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Disclosure of Sexual Trauma to Romantic Partners: Examining PTSD Clusters, Partner Reactions, Perceived Partner Responsiveness, and Relationship Satisfaction

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To the Graduate Council:

I am submitting herewith a thesis written by Lynsey Hinnenkamp entitled "Disclosure of Sexual Trauma to Romantic Partners: Examining PTSD Clusters, Partner Reactions, Perceived Partner Responsiveness, and Relationship Satisfaction." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Gina Owens, Major Professor

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Abstract

The present study examined romantic relational outcomes among individuals who have experienced unwanted or forced sexual contact. Specifically, we explored the relationship between disclosure of sexual trauma to a romantic partner and relationship satisfaction among a sample (N = 214) of community participants, and examined whether PTSD clusters, partner reactions, and perceived partner responsiveness mediated that relationship. Individuals were recruited via announcements and flyers at community organizations and advertisements on social media. Participants completed a number of measures that assessed level of disclosure, posttraumatic stress symptoms (PTSS), partner reactions to disclosure, perceived partner responsiveness, and relationship satisfaction in regards to the romantic partner to whom they most recently disclosed their sexual trauma history. Relationship satisfaction was significantly, positively correlated with trauma disclosure, positive partner reactions, and perceived partner responsiveness, and significantly, negatively correlated with negative partner reactions and the PTSD clusters of avoidance and negative alterations in cognitions and mood (NACM). Trauma disclosure had a significant, indirect effect on relationship satisfaction via positive partner reactions and perceived partner responsiveness. Findings from this study can be utilized to inform clinical interventions and guide future research for individuals who have experienced sexual trauma.

Keywords: sexual trauma disclosure, PTSD clusters, partner reactions, perceived partner responsiveness, relationship satisfaction

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Chapter 1

Introduction

A wealth of research has documented the deleterious effects of sexual trauma both on the individual and on their interpersonal relationships (e.g., Busuito et al., 2014; Campbell et al., 2009; Dworkin et al., 2017; Fortier et al., 2009; Gemberling et al., 2015; Meyer et al., 2017; Van Berlo & Ensink, 2000). In terms of intrapersonal effects, research has demonstrated associations between an individual's experience of sexual trauma and a range of adverse outcomes, such as challenges with emotion regulation (Campbell et al., 2009; Choudhary et al., 2012), use of avoidant coping strategies (Fortier et al., 2009), increased risk of sexual revictimization (Classen et al., 2005; Fortier et al., 2009), and development of mental health disorders such as depression (11-70% across studies; Choudhary et al., 2012; Dworkin et al., 2017; Jordan et al., 2010; Kaltman et al., 2005), substance use disorders (10-49% across studies; Jordan et al., 2010; Kaltman et al., 2005), and PTSD (Campbell et al., 2009; Jordan et al., 2010). Further, several studies have demonstrated that sexual violence is correlated with higher rates of posttraumatic stress disorder (PTSD) symptomatology relative to other types of trauma (Blanco, 2011; Kessler et al., 2017; Shakespeare-Finch & Armstrong, 2010), with estimates of lifetime PTSD ranging from 13-80% (Blanco, 2011; Kaltman et al., 2005; Kessler et al., 2017).

In addition to examining the intrapersonal sequalae of sexual trauma, scholars have investigated how trauma affects romantic relationships specifically. Survivors of sexual violence have endorsed a range of effects, including higher attachment anxiety and avoidance (Busuito et al., 2014; Gemberling et al., 2015; Meyer et al., 2017), changes in sexual behaviors and sexuality (Connop & Petrak, 2004; Kuwert et al., 2014; Meyer et al., 2017; O'Callaghan et al., 2019), and difficulty with sexual and emotional intimacy (O'Callaghan et al., 2019; Rothman et al., 2019).

Individuals who experience some form of sexual violence (i.e., childhood sexual abuse, sexual assault, rape) are also more likely to experience romantic relationship dissatisfaction (Lassri et al., 2018; Vitek & Yeater, 2020), with some studies suggesting a link between difficulties in romantic relationships and increased risk of revictimization (Messman-Moore & Long, 2003). Other research (Hawkins & Booth, 2005) has posited that among the general population, leaving a negative or "low-quality" relationship can have positive effects on an individual. However, disagreement exists about the factors that might contribute to negative relational outcomes among sexual trauma survivors, and not all survivors experience romantic relationship dissatisfaction (Vitek & Yeater, 2020), pointing to the need for continued exploration of potential mediating factors in this population.

The interpersonal trauma literature to date heavily focuses on couples experiencing combat-related trauma (Lambert et al., 2012; Taft et al., 2011), potentially leading to a misunderstanding of the unique facets of relational satisfaction among sexual trauma survivors. However, as research suggests that positive romantic relationships can contribute to individual and relational wellbeing after the experience of sexual assault (Dimitrova et al., 2010; Franz et al., 2021; Lambert et al., 2015; Macintosh & Johnson, 2008; Whiffen et al., 1999), it is of vital importance to understand the factors related to relationship dissatisfaction among this population to better inform clinical interventions and work to prevent revictimization. Accordingly, this study will explore how relationship satisfaction is impacted by individual and relational processes among individuals who have experienced sexual violence. More specifically, we will examine how disclosure of sexual trauma to a romantic partner relates to the survivor's assessment of relationship satisfaction, and analyze potential mediators of this association,

including PTSD symptom clusters, partner reaction to the disclosure, and perceived partner responsiveness.

Trauma Disclosure

Various studies indicate that self-disclosure of trauma is beneficial to a survivor's well-being. Trauma disclosure is associated with fewer PTSD symptoms and lower posttraumatic stress symptom (PTSS) severity, may ameliorate health-related issues via decreases in autonomic nervous system activity, and may improve psychological adjustment in stressful situations (Bolton et al., 2003; Hoyt et al., 2013; Pennebaker & Susman, 1988). Conversely, inhibition of disclosure and avoidance of trauma-related thoughts and emotions have been found to correlate with increased health problems, higher levels of trauma-related rumination, increased risk for development of PTSD, and greater depressive symptoms (Ahrens et al., 2010; Koenen et al., 2003; Pennebaker & Susman, 1988). However, one study did find that disclosure of trauma was not significantly related to posttraumatic stress symptom (PTSS) severity, which may have been due to trauma-exposed individuals with and without PTSD both reporting similar levels of disclosure (Bedard-Gilligan et al., 2012).

While many studies focus on the relationship between sexual trauma disclosure to a broad social support network and the survivor's post-trauma functioning, fewer studies specifically address disclosure to a romantic partner, often referred to as the "disclosure partner" or the "recipient of disclosure." Most studies involving partner disclosure examined how negative, neutral, and positive reactions from their romantic partner impacted survivor functioning as defined by feelings of shame or stigmatization, maladaptive or adaptive coping, sense of isolation, self-blame, depression, anxiety, general measures of psychopathology, and

psychosomatic symptoms (Ahrens et al., 2009; Del Castillo & Wright, 2009; Jonzon & Lindblad, 2005; MacIntosh et al., 2016).

Research indicates that, in general, self-disclosure in intimate relationships is positively associated with measures of satisfaction, relationship commitment, and love (Sprecher & Hendrick, 2004). However, limited research has explored how the disclosure of sexual trauma to a romantic partner can impact relational functioning, specifically relationship satisfaction. Studies that focus on relational outcomes suggest that disclosure engendered healing via recognition of similar experiences, enhanced feelings of closeness, increased awareness of triggers in the sexual relationship, led to more explicit and open communication around sexuality, and allowed for corrective positive sexual experiences (Del Castillo & Wright, 2009; MacIntosh et al., 2016; O'Callaghan et al., 2019; van Gorkom, 2021). We could locate only one study that measured relationship satisfaction after disclosure to a romantic partner (e.g., Montigny-Gauthier et al., 2019), results of which suggested that negative disclosure reactions are detrimental to relationship satisfaction. As such, we aim to add to this growing body of research by examining the association between sexual trauma disclosure to a romantic partner and relationship satisfaction, along with potential individual (i.e., PTSS clusters, partner reactions) and dyad-level (i.e., perceived partner responsiveness) mediating factors.

