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SEXUAL ASSAULT ACKNOWLEDGEMENT AND PSYCHOLOGICAL SYMPTOMS: THE  
INDIRECT EFFECT OF SOCIAL REACTIONS TO DISCLOSURES

by

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B.S. University of Florida, 2017

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Science  
in the Department of Psychology  
in the College of Sciences  
at the University of Central Florida  
Orlando, Florida

Spring Term  
2020

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## ABSTRACT

Sexual assault is a prevalent problem for women. As a result of sexual assault, women experience a host of negative psychological consequences such as posttraumatic stress, depression, and anxiety. While some survivors label their sexual assault experience as such (i.e., are acknowledged survivors), other survivors do not and use other terms (e.g., a miscommunication). The effect of acknowledgement of sexual assault on post-assault outcomes has yielded mixed findings: some find that unacknowledged survivors report better psychological functioning, while others find that acknowledged survivors have better outcomes. This study sought to better understand acknowledgment status and psychological outcomes by examining the role of social reactions to disclosures of sexual assault. It was hypothesized that, among survivors of sexual assault, there would be an indirect effect of acknowledgment status on psychological symptoms via social reactions to disclosure. College women who were at least 18 years of age, experienced a sexual assault, and disclosed their sexual assault were recruited through the Psychology Department Sona system. Results indicated that acknowledged survivors reported more severe PTSD symptoms which was partially accounted for by turning against social reactions. Additionally, the study found that acknowledged survivors reported more social reactions of all three types, and that turning against and positive social reactions were positively associated with more severe PTSD symptoms. Future studies should explore the mechanisms responsible for these relationships and analyze the eight individual social reactions.

*Keywords:* sexual assault, acknowledgment status, social reactions to disclosure, posttraumatic stress, depression, anxiety

## **ACKNOWLEDGMENTS**

I'd like to thank my advisor, Dr. Amie Newins for her constant support and guidance, not only on this project but also in guiding my research, teaching, and clinical training. Her support has had an enormous impact on my professional training, for which I will always be grateful. I'd also like to thank my mother and brother for their constant encouragement and positive attitude.

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## CHAPTER 1: INTRODUCTION

Sexual assault is typically defined by three components – the act, how the survivor was compelled to engage in the act, and lack of consent (Cook, Gidycz, Koss, & Murphy, 2011). The act refers to what occurred during the sexual encounter and can involve sexual contact (e.g., fondling, kissing, removal of clothing) or oral, vaginal, or anal intercourse. Perpetrators can use a variety of strategies in order to obtain compelled sexual contact, such as the use of threats or force and taking advantage of someone who is too intoxicated to consent. Finally, in order for a sexual encounter to involve sexual victimization, the survivor either did not consent to the sexual contact, did not consent willingly, or was not able to consent (e.g., due to incapacitation resulting from substances; Cook et al., 2011). Varying definitions of consent exist (Muehlenhard, Humphreys, Jozkowski, & Peterson, 2016), though consent is often not defined in studies of sexual assault (Littleton, Axsom, & Grills-Taquechel, 2009; Orchowski & Gidycz, 2012; Ullman, Filipas, Townsend, & Starzynski, 2007). Muehlenhard and colleagues (2016) reviewed various conceptualizations of consent. Of note, consent can be conceptualized as a discrete event or a continuous process. Consent viewed as a discrete event refers to a verbalization or behavior that implies or explicitly conveys consent, is often obtained at the start of the sexual interaction, and is typically obtained only once (Beres, 2014; Muehlenhard et al., 2016). In contrast, in the continuous process conceptualization of consent, consent must be obtained at the start of a sexual encounter and is obtained again at each stage of sexual contact.

Sexual assault is commonly categorized into five different types: unwanted sexual contact, attempted coercion, coercion, attempted rape, and rape (Koss et al., 2007). Unwanted sexual contact is defined as having one's private areas touched, kissed, or rubbed up against or

having one's clothes removed without consent. Coercion is defined as oral, vaginal, or anal sexual intercourse that occurs because the perpetrator told lies, used verbal threats, or criticized the survivor. Rape is defined as oral, vaginal, or anal sexual intercourse obtained through threats of physical force, threats of use of weapons, or the use of physical force or weapons; sexual intercourse that occurs when one individual is unable to consent (e.g., due to substances, limited mental capacity) is also defined as rape. Attempted coercion and attempted rape are defined similarly to coercion and rape; however, they involve unsuccessful attempts to obtain intercourse (Koss et al., 2007). The term "sexual assault" is used in this paper to refer to experiences that include attempted or completed unwanted sexual experiences but are not limited to rape. The term "rape" will only be used when referring to intercourse obtained through the threat of or use of physical force or weapons or obtained while the person was incapacitated.

