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Marin Beagley

University of Missouri-St. Louis, [mcbdmb@mail.umsl.edu](mailto:mcbdmb@mail.umsl.edu)

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**Examining the Gender- and Sexuality-Related Cognitive “Stuck Points” of Men and Women with Experiences of Adult Sexual Assault: Implications for Cognitive Processing Therapy**

Marin C. Beagley

M.A., Psychology, University of Missouri – St. Louis, 2016

B.A., Psychology, Arizona State University, 2014

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Advisory Committee

Rachel Wamser-Nanney, Ph.D.

Chairperson

Steven Bruce, Ph.D.

Zoë Peterson, Ph.D.

Tara Galovski, Ph.D.

### Abstract

Cognitive Processing Therapy (CPT) is considered a gold-standard psychotherapy protocol for the treatment of posttraumatic stress symptoms secondary to a variety of traumatic events. Despite its demonstrated efficacy, there is research to suggest CPT may not be as effective in reducing PTSD symptoms for men with an adult sexual assault trauma as it is for their female counterparts. The purpose of the present study was to determine whether CPT treatment outcome discrepancies may be attributable to gender differences in posttraumatic cognitions, or “stuck points.” As the act of sexual victimization is incongruent with socially prescribed masculine gender norms, it was hypothesized that men may present with more stuck points related to distortions about their gender or sexuality than women. A total of 39 men and 75 women with adult sexual assault (ASA) experiences completed an online survey assessing their posttraumatic reactions. Participants were asked to complete a modified impact statement assignment from CPT session 1, as well as measures assessing their current PTSD symptoms, depression, anger, and subscription to rape myths and traditional gender norms. Gender comparisons showed that, overall, men’s and women’s experiences of and reactions to ASA were remarkably similar. Men were more likely than women to report stuck points related to questioning their gender or sexual identity following their ASA experience and related to believing their gender or sexuality was the reason their ASA experience occurred. The presence of these stuck points was associated with lower levels of anger for men but not women. As gender and sexuality concerns are not directly addressed by the CPT protocol, recommendations for adaptations to CPT are proposed, along with a discussion of other important considerations in delivering a much-needed effective PTSD treatment protocol to sexually assaulted men.

Examining the Gender- and Sexuality-Related Cognitive “Stuck Points” of Men and Women with Experiences of Adult Sexual Assault: Implications for Cognitive Processing Therapy

Cognitive Processing Therapy (CPT) is a widely used 12-session trauma-focused psychological intervention for addressing symptoms consistent with posttraumatic stress disorder (PTSD; Resick & Schnicke, 1992) stemming from a variety of traumas (Galovski & Resick, 2008; Monson et al., 2006; Resick et al., 2008). CPT was originally tested with female sexual assault survivors (Resick & Schnicke, 1992), and numerous clinical trials have since continued to demonstrate the effectiveness of CPT in treating PTSD with women who have experienced adult sexual assault (ASA; often defined as nonconsensual sexual contact obtained through force, threats, or incapacitation and occurring in adolescence or adulthood). In their original examination of CPT, Resick and Schnicke (1992) found that a community sample of female rape victims who completed CPT in a group format evidenced greater declines in posttraumatic stress symptoms than a waitlist control group. When CPT was administered in an individual format to a community sample of female sexual assault victims, women who completed CPT saw significantly greater reductions in PTSD symptoms than women in a minimal attention control group (Resick, Nishith, Weaver, Astin, & Feuer, 2002). Treatment gains from CPT appear to hold over time, with long-term follow-up of female rape victims suggesting that CPT elicits lasting changes in PTSD symptoms over a 5- to 10-year period (Resick, Williams, Suvak, Monson, & Gradus, 2012).

Despite the demonstrated success of CPT in treating sexual assault-related PTSD in women, little is known about the effectiveness of CPT for male ASA survivors. In a

review of the existing literature, I identified only four CPT trials that explicitly included any male survivors of ASA; two of those included 11 or fewer men with ASA experiences (Galovski, Blain, Chappuis, & Fletcher, 2013; Mullen, Holliday, Morris, Raja, & Surís, 2014), and the other two assessed outcomes of an intensive treatment program that included CPT along with other treatment components (Tiet, Leyva, Blau, Turchik, & Rosen, 2015; Voelkel, Pukay-Martin, Walter, & Chard, 2015). Three of the four studies that addressed sexually victimized men focused exclusively on experiences of military sexual trauma (MST; defined as any experience of sexual assault that occurs during military services). In their evaluation of individual CPT for MST (defined by the researchers as an experience of rape [forced penetration], rape by multiple perpetrators, and/or forced experience of oral sex), Surís and colleagues (2013) reported that male ( $n = 9$ ) and female ( $n = 43$ ) veterans collectively evidenced significantly lower PTSD symptoms following completion of the protocol. However, the sample size for men in this clinical trial was too small to appropriately assess for gender differences in treatment outcome. A separate publication examining eleven men (nine of whom were included in Surís et al., 2013) found that CPT resulted in a reduction of PTSD symptoms for the male veterans who experienced MST in the form of rape (i.e., forced anal penetration) or forced oral sex (Mullen et al., 2014). These treatment gains held 6-months after therapy termination. Despite promising results, this study noted the need for further elucidation of ways in which patient gender influences the effectiveness of CPT for treating sexual assault-related PTSD.

Clinical trials that have been able to interpret gender effects in CPT treatment outcomes have raised concerns over the differences in treatment gains for men compared

to women. Both male ( $n = 41$ ) and female ( $n = 123$ ) veterans in a VA intensive program that included CPT for MST evidenced significant improvements in PTSD and depressive symptoms at the conclusion of treatment. However, whereas the treatment efficacy for women yielded medium effect sizes ( $d = .54$ ), there were small effect sizes ( $d = .24$ ) for men (Tiet et al., 2015). In a separate clinical trial, male ( $n = 67$ ) and female ( $n = 129$ ) veteran MST victims (defined by researchers as an experience of rape or attempted rape, forced to perform a sexual act through threat of harm or force, or witnessing this happen to another individual during one's military service) underwent CPT for PTSD as part of an intensive treatment program (Voelkel et al., 2015). Although both men and women had significantly lower levels of posttraumatic stress symptoms following completion of CPT than prior to the intervention, women evidenced greater treatment gains in PTSD symptom reduction than men (Voelkel et al., 2015). Finally, in a community sample of male ( $n = 22$ ) and female ( $n = 47$ ) interpersonal assault (defined as sexual or physical assault) survivors, despite similar rates of change in overall PTSD symptoms following completion of CPT, female victims evidenced more rapid treatment gains in the areas of anger/irritability, guilt cognitions, and global guilt as compared to men (Galovski et al., 2013). The authors opined that their results suggest men may need additional attention to these areas within the CPT protocol to fully address their concerns. Although certainly beneficial, outcomes of the few CPT clinical trials examining men indicate that CPT may be less effective at treating PTSD in men who have experiences of ASA compared to women with ASA experiences. A recent meta-analysis raised the question of whether gender discrepancies in CPT treatment outcomes may appear regardless of index trauma, as analyses consistently showed studies with higher proportions of women in their

samples reported larger treatment effect sizes (Asmundson et al., 2019). Given the legitimate concerns raised by past research, it is important to examine differences between men and women's experiences of and reactions to sexual assault to better understand potential causes for discrepancies in treatment outcomes.

### **Cognitive Processing Therapy (CPT)**

CPT operates under the assumption that natural recovery from post-trauma distress can be stunted by cognitive distortions about the traumatic experience and about the involvement of oneself and others (Resick & Schnicke, 1992). These cognitive distortions can result from interpretations about the meaning of the event, anticipated or perceived negative reactions of other people, or beliefs about the probability of re-experiencing traumatic events in the future (Resick & Schnicke, 1992). Distortions often are conceptualized as negative beliefs about the self, others, or the world, and they can significantly affect the development, severity, and maintenance of PTSD symptoms by increasing avoidance behaviors (Dunmore, Clark, & Ehlers, 1999; Ehlers & Clark, 2000; O'Donnell, Elliott, Wolfgang, & Creamer, 2007).

Within a CPT framework, distortions often are conceptualized as "stuck points:" schematic conflicts between previously held beliefs and the reality of the traumatic event, or negative beliefs that appear to be confirmed or reinforced by the trauma. Stuck points lead to unhelpful emotions such as self-blame, guilt, and anger (Resick & Schnicke, 1993). PTSD recovery may depend on the activation and correction of faulty cognitions, or stuck points, and their associated emotions. The focus of CPT, therefore, is on the integration of traumatic events into a victim's belief system through assimilation and over-accommodation (Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; Resick,

Monson, & Chard, 2014). Information processing theory, upon which part of CPT is based, postulates that when an individual is exposed to information inconsistent with an existing schema (e.g., an experience of sexual assault), the information can either be assimilated or accommodated (Hollon & Garber, 1988). Assimilation encompasses meaning-making of the traumatic event, where victims may change the narrative of their trauma to fit with a pre-existing schema (e.g., “It wasn’t really rape because only bad people get raped”). Alternatively, accommodation occurs when an individual changes their existing schema to accommodate inconsistent or discrepant trauma-related information (e.g., “Bad things *can* happen to good people”). Although changing one’s perception of their traumatic experience (assimilation) is inherently easier than reconstructing an entire schema (accommodation), accommodation is considered a healthier and more adaptive response to trauma (Hollon & Garber, 1988). However, in some cases accommodation can be maladaptive. Over-accommodation, as it is termed, occurs when beliefs about oneself and the world are altered in extreme and unhelpful ways in an attempt to resolve the discrepancy between one’s schema and his or her traumatic experience (Resick & Schnicke, 1992). These beliefs are frequently generalized trauma reactions that are extended to non-trauma situations (e.g., “No one can be trusted”). Over-accommodated beliefs often fall within the themes of safety, trust, power/control, esteem, and intimacy (McCann, Sakheim, & Abrahamson, 1988).

**Just World Belief Schema.** The CPT framework operates under the assumption that most assimilated and over-accommodated beliefs develop as a consequence of an individual’s subscription to the Belief in a Just World (Lerner, 1980). This event-specific schema, also termed the Just World Belief (JWB), asserts that good things happen to



good people and bad things happen to bad people. In other words, people get what they deserve (Furnham, 2003). Despite the fact that this is not always the case, JWBs appear to be stable across the lifespan and generalizable across cultures (Furnham, 2003).

JWBs can serve several positive functions. JWBs allow an individual to maintain a sense of control and a feeling of security over their life, and in doing so, the world can be conceptualized as a safer and more predictable place (Lodewijx, Wildschut, Nijstadin Savenije, & Smit, 2001). If unfortunate or traumatic events occur without a reason, control and predictability are threatened (Lerner & Mathews, 1967). This is often the case with traumatic victimization, as the idea that a trauma victim is innocent is in direct conflict with the JWB (Grubb & Turner, 2012). Hayes, Lorenz, and Bell (2013) suggested that the challenge to one's JWBs following an experience of victimization can be resolved in one of several ways, including denying injustice through victim blaming or minimizing the victimization experience. Assimilated stuck points are thought to develop as a result of victims' attempts at rectifying their victimization experience with their belief in a just world by blaming themselves or dismissing the experience, whereas over-accommodated beliefs are reflective of a complete abandonment of predictability inherent within JWBs.

**Meaning of the Event.** CPT partially seeks to resolve posttraumatic stress by helping the victim understand the meaning they have attached to their trauma and how it perpetuates their PTSD symptoms. Understanding is facilitated by engagement with the trauma memory, which allows an individual to experience natural emotions associated with the trauma and find their own evidence against distorted cognitions or "stuck points," (Resick & Schnicke, 1993). This cognitive exposure enables a victim to gain a

balanced and realistic perspective of their traumatic experience, themselves, the world, and others. The structure of CPT is designed to address stuck points within the JWB framework. Stuck points that lie beyond the JWB perspective, however, may be more difficult to challenge using the CPT protocol. Although some later session themes of CPT (e.g., intimacy, esteem) do appear to cover issues that lie beyond the JWB framework, the content of these sessions may not sufficiently cover unique concerns of men. There are several reasons to suggest that men's experiences of sexual assault may be more likely to lend themselves to the development of non-JWB stuck points, as will be discussed next.

### **Male Sexual Assault**

**Conceptualizations and context.** Depending on the sample and definition of ASA, it is estimated that anywhere from 0.2% to 30% of community men (Peterson, Voller, Polusny, & Murdoch, 2011), and 1% to 2% of male military veterans (U.S. Department of Veterans Affairs, 2015; Allard, Nunnink, Gregory, Klest, & Platt, 2011) have had ASA or MST experiences, respectively. However, it has been suggested that prevalence rates of MST among male veterans may actually be higher than those reported by the U.S. Department of Veterans Affairs (2015), with some reviews reporting the possibility that MST rates may reach as high as 12.4% for men over the course of their entire military career (Hoyt, Rielage, & Williams, 2011). Men can be pressured or forced to have unwanted sex through the use of psychological tactics (such as verbal coercion, threats, or manipulation), physical force, or intoxication/incapacitation (Davies, 2002). The actual acts that comprise sexual assault can similarly vary widely and range from kissing to sexual intercourse (Peterson et al., 2011). Sexual victimization of men can occur across a variety of different contexts including within the general community, on

college campuses or in fraternities, within athletic organizations, and in the military. Certain contexts may be associated with more detrimental psychological consequences. For example, as MST commonly occurs where a victim lives and works, victims may be forced to interact with their perpetrators in a way that is different from sexual trauma occurring in the community (Resick et al., 2014).

Although the majority of violent stranger rapes against men are perpetrated by men (Turchik & Edwards, 2012), several studies examining treatment-seeking male ASA victims suggest that anywhere between 6% to 15% of sexual assaults against men involve a female perpetrator (Hillman, O'Mara, Taylor-Robinson, & Harris, 1990; Isely & Gehrenbeck-Shim, 1997; Stermac, Del Bove, & Addison, 2004). The rates of female perpetration appear to be lower for gay and bisexual men, who are more likely to be sexually assaulted by other men (Groth & Burgess, 1980). Women who coerce men into sex are often acquaintances or dating partners, and they frequently rely on psychological perpetration tactics that would not meet the legal definition of sexual assault used by most states; however, some female perpetrators do resort to physical force or incapacitation (Struckman-Johnson, 1988).

Perpetrator sex can have strong implications for a male victim's own conceptualization of a sexual assault experience. In fact, Struckman-Johnson and Struckman-Johnson (1994) found that only 20% of male heterosexual ASA victims perpetrated against by women reported negative reactions to their assault. Because sex with women is more consistent with a heterosexual man's sexual identity than sex with men, heterosexual men victimized by women may be less likely to even conceptualize their experiences as sexual assault (Davies, 2002). However, if men victimized by

women *do* conceptualize their experience as ASA, men may feel more confusion about their sexuality than they would if victimized by a male perpetrator (Davies, 2002). This is because the act of refusing sex and/or not enjoying sex with a woman is typically inconsistent with traditional expectations for heterosexual masculinity, which may cause a heterosexual man to question whether or not he is really heterosexual. Therefore, although heterosexual men victimized by other men may be at greater risk for negative post-assault reactions than heterosexual men victimized by women, female-perpetrated ASA incidents often still involve some degree of questioning related to one's sexuality and masculinity. Unlike heterosexual men, gay and bisexual men may in some circumstances experience sexual assault as a hate crime against their sexuality. ASA within this context can add another layer of victimization for these men that results in internalized homophobia and identity struggles (Davies, 2002). Ultimately, it is the meaning assigned to an unwanted sexual experience that affects how men respond to the situation (Peterson et al., 2011), and thus, the assigned meaning is implicated in the potential development of PTSD and related stuck points following such instances of victimization. For men, the meaning-making process of their sexual victimization experiences may be heavily influenced by broader social constructions of masculinity.