PTSS

A large portion of the interpersonal trauma literature focuses on PTSS severity and its correlation with relationship outcomes, with robust findings supporting a relationship between PTSS severity and interpersonal impairment (Lambert et al., 2012; Taft et al., 2011). Some research suggests that individuals with PTSD tend to have higher levels of relationship distress when compared with non-PTSD control groups. Studies comparing individuals who have

experienced the same type of trauma found that those diagnosed with PTSD endorsed higher levels of relationship distress, suggesting that PTSD has a deleterious effect on relationship functioning beyond type of trauma and other trauma-related symptoms (Caska-Wallace et al., 2019; Cook et al., 2004; Monson et al., 2010).

Similar to the interpersonal trauma relationship literature more broadly, the majority of studies examining PTSD and relationship satisfaction focus on combat-related trauma, typically among cisgender male veterans in heterosexual relationships. Military trauma has been found to more strongly moderate the association between PTSD symptoms and relationship distress in comparison to nonmilitary trauma types (Lambert et al., 2012; Taft et al., 2011). However, efforts to compare military and nonmilitary trauma and to establish which type of trauma most significantly impacts relational outcomes may be impractical as different traumatic experiences may lead to different intrapersonal and interpersonal sequelae. For example, some research suggests a link between combat trauma and PTSD symptoms of emotional numbing, which is analogous to the Diagnostic and Statistical Manual (5th ed: DSM-5, American Psychiatric Association, 2013) cluster of negative alterations in cognitions and mood (NACM), whereas sexual violence may be associated more with the DSM-5 avoidance cluster and the emotional numbing and withdrawal components of the NACM cluster (Cook et al., 2004; Campbell & Renshaw, 2013; Kuwert et al., 2014). Research is varied with regard to hyperarousal, with some research proposing that survivors of sexual trauma present with more severe hyperarousal symptoms (Kuwert et al., 2014), and other research suggesting that veterans are more likely to experience hyperarousal symptoms (Henigsberg et al., 2001).

Additionally, mixed findings exist about whether PTSS severity, mere presence of diagnosis, or specific PTSD symptoms or symptom clusters are most highly related to

relationship distress (Campbell & Renshaw, 2018; LeBlanc et al., 2016; Taft et al., 2011). Some studies posit that PTSS severity (i.e., number of symptoms endorsed or symptom severity) resulting from combat trauma is directly correlated with relational distress (Caska-Wallace et al., 2016; Zerach et al., 2010). Other research has examined specific PTSD symptom clusters, although variability in findings remains. A recent meta-analysis of the impact of PTSD on an assortment of intimate relationship variables suggests that the DSM-IV avoidance cluster, i.e., the DSM-5 avoidance cluster and the DSM-5 NACM emotional numbing and withdrawal symptoms, is most strongly related to relationship functioning when analyzing all three DSM-IV clusters simultaneously. However, when broken down into the DSM-5 cluster of avoidance and the NACM emotional numbing and withdrawal symptoms and evaluated concurrently, many (see Campbell & Renshaw, 2018) found that effortful avoidance no longer exhibited a significant association with relationship functioning. The literature examining associations between the hyperarousal cluster and relationship functioning remains inconclusive, as findings have demonstrated negative, positive, and null associations. Lastly, when analyzing all symptom clusters, most studies did not find a significant correlation between re-experiencing symptoms and relationship functioning (Campbell & Renshaw, 2018).

To date, we have only been able to find a few studies that have explored the association between PTSD and relationship functioning for sexual violence survivors. One study (DiMauro & Renshaw, 2019) examined PTSS severity and relationship satisfaction and found no significant bivariate correlation. Mediational analysis revealed a significant, positive direct effect of PTSS severity on relationship satisfaction, and a significant, negative indirect effect via sexual satisfaction and communication (DiMauro & Renshaw, 2019). Two studies examined outcomes for female veterans who experienced military sexual trauma (MST). Results indicated that lower

relationship satisfaction was related to dysphoric arousal, i.e., the reckless behavior, hypervigilance, and difficulty sleeping and concentrating component of DSM-5 hyperarousal, and anhedonia (i.e., the emotional numbing and withdrawal component of the NACM cluster; American Psychiatric Association, 2013; Blais, 2020), and NACM and dysphoric arousal fully mediated the relationship between military sexual assault and sexual satisfaction (Blais et al., 2018).

Partner Reaction to Disclosure

Another potential mediator of the relationship between trauma disclosure and relationship satisfaction is partner reactions. Positive reactions may entail emotionally supportive responses and provision of tangible assistance, whereas negative reactions may involve responses in which the disclosure partner blames or infantilizes the survivor, treats the survivor differently, attempts to minimize or divert the survivor's attention away from the event, or responds in a self-centered manner that requires the survivor to attend to their wellbeing (Ullman et al., 2017). Research has assessed the degree to which social reactions to disclosure of sexual trauma impact an individual's recovery. Robust findings conclude that negative social reactions strongly predict poor recovery on a range of intrapersonal outcomes, including PTSS severity and number of PTSS symptoms, depression, substance use, self-blame, fear, shame, and low self-esteem (Hakimi et al., 2018; MacIntosh et al., 2016; Orchowski & Gidycz, 2015; Orchowski et al., 2013; Ullman, 2007; Ullman et al., 2007). Some scholars suggest that negative social reactions are more detrimental to the survivor's wellbeing as survivors are more likely to first disclose to informal sources of support such as romantic partners (Ahrens et al., 2007), individuals on whom the survivor depends for support and social connection. However, data are mixed as to whether

positive social reactions have a similar significant impact on post-trauma recovery (Campbell et al., 2009; Orchowski et al., 2013; Ullman, 2002).

Less research has examined how a romantic partner's reaction to the disclosure of sexual trauma impacts survivor functioning and, more specifically, relational functioning. Of the studies that have, positive responses to sexual trauma disclosure were found to decrease survivor shame, while negative responses augmented feelings of shame, discomfort in help-seeking behaviors related to the trauma, and isolation via decreased disclosure to others (Macintosh et al., 2016). In comparing the reactions of romantic partners to reactions from friends, acquaintances, family, counselors, and legal and medical professionals, some research (Ahrens et al., 2009) has found that romantic partners displayed the highest levels of blame, controlling behaviors, and egocentric responses among all groups. Furthermore, they were least likely to provide tangible aid, and most likely to treat the survivor differently (e.g., treating the survivor as incompetent). Analyses revealed that survivors were more likely to view the reactions of romantic partners and family members as more negative and less healing than the same reaction from other individuals (Ahrens et al., 2009), consistent with previous literature that suggests that negative reactions from romantic partners may be more detrimental to a survivor's healing than the same reactions from other individuals (Filipas & Ullman, 2001).

Regarding relational outcomes, perception of emotionally supportive responses to the disclosure of sexual trauma was positively related to sexual satisfaction for both partners, and stigmatizing responses or changes in the way the partner treated the survivor were negatively associated with reports of relationship satisfaction from both partners (Montigny-Gauthier et al., 2019). One study explored how relationships with friends, family, and romantic partners changed post disclosure, finding that relationship quality pre-disclosure and the survivor's perception of

the disclosure-partner's reaction predicted whether the relationship was strengthened, remained consistent, or disintegrated (Ahrens & Aldana, 2012).

Perceived Partner Responsiveness

Research indicates that high-quality romantic relationships and relational processes predict relationship satisfaction longitudinally and positively influence individual wellbeing (Barr et al., 2013; Bodenmann et al., 2006; Dimitrova et al., 2010; Franz et al., 2021; Lambert et al., 2015; Roberson, 2014; Whiffen et al., 1999). A potential dyad-level mediator that has been identified as a factor in this process is perceived partner responsiveness, which differs from social reactions in that it encapsulates an individual's perception that their partner appreciates or values them, understands who they truly are at their core, and is responsive or will attend to communicated needs (Reis et al., 2004). Perceived responsiveness is thought to evolve based on daily interactions with the partner, leading to a global assessment of partner responsiveness (Maisel et al., 2008; Reis & Shaver, 1988). Some scholars indicate that perception of responsiveness or support is more beneficial to individual wellbeing and relational satisfaction than enacted, or visible, support (Kaul & Lakey, 2003; Maisel & Gable, 2009). For example, one study found that trauma-related distress was positively associated with the provision of increased emotional support from the disclosure partner. However, it should be noted that this study examined the reactions of the first person to whom the survivor disclosed to, and focused on all types of trauma, not just sexual trauma (Bonnan-White et al., 2018).