### Prevalence of Sexual Assault

The issue of sexual assault, particularly on college campuses, has gained significant attention in both political arenas and the media. Despite the relative recency of this attention, sexual assault is not a new phenomenon. For example, research dating back to 1957 details the examination of unwanted sexual contact, attempted rape, and rape on college campuses (Kirkpatrick & Kanin, 1957). Unfortunately, the prevalence of sexual assault is alarmingly high. Research with community samples has found that 27.2-53.7% of women will experience at least one sexual assault while 12.1-18.3% of women will experience at least one rape in their lifetime (Black et al., 2011; Koss, Gidycz, Wisniewski, 1987; Tjaden & Thoennes, 2006). Variability in

the definition of sexual assault contributed to variability in rates, with studies that used broader definitions having higher prevalence.

Twelve-month prevalence of sexual assault is highest among women between the ages of 18 and 24 (i.e., 4.7%). Among women ages 25 to 34 and 35 to 44, the 12-month prevalence declines to 1.8% and continues to decline (0.9%) in women who are at 45 years and older (Basille, Chen, Black, & Saltzman, 2007). Multiple studies have found that approximately one in every four to five college women experience an attempted or completed sexual assault while in college (e.g. Krebs et al., 2016; Krebs, Lindquist, Warner, Fisher, & Martin, 2007). In one study, nearly one in four collegiate women experienced a sexual assault during their first semester, and nearly one in five experienced a sexual assault during their second semester (Jordan, Combs, & Smith, 2014). Compared to same aged peers who are not enrolled in college, college women have been found to be at increased risk for sexual victimization (Fisher, Sloan, Cullen, & Lu, 1998). Among college men, the rate of sexual assault is lower; 6.1% of college men indicate that they have experienced a sexual assault since beginning college (Krebs, Lindquist, Warner, Fisher, & Martin, 2007).

### Psychological Outcomes of Experiencing Sexual Assault

Sexual assault victimization has been associated with a host of negative psychological consequences. Survivors of sexual assault are at an increased risk of developing a wide range of psychopathology, including posttraumatic stress disorder (PTSD) and anxiety, depressive, bipolar, obsessive-compulsive, and eating disorders (Dworkin, Menon, Bystrynski, & Allen, 2017; Martin, Macy, & Young, 2011). PTSD, anxiety, depression, and substance use have been

noted as common psychological disorders that result in violence against women (e.g., sexual assault, intimate relationship violence, and stalking; Briere & Jordan, 2004). Among women who have been raped, more than one-third (39%) were found to be experiencing a major depressive episode or an anxiety disorder other than PTSD (Boudreaux, Kilpatrick, Resnick, Best, & Saunders, 1998).

### *Posttraumatic Stress Disorder*

Among women, sexual assault increases the odds of developing a trauma- and stressor-related condition more than it increases the odds of developing other mental health disorders (Dworkin et al., 2017). Compared to women who have never experienced a crime, women who experienced a rape involving the use or threat of force were 6.2 times more likely to develop PTSD (31% vs. 5%; Kilpatrick, Edmunds, & Seymour, 1992). Furthermore, rape appears to confer greater risk for PTSD than other types of trauma, with one study finding that 80% of male and female survivors of rape developed PTSD compared to 12-24% of survivors of other types of trauma (Breslau, Davis, Andreski, & Peterson, 1991).

Approximately two weeks following a completed or attempted rape, 94% of women endorsed a significant number of DSM-III-R PTSD symptoms (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). One month following the trauma, 65% of women endorsed sufficient symptoms to warrant a diagnosis of PTSD, and nearly half of women (47%) had a diagnosis of PTSD three months following the incident. Three months after an attempted or completed rape, the most common symptoms of PTSD were fear (90.0%), alert/startle responses (86.7%), and avoidance and feelings of being detached from others (both at 83.3%; Rothbaum et al., 1992).

Research has also found that the severity of sexual assault is positively associated with the number of PTSD symptoms women experience (Pegram & Abbey, 2016).

### *Depression*

After a traumatic event (such as a sexual assault), PTSD is not the sole possible outcome. Among women and men who experienced a traumatic event and developed PTSD, 48.5% have a comorbid major depressive episode and 23.3% develop dysthymia (Kessler, Sonnega, Bromet, Hughes, Nelson, 1995). Survivors of sexual assault report more depressive symptoms and are more likely to surpass the symptom threshold for depression than women who have not experienced a sexual assault (Becker, Skinner, Abel, Axelrod & Treacy, 1984).