**Societal Perceptions of Male ASA Victims.** Like their female counterparts, sexually victimized men existing within a patriarchal, Western society may experience multiple levels of victimization extending beyond their sexual assault experience (Anderson, 1982). First, men are sexually victimized by their perpetrator(s). Then, with their status as sexual assault victims, they may be disbelieved, stigmatized, and rejected by family and friends (Coates, Wortman, & Abbey, 1979). This reaction is in part

consequent of the stigmatizing nature inherent in any sexual crime, which is illustrated by a set of rape myths that reflect commonly held negative beliefs about sexual assault victims. Many of these myths, such as “if the victim didn’t physically fight back, they can’t really say it was rape,” or “if the victim was drunk, they are at least partially responsible for their rape,” negatively affect both male and female ASA victims (McMahon & Farmer, 2011; Payne, Lonsway, & Fitzgerald, 1999) and appear to fit within the JWB framework, as they can contribute to self-blaming assimilated stuck points. Others (e.g., “it is impossible for a man [or woman] to rape another man”) are applied exclusively to sexually victimized men (Struckman-Johnson & Struckman-Johnson, 1992) and do not necessarily reflect subscription to the JWB. Although rape myths can serve to invalidate, trivialize, and blame both male and female victims for their sexual assault, men have the added burden of a set of rape myths that suggest their experience of sexual assault is not even possible (Groth & Burgess, 1980). Therefore, sexually assaulted men may experience these additional layers of victimization to a greater degree than their female counterparts as a function of male rape myths that imply sexual assault is incompatible with their gender identity.

**Theories of Gender Socialization.** Gender, as opposed to biological or natal sex, is a social construct. The development of a gender identity involves a socialization process in which an individual applies meaning to themselves as a function of their gender identification (Stets & Burke, 2000). These meanings then serve as motivation for engagement in gender-consistent behaviors (Burke, 1980). An individual who identifies as a man, for example, typically engages in behaviors whose meanings are socially perceived to be masculine in nature. If actively seeking out sexual opportunities is

considered “masculine” and refusing sex is “feminine,” then this man would be less likely to refuse sex due to its association with femininity. Therefore, although an individual’s behaviors may be reflective of their gender identity, it is the meaning behind those behaviors that holds the most significance (Stets & Burke, 2000).

The socialization process during which gender assumes meaning involves gender-based schematic processing (Bem, 1981). As children learn more about gender, they develop gender schemas that both influence how they process information and bias their thoughts and attention (Eckes & Trautner, 2000). The development of these schemas is a function of existing within a gendered society where gender is often used as a system of classification (e.g., clothing cues to indicate the sex of an infant). Because gender helps individuals interpret information through a lens consistent with societal expectations, the development of extensive and elaborate gender schemas occurs quickly and easily (Eckes & Trautner, 2000). This explains why gender stereotypes may persist despite disconfirming evidence, why such stereotypes are largely resistant to change, and how gender conceptualizations may not match input from the environment (Eckes & Trautner, 2000). Gender schema theory posits that an individual’s own self-concept is integrated into their gender schema (Bem, 1981), and therefore, gender schemas may best be characterized as a type of self-schema. The formation and flexibility of self-schemas are inherently different than that of schemas unrelated to one’s personal identity, such as a worldview schema like the Just World Belief. Schemas in general are difficult to change; however, self-schemas (like gender) appear to be more resistant to change than other schemas (Young, Klosko, & Weishaar, 2003).

Adherence to rigid gender schemas may have implications for treatment of male ASA survivors. The physical weakness, sexual refusal, and vulnerability inherent within many ASA experiences may theoretically be more consistent with women's gender self-schemas than men's, and as a result, the gender self-schema may be more forcefully challenged within a man's experience of ASA than a woman's. This can contribute to gender role conflict, which occurs when rigid definitions of masculinity and socialized gender roles create negative psychological consequences (O'Neil, Wester, Heesacker, & Snowden, 2017).

The existence of rigid gender schemas can help explain how people come to hold essentialist beliefs about gender, which can lead them to engage in stereotyping and to adopt prejudiced attitudes (Smiler & Gelman, 2008). Sexual victimization is perceived as being associated with compliance, submissiveness, homosexuality, and femininity, all of which are inconsistent with social perceptions of masculine men (Pleck, 1981) that exist within a patriarchal society valuing heterosexism and hegemonic masculinity (Turchik & Edwards, 2012). It is this incongruity, along with the perceived need of men to achieve and defend their masculinity based on anti-femininity, that lends itself to the development of male rape myths.

**Male Rape Myths.** Male rape myths are prejudicial and inaccurate beliefs about male victims of sexual assault (Struckman-Johnson & Struckman-Johnson, 1992). These myths are associated with widespread traditional beliefs that men should be sexually dominant, assertive, and strong (Herek, 1986). Male rape myths can include beliefs such as (1) men cannot be raped; (2) if a victim has a physical response (e.g., erection or ejaculation) then he must have wanted it; (3) it is not possible for women to sexually

assault men; (4) male ASA perpetrated by a man causes homosexuality; (5) “real” men are able to prevent or defend themselves against sexual assault; and (6) sexual assault is not as severe for a man as it is for a woman (Turchik & Edwards, 2012; Struckman-Johnson & Struckman-Johnson, 1992). Studies using an adapted version of Field’s (1978) Attitudes Toward Rape Scale to test acceptance of male rape myths among college students in both 1992 (Struckman-Johnson & Struckman-Johnson) and in 2008 with a different sample (Chapleau, Oswald, & Russell, 2008) have shown that although acceptance of some male rape myths has declined (e.g., men cannot be raped), most myths evidenced similar endorsement rates in 1992 and 2008. Although some of the decline in male rape myth acceptance may be attributed to programming aimed at increasing awareness of sexual assault on college campuses (Hinck & Thomas, 1999), the majority of this programming focuses on female victims, and consequently, has not contributed to substantial changes in male rape myth acceptance (Turchik & Edwards, 2012). Further, it appears as though the gender socialization process has evidenced little change over the past half-century (Hosoda & Stone, 2000; Werner & La Russia, 1985), which may similarly contribute to the stable endorsement of male rape myths across time.

*Factors associated with acceptance of male rape myths.* Research has demonstrated that acceptance of male rape myths can be influenced by a number of different variables. In general, men tend to be more accepting of male (and female) rape myths than women (Struckman-Johnson & Struckman-Johnson, 1992) and are more likely than women to attribute responsibility for a sexual assault to a male victim (Chapleau et al., 2008). This tendency appears to be exacerbated when the victim is a gay man, as gay male victims are more likely to be blamed for their sexual assault than



heterosexual male victims (Mitchell, Hirschmann, & Nagayama Hall, 1999; Wakelin & Long, 2003). Male rape myth acceptance is also highly associated with perpetrator sex, such that victimization experiences involving female perpetrators of male sexual assault elicit a higher endorsement of male rape myths from both men and women than ASA experiences with a male perpetrator (Chapleau et al., 2008). This may contribute in part to the fact that male victims assaulted by women are more likely to be judged as having enjoyed the assault (Smith, Pine, & Hawley, 1988). In addition to these variables, an overall acceptance of interpersonal violence, adversarial sexual beliefs, and sexism toward men are also associated with subscription to male rape myths (Chapleau et al., 2008). Sexism toward men can include beliefs such as “men are not ‘man enough’ if they cannot prevent a sexual assault,” or beliefs that male victims of ASA should be able to quickly “get over” the sexual assault experience and not characterize the assault as being traumatic (Chapleau et al., 2008). Finally, subscription to the Just World Belief has been found to predict rape myth acceptance broadly (Hayes et al., 2013).

These variables associated with male rape myth acceptance speak to the particular vulnerability of men in adopting these beliefs. However, despite a wealth of factors associated with acceptance of male rape myths, ultimately, the most important consideration in terms of treatment is a sexual assault victim’s acceptance of rape myths. If a male victim subscribes to male rape myths, he may experience more severe post-assault symptoms due to self-invalidating beliefs compared to men who do not hold similar attitudes.

***Consequences of male rape myths.*** Male rape myths are problematic not only because they minimize the impact of sexual assault on men, but also because they

effectively blame the victim for the occurrence of his assault (Groth & Burgess, 1980). Consequently, negative reactions from society serve to reinforce self-blame of male victims and minimize their experiences by suggesting victims' deservingness or undermining their credibility (Davies, 2002). This can interfere with men's recovery from the sexual assault by fostering feelings of alienation (Coates et al., 1979). Furthermore, men's subscription to male rape myths may impede their recovery process by making it difficult to conceptualize their victimization as sexual assault. Although society has begun to recognize the detrimental consequences that can result from rigidly held beliefs about masculinity and gender stereotypes, male rape myths remain widely held and consequently add a unique layer of revictimization to sexually assaulted men's experiences.

### **The Development and Maintenance of PTSD Following ASA**

Men and women appear to be at similar risk for the development of PTSD following an experience of ASA (Tolin & Foa, 2006). However, despite this similar risk for post-ASA PTSD, men's development and experience of PTSD may look different than women's (Olf, Langeland, Draijer, & Gersons, 2007), which could potentially speak to gender differences in treatment outcomes. Differences are particularly evident with the PTSD symptom cluster related to negative alterations in mood and cognition.

**Affective.** One way in which PTSD symptoms can manifest is through changes in an individual's mood. Common affective experiences after a trauma include the feelings of sadness, anger, fear, shame, or guilt (American Psychiatric Association, 2013). Some studies suggest that men and women do not differ in the extent of their guilt and shame with response to their index (or most distressing) sexual assault experience (Byers &

Glenn, 2012; Galovski, Mott, Young-Xu, & Resick, 2010). However, other studies have shown men report greater stigma and shame than women following ASA (Sable, Danis, Mauzy, & Gallagher, 2006; Turchik, Pavao, Hyun, Mark, & Kimerling, 2012).

Men also typically report greater post-ASA anger than women (Galovski et al., 2010). This anger may be misdirected and generalized toward certain groups of people (e.g., gay men), particularly for heterosexual victims of male ASA perpetrators (Davies, 2002). Generalization of anger can contribute to the formation of over-accommodated stuck points. Whereas many women endorse the over-accommodated stuck point that “men cannot be trusted” following their experiences of sexual assault perpetrated by a man, men may develop a parallel belief that “gay men cannot be trusted.”

**Cognitive.** Changes in cognitions are another way in which PTSD symptoms, as well as other post-trauma sequelae like depression (Walker, Archer, & Davies, 2005), appear to manifest. Such alterations can involve exaggerated, negative beliefs about oneself, other people, or the world in general (American Psychiatric Association, 2013). Negative beliefs about oneself often take the form of self-blame, where a victim attributes responsibility for their trauma to themselves or their own actions. Self-blame attributions are common in both male and female victims of rape (Frazier, 1993). However, negative cognitions about one’s self appear to be more strongly associated with PTSD severity in men than in women (Daie-Gabai, Aderka, Allon-Schindel, Foa, & Gilboa-Schechtman, 2011). In fact, for women, negative cognitions about the self are more predictive of depression than PTSD (Daie-Gabai et al., 2011).

Compared to female ASA victims, male ASA victims tend to make stronger internal attributions, attribute more blame for the assault to themselves, and attribute less

blame to the perpetrator (Byers & Glenn, 2012). This may be a function of men's greater likelihood to subscribe to both male and female rape myths than women (Struckman-Johnson & Struckman-Johnson, 1992). The more an individual subscribes to male rape myths, the more blame they attribute to the male victim and less blame to the perpetrator (Sleath & Bull, 2010). Internal attributions and blame that develop as a consequence of subscription to male rape myths may take the form of assimilated stuck points related to men's perceptions of their own masculinity, such as "I gave off a signal that I was gay," or "I was too effeminate." In addition to one's actions, a victim may blame their assault on their physical appearance (e.g., lack of muscle, slight build, high-pitched voice), which can further exacerbate masculine identity distress (Rogers & Terry, 1984). Although women can certainly evidence similar cognitions (e.g., "I wore revealing clothes," or "I flirted too much"), these cognitions typically do not challenge their status as a woman, and as such, are not as likely to be associated with gender identity distress.

Women may be less likely than men to evidence gender identity distress following an experience of ASA, but some women do present with gender identity-related stuck points (e.g., "I'm less of a woman because this happened to me"). Though seemingly similar to men's identity-related cognitions (e.g., "I'm less of a man because this happened to me") women's gender-identity stuck points may differ in two significant ways. First, "I'm less of a woman" does not seem to imply that a female victim is "more like a man." For men, the cognitive distortion "I'm less of a man" appears to suggest that because one is less of a man, he is more feminine in nature, likely because masculinity often involves an explicit rejection and fear of femininity (e.g., O'Neil, Helms, Gable, David, & Wrightsman, 1986). Thus, to become "less of a man" is to lose one's

masculinity and to become more feminine. In contrast, to become “less of a woman” following a sexual assault experience does not necessarily seem to imply a loss of femininity (or a gain in masculinity) in general, rather it seems to speak to a perceived loss of some aspect of one’s sexuality that is associated with “womanhood”; other researchers have reported that women sometimes perceive themselves as “being less of a woman” after hysterectomy (e.g., Weber, Walters, Schover, Church, & Piedmonte, 1998), and after breast cancer diagnosis (e.g., Fatone, Moadel, Foley, Fleming, & Jandorf, 2007), for example. Second and related, masculinity and manhood has a greater value and power in Western, patriarchal societies than femininity and womanhood (e.g., Paechter, 2006), and thus, losing one’s status as a man may be a more significant psychological threat than losing one’s status as a woman.

Another potential cognitive response for men following their experience of ASA victimization is confusion regarding their own sexual orientation (Lisak, 1994). This cognitive response appears to be unique to male sexual assault victims because the vast majority of female sexual assault victims are assaulted by men, which is consistent with socially expected heterosexual roles, and because sexual refusal is not inconsistent with a traditional female gender role. Heterosexual men who are sexually assaulted by other men may experience fear that the assault will “make them gay,” (Goyer & Eddleman, 1984; Groth & Burgess, 1980; Mezey & King, 1989). Gay and bisexual men may also worry that their ASA experience has affected their sexual orientation (Turchik & Edwards, 2012). Gay and bisexual men in particular may struggle to feel comfortable with themselves, their bodies, and their sexual relationships following ASA

victimization, especially if their assault was a hate crime (Davies, 2002). This can encourage self-loathing toward their sexual orientation.

Distress surrounding issues of sexuality can also present following female-perpetrated ASA, however, this distress may be different than that of male-perpetrated ASA for heterosexual victims (Davies, 2002). Sex with women is consistent with a heterosexual man's sexual identity, which may encourage victims to conceptualize their ASA as a sexual experience instead of a violation of will (Davies, 2002). For some men, using this cognitive appraisal may minimize negative emotional reactions. However, heterosexual men that do conceptualize their experience as sexual assault may feel confusion or doubt regarding their sexuality for wanting to decline a sexual opportunity with a woman (Davies, 2002; Artime, McCallum, & Peterson, 2014). Sex-related distress has been linked to sexual dysfunction in male ASA victims. One study found that compared to non-assaulted men and sexually assaulted women, men who had ASA experiences reported more sexual dysfunction and sexual concerns (Elliott et al., 2004). Other studies have found male ASA experiences to be associated with sexual inactivity (Mezey & King, 1989).