Limited research exists regarding the impact of perceived partner responsiveness on individual or relational outcomes for sexual trauma survivors specifically -- we could only find two studies focused on this area of research. One study examined the relationship between self-disclosure in general (i.e., not disclosure specific to the traumatic event(s)), perceived partner

responsiveness, and relationship satisfaction among childhood trauma survivors. Results revealed an indirect negative association between higher levels of childhood maltreatment and relationship satisfaction via perception of low partner responsiveness (Vaillancourt-Morel et al., 2019). The second study focused on discussions of sexual assault between women and their partners to determine whether the perception of partner responsiveness during these conversations impacted sexual satisfaction and pleasure (van Gorkom, 2021). Van Gorkom found that increased perception of partner responsiveness positively impacted sexual experiences via decreased dissociation during sex. In conjunction with the broader relationship literature (Laurenceau et al., 1998; Laurenceau et al., 2005; Reis & Shaver, 1988), the results of these studies underscore the importance of addressing this gap in the literature so as to better understand the role of perceived partner responsiveness in intimate relationships for sexual violence survivors.

Present Study

Given the positive correlation between high-quality romantic relationships and individual wellbeing (Barr et al., 2013; Dimitrova et al., 2010; Franz et al., 2021; Roberson, 2014; Whiffen et al., 1999), and the well-documented link between exposure to sexual violence and low relationship satisfaction (Vitek & Yeater, 2020), this study aimed to add to the limited research that has examined relational outcomes in the context of sexual trauma disclosure to a romantic partner. As individual and relational outcomes may vary according to type of trauma, and most studies focus on combat-related trauma (Lambert et al., 2012; Taft et al., 2011), we sought to address this gap in the literature by examining the association between PTSD symptoms and relationship satisfaction among sexual trauma survivors. As relational concerns may differ based on relevant PTSD symptom clusters, we explored which clusters were correlated with

relationship satisfaction, and, based on those results, analyzed whether significantly associated clusters mediated the relationship between trauma disclosure and relationship satisfaction.

Furthermore, this study sought to add to existing body of research by assessing whether a survivor's perception of negative and positive reactions from a romantic partner mediates the relationship between disclosure and relationship satisfaction, as this area remains understudied. Lastly, although perceived partner responsiveness has been identified as an important interpersonal process that contributes to relationship quality and satisfaction (Canevello & Crocker, 2010; Champagne & Muise, 2022; Reis et al., 2004; Vaillancourt-Morel et al., 2019), we could find no studies that examined the relationship between trauma disclosure, perceived partner responsiveness, and relationship satisfaction for individuals who have experienced sexual violence. Therefore, this study aimed to examine the connections between sexual trauma disclosure to a romantic partner, relationship satisfaction, PTSD symptom clusters, partner reactions, and perceived partner responsiveness. The hypotheses were as follows:

Hypothesis 1. We proposed that higher levels of disclosure of one's sexual trauma history, positive partner reactions, and perceived partner responsiveness would be significantly, positively correlated with relationship satisfaction, and negative social reactions would be significantly, negatively correlated with relationship satisfaction. Furthermore, given the scarcity of conclusive data regarding PTSD symptom clusters relevant to this population, we undertook an exploratory analysis to determine which clusters were significantly correlated with relationship satisfaction and thereby included in the subsequent mediational analysis.

Hypothesis 2. We hypothesized that trauma disclosure would have a direct positive link with relationship satisfaction. More specifically, we expected that lower levels of significant PTSD clusters (from correlational analyses in hypothesis 1) and negative reactions, and higher

levels of perceived partner responsiveness and positive reactions would mediate the relationship between trauma disclosure and relationship satisfaction. See Figure 1 in Appendix for hypothesized mediation model.

Chapter 2

Method

Participants

The target sample for this study was individuals over the age of 18 who had experienced one or more incidents of sexual violence and had disclosed the incident to a romantic partner. A total of 346 individuals completed the informed consent to participate in the study. Participants who had experienced sexual violence but indicated that they did not disclose the event(s) to a romantic partner were redirected to a resource page (n = 20). Participants were removed from the final analysis if they failed the attention check items (n = 5), one or more measures were not completed or had two or more missing answers on a single measure (n = 78), they answered "no" to experiencing sexual violence in childhood or adulthood (n = 3), or they did not meet age requirements (n = 1). Additionally, 25 participants were removed due to a system error that precluded them from seeing all Trauma Disclosure Questionnaire items. The final dataset consisted of 214 cases. Per Fritz and MacKinnon's (2007) guidelines for statistical power at .80 for mediation, a minimum sample size of at least 148 was needed.

The final dataset (n = 214) had a small amount of missing data among items (0.16%). Analyses were run to confirm that the missing data was random. Per Tabachnick and Fidell (2013), for cases in which less than 5% of data is missing and data is randomly distributed, any technique used to address missing data produces analogous results. Mean substitution was utilized, which entailed computing the mean for each individual's items on a given measure and substituting the rounded value for the missing data (Tabachnick & Fidell, 2013).

The mean age of the sample was 32.99 years (SD = 10.64, range = 19-73 years). Regarding racial identity, 69.6% of the sample identified as White or European American; 15%

as Black or African American; 2.3% as Asian, Asian American, or Pacific Islander; 1.4% as Hispanic or Latino/a/x, 0.9% as American Indian, Alaskan Native, or Native American; 0.5% as Middle Eastern, Arab American, or North African; and 10.8% as Multiracial or "Other." Gender identity included cisgender woman (65.9%), cisgender man (15.4%), non-binary (9.4%), genderqueer or gender fluid (4.3%), transgender man (2.4%), unsure or questioning (2.3%), agender (1.4%), "additional category not listed" (2.3%), and 1.9% did not answer. (Participants were allowed to select more than one category.) With respect to sexual orientation, participants were also asked to endorse as many categories as applied and included the following: heterosexual or straight (51.1%), bisexual (28.4%), queer (13.7%), pansexual or fluid (10.9%), lesbian (7.1%), gay (5.2%), unsure/questioning (4.8%), asexual (3.4%), and "additional category not listed" (1%).

In terms of highest education level achieved, the majority of the sample identified as a college graduate (44.9%) or attended at least some college (17.3%). The remainder of the sample obtained a graduate degree (31.8%), completed some (0.5%) or all of high school (4.7%), or completed a vocational/training program (0.9%). Regarding employment status, 65.5% of the participants reported full-time employment, 16.9% reported part-time employment, 14.5% identified as a student, and 10.8% indicated that they were unemployed. (Participants could select more than one category if applicable). Current relationship status included married (33.6%), partnered with one or multiple partners (not living together; 26.2%), cohabitating (19.2%), single (16.8%), divorced (2.3%), widowed (0.9%), and casually dating one or multiple partners (0.9%).

In terms of sexual violence history, 55.6% of the sample indicated that they were forced to have sexual contact as a child (n = 119), and 81.3% endorsed forced sexual contact as an adult

(*n* = 174). Roughly a third of participants (36.9%) experienced forced sexual contact in childhood and adulthood (*n* = 79). Number of reported experiences of sexual violence ranged from 1-1000 in childhood and 1-200 in adulthood. For forced sexual contact in childhood, 25.8% reported one instance, 20.4% reported two incidents, and 52.7% reported between three or more instances. With regard to forced sexual contact in adulthood, 37.3% reported one instance, 17.3% reported two incidents, and 44.1% reported three or more incidents. Average amount of time since the most recent assault was 10.47 years for participants (*SD* = 11.49), and 12.77 years since the most traumatic assault (*SD* = 11.88).

Trauma history other than sexual violence was also reported, with over half of participants (*n* = 118) endorsing the sudden death of a family member or loved one (55.1%). Other endorsed traumatic experiences included: experiencing a natural disaster (41.6%), being hit or kicked hard enough to injure as a child (36.9%) or as an adult (32.2%), witnessing the death of or severe violence against another person (33.2%), involvement in a vehicle accident (32.7%), being attacked with a weapon (22.9%), or experiencing military trauma (6.1%).

Lastly, participants were asked about the status of the romantic relationship in which they disclosed their sexual violence history. The majority of participants (*n* = 107) indicated that they were partnered (committed to each other, but not living together; 50%), while the remainder were casually dating or hooking up (20.6%), cohabitating (13.1%), married (12.6%), engaged (1.9%), or "other" (1.9%). Furthermore, 74.8% of participants (*n* = 160) indicated that they were still in a relationship with the disclosure partner at the time of survey completion.