Research has found that more than half of female sexual assault survivors (50.5%) experience clinically significant symptoms of depression with 33-46% experiencing moderate or severe symptoms of depression (Becker et al., 1984; Frank, Turner, & Duffy, 1979).

Unfortunately, depression in this population is not fleeting. In one cross-sectional study, scores on the Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) did not significantly differ between women who experienced a sexual assault in the past three to 12 months (average score = 15.6) and women who experienced a sexual assault more than one year ago (average score = 12.1; Becker et al., 1984). Additionally, in a longitudinal study of female college students who had experienced a rape, scores on the Center for Epidemiologic Studies – Depression Scale (CES-D; Radloff, 1977) did not change significantly over the course of six months (average score at Time 1 = 16.74, and average score at Time 2 = 15.14; Littleton, 2010)

### *Anxiety*

Women who endorsed a lifetime history of sexual assault reported higher levels of anxiety than those who have never been sexually assaulted (Gil-Rivas, Fiorentine, Anglin & Taylor, 1997), and 36% of female college students who experienced a rape endorsed clinically significant anxiety (Littleton, Axsom, Breitkopf, & Berenson, 2006). Similarly, research has

demonstrated that, one month following the rape, female survivors report higher levels of both trait and state anxiety than female who have not experienced a rape. Additionally, female rape survivors continued to report higher trait anxiety (but not state anxiety) at three- and six-months post-rape (Kilpatrick, Veronen, & Resick, 1981).

In addition to anxiety symptoms in general, the relationship between rape and specific anxiety disorders has been examined. Researchers have found women who experienced a rape are more likely to have a diagnosis of agoraphobia, social anxiety disorder, and obsessive-compulsive disorder (OCD) than non-victims (Boudreaux et al., 1998). Similarly, among women with GAD and a history of sexual assault, approximately 91% experienced onset after the sexual assault; similarly, sexual assault preceded the onset of OCD in 54% of cases (Winfield et al., 1990). Of women who have experienced any type of traumatic event (i.e., not limited to sexual assault) and are suffering from PTSD, 15.0% experience comorbid GAD, 12.6% experience comorbid panic disorder, 29.0% experience comorbid “simple” phobia, 28.4% experience comorbid social phobia, and 22.4% experience comorbid agoraphobia (based on DSM-III-R criteria; Kessler et al., 1995).

### Acknowledgement

Rape acknowledgment refers to how survivors label an experience that meets the definition of a rape (Koss, 1985). Survivors of rape are considered acknowledged survivors if they label the rape experience as a rape and unacknowledged if they do not label the experience as rape (Koss, 1985; Wilson & Miller, 2016). Unacknowledged survivors have also been called “hidden victims” and may label their experience in a variety of ways, such as “bad sex” or “miscommunication” (Littleton et al., 2006).

Between 61% and 67% of female rape survivors are unacknowledged (Layman, Gidycz, & Lynn, 1996; Littleton et al., 2006; Littleton et al., 2009). When acknowledgment status was assessed among college women who experienced a sexual assault, 75% of survivors were classified as unacknowledged (Cleere & Lynn, 2013). Wilson & Miller's (2016) meta-analysis revealed that the average prevalence of unacknowledged rape is 60.4% among women. Among unacknowledged female rape survivors, 45% labeled the event as miscommunication, 11% labeled the event as seduction, and 45% were unsure of how to label the event (Wilson & Miller, 2016). The rate of acknowledgment is lower in college students; Koss (2018) found that only 27% of college women who experienced a rape were acknowledged survivors.

### Psychological Outcomes of Acknowledgment

As noted above, it is well-established that survivors of sexual assault experience negative psychological outcomes such as PTSD, depression, and anxiety. How individuals label their sexual assault experience likely influences the psychological outcomes of sexual assault. However, research examining the relationship between acknowledgement status and negative psychological outcomes following rape has yielded mixed results.

Several studies have found that acknowledged survivors endorse higher levels of psychological symptoms following a sexual assault than unacknowledged survivors. In a study of women who experienced a sexual assault, acknowledged survivors endorsed significantly more symptoms of PTSD than unacknowledged survivors (Layman et al., 1996). Littleton and colleagues (2006) also found that acknowledged survivors reported more severe PTSD symptoms, even when controlling for level of force used by the perpetrator during the sexual assault. Similarly, in a sample comprised of women, Littleton and Henderson (2009) found that

acknowledged survivors were more likely than unacknowledged survivors to endorse sufficient symptoms to warrant a diagnosis of PTSD (i.e., 47% vs. 30%, respectively). Finally, acknowledged survivors reported more symptoms of depression, anxiety, and PTSD compared to unacknowledged survivors (Littleton et al., 2009).