Beyond self-blame and concerns regarding one's sexuality or sexual orientation, sexually assaulted men may evidence distress related to their masculine gender identity. As the experience of ASA encompasses everything that masculinity rejects, such as fear, vulnerability, shame, submission, helplessness, and sexual refusal, men may experience intense distress surrounding issues of masculinity, regardless of the sex of their perpetrator. Masculine identity concerns are therefore a consequence of a victim's inability to merge the act of sexual assault with that of a traditionally held male identity

(Kia-Keating, Grossman, Sorsoli, & Epstein, 2005). These concerns represent the struggle of victims to achieve a standard of masculinity that is essentially unachievable in the face of ASA victimization (Goodwin, 2004).

Ultimately, the underlying mechanisms of CPT appear to work well to address general assimilated and over-accommodated stuck points stemming from an ASA trauma. This is because many, if not most, stuck points related to PTSD fit within the broader JWB framework and therefore can be addressed accordingly. However, it is possible that assimilated and over-accommodated stuck points reflective of male rape myths may not always fit within the broader JWB framework, namely because such concerns could be more indicative of culturally-specific values reflecting what it means to be a man. Gender and sexual identity-related beliefs may best be conceptualized as self-schemas as opposed to worldview schemas like the JWB. Self-schema related stuck points may be more difficult to address within the existing CPT protocol, which could provide an explanation for gender differences in treatment outcomes.

### **Current Study**

To date, research trials assessing the effectiveness of CPT have largely failed to test the efficacy of the protocol with male ASA survivors suffering from PTSD. Findings of those that do provide some very preliminary evidence that men have fewer and slower treatment gains than women (Galovski et al., 2013; Tiet et al., 2015; Voelkel et al., 2015). However, there is little consensus, or even discussion, as to why these differences occur. Discrepancies in CPT treatment outcomes may be reflective of gender differences in stuck points, but there is no existing research to speak to this possibility. One study examined the cognitive distortions of trauma survivors undergoing CPT for treatment of

PTSD (Sobel, Resick, & Rabalais, 2009). This study, however, only examined the stuck points of female trauma survivors. Other research on cognitive distortions of trauma survivors has similarly been restricted to female samples (e.g., Owens & Chard, 2001; Foa, Molnar, & Cashman, 1995), which leaves little idea of whether common cognitive distortions of women may also apply to men. Perhaps more limiting, in Sobel et al. (2009), the stuck points of participants were coded based on the type of cognitive distortion they represented (e.g., assimilated, accommodated, or over-accommodated), and the details of these stuck points were left unanalyzed. Thus, it is possible that the type of stuck points (e.g., assimilated vs. over-accommodated) sexually victimized men present with may be less important than the *content* of those stuck points. In their examination of the influence of Latino culture on posttraumatic cognitions, Marques and colleagues (2016) used a more in-depth coding procedure that examined stuck points for consistency with themes currently present within the CPT protocol (safety, trust, power/control, esteem, intimacy). However, this coding procedure similarly does not allow for examination of cognitions that lie outside the themes addressed within CPT. A thorough evaluation of stuck point content that does not necessarily fit within the existing CPT themes may provide more information to explain gender differences in CPT treatment for sexual assault victims.

Given the overall dearth of research examining male sexual assault victims' experience of PTSD and implications for treatment, the current study endeavors to evaluate the content of sexually victimized men's and women's stuck points, as well as factors and beliefs that may contribute to the development of those gender-specific stuck points. The design of the CPT protocol is intended to thoroughly address stuck points



reflective of one's belief in a just world (Resick & Schnicke, 1993), but may not evidence as much success addressing stuck points that lie beyond this worldview schema.

Therefore, it is important to gain a better understanding of the content of men's and women's stuck points and factors that contribute to the formation of stuck points that do not fit within the JWB framework.

Given the aforementioned goals of this research, this study has two primary aims:

### **Research aim 1**

There is currently no existing research comparing the content of male and female ASA survivors' cognitive distortions, or "stuck points." Thus, the first and primary aim of this study is to examine how gender- and sexuality-related stuck points may differ between men and women, as well as how the presence of those stuck points may influence men's presentation of PTSD. For this research aim, we will include both men and women in order to allow for gender comparisons.

**Hypothesis 1a.** The experience of sexual assault inherently encompasses vulnerability, weakness, and sexual refusal, all of which are inconsistent with a traditional conceptualization of the male gender identity (Kia-Keating, Grossman, Sorsoli, & Epstein, 2005). Therefore, as a function of this inconsistency, it was hypothesized that men will be more likely to report cognitions reflective of gender- and sexuality-related concerns than women.

**Hypothesis 1b.** In addition to assessing the degree to which sexually assaulted men and women present with gender- and sexuality-related stuck points, it is also important to examine whether the presence of these stuck points are associated with greater PTSD severity. Gender- and sexuality-related stuck points may represent a

violation of a traditional, Western masculine gender identity. The loss of this male identity may be uniquely traumatic compared to the loss of a female identity in a patriarchal society where masculinity is valued. Therefore, it was predicted that gender will moderate the relation between the presence of gender/sexuality-related stuck points and PTSD symptoms, such that gender/sexuality stuck points will predict PTSD severity for men but not for women.

### **Research aim 2**

The second aim of this study is to further examine the manifestation of gender- and sexuality-related stuck points in men, as well as the degree to which these stuck points are associated with problematic posttraumatic outcomes beyond PTSD. This portion of the project included primarily male participants and evaluated the relation between men's gender role attitudes and the presence of gender- and sexuality-related stuck points, as well as determined whether the presence of gender/sexuality stuck points were associated with other ASA-related outcomes, including posttraumatic cognitions, depression, and sexual dysfunction.

**Hypothesis 2a.** Prior research suggests that acceptance of interpersonal violence, adversarial sexual beliefs, and sexism toward men is positively correlated with subscription to male rape myths (Hayes et al., 2013; Chapleau et al., 2008). Based on this existing literature base, it was predicted that men who had greater agreement with male rape myths and stricter adherence to male role norms would be more likely to evidence gender- and sexuality-related stuck points following an experience of sexual victimization than men with lower levels of rape myth acceptance and less adherence to traditional male role norms.

**Hypothesis 2b.** The experience of sexual assault is associated with a host of negative outcomes beyond the experience of PTSD, including sexual dysfunction (Elliott et al., 2004; Mezey & King, 1989) anger (Olatunji, Ciesielski, & Tolin, 2010), and depression (Walker, Archer, & Davies, 2005). It was predicted that men with gender/sexuality-related stuck points would evidence higher levels of self-reported sexual dysfunction, anger, and depression than men without gender/sexuality-related stuck points.

**Hypothesis 2c.** CPT may be less effective with male ASA survivors than with female ASA survivors because male survivors contend not only with stuck points related to the JWB, but also with stuck points tied to male rape myths. Although these belief sets have demonstrated correlations in the past (Hayes et al., 2013), based on the direct conflict between male rape myths and men's self-identity, it was predicted that subscription to male rape myths would be associated with posttraumatic stress symptoms over and above subscription to the Just World Belief. Should this relationship exist, it would provide further evidence that gender/sexuality-related stuck points are an important component of men's reactions following ASA.

**Hypothesis 2d.** Posttraumatic cognitions are a common outcome of traumatic experiences and are the target of CPT interventions (Daie-Gabai, Aderka, Allon-Schindel, Foa, & Gilboa-Schechtman, 2011). Posttraumatic cognitions may best be characterized as reflecting assimilated and over-accommodated stuck points that are not related to gender or sexuality. Thus, similar to Hypothesis 2c, it was predicted that belief in male rape myths would be associated with posttraumatic stress symptoms over and

above endorsement of non-gender related stuck points as measured by a quantitative inventory of posttraumatic cognitions.

Given the previous discussion, the hypotheses for this proposed study were as follows:

- Hypothesis 1a: Men will be more likely to present with gender- and sexuality-related stuck points than women.
- Hypothesis 1b: Gender will moderate the relation between the presence of gender/sexuality stuck points and PTSD symptoms, such that the presence of gender- and sexuality-related stuck points will predict PTSD severity for men but not for women.
- Hypothesis 2a: Male ASA victims who have greater agreement with male rape myths and stricter adherence to male role norms will be more likely to report stuck points consistent with gender/sexuality themes than men with lower levels of rape myth acceptance and less adherence to traditional male role norms.
- Hypothesis 2b: Men with gender- and sexuality-related stuck points will evidence higher levels of sexual dysfunction, anger, and depression than men without gender- and sexuality-related stuck points.
- Hypothesis 2c: Subscription to male rape myths will be associated with posttraumatic stress symptoms over and above subscription to the Just World Belief.
- Hypothesis 2d: Belief in male rape myths will be associated with posttraumatic stress symptoms over and above endorsement of non-

gender-related stuck points as measured by an inventory of posttraumatic cognitions.

## **Method**

### **Participants**

Men and women were recruited to participate in an online questionnaire study using web-based advertisements and flyers. A total of 405 individuals provided informed consent to complete the survey; however, of those participants that consented, 68 discontinued before completing any measures for this study. Participant data were included in the analyses for this study if the participant was 18 years of age or older, had usable qualitative data, identified their gender as “man” or “woman,” and reported their worst or most distressing trauma as occurring at age 14 or later and as including an experience of oral, anal, or vaginal sex perpetrated through intoxication or incapacitation, threat, or physical force. These inclusion criteria were applied to ensure that analyses were conducted on participants who had sexual experiences that would meet most legal definitions of sexual assault/rape. Participants who identified as “another gender” were not included in analyses; transgender and other gender individuals have unique risks for sexual assault that lie outside the scope of this study (Langenderfer-Magruder, Walls, Kattari, Whitfield, & Ramos, 2016). The final sample of participants used in current analyses consisted of 114 participants (39 men, 75 women).

### **Procedure**

Men and women with a “distressing, uncomfortable, traumatic, or unwanted sexual experience in adolescence or adulthood” were recruited through a variety of sources, including web-based advertisements on Craigslist and U.S. sexual assault

nonprofit organizations (e.g., 1in6, MaleSurvivor), forum postings on Reddit.com, and flyers. Participants were asked to complete a 45-minute online survey involving a battery of questionnaires geared at assessing the self-perceived impact of their distressing sexual experience on their view of themselves, other people, and the world. In compensation for completion of the survey, a \$5 donation was made to a charity of the participant's choice, as selected from a list of 15 predetermined organizations. Donations were used in lieu of direct payments for two reasons: (1) By utilizing donations as compensation, identifying information of participants (e.g., name, address, etc.) was not collected, thus further protecting the anonymity of individuals disclosing information about their sexual traumas in this survey, and (2) by not paying participants directly, participants were less likely to complete the study multiple times or fabricate an experience of ASA in order to receive payment.

This study was approved by the University of Missouri – St. Louis Institutional Review Board. Participants provided informed consent prior to participation and were provided with resources on coping with traumatic events and information about national mental health organizations upon both beginning and completing the survey.

## **Materials**

**Demographics.** Participants provided demographic information on their gender, age, racial origin, ethnicity, veteran status, years of education, college student status, income, employment status, current psychotropic medications, treatment history, diagnostic history, sexual orientation, and degree of attraction to men and women. See Table 1 for a summary of participant demographic characteristics by gender.

Table 1  
*Demographic Data by Participant Gender*

Demographic Characteristic	Women ( <i>n</i> = 75)	Men ( <i>n</i> = 39)
	<u>M (SD)</u>	<u>M (SD)</u>
Age*	28.12 (9.11)	41.11 (14.04)
Years of education	15.38 (2.84)	15.48 (3.76)
	<u><i>n</i> (%)</u>	<u><i>n</i> (%)</u>
Military veteran*	4 (5.3%)	8 (20.5%)
Marital status		
Single	30 (52.0%)	11 (28.2%)
Married	10 (13.3%)	9 (23.1%)
Separated	3 (4.0%)	1 (2.6%)
Divorced	7 (9.3%)	2 (5.1%)
Not married but living with partner	6 (8.0%)	2 (5.1%)
Widowed	0 (0%)	2 (5.1%)
No response	19 (25.3%)	12 (30.8%)
Race <sup>†</sup>		
African American or Black	7 (9.3%)	2 (5.1%)
Asian or Asian American	4 (5.3%)	0 (0%)
European American or White	52 (69.3%)	25 (64.1%)
American Indian or Alaskan Native	2 (2.7%)	2 (5.1%)
Other	9 (12.0%)	1 (2.6%)
No response	0 (0%)	9 (23.0%)
Hispanic or Latino*	11 (14.7%)	0 (0%)
Sexual Identity		
Heterosexual/Straight*	40 (53.3%)	8 (20.5%)
Homosexual/Gay*	0 (0%)	10 (25.6%)
Bisexual*	16 (21.3%)	3 (7.7%)
Uncertain	5 (6.7%)	2 (5.1%)
Other identity	4 (5.3%)	4 (10.3%)
No response	10 (13.3%)	12 (30.8%)
Other Traumas Experienced <sup>†</sup>		
Childhood sexual abuse	26 (34.7%)	16 (41.0%)
Natural disaster	5 (6.7%)	7 (17.9%)
Fire or explosion	5 (6.7%)	5 (12.8%)
Transportation accident	20 (26.7%)	10 (25.6%)
Work accident	2 (2.7%)	4 (10.3%)
Physical assault	23 (30.7%)	16 (41.0%)
Combat exposure	1 (1.3%)	2 (5.1%)
Captivity	4 (5.3%)	3 (7.7%)
Witnessed death	14 (18.7%)	11 (28.2%)

Table 1 (Continued)  
*Demographic Data by Participant Gender*

Demographic Characteristic	Women ( $n = 75$ )	Men ( $n = 39$ )
	<i>n</i> (%)	<i>n</i> (%)
PTSD diagnosis	29 (38.7%)	10 (25.6%)
Received professional treatment for PTSD	22 (29.3%)	11 (28.2%)

† Participants were allowed to choose as many options as applicable.

\* =  $p < .05$  for gender comparison

**Sexual victimization in adulthood.** To assess for participant history of ASA victimization, this study used the short form of the Sexual Experiences Survey for victims (SES-SFV; Koss et al., 2007). This survey assesses an individual's experience of sexual victimization, including rape and other nonconsensual sexual experiences. The short form of this survey was used because of its strong psychometric qualities and ability to reduce participant burden. On the SES-SFV, participants are asked to report experiences of nonconsensual sexual occurrences since age 14. The published SES-SFV does not query about male participants' experiences with nonconsensual vaginal intercourse; therefore, in order to be inclusive of men who have experienced sexual perpetration by both men and women, we added an item assessing for men's experiences of nonconsensual vaginal intercourse. In the SES-SFV, participants also report the means by which each of their unwanted sexual experiences occurred, including information about the use of lies, threats, physical force, and alcohol or other judgment-impairing substances. To maintain consistency with the widespread legal definition of rape and because there is wide variability in how male sexual assault is conceptualized by both victims and the literature (Arttime et al., 2014), participants in this study were considered to have a history of ASA victimization if they endorsed oral sex, vaginal sex, or anal penetration experiences that



occurred through threat, physical force, or incapacitation/intoxication at age 14 or later; participants without these experiences completed the remainder of the questionnaire but were not included in analyses.

**Posttraumatic stress symptoms.** Posttraumatic stress symptoms were assessed using the PTSD Checklist for DSM-5 (PCL-5: Monthly (Weathers et al., 2013), a checklist corresponding to posttraumatic stress disorder symptom criteria in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). Participants rated the degree to which they had been bothered by twenty different symptoms related to their most severe or distressing sexual assault experience, during the past month on a five-point scale from 0 (*not at all bothered*) to 4 (*extremely bothered*). Responses were summed to achieve an overall score on the measure, ranging from 0 to 80, with higher scores indicative of greater stress symptomology, and scores at or above 33 indicating likely PTSD. The PCL-5 has been determined to be psychometrically sound (Blevins, Weathers, Davis, Witte, & Domino, 2015). In the current sample,  $\alpha = .96$ .