Measures

Demographic Items

Demographic questions consisted of age, racial and ethnic background, level of education, range of income, parental education level, employment status, current relationship status, gender identity, and sexual orientation. As part of inclusion criteria, participants were required to respond *yes* (1) or *no* (0) to one question regarding trauma disclosure – have you disclosed your history of sexual violence to your current (or most recent) romantic partner? Other inclusion criteria questions included responding about the status of the relationship in which the sexual violence was disclosed and current status of that relationship. Responses were not required for any other survey items.

Trauma History

The Trauma History Screen (THS; Carlson et al., 2011) is a 14-item screening measure that evaluates exposure to traumatic events. Participants were asked to circle *yes* or *no* in response to whether they had experienced or witnessed a traumatic event (e.g., hit or kicked hard enough to injure – as a child), and write down the number of times that event occurred. Four items were removed from the original measure (work accident, unidentified event that caused fear or helplessness, sudden move, and abandonment) as they did not align with Criterion A in the DSM-5 criteria for PTSD (American Psychiatric Association, 2013). Two additional items were added to gain information regarding time since most recent sexual assault and time since most traumatic assault. Convergent validity was demonstrated by high correlation and consistency between responses on the THS and other measures of trauma history, such as the Traumatic Life Events Questionnaire (Carlson et al., 2011).

Trauma Disclosure

Level of trauma disclosure was assessed by the 8-item Partner Communication About Stressful Experiences scale (Allen et al., 2015, unpublished), which is an adaptation and expansion of the 6-item Combat Disclosure Scale (Belderrama-Durbin et al., 2011; Belderrama-Durbin et al., 2013), a scale initially developed to examine engagement in disclosure by combat veterans. The present study asked respondents to indicate the degree to which they communicated about their experience(s) of sexual violence with respect to the romantic partner to whom they most recently disclosed their sexual violence history. The 7-point Likert scale ranged from 1 *(not at all)* to 7 *(a great deal)*. Example items include, "I have talked to my partner about the sights, sounds, and/or smells related to this experience" and "I have talked to my partner about the effects of this experience on how I think and feel." Previous research has used the adapted version of this scale to examine level of disclosure in intimate relationships for sexual assault survivors (DiMauro & Renshaw, 2018) and for COVID-related stressors (Martin et al., 2022), and demonstrated good internal reliability ($\alpha = .86$; $\alpha = .87$). Validity information for the scale was not published. Internal consistency reliability in the present study was .853.

Posttraumatic Stress Disorder

The PTSD Checklist-5 (PCL-5; Weathers et al., 2013) is a 20-item measure used to assess PTSS severity according to the DSM-5 PTSD criteria (APA, 2013). Responses were assessed via a 5-point Likert scale ranging from 0 *(not at all)* to 4 *(extremely).* Example items included "feeling very upset when something reminded you of the stressful experience" and "feeling distant or cut off from other people." In the present study, participants were asked to answer the questions in relation to their most traumatic experience of sexual violence. Previous research demonstrated high internal consistency for the total score, $\alpha = .94$ (Blevins et al., 2015),

and internal reliability consistency for each of the subscales ranged from α = .57-.93 (LeBlanc et al., 2016; Sveen et al., 2016). Per Weathers et al. (2013), subscale scores can be summed to establish symptom cluster severity, and an item rating of 2 ("moderately") or higher is considered to be an endorsement of that symptom. High convergent validity with other PTSD measures, such as the original PCL, the Posttraumatic Distress Scale (PDS), the Detailed Assessment of Posttraumatic Symptoms-Posttraumatic Stress Scale (DAPS), and the PAI Traumatic Stress scale, has been confirmed (r = .74-.85). Discriminant validity has been supported (r = .31 to .40) via low correlation with instruments that measure dissimilar constructs, such as PAI scales of mania, antisocial features, and drug and alcohol problems (Blevins et al., 2015). In the present study, internal consistency reliability for the total score was .94. Re-experiencing, avoidance, negative alterations in cognition and mood, and hyperarousal subscales demonstrated internal consistency reliabilities of .91, .79, .85, and .83, respectively.

Social Reactions Questionnaire

The Social Reactions Questionnaire (SQR; Ullman et al., 2017) is a 16-item shortened measure of the 48-item original scale that assesses the perceived reactions of individuals to disclosures of sexual assault. A 5-point Likert scale ranging from 0 *(never)* to 4 *(always)* assesses the survivor's perception of social reactions. Three subscales are included on the measure: Turning Against (TA), Unsupportive Acknowledgement (UA), and Positive Support (PS). The participant was asked to respond to questions in relation to the most recent romantic partner to whom they had disclosed their sexual violence history. Although TA and UA reactions have been shown to have uniquely harmful effects on a survivor's wellbeing (Dworkin et al., 2019; Relyea & Ullman, 2015; Salim et al., 2022), unsupportive reactions were more strongly associated with maladaptive coping, and, as such, some research suggests that combining to TA

and UA subscales is warranted (Relyea & Ullman, 2015). As such, for the purposes of this study, we combined the TA and UA subscales to create a broad measure of negative, or at the very least unhelpful, social reactions. The TA, UA, and PS scales demonstrate adequate internal consistency (α = .91, α = .77, and α = .83, respectively; Ullman et al., 2017). Convergent validity for each subscale was established via correlations with affiliated variables (Positive Reactions = .21-.34, Turning Against = .20-.31, and Unsupportive Acknowledgement = .16-.31; Ullman et al., 2017), and divergent validity was established for the negative subscales (Turning Against and Unsupportive Acknowledgement; Ullman et al., 2017). Internal consistency reliability in the present study for the PS and combined TA and UA subscales was .81 and .91, respectively.

Perceived Partner Responsiveness

The Perceived Partner Responsiveness scale (PPRS; Reis et al., 2011) is a 12-item shortened version of the 18-item original scale (Reis & Carmichael, 2006; Reis et al., 2017), which assesses an individual's perception of their partner's responsiveness. The measure is based on the interpersonal process intimacy model (Reis & Shaver, 1988), which focuses on understanding and validation. In the present study, participants answered the questions in relation to the most recent partner to whom they had disclosed their history of sexual violence. In the shortened version of the scale, responses can be rated on a 5-point or 7-point Likert scale (Reis et al., 2017). Since reliability is consistently strong for both response scales (e.g., Hui et al., 2013; Peters & Jamieson, 2016), we elected to use the 5-point Likert scale, ranging from 0 *(not at all true)* to 4 *(completely true)* (Reis et al., 2017). Item stems all start with "My partner" and example items include "is responsive to my needs" and "understands me." Previous research has reported high internal consistency reliability of the PPRS, with Cronbach's alpha ranging from .91 to .98 (Reis et al., 2017). Convergent validity has been established via high correlations with

other measures of partner responsiveness (Reis et al., 2017), as well as reported daily behaviors of partner compassion in a diary study that confirmed consensus of behaviors associated with responsiveness (Reis et al., 2014, 2017). Internal consistency reliability in the present study was .97.

Relationship Satisfaction

Relationship satisfaction was assessed using the 4-item Couples Satisfaction Index (CSI; Funk & Rogge, 2007). Three of the items are rated on a 6-point Likert scale ranging from 0 *(not at all true)* to 5 *(completely true)*, and a fourth item assessing "the degree of happiness, all things considered, of your relationship" is rated on a 7-point scale ranging from 0 *(extremely unhappy)* to 6 *(perfect)*. As with other measures in the current study, participants were asked to reflect on the relationship with the most recent romantic partner to whom they have disclosed their sexual trauma history. Research demonstrates high internal consistency, $\alpha = .94$, as well as strong convergent validity ($\alpha = .82$-$.92$) with other valid and reliable measures of relationship satisfaction. Additionally, construct validity has been supported via correlations with scales that encapsulate the hypothesized theoretical components of relationship satisfaction (Funk & Rogge, 2007). Internal consistency reliability in the present study was .95.

Procedures

Participants were recruited via announcements posted on the social media pages and listservs of community organizations involved in service provision and advocacy efforts for sexual violence. Additionally, advertisements were published on personal social media pages (i.e., Facebook and Instagram) and on social media pages (i.e., Reddit, Instagram, and Facebook) specifically dedicated to individuals who have experienced sexual violence or work with survivors of sexual violence. Announcements invited individuals to participate in an online

survey examining disclosure of sexual violence to romantic partners. Participants were given the opportunity to win one of six $25 gift cards to an online shopping platform. Participation was voluntary, and consent was obtained electronically before individuals were able to access the survey. One item on the survey inquired how participants heard about the survey. The majority of participants (n = 142) encountered the survey via an advertisement on Facebook (66.4%); the remainder of participants came across the survey via a personal page on Facebook or Instagram (25.2%); Reddit (4.7%); an email, flyer, or posting by a community or mental health organization (0.5%); or by unknown or "other" methods (3.3%).

