaders (see quote under "Responses affecting self-blame"). Qualitative responses further illustrated the importance of discussing the impacts of sexual assault disclosure in therapy, particularly with how it pertains to survivors' religion/spirituality. Responses to this prompt suggest that future research into experiences of how responses to disclosure impact religiosity/spirituality and how the relationship of the survivor to a higher power is affected by their religious community is warranted. Further research is also needed on how individuals in religious/spiritual communities can most effectively support survivors of sexual assault, as some participants described these communities and leaders as potential sources of support.

In reviewing the qualitative answers for participants regarding the experience of disclosing to others, it is apparent that their experiences also exist on a spectrum from positive to negative, and that the responses and support that they received also changed over time, which is emphasized by previous research (Littleton, 2010). These responses align with the wide variety of responses discussed by Ullman (2010) which found the importance of understanding the

complex variety of positive and negative social reactions to survivors, as well as the impact of the absence of particular social responses. For example, there were qualitative themes of receiving harmful responses where support was expected, or receiving mixed responses, or the positive impact of the absence of harmful responses. These qualitative responses also highlight complexities of trying to classify social responses as positive or negative. For example, a qualitative response described what was considered an example of a negative Egocentric reaction in the SRQ (the negative latent variable in the CFA and SEM analysis).

Wanting to physically harm the perpetrator and getting very angry was described as an example of a negative egocentric response (Ullman, 2010). However, qualitative results from this study reflect how this interpretation can vary based on the unique views, interpretations, and experiences of survivors of sexual assault. For example, one participant in this study described feeling 'protected' by a friend who expressed anger and a desire to physically harm the perpetrator. For this participant, the friend's response helped them to feel "protected" on their behalf. In other words, the social responses participants received not only existed in a spectrum from negative to positive according to the qualitative data, but there was also variety in how some of those responses were interpreted by the survivors themselves. This helps to highlight the importance of listening to the experiences of survivors, appreciating their unique support systems, circumstances, contexts, and individual needs for being heard and supported during the healing process. It also highlights the urgency of further research into this complex topic so that we can better meet the diverse needs of sexual assault survivors. Another takeaway gleaned from the review of this qualitative data is that although there are many sexual assault survivors who receive validation and that supports the healing process, there are also many who encounter incredible pain and experience further harm as they attempt to find support, validation, and

protection. Further research in this area is needed to help inform survivors who they can turn to for support and empowerment so that they can respond to survivors with a level of care and support that comes through informed familiarity with the powerful positive and negative impacts that responses to disclosure can have.

Qualitative and Quantitative Connections

There are many ways that the data in the quantitative and qualitative portions of this study connected and enhanced interpretations that would have been incomplete on their own. Using a mixed methods approach also helps to illustrate the complexity that could prevent straightforward causal relationships from being easily found in the quantitative data, regardless of sample size.

The quantitative data found that significant correlations between negative religious coping and negative social responses, and negative religious coping and PTSD and depression symptoms, but was unable to find significant correlations with positive religious coping or positive social responses and any latent factors. The qualitative data added to the quantitative findings by illustrating specific ways that social responses and positive and negative religious/spiritual coping were experienced by participants, and how these two factors could interact with each other. The following quote illustrates the complex ways that social responses and religious/spiritual coping can interact:

> *"I couldn't feel anything like I did before. I was confused why I couldn't feel God's love, even though I knew he loved me. Certain friends and a therapist helped me identify that God actually was with me the whole time, it was just different then* [sic] *what I was used to. I noticed Him in the people that helped me."*

Participants expressed how the act of disclosing their sexual assault experiences could lead to new religious or spiritual interpretations that could decrease or exacerbate negative symptoms in profound ways critical to the healing process.

Qualitative responses also illustrate how social disclosure is a process that evolves over time, with survivors' experiences shaping each future disclosure. Since this was not a longitudinal study, and the quantitative data did not allow participants to record how the social process of disclosure changed over time, the open-ended qualitative responses gave insight into how disclosure experiences changed over time for some participants. For example, one participant reported multiple instances of negative social responses over several years before they were able to experience positive responses:

> *"Learning to identify symptoms of PTSD in a setting where others are sharing and encountering their own experiences was really healing. I didn't feel alone. I didn't have to explain myself or justify anything. It was a welcoming space where we supported each other and learned from one another's stories. I don't think I would've gotten better if not for that group."*

It is apparent from multiple qualitative submissions that the process of disclosure was often ongoing, with previous experiences influencing the likelihood and confidence of future attempts, and to whom participants chose to reach out to. How participants were impacted by responses to social disclosure seemed to change for several participants over time as well.