Researchers have suggested that acknowledged survivors may experience more psychological symptoms than unacknowledged survivors because of rape scripts. Scripts serve as a cognitive guide about what is expected in certain situations (Gioia & Manz, 1985). The characteristics of the assault of unacknowledged survivors typically do not match their rape script; therefore, they do not conceptualize their experience as such (Littleton et al., 2006). Unacknowledged survivors tend to hold more “stereotypical” rape scripts, characterized by more force; however, the assaults of female unacknowledged survivors tend to be characterized by less force than the assaults of female acknowledged survivors (Bondurant, 2001). Rape scripts can include information about how survivors of rape “should” be affected by the trauma and subsequently how they should act. Because use of physical force is consistent with stereotyped rape (Littleton, Breitkopf, & Berenson, 2007), it is possible that one way that force influences mental health outcomes of sexual assault is via rape scripts and acknowledgment status. Since acknowledged survivors’ scripts are activated, they may act according to their scripts, which could include information about expected symptoms and difficulties following the assault (Yates, Axsom, & Tiedeman, 1999).

In contrast, other studies have found that unacknowledged survivors experience more psychological symptoms or have failed to find differences by acknowledgment status. Clements and Ogle (2009) found that in a sample of women, unacknowledged survivors reported higher

levels of anxiety than both acknowledged survivors and individuals who have not experienced rape. Furthermore, they found that unacknowledged survivors reported higher levels of depressive symptoms than those who did not experience rape, and acknowledged survivors did not significantly differ in depressive symptoms from those who had not experienced rape. However, there was not a statistically significant difference in depressive symptoms between acknowledged and unacknowledged survivors. In another study, global symptom severity did not differ between acknowledged and unacknowledged female survivors (Cleere & Lynn, 2013). Additionally, other researchers have found that PTSD symptoms did not differ by acknowledgment status (Marx & Soler-Baillo, 2005). Lastly, although Littleton and Henderson (2009) found that more female acknowledged survivors than female unacknowledged survivors met diagnostic criteria for PTSD, structural equation modelling results indicated that acknowledgment status was not a significant predictor of PTSD symptom severity.

The inconsistent findings regarding the relationship between rape acknowledgment and outcomes following sexual assault suggest that there are variables that affect this relationship. Wilson and colleagues (2017) noted that examining the bivariate relationship between acknowledgment status and psychological symptoms is “too simplistic” (p. 875), and they urged researchers to examine third variables to better understand the complex relationship between acknowledgment status and the psychological outcomes following a rape.

### Disclosure

Following a sexual assault, an individual may tell another person (or multiple others) about the experience (i.e., they may “disclose” the sexual assault). Sexual assault disclosures can be made to formal support providers (e.g., law enforcement, medical professionals, mental health

professional; Ullman, 1999; Ullman & Filipas, 2001) or informal support providers (e.g., romantic partners, family, friends; Starzynsk, Ullman, Filipas, & Townsend, 2005). Male and female survivors disclose their assault to informal support providers more frequently than to formal support providers (Fisher, Daigle, Cullen, Turner, 2003; Golding, Siege, Sorenson, Burnam, & Stein, 1989). Starzynsk and colleagues (2005) posit that survivors receive emotional support following disclosures to informal support providers, while they receive resources (e.g., mental health treatment, legal aid) from formal support providers.

The majority of female sexual assault survivors (65.2 to 87%) disclose the assault to at least one person (Orchowski & Gidycz, 2012). Compared to men, women who experienced childhood sexual assault were more likely to disclose their assault (Ullman & Filipas, 2005). By far the most common people male and female survivors choose to disclose to are peers and romantic partners. Among survivors who disclosed to at least one person, 85% to 88% disclosed to peers, 83.3% to 84.8% to romantic partners, 10% to family members, and less than 5% to the police (Fisher, et al., 2003; Golding et al., 1989; Littleton, 2010; Orchowski, Untied, & Gidycz, 2013; Ullman, 2000; Ullman et al., 2007).

### Social Reactions to Disclosure

Ullman and Filipas (2001) suggest that the social reactions survivors receive following disclosure are critical, because these reactions may reinforce rape myths, blame the survivor for the assault, or offer support to the survivor. Positive reactions to disclosure included two forms of support: emotional support (i.e., “expressions of love, caring, esteem;” Ullman, 2000, p. 260); and tangible aid/information support (i.e., providing “advice and information” and “tangible assistance from others” Ullman, 2000, p. 258-260). Negative reactions include attempting to

make decisions for the survivor, blaming the survivor for the assault, acting differently toward the survivor, distracting the survivor from the event, and focusing on the effect of the disclosure on the disclosure recipient rather than focusing on the survivor. When a survivor experiences negative reactions and lack of support, they may experience “secondary victimization” (Symonds, 1980), which has also been referred to as “the second assault” (Martin & Powell, 1994).