After respondents consented to participate, they were directed to the webpage containing the survey, which was hosted on Qualtrics. The survey began with demographic information, followed by a trauma history questionnaire and questions regarding the disclosure of sexual violence to a romantic partner. Individuals who did not meet the criteria of either experiencing an episode of sexual violence or disclosing sexual violence history to a romantic partner were redirected to a resource page and their participation in the study ended. Qualifying respondents were then asked to complete the following measures: PTSD Checklist-5 (PCL-5), Social Reactions Questionnaire, Perceived Partner Responsiveness Scale (PPRS), and the Couples Satisfaction Index (CSI). The university's Internal Review Board approved all procedures.

Data Analysis

SPSS software version 28.0 was utilized for all data analysis. We calculated means, ranges, standard deviations, and internal consistency reliability for all continuous variables. Independent variables were checked to determine appropriateness for multivariate analysis. Skewness, kurtosis, and multicollinearity were in acceptable ranges. To test hypothesis 1, a correlational analysis was conducted to evaluate the relationships among trauma disclosure,

relationship satisfaction, PTSD clusters, positive and negative partner reactions, and perceived partner responsiveness. To test hypothesis 2, multiple mediation analysis was conducted via Hayes' (2022) PROCESS macro for SPSS (model 4), which uses bias-corrected confidence intervals (CIs) and bootstrapping. This procedure resamples from the original data set and calculates an estimate of the indirect effect for each set of resampled data. A confidence interval is produced based on the distribution of the estimated indirect effects computed for each resampled set of data, and mediation is considered significant if the interval does not contain zero (Preacher & Hayes, 2008; Shrout & Bolger, 2002). For this sample, 5,000 bootstrapping resamples were used to calculate 95% CIs for indirect effects.

Chapter 3

Results

Ranges, means, and standard deviations of the variables of interest were computed (see Table 1). The mean for trauma disclosure was 35.32 (*SD* = 11.90), which is similar to other samples of sexual trauma survivors and signifies a moderate level of trauma-related disclosure to the romantic partner (DiMauro & Renshaw, 2018). For the PTSD subscales of re-experiencing (Cluster B, items 1-5), avoidance (Cluster C, items 6-7), negative alterations in mood and cognitions (NACM, Cluster D, items 8-14), and hyperarousal (Cluster E, items 15-20), mean scores were as follows: 7.07 (*SD* = 5.53; scores can range from 0-20), 3.87 (*SD* = 2.41; scores can range from 0-8), 11.11 (*SD* = 6.75; scores can range from 0-28), and 10.03 (*SD* = 5.78; scores can range from 0-24). Studies on military sexual trauma report slightly higher mean cluster scores (i.e., Blais, 2020; Blais et al., 2018).

The means for positive and negative social reactions were 8.34 (*SD* = 4.10) and 9.04 (*SD* = 9.68) respectively. Other studies of sexual assault survivors that utilized the 12-item measure generally presented higher means for negative reactions, while average positive responses from other studies were found to be both higher and lower than the mean of the current study (Bernstein, 2020; Selime et al., 2021; Zimmer, 2022). The mean for perceived partner responsiveness was 34.03 (*SD* = 12.19), with higher scores indicating greater levels of perceived partner responsiveness (Brown & Weigel, 2018). We could locate no studies that utilized the 5-point Likert scale version with trauma survivors; however, in comparison to research that used the 7-point version of the scale with different populations, mean scores across other studies were generally slightly higher than the mean of the current study (e.g., Andreychik, 2019; Brown & Weigel, 2018; Jakubiak & Feeney, 2019; Zee et al., 2020). The mean for CSI, the outcome variable of relationship satisfaction, was 13.89 (*SD* = 5.58), which is consistent with previous

research on sexual trauma survivors (Blais, 2020; DiMauro & Renshaw, 2019). Higher scores reflect greater relationship satisfaction, with scores less than 13.5 indicating relationship distress (Funk & Rogge, 2007).

To test the first hypothesis, correlations among variables were calculated (see Table 1). Trauma disclosure, positive reactions, and perceived partner responsiveness were all significantly positively correlated with relationship satisfaction ($p < .01$ for all analyses). Furthermore, significant, negative correlations were found between negative reactions ($p < .01$) and relationship satisfaction. As such, the results upheld hypothesis 1. With regard to the exploratory component of hypothesis 1, the symptom clusters of avoidance ($p < .05$) and negative alterations in mood and cognitions (NACM, $p < .01$) were significantly, negatively correlated with relationship satisfaction and were therefore included in the mediational analysis.

To investigate hypothesis 2, mediational analysis was conducted using the PROCESS macro in SPSS (model 4; Hayes, 2022). Trauma disclosure was entered as the predictor variable, the mediators were avoidance, NACM, positive and negative reactions, and perceived partner responsiveness, and the outcome variable was relationship satisfaction. The direct effect of trauma disclosure on relationship satisfaction was not significant, ([unstandardized] = -.03, SE = .02, 95% CI [-.07, .00], β = .23), but the indirect effect of trauma disclosure on relationship satisfaction via positive reactions (mean indirect effect [unstandardized] = .03, SE = .01, 95% CI [.01, .05], β = .05) and perceived partner responsiveness (mean indirect effect [unstandardized] = .11, SE = .02, 95% CI [.06, .16], β = .23) was significant (see Figure 1). No other significant indirect effects were found. Thus, the data partially supported the second hypothesis in that positive reactions and perceived partner responsiveness mediated the effect of trauma disclosure on relationship satisfaction. Results indicated that those who displayed higher levels of trauma

disclosure experienced increased positive partner reactions and perceived their partner as being more responsive, which in turn predicted increased relationship satisfaction.

Chapter 4

Discussion

Research indicates that disclosure of sexual trauma to one's romantic partner can positively impact individual and relational outcomes (Del Castillo & Wright, 2009; MacIntosh et al., 2016; O'Callaghan et al., 2019; Sprecher & Hendrick, 2004; van Gorkom, 2021), but the mechanisms that underlie the connection between disclosure and relationship satisfaction remain understudied. As such, the purpose of this study was to examine the relationship between sexual trauma disclosure, PTSD symptom clusters, disclosure partner reactions, perceived partner responsiveness, and relationship satisfaction.

Our first hypothesis was supported, with relationships among variables generally trending in expected directions. The positive correlation between relationship satisfaction and trauma disclosure is consistent with theories about the importance of self-disclosure in intimate relationships for relational wellbeing (Sprecher & Hendrick, 2004). Furthermore, relationship satisfaction was significantly positively associated with positive partner reactions and perceived partner responsiveness, and negatively associated with negative partner reactions. Our findings are in line with the limited research that suggests that positive reactions by romantic partners engender favorable relational outcomes, while negative reactions contribute to decreased relationship satisfaction and poor relational welfare (Ahrens & Aldana, 2012; Montigny-Gauthier et al., 2019). Regarding the exploratory hypothesis, the PTSD symptom clusters of avoidance and negative alterations in cognitions and mood (NACM) were significantly, negatively associated with relationship satisfaction. As most of the research has examined pre-DSM-5 PTSD symptom clusters among military couples, these findings augment the current research by using an updated PTSD measure with an understudied population.

Our second hypothesis was partially supported as trauma disclosure had an indirect effect on relationship satisfaction via perceived partner responsiveness and positive, but not negative, partner reactions. Trauma disclosure did not have a significant direct effect on relationship satisfaction, and while avoidance and NACM were negatively correlated with relationship satisfaction, they did not significantly mediate the relationship between trauma disclosure and relationship satisfaction. Theories of intimate relationships posit that deficits in positive relationship behavior, such as responsiveness or positive partner reactions, may have a greater impact on relational outcomes than the presence of negative relationship behaviors (Gottman & Levenson, 2000; Laurenceau et al., 2005; Pasch & Bradbury, 1998). Relatedly, some scholars theorize that NACM may directly impact romantic relationships more than trauma-specific symptoms, such as avoidance of trauma reminders, because the behaviors of NACM, such as the inability to feel positive emotions or difficulty in feeling connected to others, reflect challenges in interpersonal functioning (Blais et al., 2018; Campbell & Renshaw, 2018).