**Depressive symptoms.** Depressive symptoms of study participants were assessed using the Patient Health Questionnaire-9 (PHQ-9). The PHQ-9 is a brief, 9-item measure designed to assess depression severity (Kroenke, Spitzer, & Williams, 2001) and is currently used as a depression screener across the VA system and within the CPT Veteran's Manual (Resick, Monson, & Chard, 2014). Items on the PHQ-9 were originally designed to reflect DSM-IV-TR (American Psychiatric Association, 2000) diagnostic criteria for Major Depressive Disorder (Kroenke et al., 2001); however, the scale remains valid for DSM-5 criteria (Hoge, Riviere, Wilk, Herrell, & Weathers, 2014). Scores for

each item range on a four-point scale from 0 (*not at all*) to 3 (*nearly every day*) and participants were asked to respond to items according to how they felt over the past two weeks. The PHQ-9 has demonstrated strong psychometric properties (Kroenke et al., 2001). In the current sample,  $\alpha = .92$ .

**Posttraumatic Cognitions.** General posttraumatic cognitions of participants were measured by the posttraumatic cognitions inventory (PTCI; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). The PTCI is a 36-item measure of cognitions often associated with the experience of posttraumatic stress. These cognitions are typically classified as either negative cognitions about the self (“I am a weak person”), negative cognitions about the world (“People are not what they seem”), or beliefs related to self-blame (“The event happened because of the way I acted”). Participants were instructed to think about their most distressing sexual assault experience and rate each item on a scale of 1 (*totally disagree*) to 7 (*totally agree*). Although the PTCI consists of 36 items, Foa and colleagues (1999) noted that three of the items were experimental in nature and thus not included in final subscale and full scale scores. Therefore, these three items were removed from this measure to reduce participant burden, resulting in a 33-item measure. The PTCI has demonstrated strong psychometric properties, including convergent and construct validity. It was also found to have strong discriminant validity, such that it has been able to distinguish between traumatized individuals with PTSD, traumatized individuals without PTSD, and non-traumatized individuals. In the current sample,  $\alpha = .97$ .

**Anger.** Anger reactions of participants were measured using the Dimensions of Anger Reactions – 5 scale (DAR-5; Hawthorne, Mouthaan, Forbes, & Novaco, 2006). On

this measure, participants are asked to report the frequency with which they have felt various levels of anger described by five different items during the past four weeks. Responses are recorded on a scale of 1 (*none or almost none of the time*) to 5 (*all or almost all of the time*), with higher scores indicative of greater anger reactions. The DAR-5 has been found to demonstrate strong internal consistency (Cronbach's  $\alpha = .88$ ) and concurrent validity with the State Trait Anger Expression Inventory – 2 (STAXI-2; Spielberger, 1999). Therefore, as it evidences similar psychometric properties as the STAXI-2, the shorter DAR-5 assessment of anger reactions was used in an effort to reduce participant burden. In the current sample,  $\alpha = .90$ .

**Sexual dysfunction.** As sexual dysfunction and a decline in sexual desire are possible consequences following sexual assault, the International Index of Erectile Function (IIEF; Rosen et al., 1997) was used to assess sexual functioning and satisfaction in male participants. Five domains of male sexual function comprise the IIEF, including erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction. Participants are instructed to answer 15 items on a six-point scale ranging from “0” to “5,” with lower scores indicative of greater sexual dysfunction. The IIEF has been found to be psychometrically sound (Rosen et al., 1997). In the current sample,  $\alpha = .97$  for the total IIEF score.

**Rape myth acceptance.** Men's rape myth acceptance was measured using Melanson's (1999) Male Rape Myth Scale (MRMS). The MRMS consists of 22 items that measure stereotypical, false beliefs specifically about male rape. Items in this scale were derived in part from Struckman-Johnson and Struckman-Johnson's (1992) and Kerr and Holden's (1995) examinations of male rape myth acceptance. Statements include, “If

a man obtained an erection while being raped it probably means that he started to enjoy it,” “Most men who are raped by a woman are somewhat to blame for not escaping or fighting off the woman,” and “A man who is raped has lost his manhood,” (Melanson, 1999). Responses on each item can range from 1 (*strongly disagree*) to 6 (*strongly agree*), with higher scores indicative of greater acceptance of male rape myths. The MRMS has exhibited strong psychometric properties. In the current sample,  $\alpha = .91$ .

### **Adherence to Gender Norms.**

**Male participants.** Men’s subscription to traditional male gender norms was assessed using the Male Role Norms Inventory – Short Form (MRNI-SF; Levant, Hall, & Rankin, 2013). The MRNI-SF consists of 21 items assessing participants’ views within the domains of self-reliance, restrictive emotionality, dominance, importance of sex, negativity toward sexual minorities, avoidance of femininity, and toughness. Responses to each of the 21 items are provided on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores representing stronger adherence to traditional masculinity norms. The MRNI-SF is considered to have strong psychometric properties and allows for analyses using either a total or domain-level score (Levant, Hall, & Rankin, 2013). In the current sample,  $\alpha = .92$  for the total score. To facilitate gender comparisons on adherence to gender norms, men also completed the short form of the Hypergender Ideology Scale, as discussed next.

**Female participants.** The short form of Hypergender Ideology Scale (HGIS; Hamburger, Hogben, McGowan, & Dawson, 1996) was used to assess both men’s and women’s adherence to extreme stereotypic gender beliefs such as, “Any man who is a man needs to have sex regularly,” “Women don’t mind a little force during sex

sometimes because they know it means they must be attractive,” and “Men should be in charge during sex.” The short form of the HGIS consists of 19 items that are rated on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*) and evidences strong psychometric properties. In the current sample,  $\alpha = .75$ .

**Subscription to the Just World Belief.** To assess the degree to which participants subscribe to the belief that the world is a fair and just place, both men and women completed the Global Belief in a Just World Scale (GBJWS; Lipkus, 1991). This 7-item scale includes statements such as, “I feel that people who meet with misfortune have brought it on themselves,” and “I basically feel that the world is a fair place,” which are rated on a 6-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*). Scores on each item are summated into a total score, with higher total scores indicative of a greater subscription to the belief in a just world. Lipkus’ (1991) GBJWS was chosen for use in this study because it currently boasts the strongest psychometrics compared to other scales assessing subscription to the JWB (Hellman, Muilenburg-Trevino, & Worley, 2008). In the current sample,  $\alpha = .82$ .

**Child Sexual Abuse.** To examine the role of childhood experiences of sexual abuse, all participants were administered the Childhood Sexual Abuse Questionnaire (CSAQ; Finkelhor, 1981). This measure includes 11 items related to sexual abuse behaviors that range in severity from kissing to penetrative intercourse. Items ask about participants’ experiences of coerced or forced sexual experiences with individuals who were at least five years older than the participant. Participants indicate how many times they have experienced each act, ranging from 0 to 8 or more. Although the measure asks about sexual behaviors occurring before the age of 16, previous research using both the

SES-SFV and CSAQ has revised the measure to ask about behaviors occurring before the age of 14 to maintain consistency with the SES-SFV, which measures victimization experiences occurring after the age of 14 (Arttime et al., 2014). Thus, the CSAQ was similarly adapted in this way for this study. Participants were labeled as having a childhood sexual abuse experience if they endorsed any item on the survey, other than being hugged or kissed in a sexual way, as occurring one or more times.

**Reasons for and impact of the sexual trauma.** Both men and women were asked to answer several open-ended questions about why they believe their worst or most distressing sexual victimization experience (as identified on the SES-SFV) occurred. Participants who did not endorse any experiences on the SES-SFV were asked to write about any distressing or unpleasant sexual experience. Questions included, "From your perspective, what caused this to happen? Please list what you believe to be the top 5 reasons this event happened," "Please list the top 5 ways this experience has impacted your view of yourself," "Please list the top 5 ways this experience has impacted your view of others", and "Please list the top 5 ways this experience has impacted your view of the world." In an effort to ensure that participant responses were not unduly influenced by the aim of this study, instructions did not include any mention of discussing the effects of the ASA experience on a participant's view of their gender or sexuality. Participants' qualitative responses to the prompts were coded for stuck points. The coding procedure is discussed further below. Participants were also asked to provide information about the context in which their worst sexual victimization occurred (e.g., military, college campus, fraternity, athletic team, etc.), how long ago it occurred, as well as the gender of their perpetrator.

### **Qualitative Analyses**

Open-ended responses were coded using thematic analysis (Braun & Clarke, 2006). The author and faculty advisor began by familiarizing themselves with the narrative descriptions from the dataset and generating initial themes using both an inductive and deductive process. The initial intent was to code for JWB-related and gender/sexuality-related stuck points, however, after further examination of the data, it was clear that within these broader categories there were subcategories warranting further consideration. Thus, JWB-related stuck points were divided into two different subthemes, referred to as assimilated and over-accommodated stuck points in an effort to be consistent with the language used in Cognitive Processing Therapy. Assimilated stuck points were defined as statements suggestive of self-blame or negative self-evaluations following the participant's traumatic ASA experience, which implied that the event occurred because they deserved or asked for it in some way (e.g., "I was too trusting"). Statements indicative of broad, inaccurate, overgeneralizations about oneself, others, and the world (e.g., "I can't trust men") were coded as over-accommodated.

After examination of the data, gender/sexuality-related stuck points were divided in four different categories (Questioning, Distorted Sex Image, Reason, Sex Loss) in an effort to capture the nuances inherent in these constructs. Due to the overall low numbers of gender and sexuality statements, the categories did not separate beliefs about one's gender identity from beliefs about sexuality. Statements were coded as "Questioning" if they indicated the experience of ASA made the participant question their gender or sexuality, or caused them to change how they self-identify their sexuality (e.g., "I might be gay"). Similarly, participants with statements suggesting the ASA experience

happened because they were uncertain or uncomfortable with their gender or sexuality were also coded as “Questioning,” (e.g., “It happened because I was confused about my sexuality”). Statements suggesting that the ASA experience changed or harmed a participant’s sexual image so that they engage in sex indiscriminately as a means to maintain control or see sex as their primary sense of worth (e.g., “I feel like I am only good for sex”) were coded as “Distorted Sex Image.” Statements were coded as “Reason” if they suggested the reason a participant’s ASA experience occurred was because of their gender or sexuality (e.g., “This happened because I was gay”), or if their experience of ASA was not taken seriously because of their gender or sexuality (e.g., “People don’t care about male victims”). Finally, statements suggesting that the ASA experience changed a participant’s interest in or enjoyment of sex (e.g., “I’m scared of sex”) were coded as “Sex Loss.” Statements that did not fall into the JWB or gender/sexuality categories were not coded.

Each participant’s qualitative data were coded for the presence or absence of the aforementioned themes and subthemes. Although the original intent was to code participant responses for the number and percentage of JWB- and gender/sexuality-related stuck points present, after examining the data it became clear that many participants reported multiple stuck points which communicated essentially the same theme but with slightly different wording (e.g., “Can’t trust anyone,” and “No one can be trusted”). As this could result in a misleading total score, a dichotomous approach to coding appeared to most accurately reflect the data. Furthermore, the amount of content in the qualitative data varied widely among participants. Whereas some participants wrote five responses to each question, others wrote one or less. Thus, to control for



variability in how much each participant wrote in response to these open-ended questions, the number of characters written by each participant was calculated and controlled for in analyses.

Prior to coding any responses, two coders (i.e., the author and the faculty advisor) established the coding guide and included example responses reflective of each stuck point category to assist in classifying ambiguous responses (see Table 2). The two coders

Table 2  
*Qualitative Coding Guide*

Stuck Point Theme	Description	Examples
Just World Belief Stuck Points		
Assimilated	I deserved my ASA or did something to cause it. Since the event, I feel ashamed, weak, etc.	<ul style="list-style-type: none"> <li>- I was stupid</li> <li>- I was too trusting</li> <li>- I was naïve</li> <li>- I deserved it</li> <li>- I feel ashamed</li> </ul>
Over-Accommodated	I am changed because I no longer see the world as just or fair or I see all people/all men or women as untrustworthy.	<ul style="list-style-type: none"> <li>- The world is messed up</li> <li>- Life is unfair</li> <li>- I can't trust men</li> </ul>
Gender/Sexuality Stuck Points		
Questioning	The ASA experience has made me question my gender or sexuality or caused me to change how I self-identify my sexuality. The experience happened because I was uncertain/insecure/uncomfortable about my gender or sexuality.	<ul style="list-style-type: none"> <li>- I might be gay</li> <li>- I'm not a real man</li> <li>- This happened because I was confused about my sexuality</li> </ul>
Distorted Sex Image	The ASA experience changed/harmed my sexual image so that I engage in sex indiscriminately (to maintain control) or I see sex as my primary sense of worth.	<ul style="list-style-type: none"> <li>- I feel like I am only good for sex</li> <li>- I have sex to keep a partner</li> <li>- Never say no to sex</li> </ul>

Table 2 (Continued)  
*Qualitative Coding Guide*

Stuck Point Theme	Description	Examples
Reason	The reason the ASA experience happened is because of my gender or sexuality. I was not believed/taken seriously because of my gender or sexuality.	<ul style="list-style-type: none"> <li>- People don't care about male victims</li> <li>- People don't care about gay people</li> <li>- This happened because I was a man/woman/gay</li> </ul>
Sex Loss	The ASA experience changed my interest in and/or enjoyment of sex.	<ul style="list-style-type: none"> <li>- I am scared of sex</li> <li>- I'm frigid</li> <li>- I don't like sex anymore</li> <li>- I'm not sexually attractive anymore</li> <li>- I hate my body</li> </ul>

first trained to an interrater reliability of at least 80% agreement on 10 percent of the qualitative data responses before coding all participant data. After the initial coding of all participant responses, Cohen's K was run to determine the level of agreement between the coders in rating qualitative data themes. The two coders obtained a substantial level of agreement on Assimilated stuck points (89.5% agreement; Cohen's K = .69), Over-Accommodated stuck points (86.6% agreement; Cohen's K = .65), and Sex Loss stuck points (89.5% agreement; Cohen's K = .68). The two coders achieved a moderate level of agreement on Reason stuck points (84.2% agreement; Cohen's K = .57) and an almost perfect level of agreement on Distorted Sex Image (95.6% agreement; Cohen's K = .85) and Questioning (99.1% agreement; Cohen's K = .88) stuck points. As such, the coders' interrater reliability for all themes fell well above the minimum acceptable interrater

agreement standard of 80% (McHugh, 2012). Any coding discrepancies were discussed and mutually resolved before proceeding with analyses.