When a survivor discloses, they may receive positive, negative, or both types of reactions (Ahrens & Aldana, 2012; Relyea and Ullman 2015; Starzynski et al., 2005; Ullman & Filipas, 2001). Approximately 83.7% of female survivors who disclosed their assault received at least one positive reaction, and 83% experienced at least one negative reaction (Ahrens & Aldana, 2012). More recent research has shown that 80-100% of survivors received at least one positive social reaction, while 46-57% have received at least one negative social reaction (Lorenz, Ullman, Kirkner, Mandala, Vasquez, & Sigurvinsdottir, 2018). Ullman (1996a) found that over 80% of female survivors of sexual assault reported they received reactions of belief, emotional support, control, or being listened to and 60% received tangible aid (e.g., providing resources, or assistance obtaining medical care). In contrast, 70% experienced victim blaming and 58% were encouraged to distract from the situation (Ullman, 1996a). Furthermore, Littleton (2010) found that the most common negative reactions female survivors of rape received were egocentric and distracting responses. The frequency of social reactions received has been found to differ based on the survivor’s gender. Ullman and Fillipas (2005) found that female survivors were more likely to receive positive social reactions than male survivors, while the frequency of negative social reactions did not differ due to gender.

### Psychological Outcomes following Social Reactions to Disclosure

Campbell and colleagues (2009) posit that the ramifications of rape extend past the assault itself and include “society’s response” (p. 226) that also affects the survivor. Specifically, survivors receive messages about how to interpret the crime and allocate blame (Neville & Heppner, 1999) from reactions of society to their own and others’ disclosures. As a result, social reactions to disclosure likely affect psychological outcomes following sexual assault.

Multiple studies have found that negative social reactions to disclosure are positively associated with PTSD symptoms among women (Ahrens, Stansell, & Jennings, 2010; Borja, Callahan, & Long, 2006; Hakimi, Bryant-Davis, Ullman, & Gobin, 2018; Littleton, 2010; Ullman, 2000; Ullman & Filipas, 2001; Ullman & Peter-Hagene, 2014; Ullman et al., 2007). When specific types of negative reactions have been examined (e.g., control, blame, distraction, acting differently, and egocentric response), attempts to control the survivor’s decisions (Orchowski et al., 2013) and being treated differently and receiving distracted reactions (e.g. “telling the victim to move on with her life;” Ullman & Filipas, 2001) were predictive of higher PTSD symptom severity in women. Similar to PTSD symptoms, studies of female sexual assault and rape survivors have found that negative social reactions were positively related to depressive symptoms (Ahrens et al., 2010; Hakimi et al., 2018; Littleton, 2010). When specific negative reactions were analyzed in a sample of female survivors of sexual assault, controlling the decisions of the survivor was positively associated with both depressive and anxiety symptoms, and there were no significant relationships between other types of negative reactions and either depression or anxiety symptoms (Orchowski et al., 2013).

Recently, research on the effects of positive social reactions to a sexual assault disclosure has yielded conflicting results. Some research has found that positive social reactions do not affect PTSD symptoms or general psychological symptoms in female survivors of sexual assault (Borja et al., 2006; Orchowski & Gidycz 2015; Ullman, 2000). However, when examining positive reactions individually in a sample of female sexual assault survivors, tangible aid was positively associated with psychological symptoms, while being listened to was negatively associated with psychological symptoms (Ullman, 1996a). Other studies with female sexual assault survivors have found that positive reactions are positively associated with PTSD symptoms (Ullman et al., 2007; Ullman & Peter-Hagene, 2014).

Researchers have found that a three-factor solution is a better fit than the previous two-factor solution for data from the Social Reactions Questionnaire (SQR; Ullman, 2000), the most commonly used measure of social reactions to sexual assault disclosures. While the positive social reaction factor remained unchanged, the negative social reactions factor was split into two scales – “turning against” and “unsupportive acknowledgment” (Relyea & Ullman, 2015; Ullman et al., 2017). The turning against scale includes reactions that all female survivors find harmful (e.g., stigmatization and blame); unsupportive acknowledgement reactions are reactions that some female survivors find harmful but other female survivors find helpful (i.e., distracting, controlling, and egocentric reactions). Given that negative social reactions were divided into two factors (turning against and unsupportive acknowledgment) and that survivors may interpret these two scales differently, it is important for studies to examine the effects of each of the three social reactions on psychological symptoms and determine if these effects match the effects

found when turning against and unsupportive acknowledgement social reactions were analyzed as negative social reactions.