However, Reis and Shaver's (1988) interpersonal process model of intimacy proposes that self-disclosure prompts a partner's response and reciprocal disclosure, and intimacy grows when responses are empathetic, validating, and understanding, i.e., the components of responsiveness and positive partner reactions (Laurenceau et al., 1998; Laurenceau et al., 2005; Reis & Shaver, 1988). Accordingly, our findings could be reflective of this theory in that the survivor's self-disclosure may have propelled this cyclical process of intimacy, thereby increasing positive behaviors within the relationship and potentially offsetting the effects of negative partner reactions and PTSD symptoms on relationship satisfaction. Indeed, increased communication, i.e., self and partner disclosure, has been shown to decrease the severity of PTSD symptoms of avoidance and emotional numbing (Monson et al., 2012), and self-disclosure

in intimate relationships is positively associated with an individual's own level of responsiveness (Sprecher & Hendrick, 2004). These theories lend support to our finding that perceived partner responsiveness and positive partner reactions were the mechanisms by which trauma disclosure impacted relationship satisfaction, while negative partner reactions and PTSD symptoms were not significant factors.

In regard to positive partner reactions, this study adds to the small body of research on sexual violence disclosure, partner reactions, and relationship satisfaction. Our findings are inconsistent with one study that did not find a significant association between positive partner reactions and relationship satisfaction, although positive reactions were correlated with increased sexual satisfaction (Montigny-Gauthier et al., 2019). As suggested by the authors, this may be evidence of the theory that suggests that negative social reactions may be more damaging to the survivor or hold more weight than the benefits of positive reactions (Ahrens et al., 2007; Campbell et al., 2009; Orchowski et al., 2013; Ullman, 2002). Given that the mean relationship satisfaction among participants in Montigny-Gauthier's study (2019) was quite low, the positive reactions may not have significantly affected relationship satisfaction or offset the effects of negative partner reactions. Conversely, the average relationship satisfaction for our study was above the cutoff for relationship distress, and, as such, positive reactions may have had a greater impact on relationship satisfaction in the presence of the positive relationship behaviors previously mentioned. Indeed, research has found that after the disclosure of sexual trauma, whether the relationship improves, remains stable or erodes depends upon the relationship quality before the disclosure (Ahrens & Aldana, 2012). Inconsistencies between the two studies may also be due to differences in sample characteristics – the participants in the Montigny-Gauthier et al., (2019) study was comprised of individuals who had only experienced childhood

sexual abuse (CSA), whereas the present study included survivors who had experienced sexual violence in childhood, adulthood, or both. Furthermore, the current study had a greater percentage of people who identify as non-binary and queer (i.e., not heterosexual).

Limitations

These findings should be considered in light of a few limitations. First, this study was correlational in nature; as such, conclusions about causation cannot be determined from current results. Furthermore, the majority of participants were recruited via social media platforms (i.e., Facebook, Instagram, and Reddit). Individuals who did not have access to the internet or participate in social media were therefore precluded from participating. Additionally, some of the social media announcements were posted in groups dedicated to survivors of sexual assault. Individuals who participate in such groups may be more likely to name their experiences as assault, identify as a survivor of sexual violence, and therefore be more willing or inclined to disclose their history to others. As such, these factors may have excluded individuals who met the study criteria and ultimately differ from the participants in some systematic way. Lastly, the highest percentage of respondents were cisgender women, which is reflective of the statistics that show that women endorse higher rates of sexual violence in comparison to men (Smith et al., 2018). However, studies do not often specify gender identity, and recent research on college populations suggests that transgender students are more likely than their cisgender peers to experience sexual violence (Coulter et al., 2017). As such, findings may not be generalizable to gender-minority populations.

Limitations also exist related to two of the measures used in this study. The unpublished Partner Communication About Stressful Experiences scale had limited psychometric information available, making it impossible to evaluate its' validity. With regard to the PTSD measure, it is

challenging to compare PTSD research across time as diagnostic criteria and PTSD measures have changed with the shift from the DSM-IV to DSM-5 (American Psychiatric Association, 1994, 2013), and a variety of PTSS symptomatology models are utilized in research. Additionally, the PCL-5 asks participants to answer questions about PTSD symptoms experienced within the past month, whereas the other measures used in the study asked about relationship experiences at the time they occurred, which may not have been within the past month. As such, it is difficult to determine whether the participants' level of PTSS at the time of disclosure is similar to the symptoms endorsed at the time of the study.

While we did not test for significance, people who were still in a relationship with the disclosure partner at the time of the survey endorsed higher mean levels of perceived partner responsiveness, trauma disclosure, positive partner reactions, and relationship satisfaction, and lower negative partner reactions than participants who were no longer in the relationship. As such, the insignificance of the PTSD clusters in the mediation analysis could speak to the ameliorative effects of positive relationship functioning on current PTSD symptoms. Indeed, some authors postulate that interpersonal difficulties are a contributory factor in the progression of PTSD immediately after trauma and have found that relationship satisfaction predicts a reduction in PTSD symptoms, while PTSD symptoms may engender interpersonal challenges longitudinally (Fredman et al., 2017; Hall et al., 2014; Kaniasty & Norris, 2008; LeBlanc et al., 2016).

Clinical Implications

Taken together, the results of this study would suggest that trauma disclosure impacts relationship satisfaction not through individual-level variables, such as PTSD symptoms, but through partner and dyad-level variables of positive partner reactions and perceived partner

responsiveness. Given the link between positive relational outcomes and survivor wellbeing (Canevello et al., 2016; Dimitrova et al., 2010; Franz et al., 2021; Whiffen, 1999), these findings convey some important considerations. First, research suggests that comprehensive disclosure of sexual trauma is an important component of post-trauma healing and relationship satisfaction (MacIntosh et al., 2016; MacIntosh & Johnson, 2008; Whiffen 1999). However, it is not just the disclosure itself that is important, but the form and function of relationship behaviors post-disclosure that therapists need to attend to. Indeed, negative reactions from informal support sources have been linked to a decrease in the survivor's subsequent disclosure via increased self-blame as well as self-doubt regarding whether their experience(s) counted as an assault (Ahrens, 2006). Furthermore, some scholars conceptualize the experience of negative post-disclosure reactions as a secondary victimization due to the detrimental effects on the survivor's wellbeing (Untied et al., 2018).

As such, for survivors who want to disclose their trauma history to a romantic partner, pre-disclosure interventions can focus on increasing partner responsiveness within the relationship, as well as engaging in individual sessions with the disclosure-partner and providing psychoeducation around sexual assault so as to offset the likelihood of negative social reactions. Should negative reactions occur, the clinician can work with the couple to address these responses and repair relational and individual damage that might have ensued (MacIntosh et al., 2016; Montigny-Gauthier et al., 2019). Furthermore, as our findings suggest that positive reactions are a significant component of relationship satisfaction post-disclosure, therapists may want to work with the couple to determine what kinds of responses the survivor would find helpful or supportive, and engage in activities such as role-plays to assist the couple in learning how to provide positive reactions and cope with negative reactions, should they arise. Of course,

clinicians should not presume that disclosure is always the optimal choice or desired by the client; relational dynamics and the survivor's judgment should be explored before moving toward disclosure (Montigny-Gauthier et al., 2019).

Future Directions

This study adds to the limited body of research that examines the effects of post-disclosure reactions on romantic relational outcomes. While the research is inconsistent in determining whether positive post-trauma reactions have the same robust effect on survivor recovery as negative reactions (i.e., Campbell et al., 2009; Orchowski et al., 2013; Ullman, 2002), the current findings would suggest that positive reactions are an important component of relationship welfare, a factor that has been implicated in post-trauma healing (Balderrama-Durbin et al., 2013; Bolton et al., 2003; Montigny-Gauthier et al., 2019). As such, future studies should continue to examine the occurrence and outcomes of positive post-disclosure reactions from romantic partners.

Additionally, although our findings did not indicate that PTSD clusters mediated the relationship between trauma disclosure and relationship satisfaction, research suggests that clinical interventions for trauma-exposed individuals should be tailored to address the sequalae unique to different traumas (Blais et al., 2018; Monson et al., 2010). However, this is an area that could benefit from more research as there is still a lack of consensus regarding which PTSD symptom clusters are most likely to result from different types of trauma. Furthermore, some studies suggest that non-PTSD symptoms, such as sleep problems, anger, sexual dysfunction, and depression may negatively impact relationship functioning beyond PTSD-specific symptoms (Campbell & Renshaw, 2018; Monson et al., 2010). Thus, future studies may want to examine other types of symptoms to determine whether they mediate the relationship between sexual

trauma disclosure and relationship satisfaction to better inform clinical interventions. Lastly, given the limitations discussed earlier, future studies should increase the numbers of, or focus specifically on, gender-minority people so as to better understand the experience of disclosing sexual trauma to romantic partners in this population.