## Results

### Data Cleaning

Prior to data analyses, all outcome variables were screened for violations of linearity and normality, along with missing values and outliers. Little's MCAR test was used to assess for discernable patterns of missing data prior to removing ineligible participants so as not to impose any statistical bias upon the subset of participants qualifying for inclusion in this study. Little's MCAR test proved non-significant for PCL-5 ( $\chi^2(1, 80) = 82.12, p = .414$ ), PHQ-9 ( $\chi^2(1, 33) = 47.36, p = .050$ ), MRMS ( $\chi^2(1, 53) = 28.05, p = .998$ ), IIEF ( $\chi^2(1, 30) = 42.03, p = .071$ ), DAR-5 ( $\chi^2(1, 5) = 6.61, p = .251$ ), PTCI ( $\chi^2(1, 535) = 561.84, p = .204$ ), and GBJWS ( $\chi^2(1, 25) = 15.44, p = .930$ ) scores; thus, missing data on these measures occurred in a completely random fashion with no discernable pattern. Data on these measures were mean imputed according to gender when 10% or less of the total data for the measure were missing. For participants with more than 10% of data missing on a given measure, pairwise deletion was used in each analysis to remove cases only if they were missing data used in the procedure. Data on the MRNI-SF ( $\chi^2(1, 81) = 108.17, p = .024$ ) and HGIS ( $\chi^2(1, 198) = 331.86, p < .001$ ) were not missing completely at random, but rather missing at random. There were only two participants included in the analyses for this study missing data on the MRNI-SF and two participants missing data on the HGIS; therefore, missing data on this measure was similarly mean imputed according to gender.

Using a z-score cutoff of 2.5 and Q-Q plots, one univariate outlier was identified among MRMS scores, four univariate outliers were identified among HGIS scores, two univariate outliers were identified among GBJWS scores, and three univariate outliers were identified among DAR-5 scores. After inspection, these cases were not removed from the dataset in an effort to avoid discounting the subjective experiences and symptoms of any participants in response to their sexual victimization. In addition, analyses were run both with and without all univariate outliers to assess for potential outcome differences. No significant differences were identified, which further supported the decision to include all univariate outliers in the dataset for analysis. Mahalanobis distances were computed to assess for multivariate outliers within each of the proposed analyses. No multivariate outliers were detected. Therefore, I proceeded with the planned analyses.

To determine whether participants qualified for inclusion in study analyses, participants were coded as either sexual assault victims or not based on their reported “worst or most distressing sexual trauma” on the SES-SFV. Participants were included in analyses if they reported an experience of oral, vaginal, or anal sex perpetrated by intoxication/incapacitation, threat, or physical force. The data of participants who reported sexual experiences outside of this scope (e.g., fondling; oral/vaginal/anal sex perpetrated by verbal coercion), were removed from the following analyses.

### **Descriptive Statistics**

A total of 39 men and 75 women met criteria for inclusion in analyses for this study by reporting a sexual assault experience at age 14 or later that involved oral, anal, or vaginal sex perpetrated through incapacitation/intoxication, verbal threats, or physical

force. Demographic data by participant gender can be found in Table 1. On average, participants were predominantly White (74.0%), non-Hispanic (87.9%), heterosexual (52.2%), and middle-aged ( $M_{\text{age}} = 31.9$ ;  $SD = 12.25$ ). There were no gender differences in education, marital status, race, history of PTSD diagnosis, or past involvement in professional treatment for PTSD (all  $p$ 's  $> .05$ ). Furthermore, there were no differences in the likelihood of men and women experiencing other traumatic events beyond their ASA experience reported on during this study, such as childhood sexual abuse, natural disaster, fire or explosion, transportation accident, work accident, physical assault, combat exposure, captivity, witnessing death, or other trauma (all  $p$ 's  $> .05$ ). There were gender differences in age,  $t(1, 35.45) = 4.43, p < .001$ , and veteran status,  $\chi^2(1, 92) = 9.27, p = .002, \Phi = -.317$ , with men being older and more likely to have served in the military than women. Women were more likely to identify as Hispanic/Latina,  $\chi^2(1, 91) = 5.28, p = .022, \Phi = .241$  than men. With regard to sexual identity, men were more likely to report their sexual identity as homosexual/gay than women, and women were more likely to report their sexual identity as straight or bisexual than men,  $\chi^2(4, 92) = 31.13, p < .001, \Phi = .582$ .

Men and women were asked to complete this survey on what they believed to be their most distressing or traumatic ASA experience. Henceforth, this will be referred to as a participant's "index trauma." Data were gathered on characteristics of participants' index traumas and can be found in Table 3. There were no gender differences in participant age at the time of their ASA experience, how long ago the ASA experience occurred, or the number of perpetrators involved in the incident (all  $p$ 's  $> .05$ ). Men were more likely to be perpetrated against by a family member than women,  $\chi^2(1, 114) = 4.59,$

$p = .032$ ,  $\Phi = -.201$ , and in particular by a brother,  $\chi^2(1, 114) = 3.92$ ,  $p = .048$ ,  $\Phi = -.185$ , or a cousin,  $\chi^2(1, 114) = 5.93$ ,  $p = .015$ ,  $\Phi = -.228$ . Men were also more likely than women to be perpetrated against by a stranger,  $\chi^2(1, 114) = 7.86$ ,  $p = .005$ ,  $\Phi = -.263$ . Women were more likely than men to be sexually assaulted by a man,  $\chi^2(1, 114) = 14.38$ ,  $p < .001$ ,  $\Phi = .355$ , and men were more likely than women to be sexually assaulted by a woman,  $\chi^2(1, 114) = 18.30$ ,  $p < .001$ ,  $\Phi = -.401$ . No participants endorsed being perpetrated against by a person who identifies as transgender or another gender.

Table 3  
*Most Upsetting Adult Sexual Assault (ASA) Experience Characteristics by Gender*

Characteristic	Women ( $n = 75$ )	Men ( $n = 39$ )
	<u>M (SD)</u>	<u>M (SD)</u>
Age at time of ASA	19.53 (5.36)	21.59 (7.38)
How long ago was the ASA experience?	<u><math>n</math> (%)</u>	<u><math>n</math> (%)</u>
Less than a year ago	6 (8.0%)	5 (12.8%)
1 year ago	7 (9.3%)	0 (0%)
2 – 4 years ago	16 (21.3%)	5 (12.8%)
5 – 7 years ago	16 (21.3%)	6 (15.4%)
8 – 10 years ago	11 (14.7%)	4 (10.3%)
More than 10 years ago	19 (25.3%)	19 (48.7%)
Number of perpetrators		
One	60 (80.0%)	32 (82.1%)
Two or more	7 (9.3%)	7 (17.9%)
No response	8 (10.7%)	0 (0%)
Relationship to perpetrator(s) <sup>†</sup>		
Family member (other than spouse) <sup>*</sup>	2 (2.7%)	5 (12.8%)
Spouse or partner with whom I live(d)	3 (4.0%)	3 (7.7%)
Romantic or dating partner with whom I did not live	19 (25.3%)	10 (25.6%)
Friend	14 (18.7%)	9 (23.1%)
Acquaintance	18 (24.0%)	14 (35.9%)
Stranger <sup>*</sup>	10 (13.3%)	14 (35.9%)
Other	9 (12.0%)	5 (12.8%)

**Table 3 (Continued).***Most Upsetting Adult Sexual Assault (ASA) Experience Characteristics by Gender*

Characteristic	Women ( <i>n</i> = 75)	Men ( <i>n</i> = 39)
	<i>n</i> (%)	<i>n</i> (%)
If perpetrator(s) was family, what was your relationship? †		
Father	0 (0%)	0 (0%)
Sister	1 (1.3%)	0 (0%)
Brother*	0 (0%)	2 (5.1%)
Grandfather	0 (0%)	1 (2.6%)
Grandmother	0 (0%)	0 (0%)
Uncle	1 (1.3%)	0 (0%)
Aunt	0 (0%)	2 (5.1%)
Cousin*	0 (0%)	3 (7.7%)
Other	1 (1.3%)	1 (2.6%)
Perpetrator gender †		
Man*	73 (97.3%)	29 (74.4%)
Woman*	3 (4.0%)	13 (33.3%)
Context of ASA †		
In the military (military sexual trauma)	4 (5.3%)	5 (12.8%)
At a college fraternity or sorority event	2 (2.7%)	1 (2.6%)
At college*	7 (9.3%)	10 (25.6%)
On a date	13 (17.3%)	5 (12.8%)
At a party	20 (26.7%)	7 (17.9%)
While traveling	7 (9.3%)	7 (17.9%)
Sexual acts occurring during index ASA †		
Oral sex	41 (54.7%)	24 (61.5%)
Anal sex	28 (37.3%)	22 (56.4%)
Vaginal sex*	67 (89.3%)	11 (28.2%)
ASA perpetration method(s) †		
Intoxication/Incapacitation	48 (64%)	31 (79.5%)
Threat	16 (21.3%)	6 (15.4%)
Physical force	44 (58.7%)	21 (53.8%)

† Participants were allowed to choose as many options as applicable.

\* =  $p < .05$  for gender comparison

Men were more likely than women to have experienced their index trauma while in college,  $\chi^2(1, 114) = 5.38, p = .020, \Phi = -.217$ . There were no gender differences,

however, in the likelihood of participants experiencing their index ASA in any other context, including while in the military, at a college fraternity or sorority event, on a date, at a party, or while traveling (all  $p$ 's > .05). No participants endorsed experiencing their index trauma while on an athletic team or at an athletic event, or while in jail or prison.

There were no gender differences in perpetration strategies used during the index ASA experience, such that men and women were equally likely to have been perpetrated against through the use of intoxication or incapacitation, verbal threats, or physical force (all  $p$ 's > .05). Women's index trauma experiences were more likely than men's to include vaginal penetration,  $\chi^2(1, 114) = 44.37, p < .001, \Phi = .624$ , but there were no gender differences in the experience of oral or anal sex during the index trauma. With regard to posttraumatic reactions, means, standard deviations, and ranges for PCL-5, PHQ-9, DAR-5, GBJWS, PTCI, and HGIS scores are presented for men and women separately in Table 4. Data from the IIEF, MRMS, and MRNI-SF are similarly presented for men in Table 4. There were no gender differences in PCL-5, PHQ-9, DAR-5, GBJWS, or HGIS scores (all  $p$ 's > .05). However, there was a significant gender difference in PTCI scores, with men endorsing more posttraumatic cognitions than women,  $t(1, 101) = 2.15, p = .034$ . Overall, these results suggest that the characteristics of men's and women's index ASA experiences and their reactions to these events appear to be remarkably similar.

### **Research Aim 1**

**Hypothesis 1a.** To address the first research aim of this study, participants' qualitative responses were coded for the presence of two overarching themes: statements reflective of the Just World Belief and statements reflective of gender/sexuality beliefs.



Table 4

*Means, Standard Deviations, and Ranges of Measures*

<u>Variable</u>	<u>Men (n = 39)</u>			<u>Women (n = 75)</u>		
	<u>Mean</u>	<u>SD</u>	<u>Range</u>	<u>Mean</u>	<u>SD</u>	<u>Range</u>
PCL-5 <sup>a</sup>	35.56	22.14	0 - 72	35.52	21.04	0 - 77
PHQ-9 <sup>b</sup>	12.37	7.08	0 - 24	11.86	7.73	0 - 26
DAR-5 <sup>c</sup>	11.23	5.42	5 - 25	9.19	4.94	5 - 24
GBJWS <sup>d</sup>	16.19	4.92	7 - 26	17.67	6.45	7 - 34
PTCI <sup>e*</sup>	151.86	42.60	45 - 220	132.09	45.15	47 - 219
HGIS <sup>f</sup>	32.35	13.03	19 - 70	29.04	11.63	19 - 69
MRMS <sup>g</sup>	43.00	18.38	22 - 90			
MRNI-SF <sup>h</sup>	2.40	1.05	1 - 4.90			
IIEF <sup>i</sup>	38.76	18.80	7 - 70			

<sup>a</sup>PCL-5 = PTSD Checklist for the DSM-5. Possible range for PCL-5 scores is 0 to 80.

<sup>b</sup>PHQ-9 = Patient Health Questionnaire - 9. Possible range for PHQ-9 scores is 0 to 27.

<sup>c</sup>DAR-5 = Dimensions of Anger Reactions - 5. Possible range for DAR-5 scores is 5 to 25.

<sup>d</sup>GBJWS = Global Belief in a Just World Scale. Possible range for GBJWS scores is 7 to 42.

<sup>e</sup>PTCI = Posttraumatic Cognitions Inventory. Possible range for PTCI scores is 33 to 231.

<sup>f</sup>HGIS = Hypergender Ideology Scale. Possible range for HGIS scores is 19 to 114.

<sup>g</sup>MRMS = Male Rape Myth Scale. Possible range for MRMS scores is 22 to 132.

<sup>h</sup>MRNI-SF = Male Role Norms Inventory - Short Form. Possible range for MRNI-SF average scores is 1 to 7.

<sup>i</sup>IIEF = International Index of Erectile Function. Possible range for IIEF scores is 4 to 75.

\* =  $p < .05$  for gender comparison

Qualitative data were then coded for subthemes, including Assimilated and Over-

Accommodated beliefs (both of which fall under the JWB theme), and Questioning,

Distorted Sex Image, Reason, and Sex Loss beliefs (all of which fall under the

gender/sexuality theme). A detailed description of the coding process can be found in the method section above. To determine whether there were gender differences in the presence of the overarching JWB and gender/sexuality themes in qualitative responses, separate binary logistic regressions were run. To ensure that any differences in stuck point presence were not simply reflective of differences in the amount of writing each participant submitted, the number of characters within participants' responses were controlled for within each analysis. Because the mean and standard deviation for the variable representing the number of characters was so large ( $M = 355.67$ ;  $SD = 295.32$ ),  $z$  scores were used to ensure a more interpretable odds ratio. Results showed that for JWB-related stuck points, the overall model was non-significant,  $\chi^2(2, N = 114) = 5.28, p = .071$ , Nagelkerke  $R^2 = .17$ ; neither the number of characters written in participant responses ( $b = 2.42, p = .085, OR = 11.19, 95\% CI: 0.72 - 174.89$ ) nor participant gender ( $b = -0.57, p = .64, OR = 0.57, 95\% CI: 0.06 - 5.91$ ) contributed significantly to the model. Thus, there were no gender differences in the presence of JWB-related stuck points. Similarly, there were no gender differences in the presence of gender/sexuality-related stuck points. Although the overall model was significant,  $\chi^2(2, N = 114) = 10.56, p = .005$ , Nagelkerke  $R^2 = .12$ , only the number of characters written contributed significantly to the model,  $b = 0.79, p = .005, OR = 2.20, 95\% CI: 1.28 - 3.78$ ; participant gender did not significantly contribute,  $b = -0.44, p = .295, OR = 0.65, 95\% CI: 0.29 - 1.46$ . JWB-related stuck points were nearly universal, with 97.4% of men and 96% of women reporting a belief related to this theme. In contrast, gender/sexuality-related beliefs were less common, with only 51.3% of men and 45.3% of women reporting beliefs consistent with this theme.

Additional analyses were run to determine whether there were any gender differences among the subthemes of JWB and gender/sexuality stuck points. Results showed no gender differences in the presence of Assimilated stuck points,  $\chi^2(2, N = 114) = 5.82, p = .054$ , Nagelkerke  $R^2 = .08$ ; the number of response characters contributed significantly to the model,  $b = 0.84, p = .03$ , OR = 2.31, 95% CI: 1.07 – 5.00, but participant gender did not significantly contribute,  $b = -0.27, p = .61$ , OR = 0.77, 95% CI: 0.28 – 2.12. There were also no gender differences in Over-Accommodated stuck points. Although the overall model proved significant,  $\chi^2(2, N = 114) = 8.42, p = .015$ , Nagelkerke  $R^2 = .11$ , this was driven by the significant contribution of response characters to the model,  $b = 0.92, p = .02$ , OR = 2.50, 95% CI: 1.130 – 5.479, as participant gender did not significantly contribute,  $b = 0.52, p = .28$ , OR = 1.69, 95% CI: 0.66 – 4.34.