### Acknowledgment and Disclosure

Not surprisingly, there is a relationship between acknowledgement and disclosure. Female acknowledged survivors are more likely to disclose their experience than unacknowledged survivors (i.e., 91% vs. 80%, respectively), and they also disclose to more people (Botta & Pingree, 1997; Layman et al., 1996; Littleton et al., 2006). When disclosing, female acknowledged survivors were more likely to receive egocentric reactions than unacknowledged survivors, but there were no differences in rates of all other negative reactions (Littleton et al., 2006). Littleton and colleagues (2006) suggest that female survivors who acknowledged their assault are more likely to receive negative social reactions when disclosing because learning that sexual assault occurred to a friend or loved one violates the “just world hypothesis.” According to Lerner (1980), most people believe that the world is a “just” place, meaning that good things happen to good people, while bad things happen to bad people, because people “get what they deserve” (p. 11). This belief is taught from a young age, and individuals maintain the belief because it creates a sense of order (Resick, Monson, & Chard, 2017). If recipients of a sexual assault disclosure perceive that their just world view is being threatened, they may respond by blaming or stigmatizing the survivor, in order to make the incident fit their beliefs about the world. However, since unacknowledged survivors tend to use more benign terms such as “bad sex” or “miscommunication” when describing the incident, the disclosure recipient’s just world view is not violated (Crome & McCabe, 2001; Littleton et al., 2009). The relationship between the just world belief and victim blaming has previously been

demonstrated by Kristiansen and Giulletti (1990). Their study utilized a male and female college sample to assess the amount of blame placed on a victim in a vignette of a domestic dispute. Their findings indicated that, as an individual's belief in a just world increased, the amount of blame placed on the victim increased.

### Current Study

As noted above, mixed findings regarding the relationship between rape acknowledgment and psychological outcomes suggests that third variables need to be examined. The current study seeks to better understand the relationship between acknowledgement status and symptoms of PTSD, depression, and anxiety among women by examining the indirect effect through social reactions to disclosure.

It was hypothesized that there would be an indirect effect of acknowledgment status on psychological symptoms via negative social reactions (i.e., turning against social reactions). Specifically, because acknowledged survivors are more likely to violate others' just world beliefs when they disclose (Crome & McCabe, 2001), they are expected to experience more turning against social reactions, which in turn are expected to lead to higher levels of posttraumatic stress, depression, and anxiety symptoms, consistent with previous research (Hakimi et al., 2018; Littleton, 2010; Ullman, 2000; Ullman and Filipas, 2001; Ullman et al., 2007). Additionally, was hypothesized that there would be an indirect effect of acknowledgment status on psychological symptoms via unsupportive social reactions (i.e., distractions, control, and egocentric reactions). Similar to the rationale noted above regarding turning against social reactions, acknowledged survivors are more likely to violate others' just world beliefs when they disclose and therefore are expected to experience more distracting, controlling, and egocentric reactions in an attempt

to remedy this violation in the disclosure recipient. These reactions in turn are expected to lead to higher levels of posttraumatic stress, depression, and anxiety symptoms, consistent with previous research (e.g., Ullman & Filipas, 2001). Lastly, the indirect effect of acknowledgment status on psychological symptoms via positive social reactions was also examined; however, due to mixed findings (Borja et al., 2006; Orchowski & Gidycz 2015; Ullman, 1996a; Ullman, 2000; Ullman et al., 2007; Ullman & Peter-Hagene, 2014), examination of this effect was exploratory.

For the current paper, the sample used for analyses was restricted to female survivors of sexual assault who disclosed to at least one person. Men and women experience sexual assault and positive social reactions to sexual assault disclosure at differing rates (Krebs, Lindquist, Warner, Fisher, & Martin, 2007; Ullman & Filipas, 2005). Furthermore, additional variables may influence male survivors' acknowledgment status and the social reactions they receive when they disclose their sexual assault (Artime, McCallum, & Peterson, 2014). Given that different variables may affect the examined relationships in men and women, only women were examined. Additionally, given that the current paper focuses on reactions to disclosure of sexual assault, only female survivors of sexual assault who had disclosed their experience to at least one person were included in the analyses.

## **CHAPTER 2: METHOD**

### **Participants**

A total of 1517 undergraduate students participated in a larger study that was conducted in the Center for Research and Education of Sexual Trauma at UCF. All participants were recruited via the Psychology Department's Sona Research Participation System between Summer 2018 and Summer 2019. Participants received research participation credit that is used for either course credit or extra credit in psychology courses. All participants were at least 18 years old.