Conclusion

Given the deleterious effects of sexual trauma on relational and individual functioning, and the potential for positive romantic relationships to contribute to survivor wellbeing, it is important to examine the mechanisms that underlie relationship satisfaction in this population. The present study analyzed the role of PTSD symptom clusters, partner reactions, and perceived partner responsiveness in relationship satisfaction after disclosure of sexual trauma, and found that partner and dyad-level behaviors are significant factors in this process. These findings support the need for the implementation and continued study of clinical interventions designed to address these factors and assist with positive post-disclosure experiences.

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Appendix

Table 1

Range, Mean, Standard Deviation (SD), and Correlations Between Variables (N=214)

Measure	Range	Mean	SD	1	2	3	4	5	6	7	8
1. CSI	0-21	13.89	5.58	--	--	--	--	--	--	--	--
2. TD	10-56	35.32	11.90	.228**	--	--	--	--	--	--	--
3. Cluster B	0-20	7.07	5.53	-.080	.091	--	--	--	--	--	--
4. Cluster C	0-8	3.88	2.41	-.151*	.018	.699*	--	--	--	--	--
5. Cluster D	0-28	11.11	6.75	-.195*	-.036	.625**	.591**	--	--	--	--
6. Cluster E	0-24	10.03	5.78	-.108	.066	.637**	.555**	.711**	--		
7. PR	0-16	8.34	4.10	.606**	.396**	.195**	.146*	.006	.051	--	--
8. NR	0-38	9.04	9.68	-.478**	-.016	.408**	.326**	.255**	.280**	-.119	--
9. PPR	0-48	34.03	12.19	.856**	.318**	-.005	-.093	-.139*	-.093	.661**	-.458**

Note. CSI = Couples Satisfaction Index; TD = Trauma Disclosure; Cluster B = re-experiencing; Cluster C = avoidance; Cluster D = negative alterations in mood and cognitions; Cluster E = hyperarousal; PR = positive reactions; NR = negative reactions (i.e., Turning Against and Unsupportive Acknowledgement); PPR = Perceived Partner Responsiveness

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

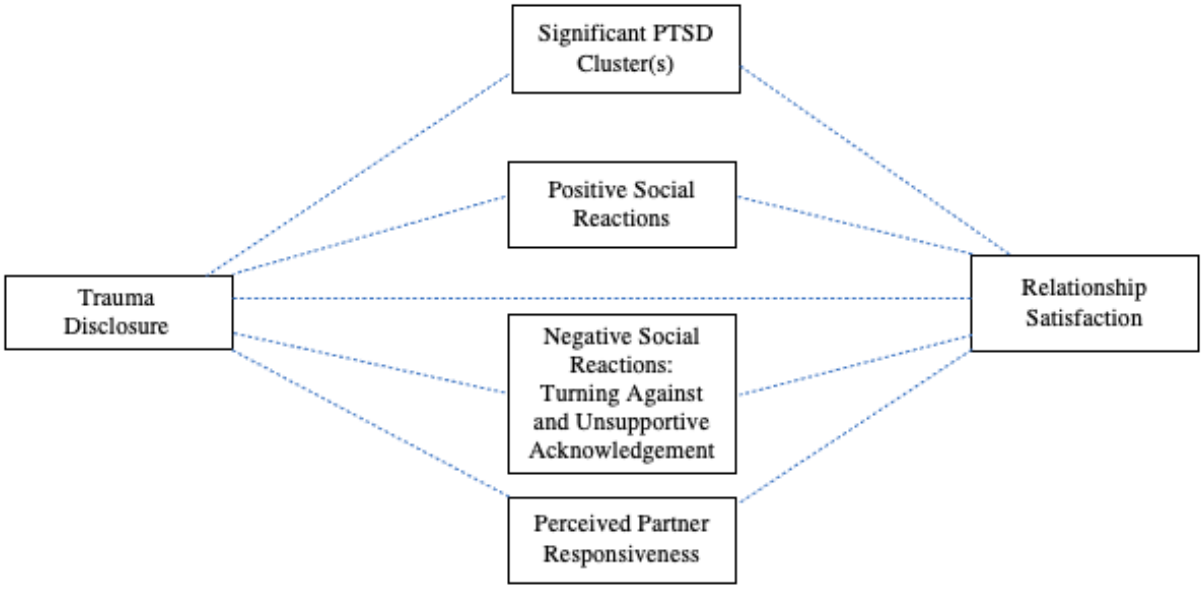
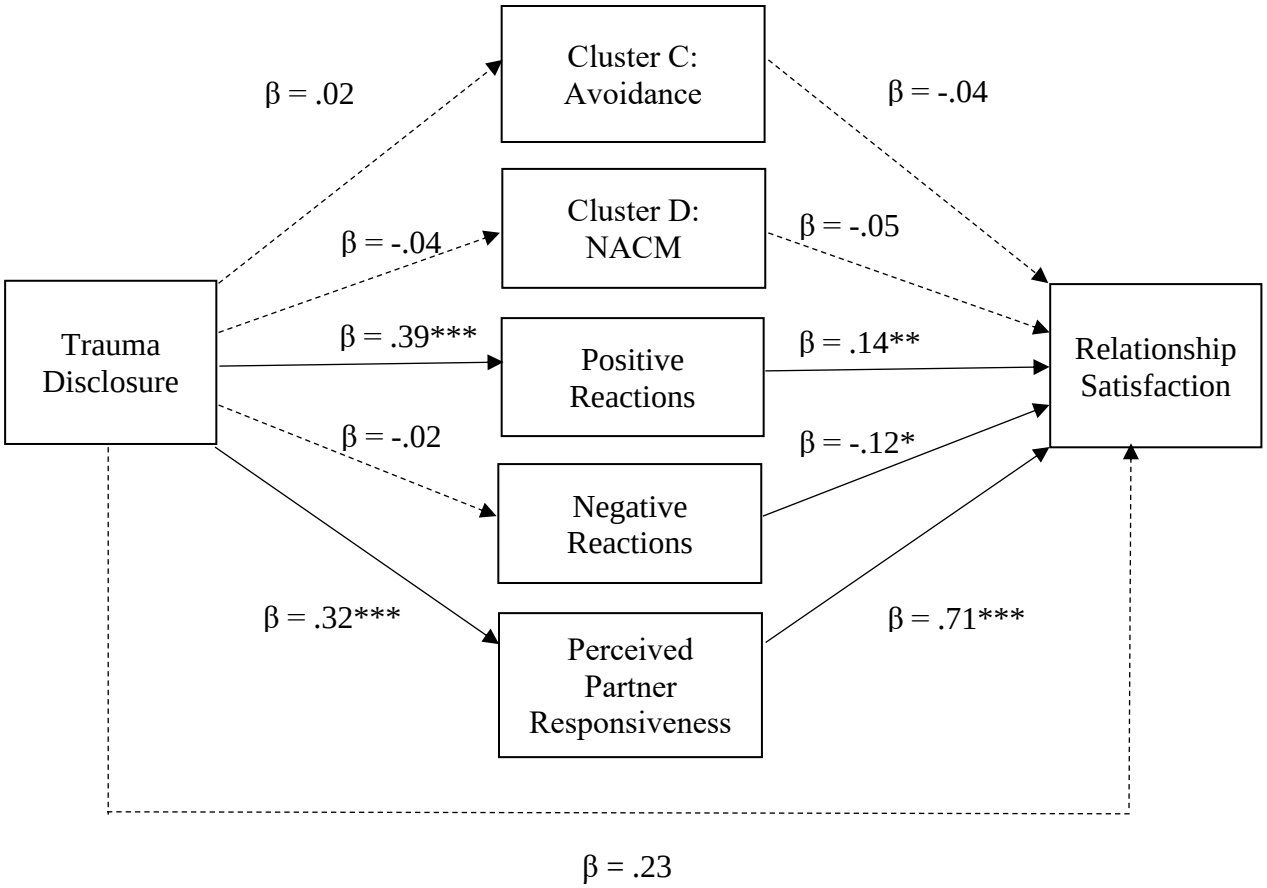


Figure 1

Hypothesized Mediation Model



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

Figure 2

Mediation of the Effect of Trauma Disclosure on Relationship Satisfaction via Avoidance, Negative Alterations in Cognitions and Mood, Positive Reactions, Negative Reactions, and Perceived Partner Responsiveness, (N=214)

Consent for Research Participation

Research Study Title: Disclosure of Unwanted or Forced Sexual Contact to Romantic Partners

Researcher(s): Lynsey A. Hinnenkamp, University of Tennessee, Knoxville
Dr. Gina P. Owens, University of Tennessee, Knoxville

We are requesting your participation in this survey if you have experienced one or more instances of forced or unwanted sexual contact and disclosed those experiences to a romantic partner (current or past). You must be 18 years or older to participate in the study. Included in this document is information regarding the study should you decide to participate. Please take your time to read the information provided. If you have any questions regarding the survey, please don't hesitate to contact the researchers at any point.