Finally, the qualitative data helped show how survivors may disagree on which social responses to disclosure are positive or negative. The qualitative data did not allow for participants to express their unique interpretations of social disclosure responses. What is harmful for some individuals may be helpful to others.

> *"My friends felt very angry and talked about how they wanted to physically harm the particular person, and although it was stressful to think that having other people involved could further complicate the situation which I didn't want, I was comforted in the fact that I felt very physically safe with my friends because it made me think in a situation where I could not physically defend myself, they would."*

These unique interpretations of what consists of a "positive" response to social disclosure, such as the "control" response in the quote above, illustrate how even though measures like the SRQ may consider some responses as negative or positive based on most experiences represented through research, unique perspectives of individuals may result in conflicting interpretations of what is helpful for them. This illustrates the complexity of meeting the individual needs of sexual assault survivors, and the importance of always being curious about their experiences and what they each individually need in terms of support.

Strengths of the Study

There were several strengths to this study. Participants were recruited from centers and support networks that provided help and resources to survivors of sexual assault. The wide recruitment from several centers and support networks helped ensure that participants had resources to turn to during the recovery process, as well as any potential needs that may have occurred during the process of taking this survey and sharing their experiences. Another strength involved the use of these centers and support groups. In particular, the online support group allowed us to gather participants from a range of ages and backgrounds in a wider community that would have been more limited if the survey had only been available to university-age students.

Finally, using a mixed methods approach allowed us to use participants' comments to support the quantitative data and illustrate the complexity of outcomes of sexual assault. For a topic in which there are so many factors that could play a significant role in the recovery process, having qualitative data which give us the voice of survivors gave additional insight into the quantitative results, and provided a way for participants to be heard.

Limitations and Future Directions

One of the most important limitations of this study was the small sample size which limited statistically significant findings of the SEM analysis and decreased the ability to postulate any potential causal relationships among latent variables. It should also be noted that the data for this study were collected during the worldwide COVID-19 pandemic. This prevented the distribution of physical flyers in women's support centers in person, and potentially impacted the number of individuals who were able to learn about the study as physical visits to these centers may have decreased during the pandemic. A future study could augment the original sample size which could potentially lead to a more conclusive SEM analysis related to potential causal relationships.

It is also important to consider that this sample size may have been limited given that all the individuals were at least aware of support networks through these virtual and physical centers. This could have led to a disproportionate examination of the experiences of survivors who were eventually able to get validation and support and is therefore not a good representation of the full spectrum of survivor experiences. Participants who never reached out for formal help or support could have significantly different experiences and survey results that would provide valuable insights. This could result in data clustering that could be addressed by increasing sources to include a more diverse sample that includes individuals not connected with support

groups. The online survey also prevented recruitment of individuals who were not able to learn about the survey from online sources, but who may have been able to be informed with physical flyers.

Another limitation in this study is the lack of successful recruiting from LGBTQ+ support centers. Attempts were made to contact directors of LGBTQ+ support groups in the community through email. However, we were not able to establish a connection for this study. As a result, although several of the participants in this study identified as LGBTQ+, we did not specifically recruit for members from this population. Future recruitment from LGBTQ+ centers may shed further light on the experiences of people in this community.

Finally, the qualitative portion of the study was not intended to be an in-depth analysis, but instead functioned to gather unique perspectives of participants to better understand their experiences and find meaningful connections with quantitative data. Additional research is needed to better understand the participant experience of sexual assault through additional qualitative data collection and analysis.