Of the overall sample, 595 participants were excluded from analyses because they did not identify as female. Another 572 female participants were excluded because they had not experienced a sexual assault. Additionally, 175 female survivors had not disclosed their sexual assault and were, therefore, excluded. Of the 175 female survivors who disclosed their sexual assault, 11 were excluded from analyses due to responding to two or more validity check questions incorrectly. Participants' ages ranged from 18-48 years ( $M = 20.03$ ,  $SD = 3.99$ ). See Table 1 for information about categorical demographic variables.

### **Power Analysis**

A power analysis was conducted using a Monte Carlo simulation in MPlus (Muthen & Muthen, 1998-2017). Average correlations ( $r_s$ ) were calculated based on similarly designed studies to estimate effect sizes in each model (Littleton et al., 2010; Ullman, 1996a; Ullman & Filipas, 2001). The estimated effect size for the relationship between turning against social reactions and PTSD symptoms was .34. Effect sizes for the relationship between positive and

unsupportive acknowledged social reactions and PTSD symptoms were estimated at .24 and .23, respectively. Effect sizes between social reactions and anxiety and depression were estimated based on psychological symptoms broadly. Estimated effect sizes for positive, turning against, and unsupportive acknowledged social reactions and psychological symptoms broadly were .24, .28, and .23, respectively. Past studies have not estimated the effect size between acknowledgment status and social reactions, therefore, a medium effect size of .3 was estimated. Based on this simulation using 10,000 iterations, a sample size of 155 will yield power between 91% and 99% for the PTSD symptoms model. Additionally, this sample size yielded power between 90% and 98% for symptoms of depression and anxiety. Power to detect the indirect effects ranged from 81% - 91% in the PTSD symptoms model and between 76% - 92% in the depression and anxiety symptoms model. Based on this information, the sample size of 164 participants included in the analyses should provide sufficient power for the analyses conducted.

## **Measures**

**Demographics.** A 10-item measure was used to assess demographic information. Demographic data includes age, gender, race/ethnicity, fraternity/sorority membership, military affiliation, type of residence, sexual orientation, year in school, participation in extracurricular activities, and number of lifetime consensual sexual partners. See Appendix A.

**Unwanted Sexual Experiences.** The Sexual Experiences Survey-Short Form Victimization (SES-SFV; Koss et al., 2007) is a 72-item self-report measure. Exposure to seven different types of unwanted sexual experiences as a result of five different perpetration tactics during two timeframes (the past 12 months and between age 14 and one year prior to participation) was assessed. In the current paper, sexual assault refers to unwanted sexual

contact, attempted coercion, coercion, attempted rape, and/or rape. One strength of the SES-SFV is that it avoids the term “rape” until the final question. Instead, the measure uses behaviorally specific questions which allows individuals to endorse experiences that are consistent with the definition of sexual assault without requiring them to label their experience in any particular way (Koss et al., 2007). In a sample of college women, the SES-SFV evidenced adequate test-retest reliability ( $r=.70-.73$ ; reliability differed in the two time periods assessed), and good predictive validity for trauma-related symptoms (Johnson, Murphy, & Gidycz, 2017). See Appendix B.

**Acknowledgement.** Acknowledgment status was assessed by comparing participants’ responses on the behaviorally specific questions to the label they assigned their experience on the sexual assault characteristics questions. Participants who endorsed any unwanted sexual experience on the SES-SFV and labeled their experience as either rape or sexual assault were considered acknowledged survivors. Individuals who endorsed any unwanted sexual experience on the SES-SFV and labeled their experience using any term but rape or sexual assault were classified as unacknowledged survivors. See Appendix C.

**Disclosure and Social Reactions.** Participants were asked to indicate to whom they have disclosed their unwanted sexual experience. Additionally, participants were asked to complete the Social Reactions Questionnaire Shortened (SRQ-S), a 16-item measure that assesses three types of social reactions to sexual assault disclosures (i.e., positive, turning against, and unsupportive acknowledgement). On the SRQ-S, participants rated the frequency with which they experienced each reaction using a five-point scale ranging from 0 (never) to 4 (always; Ullman et al., 2017). The three-factor structure has been found to be a better fit than the previous two general scales (Relyea & Ullman, 2015).

Additionally, the three general scales have been found to have good to excellent internal consistency ( $.71 \leq \alpha \leq .91$ ; Ullman et al., 2017). The current sample demonstrated similar internal consistency  $.77 \leq \alpha \leq .87$ . See Appendix D.