Why is the research being done?

The purpose of the study is to gain information about the personal and relational factors that may relate to relationship satisfaction for people who have experienced sexual violence and disclosed that to a romantic partner.

What will I have to do in this study?

Should you decide to participate in the study, you will be directed to an online survey. The survey includes questions about disclosing history of unwanted or forced sexual contact to a romantic partner, sexual violence history, emotional reactions, the response of romantic partners, and relationship satisfaction.

Can I say "No"?

Yes, you can choose whether or not you want to participate in the study. You can discontinue the survey at any point up until you press submit. Once your answers are submitted, we will be unable to delete your responses because participant responses are anonymous and we will not know which responses are yours.

Are there any risks to me?

There is a risk of experiencing some discomfort in answering questions that are sensitive in nature. As such, please feel free to skip any questions that you do not want to answer. If you find that you do experience a sense of discomfort or distress due to your participation in the survey, we urge you to reach out to a mental health professional, or to one of the following organizations:

- **RAINN Crisis Hotline:** 1-800-656-4673

  RAINN is a national organization focused on providing assistance to individuals who have experienced sexual assault. Their free hotline is available 24/7, and all

information is kept confidential. You will be connected to a trained provider from an organization that offers services to sexual assault survivors in your area. You can also go to their website: https://hotline.rainn.org/online?_ga=2.220719960.1342700382.1630010075-1697472136.1630010075 for online, live chatting with a trained provider.

- **1in6**: https://1in6.org/

  1in6 is a national organization that provides services to men who have had sexual experiences that were abusive in nature or unwanted. A 24/7 confidential helpline chat is available on their website and connects you to a trained provider.

- **National Suicide Prevention Lifeline**: 1-800-273-8255

  The National Suicide Prevention Lifeline is a 24/7, confidential crisis counseling service that connects you to a trained provider. They also provide a 24/7 online chat platform at https://suicidepreventionlifeline.org/chat/ that will connect you to a counselor.

Are there any benefits to me?

The information you provide may be helpful in in improving our understanding of the factors relating to disclosure of sexual violence and relationship satisfaction, although the information collected may not directly benefit you.

What will happen with the information collected in this study?

The information collected in this study will be completely anonymous and your responses will not be linked to you, your email address, your computer, or any other identifiers. Please do not include your name or any other identifying information in your responses. If you are a community member or a student who is not seeking course credit, you will have the option to provide your email address at the end of the survey to be entered into a drawing for a $25 Amazon gift card. The link for the drawing is separate from the survey and your email address cannot be linked to your survey responses. Please note that information provided in this study will be protected, but can only be kept as secure as any other form of online information.

Information collected in this study will be published in a scientific journal, and may be presented at scientific meetings. However, information gathered will not be used in future research.

Will I be paid for participating in this research study?

If you are a community member or a student who is not seeking course credit, you have the option to be entered into a drawing for 1 of 5 $25 Amazon gift cards. The winners will be chosen once data collection is complete. Anyone over the age of 18 and over can submit their email for the drawing even if they do not complete the survey. Please send an email to

lhinnenk@vols.utk.edu if you would like to be entered into the drawing, but would prefer not to participate in the research.

Who can answer questions about this research study?

If you have any questions or concerns about the study, or have experienced research-related harm, please contact the researcher, Lynsey Hinnenkamp at lhinnenk@vols.utk.edu or her faculty advisor, Dr. Gina Owens at gowens4@utk.edu or 865-974-2204.

For questions or concerns about your rights or to speak with someone other than the research team about the study, please contact:
Institutional Review Board
The University of Tennessee, Knoxville
1534 White Avenue
Blount Hall, Room 408
Knoxville, TN 37996-1529
Phone: 865-974-7697
Email: utkirb@utk.edu

Statement of Consent

I have carefully read this form and have been given the chance to ask questions and receive answers to my question. If I have more questions, I know that I can contact either of the researchers. By clicking the "I agree" button below, I am agreeing to participate in this study. I can print or save a copy of this consent document for future reference. If I do not want to be in this study or wish to discontinue the study once I have started, I can close my internet browser at any point up until submission of my answers.

Demographics

1. How old are you? _____
2. What is your racial/ethnic background?
    a. American Indian / Alaska Native / Native American
    b. Asian / Asian American / Pacific Islander
    c. Black / African American
    d. Hispanic / Latino/a/x
    e. Middle Eastern / Arab American / North African
    f. White / European American
    g. Biracial / Multiracial
    h. My identity is not listed (please specific in the next page):
    i. Prefer Not to Answer
3. What is the highest level of education you attained?
    a. Some high school
    b. Completed high school or finished my GED
    c. Some college
    d. Completed college
    e. Master's degree
    f. Doctoral degree
    g. Vocational or other training program
4. What is your yearly income range?
    a. $0-$25,000
    b. $25,001-$50,000
    c. $50,001-$75,000
    d. $75,001-$100,000
    e. $100,001-$125,000
    f. $125,001-$150,000
    g. $150,001-$175,000
    h. $175,001-$200,000
    i. Above $200,001
5. What is your employment status?
    a. Unemployed
    b. Part-time
    c. Full-time
    d. Student
6. What is your current relationship status?
    a. Single
    b. Partnered with one or multiple partners (not living together)
    c. Married
    d. Cohabitating
    e. Divorced
    f. Widowed
    g. Casually dating one or multiple partners
7. Gender identity (select all that apply):
    a. Cisgender man

b. Cisgender woman
c. Transgender man
d. Transgender woman
e. Genderqueer or gender fluid
f. Agender
g. Non-binary
h. Unsure/questioning
i. Additional category not listed _____

8. Please list your preferred pronouns: _____
9. Sexual orientation (select all that apply):
    a. Heterosexual (straight)
    b. Bisexual
    c. Gay
    d. Lesbian
    e. Asexual
    f. Pansexual/fluid
    g. Queer
    h. Unsure/questioning
    i. Additional category not listed _____
10. Sex assigned at birth:
    a. Male
    b. Female
    c. Intersex
11. How did you hear about this survey?
    a. Via an advertisement on Facebook
    b. Via Reddit
    c. Via a personal page on Facebook or Instagram
    d. Via an email, flyer, or posting by a community or mental health organization
    e. Other: _____

For all questions in the survey, please respond based on the **most recent romantic relationship in which you disclosed your history of unwanted or forced sexual contact**:

1. Have you disclosed your history of unwanted or forced sexual contact to a romantic partner? NO YES

2. What was the status of the relationship when you disclosed your history of unwanted or forced sexual contact?
    a. Casually dating or hooking up
    b. Partnered (committed to each other, but not living together)
    c. Married
    d. Cohabitating
    e. Engaged
    f. Other _____

3. What is the status of that relationship at this moment (current or past relationship)?

a. Still in a romantic relationship with that person
b. Not in a romantic relationship with that person any longer

Vita

Lynsey Hinnenkamp is a native of Lancaster, Pennsylvania, but has moved all over the United States with her parents, her older brother, and her younger sister. After high school, she attended college at Tulane University in New Orleans, where she majored in Psychology and minored in Public Health and Gender and Sexuality Studies. Upon graduation, she applied to a Clinical Mental Health Counseling program at Loyola University, New Orleans, and earned a Master of Science degree in 2016. She has prior clinical experience as a school counselor at Mount Carmel Academy, a mental health therapist at Integrated Family Services, and a mental health intern at Celebration Hope Center, providing therapy to individuals, couples, families, and groups with various presenting concerns. She also holds licensure as a Licensed Professional Counselor in Louisiana, and her prior research experience explored psychosocial development in college-aged students. Currently, she is a third-year doctoral student in the Counseling Psychology program at the University of Tennessee, Knoxville.