There were no gender differences in Distorted Sex Image stuck points,  $\chi^2(2, N = 114) = 3.00, p = .223$ , Nagelkerke  $R^2 = .05$ , with neither response character count,  $b = 0.13, p = .556$ , OR = 1.14, 95% CI: 0.73 – 1.78, nor participant gender,  $b = 0.97, p = .150$ , OR = 2.64, 95% CI: 0.70 – 9.92, contributing significantly to the model. There were similarly no gender differences in Sex Loss stuck points,  $\chi^2(2, N = 114) = 4.47, p = .107$ , Nagelkerke  $R^2 = .06$ ; both response characters,  $b = 0.43, p = .074$ , OR = 1.54, 95% CI: 0.96 – 2.47, and participant gender,  $b = -0.62, p = .225$ , OR = 0.54, 95% CI: 0.20 – 1.47, did not contribute significantly to the model.

There were, however, significant gender differences in the presence of Reason and Questioning stuck points. Men's odds of endorsing a belief consistent with attributing their victimization to their gender or sexuality was nearly 2.7 times greater

than women's odds of endorsing such belief,  $\chi^2(2, N = 114) = 12.08, p = .002$ , Nagelkerke  $R^2 = .15$ ; both character count,  $b = 0.79, p = .009$ , OR = 2.19, 95% CI: 1.22 – 3.93, and participant gender,  $b = -0.99, p = .040$ , OR = 0.37, 95% CI: 0.15 – 0.95, contributed significantly to this model (see Table 5). Because the Questioning subtheme was only present for 10.3% of male participants and for no female participants, logistic regression would not produce a meaningful result because prediction based on gender would appear to be perfect. Thus, instead, a Fisher's Exact Test was conducted to compare the likelihood of men and women endorsing the Questioning stuck point subtheme. Results of the two-sided Fisher's Exact Test were significant,  $p = .01$ , with men showing a greater likelihood of endorsing this theme than women. Although it was not possible to control for character count in this analysis, the lack of a significant gender difference in character count,  $F(1, 112) = 2.04, p = .16, \eta_p^2 = .02$ , offers some evidence that this result is not purely an artifact of gender differences in the amount of content provided – especially because men provided slightly but nonsignificantly fewer characters ( $M = 301.13$ ;  $SD = 189.12$ ) than women ( $M = 384.03$ ;  $SD = 335.30$ ) on average. A summary of these data can be found in Figure 1.

Table 5  
*Binary Logistic Regression Results for Reason Stuck Points*

<u>Model</u>	<u><i>b</i></u>	<u><i>SE-b</i></u>	<u>Wald</u>	<u>df</u>	<u>Exp (<i>B</i>)</u>	<u>95% CI Exp (<i>B</i>)</u>
Intercept	.408	.779	.274	1	1.50	
Character Count*	.785	.298	6.909	1	2.191	1.221 – 3.933
Gender*	-.989	.481	4.233	1	0.372	0.145 – 0.954

*Note.* The dependent variable was Reason stuck points with presence as the target category and absence as the reference category; Women were the focus group of the Gender variable; Nagelkerke  $R^2 = .150$ .

\*  $p < .05$

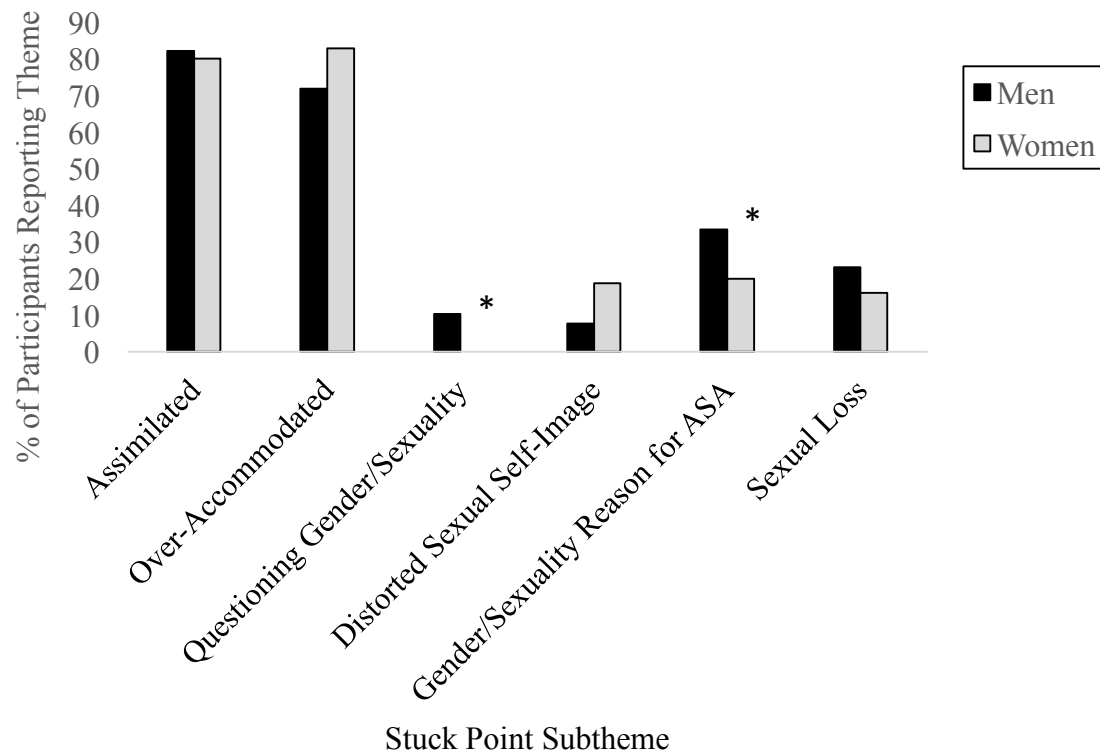


Figure 1. Gender differences in stuck point subtheme endorsement.  
\*  $p < .05$ .

**Hypothesis 1b.** Independent  $t$ -tests were performed to determine whether the presence of JWB or gender/sexuality stuck points in a participant's qualitative data was associated with PTSD symptoms as measured by the PCL-5 (see Figure 2). Just World Belief stuck points proved significantly associated with PCL-5 scores,  $t(1, 112) = 2.49$ ,  $p = .014$ , such that participants with JWB stuck points ( $M = 36.46$ ;  $SD = 20.97$ ) scored higher on the PCL-5 than participants without JWB stuck points ( $M = 10.00$ ;  $SD = 16.15$ ). Both Assimilated,  $t(1, 112) = 2.86$ ,  $p = .005$ , and Over-Accommodated,  $t(1, 112) = 2.54$ ,  $p = .013$ , stuck points were independently associated with PCL-5 scores. In contrast, gender/sexuality stuck points were not associated with PCL-5 scores overall,  $t(1,$

112) = .69,  $p = .489$ , nor were there any relations between gender/sexuality stuck point subthemes and PCL-5 scores (all  $p$ 's > .05).

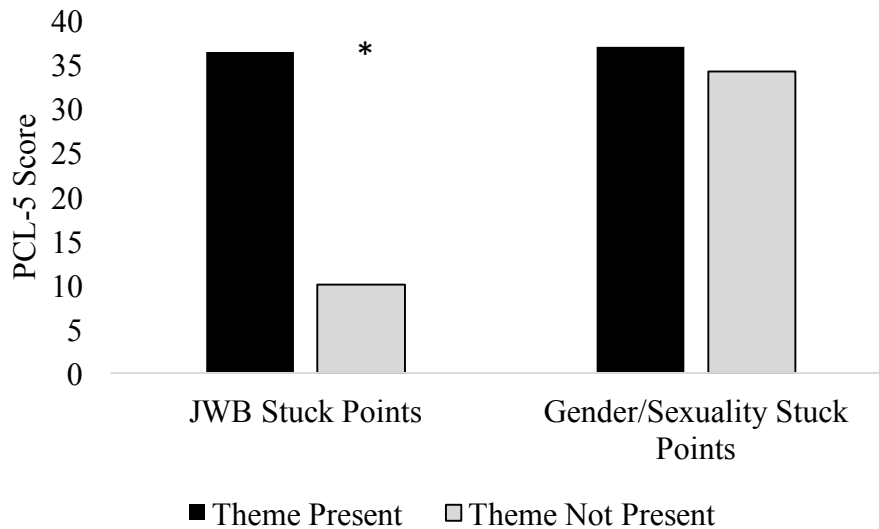


Figure 2. PCL-5 scores by stuck point theme.

\*  $p < .05$ .

Independent  $t$ -tests were also used to assess for an association between different types of stuck points and specific symptom clusters of PTSD. JWB stuck points were broadly associated with Intrusion (cluster B) symptoms,  $t(1, 4.26) = -4.98$ ,  $p = .006$ , such that participants with JWB stuck points scored higher on PCL-5 questions assessing these symptoms ( $M = 8.17$ ;  $SD = 5.43$ ) than participants without JWB stuck points ( $M = 1.75$ ;  $SD = 2.36$ ). Similarly, JWB stuck points were associated with Avoidance (cluster C) symptoms,  $t(1, 112) = -2.18$ ,  $p = .031$ , with participants who reported JWB stuck points scoring higher on items related to this symptom set ( $M = 4.65$ ;  $SD = 2.58$ ) than participants without JWB stuck points ( $M = 1.75$ ;  $SD = 3.5$ ). JWB stuck points also had an association with Negative Alterations in Cognitions and Mood (cluster D) symptoms,  $t(1,$

112) = -2.43,  $p = .017$ , as participants who endorsed JWB stuck points scored higher on items reflecting these symptoms ( $M = 13.50$ ;  $SD = 8.35$ ) compared to participants who did not endorse JWB stuck points ( $M = 3.25$ ;  $SD = 5.85$ ).

Gender/sexuality stuck points were not associated with any PTSD symptom clusters broadly (all  $p$ 's  $> .05$ ). However, the presence of Sex Loss stuck points was associated with scores on Avoidance items,  $t(1, 112) = -2.58, p = .011$ , and Negative Alterations in Cognitions and Mood items,  $t(1, 37.11) = -2.25, p = .030$ . Participants with Sex Loss stuck points scored higher on Avoidance symptoms ( $M = 5.86$ ;  $SD = 2.33$ ) than participants who did not report Sex Loss stuck points ( $M = 4.23$ ;  $SD = 2.64$ ). Similarly, participants endorsing Sex Loss stuck points scored higher on their experience of Negative Alterations in Cognitions and Mood symptoms ( $M = 16.29$ ;  $SD = 6.67$ ) than participants who did not report cognitions consistent with this subtheme ( $M = 12.43$ ;  $SD = 8.70$ ). No other gender/sexuality stuck point subthemes were associated with PTSD symptom clusters (all  $p$ 's  $> .05$ ).

Hayes's (2008) PROCESS macro for SPSS was used to assess for the moderating effect of gender within the relation between gender/sexuality stuck points and PCL-5 scores. PROCESS uses a bootstrapping procedure of one thousand samples to compute bias corrected confidence intervals that test a moderation effect. The failure of these confidence intervals to contain "0" indicates a successful moderation of the tested relation. In the first step of the moderation model, PCL-5 scores were regressed on the independent variable of gender/sexuality stuck points and the moderator variable of participant gender. The analysis showed that, when entered together, gender/sexuality stuck points ( $\beta = 0.14, p = .48$ ) and participant gender ( $\beta = -.08, p = .98$ ) did not predict

PCL-5 scores ( $R^2 = .02$ ;  $p = .548$ ). The interaction between the independent variable and the moderator (gender/sexuality stuck points x participant gender) was then entered into the regression analysis in the second step. The interaction between gender/sexuality stuck points and participant gender did not account for more variance in PCL-5 scores than just gender/sexuality stuck points or participant gender alone,  $R^2$  change = .01,  $p = .202$ , CI: -5.91 – 27.65. Therefore, inconsistent with expectations, participant gender did not moderate the relation between gender/sexuality stuck points and PCL-5 scores; thus, no further analyses were conducted.

**Research Aim 1 Exploratory Analyses.** Exploratory analyses were run to further identify predictors of stuck point themes among men and women. As 36.8% of participants endorsed an experience of childhood sexual abuse (CSA) occurring at or before the age of 13, moderation analyses were run to determine the degree to which the interaction between gender and CSA history was predictive of the different stuck point themes. Results indicated that CSA experiences partially moderated the relation between gender and the presence of gender/sexuality-related stuck points. The main effect of gender on the presence of gender/sexuality stuck points was not significant,  $\beta = .06$ , SE = .50,  $p = .900$ , 95% CI: -1.04 – .91, nor was the main effect of CSA history on gender/sexuality stuck points,  $\beta = .69$ , SE = .45,  $p = .125$ , 95% CI: -.19 – 1.57. There was, however, an interaction effect of gender x CSA history on gender/sexuality-related stuck points,  $\beta = 2.25$ , SE = .98,  $p = .023$ , CI: .32 – 4.17, such that women with CSA experiences were more likely to report gender/sexuality stuck points than women without CSA experiences, whereas men with CSA experiences were less likely to report stuck points consistent with this theme than men without CSA experiences.



Although there was no moderating effect of gender within the relation between gender/sexuality stuck points and PCL-5 scores, Hayes's (2008) PROCESS macro was again used to assess for the potential moderating effect of gender within the relation between JWB stuck points and PCL-5 scores. In the first step of the moderation, PCL-5 scores were regressed on the independent variable of JWB stuck points and the moderator variable of participant gender. The analysis showed that, when entered together, JWB stuck points significantly predicted PCL-5 scores ( $\beta = 27.57, p = .013$ ), whereas gender was not predictive of PCL-5 scores ( $\beta = .41, p = .922$ ). The interaction between JWB stuck points and participant gender was then entered into the regression analysis in the second step. The interaction between the independent variable and the moderator did not account for more variance in PCL-5 scores than just JWB stuck points or participant gender alone,  $R^2$  change = .05,  $p = .627$ , CI: -60.83 – 36.80. Thus, participant gender did not moderate the relation between JWB stuck points and PCL-5 scores.

### **Research Aim 2**

The analyses conducted as part of research aim 2 focused primarily on men.

**Hypothesis 2a.** In an effort to identify factors that may contribute to the development of gender/sexuality stuck points in men, a binary logistic regression analysis was used to predict the presence/absence of men's gender/sexuality stuck points from total scores on the Male Rape Myth Scale (MRMS) and Male Role Norms Inventory, Short Form (MRNI-SF). Results of the logistic analysis indicated that the two-predictor model did not meet standards for statistical significance,  $\chi^2(2, N = 30) = 2.21, p = .33$ . Thus, results suggest that men's adherence to male role norms and belief in male rape

myths did not predict the presence of gender/sexuality stuck points after an experience of ASA.

When looking at the different components of male role norms assessed by the MRNI-SF, results showed that although men's endorsement of MRNI-SF items related to the importance of sex (e.g., "A man should always be ready for sex;" "Men should always like to have sex;" "A man should not turn down sex,") did not significantly predict the presence of Reason stuck points,  $\chi^2(1, N = 30) = 4.59, p = .03$ , Nagelkerke  $R^2 = 0.19, b = 0.60, p = .06$ , OR = 1.83, 95% CI: 0.97 – 3.44, these results were trending significance. It is likely the low sample size of men in this study resulted in insufficient power to fully detect this relationship.