Conclusions

The CFA completed in this study resulted in a good model fit, indicating that the items we were measuring were loading significantly onto distinct latent factors. The one exception was for both positive religious coping and positive social reactions. The SEM path analysis found a significant causal relationship between the latent factor Distract and PTSD symptoms. Qualitative data showed several significant themes in participant responses in both social disclosure experiences and religious coping, which represented a spectrum of positive and negative experiences. The qualitative data showed that both positive latent factors did have an influence in interpreting sexual assault survivor experiences, finding meaning for growth, and

that they had a strong influence in the recovery process. The qualitative data also showed how complex the relationships between social responses, religious coping, and negative symptoms of PTSD and depression can be, and the many ways they can be influenced over time. Additional research is needed to better understand the needs and experiences of sexual assault survivors. It is imperative for the wellbeing of survivors that we work to better understand their experiences and help create a system of support that leads to higher levels of reporting, more effective and individually sensitive responses to address needs, and systems of support in which they feel validated and confident in the care they receive.

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APPENDIX A

Institutional Review Board Approval

Memorandum

To: Kristina Hansen
Department: BYU - Counseling and Psychological Services
From: Sandee Aina, MPA, HRPP Associate Director
Wayne Larsen, MAcc, IRB Administrator
Bob Ridge, Ph.D., IRB Chair
Date: February 12, 2021
IRB#: IRB2020-496
Title: The Role of Social Response to Disclosure in Religious and Spiritual Coping and Recovery from Sexual Assault

Brigham Young University's IRB has approved the research study referenced in the subject heading as expedited level, category 7. This study does not require an annual continuing review. Each year near the anniversary of the approval date, you will receive an email reminding you of your obligations as a researcher. The email will also request the status of the study. You will receive this email each year until you close the study.

The IRB may re-evaluate its continuing review decision for this decision depending on the type of change(s) proposed in an amendment (e.g., protocol change the increases subject risk), or as an outcome of the IRB's review of adverse events or problems.

The study is approved as of 02/12/2021. Please reference your assigned IRB identification number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements:

1. A copy of the approved informed consent statement and associated recruiting documents (if applicable) can be accessed in iRIS. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
2. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
3. All recruiting tools must be submitted and approved by the IRB prior to use.
4. In addition, serious adverse events must be reported to the IRB immediately, with a written report by the PI within 24 hours of the PI's becoming aware of the event. Serious adverse events are (1) death of a research participant; or (2) serious injury to a research participant.
5. All other non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB.

Instructions to access approved documents, submit modifications, report complaints, and adverse events can be found on the IRB website under iRIS guidance: https://orca.byu.edu/IRB/Articulate/Study_Management/story.html

APPENDIX B

Informed Consent Document

Title of the Research Study: The Role of Social Response to Disclosure in Religious and Spiritual Coping and Recovery from Sexual Assault
IRB ID#: IRB2020-496

My name is Megan Wolfe. I am a graduate student at Brigham Young University, and I am conducting this research under the supervision of Dr. Kristina Hansen from the Department of Counseling Psychology and Special Education. You are being invited to participate in this research study of The Role of Social Response to Disclosure in Religious and Spiritual Coping and Recovery from Sexual Assault. I am interested in finding out about how disclosing your experience to others impacted your recovery process.

Your participation in this study will require the completion of the attached survey. This should take approximately 15 minutes of your time. Your participation will be anonymous, and you will not be contacted again in the future. Upon completion of this survey, you will be asked to enter your email address to receive access to a $15.00 Amazon e-gift card. This survey involves minimal risk to you, and no specific questions about your experience of sexual assault will be asked of you as this study is focusing on your experience of *telling others* about your assault, not the assault itself. The benefits, however, may impact society by helping increase knowledge about disclosing sexual assault experiences and how responses influence the recovery process.

You do not have to be in this study if you do not want to be. You do not have to answer any question that you do not want to answer for any reason. We will be happy to answer any questions you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact me, Megan Wolfe, at megan_wolfe@byu.edu or my advisor, Kristina Hansen, at kristina_hansen@byu.edu.

Some participants may feel some emotional distress or discomfort due to the personal nature of the questions being asked and the traumatic memories connected to the sensitive topic of sexual assault. Participants are encouraged to reach out to counselors or other mental health professionals and support systems if this occurs.

If you have any questions about your rights as a research participant, you may contact the IRB Administrator at irb@byu.edu; (801) 422-1461. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

The completion of this survey implies your consent to participate. If you choose to participate, please complete the attached survey and click submit when finished. Thank you!