As women evidenced a similar likelihood of reporting most gender/sexuality stuck points as men, a direct logistic regression was performed to determine whether adherence to traditional female gender beliefs, as represented by a participant's total score on the Hypergender Ideology Scale (HGIS), was associated with the presence or absence of gender/sexuality stuck points. A test of the model was not statistically significant,  $\chi^2(1, N = 62) = .12, p = .73$ , with an overall predictive success rate of 53.2%. Thus, women's adherence to traditional female gender norms was not predictive of gender/sexuality stuck points after an ASA experience. When considering gender/sexuality stuck point subthemes, however, HGIS scores proved predictive of Distorted Sex Image stuck points for women,  $\chi^2(1, N = 62) = 4.71, p = .03$ , Nagelkerke  $R^2 = .12, b = 0.05, p = .03$ , OR = 1.06, 95% CI: 1.01 – 1.11.

**Hypothesis 2b.** Independent *t*-tests were used to determine whether the presence/absence of gender/sexuality stuck points in men's and women's responses were

associated with anger and depression, as measured by scores on the DAR-5 and PHQ-9. Gender/sexuality stuck points were not associated with DAR-5 or PHQ-9 scores (all  $p$ 's > .05) for women. Similarly, gender/sexuality stuck points were not significantly associated with PHQ-9 scores for men,  $t(1, 33) = 1.58, p = .124$ . Interestingly, however, gender/sexuality stuck points reported by men were significantly associated with DAR-5 scores,  $t(1, 33) = 2.79, p = .009$ , such that the presence of gender/sexuality stuck points in men was associated with *lower* levels of anger.

As sexual functioning can be negatively impacted by the experience of ASA, independent  $t$ -tests were also used to determine whether the presence/absence of gender/sexuality stuck points in men was associated with difficulties in sexual functioning, as measured by IIEF scores. Results failed to meet standards for statistical significance,  $t(1, 32) = -.41, p = .684$ , thereby suggesting there is no relation between the presence of gender/sexuality stuck points and men's reports of sexual dysfunction within the surveyed sample. Further analyses examining the relation between gender/sexuality stuck point subthemes and sexual dysfunction proved similarly non-significant (all  $p$ 's > .05).

**Hypothesis 2c.** A two stage hierarchical linear regression was used to identify the amount of variance in men's PCL-5 scores accounted for by Global Belief in a Just World Scale (GBJWS) scores and Male Rape Myth Scale (MRMS) scores separately, as well as by their interaction. Bivariate correlations first were examined to determine whether scores on the GBJWS and MRMS were correlated with PCL-5 scores. Results indicated that whereas GBJWS scores ( $r = .156, p = .223$ ) were not correlated with PCL-5 scores, there was a statistically significant correlation between MRMS scores and PCL-

5 scores ( $r = .365, p = .033$ ). The hierarchical regression showed that, when entered together, neither GBJWS scores ( $\beta = .23, p = .783$ ) nor MRMS scores ( $\beta = .43, p = .098$ ) were independently predictive of PCL-5 scores,  $F(2, 23) = 1.81, p = .186$ .

**Hypothesis 2d.** Hierarchical linear regression was again used to determine whether men's subscription to male rape myths, as measured by the MRMS, was associated with PTSD symptoms over and above endorsement of posttraumatic cognitions, as measured by the PTCI. In the first step of the regression, PCL-5 scores were regressed on the independent variable of PTCI scores. The analysis showed that PTCI scores significantly predicted 40.6% of the variability in PCL-5 scores,  $\beta = 0.23, p < .001$ . In the second step of the regression analysis, MRMS scores were entered into the model. The analysis showed that MRMS scores were not predictive of PCL-5 scores over and above PTCI scores ( $R^2$  change = .00,  $p = .999$ ).

**Research Aim 2 Exploratory Analyses.** Exploratory analyses were run to further elucidate factors associated with the presence of gender/sexuality stuck points in men. Binary logistic regressions were used to determine whether MRMS and MRNI-SF total scores differentially predicted the presence/absence of gender/sexuality stuck point subthemes. All analyses proved non-significant (all  $p$ 's  $> .05$ ), suggesting there is no relation between endorsement or adherence to male role norms and gender/sexuality stuck points. Perpetrator gender, age at the time of ASA, context of the ASA experience, and perpetration method were similarly not significantly associated with the presence/absence of gender/sexuality stuck points (all  $p$ 's  $> .05$ ). An effort was made to identify factors specifically predictive of Questioning stuck points, as these cognitions were exclusively reported by men. ASA experiences perpetrated by threat,  $\chi^2(1, 39) =$

4.10,  $p = .043$ , and PTCI scores on the negative cognitions about the world subscale,  $\chi^2(1, 35) = 10.25, p = .001$ , were significantly associated with the presence of Questioning stuck points. It is notable that PTCI subscale scores were not associated with any other gender/sexuality stuck point subthemes (all  $p$ 's  $> .05$ ).

Although outside the scope of examining factors associated with gender/sexuality stuck points in men, it is interesting to note that scores on the Global Belief in a Just World Scale (GBJWS) were not associated with the presence of JWB stuck points,  $\chi^2(1, 90) = 1.15, p = .284$ , Nagelkerke  $R^2 = .05$ , with GBJWS scores not contributing significantly to the model,  $b = -.01, p = .28, OR = .91$ . As a belief in a just and fair world is more theoretically similar to assimilated stuck points than over-accommodated stuck points (which, in contrast, might be more reflective of a rejection of a belief in a just world), analyses were run separately with these JWB stuck point subthemes to determine whether GBJWS scores were differentially associated with the presence of Assimilated and Over-Accommodated stuck points. GBJWS scores were not predictive of the presence of Assimilated stuck points,  $\chi^2(1, N = 90) = .68, p = .408$ , Nagelkerke  $R^2 = .01$ ,  $b = -.04, p = .407, OR = .96$ , nor were GBJWS scores predictive of Over-Accommodated stuck points,  $\chi^2(1, N = 90) = 1.18, p = .277$ , Nagelkerke  $R^2 = .02, b = -.05, p = .277, OR = .95$ .

Although GBJWS scores and MRMS scores were not predictive of PCL-5 scores, exploratory analyses were run to determine whether GBJWS and MRMS scores were predictive of a PTSD diagnosis, as determined by PCL-5 scores that exceeded the established diagnostic cutoff of 33. A binary logistic regression proved non-significant,

suggesting that neither GBJWS ( $\beta = .128, p = .257$ ) nor MRMS scores ( $\beta = .074, p = .066$ ) had a predictive effect on PTSD diagnoses among men.

### **Discussion**

Despite a wealth of research demonstrating the effectiveness of Cognitive Processing Therapy in treating PTSD, findings of existing clinical trials have raised concerns over whether men and women evidence similar symptom reduction upon conclusion of treatment, particularly when the traumatic experience of focus is adult sexual assault (Galovski et al., 2013; Surís et al., 2013; Tiet et al., 2015; Voelkel et al., 2015). This study examined posttraumatic cognitive distortions, or “stuck points,” of men and women with ASA experiences to evaluate any differences in cognitions that may contribute to treatment outcome discrepancies seen in prior research.

First, it is notable that the features of ASA experiences, including age at the time of ASA, context, perpetrator strategies, and sexual acts were remarkably similar for men and women. Similarly, men and women did not differ in levels of posttraumatic stress, depression, or anger following their experience of ASA. These findings are consistent with those of Galovski and colleagues (2013), who found few sex differences in treatment history, PTSD and depression symptoms, and anger within their sample of male and female victims of interpersonal violence. Thus, it can be inferred that any gender differences in treatment outcomes are not necessarily attributable to differences in how men and women experience ASA. Instead, differences in treatment outcomes may occur secondary to how men and women make sense or meaning of their traumatic sexualization experience.

In this study, there were no gender differences in the presence of assimilated (or self-blame) stuck points and over-accommodated stuck points. This conflicts with prior research findings suggesting male ASA victims make stronger internal attributions and attribute more blame for an ASA experience to themselves compared to women (Byers & Glenn, 2012). The results from this study suggest that assimilated and over-accommodated beliefs were nearly universal, with almost every participant reporting a belief consistent with these subthemes. JWB stuck points were associated with elevated PTSD symptom severity for both genders, and in particular, with intrusion, avoidance, and negative alterations in cognitions and mood PTSD symptom clusters. This is consistent with prior research demonstrating a significant relation between assimilated and over-accommodated beliefs and PTSD symptoms (Sobel et al., 2009). Despite the fact that men with ASA experiences may evidence fewer treatment gains compared to their female counterparts, men do evidence notable symptom alleviation following a course of CPT because these types of assimilated and over-accommodated stuck points are adequately addressed by the Just World Belief framework within the protocol. Interestingly, participant subscription to the JWB, as measured by the GBJWS, was not associated with the presence of either Assimilated or Over-Accommodated JWB stuck points. A participant's subscription to the JWB was also not associated with PTSD symptoms. This is somewhat surprising and suggests the presence of JWB stuck points that correspond with greater PTSD symptom severity may not solely reflect a participant's belief in a just and fair world, but rather may be a consequence of other trauma-related variables or belief sets. It is also possible that a participant's belief in a just world was impacted by their ASA experience. As participants completed this survey

after their traumatic sexual experience occurred, they may be reporting a lower subscription to the JWB than they had prior to their trauma. In fact, agreement with the JWB, as measured by the GBJWS, was relatively low for both men and women. Furthermore, any association between GBJWS scores and Assimilated and Over-Accommodated stuck points may not have been detected within this sample because nearly every participant reported a JWB-related stuck point.

Stuck points reflecting a gender/sexuality theme were less common than JWB stuck points, with only around half of men and women reporting beliefs consistent with this theme. In contrast to expectations, in this study there were no statistically significant gender differences in the likelihood of reporting a stuck point consistent with a gender or sexuality theme, broadly. When looking at subthemes, however, men were more likely than women to report Reason stuck points, or beliefs consistent with attributing the occurrence of ASA victimization to their gender or sexuality (e.g., “People don’t care about male victims”; “This happened because I was a man”). Men were also more likely than women to report a belief consistent with questioning their gender or sexuality because of their ASA experience or believing their ASA experience occurred because of their uncertainty about their gender or sexuality (e.g., “I might be gay”; “I’m not a real man”; “This happened because I was confused about my sexuality,”). In fact, the Questioning theme was not present for any women in this study.

There may be several reasons why cognitions consistent with Reason and Questioning themes appear to be reported more frequently by men than by women. Questioning of one’s gender or sexuality and believing that one’s gender or sexuality is the reason why one’s ASA experience happened or was not taken seriously are likely



beliefs that stem from men's process of gender socialization. It is notable that men's subscription to rape myths and adherence to male role norms were not associated with gender/sexuality stuck points, broadly. This is similarly surprising to the finding that participants' belief in a just world was not associated with the presence of JWB stuck points and suggests that other belief sets or variables may contribute to the presence of gender/sexuality cognitive distortions. However, when looking at specific male role norms, men's endorsement of the importance of sex trended a significant association with the presence of Reason stuck points. This is not necessarily unexpected, as men who believe they should always want sex, should not turn down sex, and should always be ready for sex may naturally have beliefs that they were perpetrated against or not taken seriously following their experience of ASA because of gender norms that suggest men always want sex (Helgeson & Lepore, 2004). Sexual potency is not consistent with women's gender norms, and thus, this may be why fewer women evidenced this stuck point theme. Part of women's gender socialization in a heteronormative society, however, involves seeing media depictions of women as sexual objects or outlets for men (Fredrickson & Roberts, 1997). Thus, some women may perceive being the victim of sexual assault as consistent with their gender role norms as a woman. This likely partially explains why women in this study who had higher levels of agreement with traditional gender norms on the HGIS were more likely to report distorted sexual image stuck points.

There was no relation between subscription to male rape myths or male role norms and the presence of Questioning stuck points. The only factors significantly associated with the presence of Questioning stuck points were negative cognitions about

the world as measured by the PTCI (e.g., people can't be trusted, somebody else would have stopped the event from happening, I feel isolated and set apart from others, my life has been destroyed by the trauma), and an experience of ASA perpetrated by threat.

Many of the PTCI cognitions may stem from men's perception that being a victim of sexual assault is incongruent with their gender schema of what it means to be a man. For example, feeling isolated and set apart from others may reflect men's perceptions that they are somehow changed or different from other straight or gay men because of their sexual trauma. Men's attempts to make sense of these changes or differences are likely consistent with Questioning stuck points. Further, believing that "somebody else would have stopped the event from happening," can reflect an assumption that a "real man" would have responded differently to the assault (Courtenay, 2000), and may further cause men to question their masculine identity.

Being the victim of an ASA experience perpetrated through threat may challenge male gender role norms to a greater degree than ASA perpetrated through physical force or incapacitation. This is because one's ability to defend against an assailant is clearly compromised when incapacitated by either force, intoxication, or otherwise. However, with ASA perpetrated by threat, men's physical ability to overpower their perpetrator is less compromised, which may cause a victim to question his lack of physical resistance during the ASA and whether that reflects an unconscious sexual attraction to their perpetrator or a lack of strength and masculinity (Davies, 2002). Of course, the tendency to freeze in response to a traumatic stressor is common and natural (Sagliano, Cappuccio, Trojano, & Conson, 2014); however, men may be less likely to justify their responses

during ASA experiences to this physiological stress reaction and instead believe their actions reflect their own masculinity or sexual identity.

Exploratory analyses showed that women with childhood sexual abuse experiences were more likely to report gender/sexuality stuck points than women without CSA experiences, whereas the opposite relation existed for men. Childhood sexual abuse occurs during a developmental period where one's gender identity and sexuality is being explored (Broderick & Blewitt, 2015). Thus, an experience of sexual abuse during this developmental stage may become incorporated into the identity-formation process (Davies, 2002). The formation of an individual's gender identity begins early, with most children evidencing the ability to label their own and others' genders during their second year of life (Martin & Ruble, 2009). As such, children at this age often have a basic understanding of gender-typical and gender-inconsistent behaviors (Hill & Flom, 2007). By age 10, both boys and girls typically possess a concrete awareness of differences in how men and women are evaluated in their culture (Broderick & Blewitt, 2015). For children living in the United States and largely Western cultures in general, this means a recognition of ways women and their female-typical behaviors are devalued (Intons-Peterson, 1988). For women, the experience of sexual assault, whether in childhood or adulthood, is relatively consistent with the female socialization process that often treats women as sexual objects for men (Fredrickson & Roberts, 1997), and thus, women with CSA experiences may be more likely to evidence Distorted Sex Image or Sex Loss gender/sexuality stuck points following an ASA experience than women without CSA experiences because the ASA experience confirms or reinforces gender stereotypes learned early on from CSA.

Past research has shown that boys commonly respond to childhood sexual abuse experiences by prioritizing engagement in hypermasculine behaviors (e.g., participation in highly aggressive sports, involvement in organized crime, sexual aggression, etc.; Denov, 2004), so as to “rectify” the victimization experience and restore manliness (Davies, 2002). Thus, men with CSA experiences who later become victims of ASA may be well-versed in the process of reasserting their masculinity and sexuality, as they may have an existing tendency to reject any notion of themselves as weak or feminine following an ASA experience. Men without CSA experiences, on the other hand, may be more likely to evidence gender role conflict, as they have not had prior experience with resolving the perceived incongruity between an experience of sexual assault and traditional views of masculinity.

This study found that gender/sexuality stuck points were not significantly associated with depressive symptoms for men or women, nor were they associated with sexual dysfunction in men or anger in women. However, gender/sexuality stuck points were, unexpectedly, associated with lower levels of anger for men. This finding is surprising because it directly contrasts with a wealth of existing research that speaks to the relation between masculine gender role stress and anger (e.g., Baugher & Gazmararian, 2015). Research has shown post-trauma levels of anger can differ based on the type of traumatic event to which one is exposed. For example, individuals with combat trauma report higher levels of anger than individuals with sexual assault trauma (Orth & Wieland, 2006). A fundamental difference between these traumatic experiences is that combat trauma does not typically involve a violation of one’s bodily integrity that can commonly lead to gender- and sexuality-related cognitive distortions, whereas such

an experience is inherent within sexual assault. It is possible that gender/sexuality stuck points are more strongly related to internalized distress than externalized distress, such as anger, thus explaining the trend that men with these stuck points evidence lower levels of anger than men without them.

This study found no association between the presence of gender/sexuality stuck points and PTSD symptoms for either men or women. There was also no relation between men's subscription to male rape myths and PTSD symptoms. This is somewhat surprising, as prior research has found masculine gender role stress can account for variance in PTSD symptom severity above and beyond other factors associated with PTSD risk, such as thought suppression and anxiety sensitivity (McDermott et al., 2010). The absence of a relation between gender/sexuality stuck points and PTSD symptoms within this sample may be due to a number of limitations discussed below, including a small sample size and limitations of the measures used to assess masculine gender role adherence. Overall, JWB stuck points and endorsement of PTCI items, which similarly reflect assimilated and over-accommodated stuck points, were the most predictive of PCL-5 scores. As JWB stuck points were nearly universal in this sample, CPT appears to be addressing the types of negative cognitions that are most associated with PTSD symptoms in men and women.

### **Implications**

The results of this study suggest that despite few gender differences in the experience of ASA, post-trauma symptoms, and stuck points, men do appear to evidence some differences from women in their likelihood of expressing certain gender/sexuality stuck points. As previously noted, these stuck points reflect a self-schema (Bem, 1981)

that differs from an event-specific schema like the JWB. Overlooking these stuck points may interfere with men's treatment success. In fact, research has shown treatments that fail to consider masculine gender scripts can be less effective in helping men adjust to significant life events, such as the development of prostate cancer (Courtenay, 2000).

The results of this study suggest that CPT may benefit men most by placing a greater focus on gender role conflict. Such a deep structural adaptation will require addressing the values, beliefs, norms, worldview, and lifestyle of men. This can be done in a number of ways, and may be best facilitated through the use of schema therapy principles (Young, Klosko, & Welshaar, 2003). It will be important to identify which gender scripts are most salient for a man (Mahalik, Good, & Englar-Carlson, 2003). Motivational interviewing strategies can then be used to help men examine the costs and benefits of these scripts. Men should be encouraged to strike a decisional balance that involves first exploring the positive aspects of their adherence to masculine scripts before identifying potential negative consequences of these scripts, with the understanding that identifying the positive outcomes of behavior often creates a more open environment for a client to explore the costs of enacting their masculine scripts in relation to their recovery from ASA (Miller & Rollnick, 2002). Ultimately, the goal is for men to reconstruct their gender schema with more flexibility (Burns & Mahalik, 2007).

As emotional vulnerability is not associated with traditional masculinity, it may be helpful to provide men with a list of emotion words to aid in their ability to address and notice the experience of emotions other than anger (Kilmartin, 2005). The *Identifying Emotions Handout* from CPT session 2 can be particularly important to review with men in detail and perhaps supplementary material on emotions could be similarly beneficial.

Furthermore, emotions may be safer to approach if men are first asked to investigate others' emotional experiences as a pathway to better recognize their own, before analyzing their own emotional experiences (Levant, Halter, Hayden, & Williams, 2009). A clinician can facilitate men's familiarity with emotions by sharing personal experiences when therapeutically indicated and modeling emotional expressiveness.

In addition to the aforementioned interventions, men with ASA experiences may also benefit from a period of pretreatment prior to engaging in any trauma-focused work. This may look like a short-term psychoeducational group geared toward discussing gender socialization and how it may impact one's perception of their traumatic experience. Such a group could include psychoeducation on common physiological responses to sexual trauma, as many men may evidence distress or identity confusion related to their experience of an erection or of ejaculation during a sexual trauma (Bullock & Beckson, 2011). A pretreatment process is widely used within Dialectical Behavior Therapy (DBT) and there is some research to suggest this process has beneficial treatment outcomes for clients, including increased commitment to treatment (Coyle et al., 2019). Men could also benefit from participation in a group designed to teach more about emotion regulation, such as Skills Training in Affective and Interpersonal Regulation (STAIR), prior to trauma treatment. Currently, STAIR is primarily offered to women as an intervention to help prepare them for trauma-focused treatment. STAIR provides group members with skills to manage daily stressors, including relationship difficulties and emotion regulation (Cloitre, Koenen, Cohen, & Han, 2002). Men's ability to engage with and experience their natural trauma-related emotions, an integral part of Cognitive Processing Therapy, may be aided by participation in STAIR. Ultimately,

research has shown that ethnic and racial minorities remain in treatment longer when treatments are adapted for them and their cultural beliefs (Campbell & Alexander, 2002). Should CPT be appropriately adapted to recognize the complexities of this type of traumatic experience within a hegemonic masculine society, men may be more likely to participate and remain in trauma-focused treatment.

Adaptations to CPT may be clinically indicated for some male ASA victims, but it is also important that clinicians do not impose values of psychological and behavioral androgyny onto clients. As masculinity is socially constructed, ideals of manhood may differ for men across different social classes, sexual orientations, races, ethnicities, life stages, generations, and occupations (e.g., Collins, 2004). Men differ in their interpretation and adherence to masculine gender norms, as is evident from, for example, the fact that not all (or even most) men in this study endorsed stuck points related to questioning their gender/sexuality because of their ASA experience. Research with different racial and ethnic groups in the United States has highlighted these differences, with one study showing that compared to African Americans and Puerto Ricans, White Americans subscribe less to heteronormative gender and sexual relations that emphasize and value male domination (Collins, 2004). In contrast, military veterans may be more likely to subscribe to male gender norms than non-veterans, as men are often thought to undergo a secondary gender socialization process while in the military that promotes and celebrates traditional masculinity (Arkin & Dobrofsky, 1978; Fox & Pease, 2012). Thus, it is the case that not all male ASA survivors would warrant an adapted version of CPT that places more focus on gender role conflict. When conducting a pre-treatment assessment with male ASA survivors, clinicians will need to listen for prominent gender



or sexuality-related stuck points to determine whether a specific male client would benefit from targeted adaptations aimed at addressing gender role conflict.

It is important to note that gender role conflict has implications beyond treatment outcomes. As traditional male gender role scripts advocate for men to be independent and self-reliant, subscription to those ideals may affect willingness to engage in psychotherapy or other mental health services (Courtenay, 2000). It is likely that the low number of men who participated in this study is in part a consequence of these biases. The effectiveness of a treatment is only as good as the effectiveness of outreach attempts, and thus, gender role conflict becomes an important consideration for both adaptations to Cognitive Processing Therapy and promotion of the treatment. Most barriers to care reported by sexually victimized men are related to issues of gender and stigma (Turchik et al., 2013), which are likely a direct reflection of adherence to stereotypical masculine gender norms. Therefore, inaccurate and stereotypical beliefs about masculinity, gender, and sexuality may not only hinder men's recovery from post-ASA PTSD, but may also discourage them from seeking treatment or support services in the first place (Turchik et al. 2013). Men with high gender role conflict may be more likely to appreciate therapy brochures and materials with masculine euphemisms for counseling, such as "workshops," "classes," or "coaching." Turchik and colleagues (2014) found that sexually victimized men preferred a male-targeted brochure that addressed common concerns related to sexual orientation, masculinity, and the meaning of involuntary or forced ejaculation following an experience of ASA as compared to a gender-neutral brochure; however, exposure to the male-targeted brochure did not increase the number of men who eventually sought treatment for military sexual trauma.

The findings of Turchik et al.'s (2014) study suggest that psychoeducation alone is not enough to overcome treatment barriers reinforced by stereotypical beliefs about masculinity, gender, and sexuality. Instead, broader education within the social environment and use of specific and intentional recruitment methods are more likely to have an impact on treatment-seeking in men. As the act of engaging in any evidence-based treatment, including CPT, challenges traditional male gender socialization and can be aversive for men, only one-third of male veterans with PTSD follow-up with trauma-specific care in a VA PTSD specialty mental health clinic (Seal et al., 2010). Veterans were more likely to attend a follow-up session within their primary care clinic in the year after they received a PTSD diagnosis than seek out treatment in a mental health clinic (Seal et al., 2010). This suggests that it may be easier to reach men in primary care settings. Some researchers have suggested integrating PTSD treatments into primary care clinics to improve men's access to trauma-focused mental health care (Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009). In fact, some Veterans Affairs hospitals are testing a brief version of Prolonged Exposure, referred to as Prolonged Exposure for Primary Care (PE-PC) involving 4, 30-minute psychotherapy sessions as part of their primary care-mental health integration programs (Cigrang et al., 2017). Adherence to certain masculine gender role scripts may discourage help-seeking in mental health clinics, but it is possible that similar treatment options within primary care will be perceived as less threatening to these gender scripts.

### **Limitations**

Although the findings of this study highlight unique gender/sexuality cognitions that may influence men's success in CPT and recovery from PTSD, there are a number of

factors that may have limited this study's ability to identify certain trends and results. One such factor involved the measures used to assess adherence to male role norms (MRNI-SF) and subscription to male rape myths (MRMS), which may have been limited in their ability to fully capture men's perspectives regarding these constructs. Although these scales have strong psychometric properties and have been used in other studies, their face validity and overt examination of participants' adherence to what may be considered "dated" or "politically incorrect" gender norms may have influenced responses. It may be the case that men differ in their view of masculinity as it applies to others compared to themselves. Men may be more likely to endorse flexibility in gender roles for other men, but not within their own lives. As both the MRNI-SF and MRMS ask about general stereotypes and myths associated with manhood, rather than the degree to which a participant identifies with that stereotype, themselves, it is possible that the measures did not fully capture men's adherence to role norms and subscription to rape myths. Use of measures that assess the degree to which a man values a particular role norm within his own life may have provided a more accurate assessment of men's subscription to these stereotypes. The Conformity to Masculine Norms Inventory (Parent & Moradi, 2009) or the Gender Role Conflict Scale (O'Neil et al., 1986) are two examples of such scales that may be superior at assessing men's subscription to traditional gender norms.

Response biases, misunderstanding of questions, and the use of rating scales may have further affected the validity of participants' reports. However, despite these limitations, the self-report methodology used in this study allowed for the capture of

men's and women's subjective reactions following their ASA experiences, which is an important factor in understanding responses to any trauma.

Perhaps the biggest limitation of this study is the small sample of men who met criteria for inclusion in analyses. It is likely that the discrepancy in numbers of male and female participants limited the ability to detect significant gender differences in various stuck points and post-trauma symptoms. Men appeared to be trending higher than women in most of the gender/sexuality stuck point subthemes (except Distorted Sex Image); thus, it may be the case that genuine gender differences exist but went undetected in this study due to the small sample of men.

Within group differences in stuck points may also exist but similarly went undetected due to the small sample of men. It is notable that of those men who disclosed their sexual identity in this study, the majority reported their sexual identity as gay, bisexual, other, or uncertain. Only a small number of men ( $n = 8$ ) identified as heterosexual or straight. Sexual identity may shape the way one views their adherence to "traditional" male role norms and male rape myths and could possibly contribute to differences in post-ASA gender- and sexuality-related stuck points. Due to the small sample size of men and lack of statistical power, the influence of sexual identity on stuck points and endorsement of male rape myths and role norms was unable to be assessed in this study.

As discussed previously, men may be less likely conceptualize their sexual experiences as sexual assault for a number of different reasons, including the gender of their perpetrator and subscription to male role norms advocating for sexual willingness (Davies, 2002). This was the justification for advertising this study as examining

“distressing, uncomfortable, traumatic, or unwanted sexual experiences in adolescence or adulthood,” but it is possible that some men who experienced sexual assault would not use any of these words to describe their experience. Ideally, a sample of male sexual assault survivors would be obtained by recruiting an extremely large representative sample of men and screening them for experiences meeting the research definition of sexual assault.

### **Future Directions**

The small amount of research conducted with male ASA survivors with PTSD suggests that men do reap notable benefits from CPT. The CPT protocol is certainly effective in challenging JWB-related assimilated and over-accommodated stuck points and demonstrates potential for treating PTSD within the male ASA population; however, there may be ways to improve and adapt the intervention so that sexually victimized men are able to evidence similar treatment gains as their female counterparts. Research with more men is needed comparing CPT treatment outcomes for men and women with ASA experiences. Furthermore, there is some existing research to suggest that gender differences in CPT treatment outcomes may occur despite the type of trauma experienced (Asmundson et al., 2019; Felmingham & Bryant, 2012). Should future research confirm this, it will be important to explore the contribution of gender role conflict to these treatment outcome discrepancies. It is interesting to note that there are few studies assessing gender differences in other empirically supported trauma-focused treatments, such as Prolonged Exposure (PE). One study examining veterans found no gender differences in PE treatment outcomes (Mouilso, Tuerk, Schnurr, & Rauch, 2015); however, this study did not examine veterans with MST, exclusively. Future research

would benefit from examining male and female ASA victims who undergo other trauma-focused EBPs to determine whether there is a similar gender gap across treatments, or if this gap in treatment outcomes is restricted to CPT.

Although outside the scope of this paper, future research would benefit from looking at the influence of gender socialization and role norms on posttraumatic reactions of transgender individuals with ASA experiences. Transgender individuals are at a greater risk for sexual assault than cisgender individuals (Langenderfer-Magruder et al., 2016) and are often in the unique position of being socialized as one gender during childhood and then experiencing a second socialization as their expressed gender during adulthood. These dual socialization processes may uniquely influence the types of posttraumatic cognitions commonly seen in transgender individuals who are provided with CPT and may shed light on how certain elements of gender socialization can serve as a risk or protective factor for cisgender individuals. Future research in this area is warranted.

### **Conclusions**

The majority of the general population will be exposed to a traumatic event at some point across the lifespan, whether it be interpersonal or sexual violence, military combat, a natural disaster, or another type of distressing experience (Ozer & Weiss, 2004). Current trauma-focused evidence-based treatments have proved significantly beneficial in promoting posttraumatic stress symptom reduction for both men and women. This study found few gender differences in the experience of ASA and post-trauma symptom experiences, suggesting that men's and women's experience of and reactions to ASA are more similar than different.

Despite these similarities, it is impossible to ignore the broader sociopolitical context within which trauma exposure occurs. Gender socialization processes significantly influence the way individuals make sense of traumatic experiences, as demonstrated in this study by men's increased likelihood compared to women to present with gender and sexuality stuck points related to believing their gender or sexuality was the reason their ASA victimization happened, or questioning their gender or sexuality because of their ASA experience. Even though ASA experiences and self-reported symptoms were remarkably similar for men and women, this study showed that the way men and women make sense of an ASA experience is sometimes different. These differences highlight the need for clinicians to operate from a gender-focused lens when treating both male and female victims of ASA.

The need for targeted outreach and interventions for men has recently become a focus of the American Psychological Association (APA), who for the first time in August 2018 published guidelines for psychological practice with boys and men (APA, 2018). This publication was developed in response to the belief that "traditional masculinity" is prominent and can be harmful to men's mental health and engagement in psychotherapy (Yousaf, Popat, & Hunter, 2015). The benefits of privilege and power conferred onto men in society can very similarly lower men's psychological resiliency in the face of traumatic experiences by contributing to gender role conflict. Trauma clinicians have the unique ability to address men's gender socialization within their treatment of PTSD. In making the conscious effort to acknowledge and respect the influence of gender socialization within PTSD treatment, clinicians can begin to rebuild men's psychological resiliency and break down longstanding barriers to men's mental health care.

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