**Posttraumatic Stress Symptoms.** Posttraumatic stress symptoms were assessed using the PTSD Checklist for DSM-5 (PCL-5; Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013). The PCL-5 is a 20-item self-report measure on which participants rate the severity of posttraumatic stress symptoms in the past month using a five-point scale ranging from 0 (not at all) to 4 (extremely), based on their worst unwanted sexual experience. In a college student sample, the PCL-5 demonstrated good internal consistency ( $\alpha = .94$ ) and evidenced good internal consistency in the current study ( $\alpha = .96$ ). Similarly, good convergent validity was established (Ruggiero, Del Ben, Scotti & Rabalais, 2003). High test-retest reliability ( $r_s = .68$  to  $.92$ ) over multiple time frames (ranging from 1 hour to 2 weeks) has also been demonstrated (Ruggiero et al., 2003). See Appendix E.

**Depression.** The Patient Health Questionnaire, nine-item scale (PHQ-9; Kroenke & Spitzer, 2002) is a self-report measure that was used to examine symptoms of depression during the past two weeks. Participants rated each item on a four-point scale ranging from 0 (not at all) to 3 (nearly every day). Internal consistency within a college student population was found to be good ( $\alpha = .84$ ; Eisenberg, Nicklett, Roeder, & Kirz, 2011) and was similar in the current study ( $\alpha = .91$ ). Test-retest reliability has been demonstrated ( $r = .84$ ). Additionally, criterion validity was demonstrated with a structured interview involving diagnostic questions from the Structured Clinical Interview for DSM III-R (SCID) and Primary Care Evaluation of Mental Health

Disorder (PRIME-MD). A cut score of 10 on the PHQ-9, had a sensitivity and specificity rate of 88% (Kroenke, Spitzer, & Williams, 2001). See Appendix F.

**Anxiety.** The Generalized Anxiety Disorder, seven item scale (GAD-7; Spitzer, Kroenke, Williams, & Lowe, 2006) is a self-report questionnaire that was used to assess cognitive symptoms of anxiety. Participants indicated the frequency with which they have experienced each symptom during the past two weeks on a four-point scale ranging from 0 (not at all) to 3 (nearly every day). Internal consistency of this measure has been found to be excellent ( $\alpha = .92$ ) and evidenced similar internal consistency in the current study ( $\alpha = .90$ ). Similarly, test-retest reliability has been found to be good (interclass correlation=.83) within a primary care setting (Spitzer, Kroenke, Williams, & Lowe, 2006). See Appendix G.

**Psychiatric History.** To assess history of mental health problems, a five item self-report measure in which participants indicated if they have ever been diagnosed with or received treatment for five types of mental health problems was used (i.e., PTSD, anxiety, depression, substance use problems, and other). For each type of problem a participant indicated, they were asked to indicate their age at first diagnosis or treatment. Furthermore, participants who experienced a sexual assault indicated if the diagnosis or treatment preceded or followed the sexual assault. See Appendix H.

## **Procedure**

To participate, students at the University of Central Florida (UCF) who were members of the Psychology Department's Sona Research Participation System signed up online for the study through the Sona System. Only students who were at least 18 years old were eligible to sign up.

After signing up, participants were provided a weblink to a Qualtrics survey. Information on the potential risks and benefits were provided to participants. They indicated their consent to participate in the study by continuing to the survey after being provided this information. The median completion time for all measures in the larger study was 23 minutes. Participants were awarded 0.5 Sona credits for their participation.

### **Analytic Overview**

The hypotheses that social reactions account for the relationship between acknowledgment status and symptoms of PTSD, depression, and anxiety were examined by computing the indirect effects using a path model in Mplus, Version 8 (Muthen & Muthen, 1998-2017). A total of three models were used (i.e., one for each dependent variable [PTSD, depression, and anxiety symptoms]). In each of the three models, all three social reactions (turning against, unsupportive acknowledgment, and positive) were examined. A history of mental health problems prior to an unwanted sexual experience was entered as a covariate. Specifically, a dichotomous predictor was created. Participants were coded as 1 if they endorsed a diagnosis or treatment of PTSD, depression, or anxiety prior to the unwanted sexual experience. Participants were coded as 0 if they indicated that they were not diagnosed or had not received treatment for any of those disorders before the unwanted sexual experience. The skewness, kurtosis, and distribution of residuals of analysis variables were examined. The skewness of all residuals was  $\leq 1$ , and the distributions of the residuals were relatively normal; therefore, the path analysis was conducted.

## CHAPTER 3: RESULTS

### **Descriptive Statistics**

The majority of the participants ( $n=108$ ; 65.9%) were unacknowledged survivors. Chi-squared tests were used to examine if there were differences based on acknowledgment status on categorical demographic variables. Of the three categorical demographic variables examined (race, year in school, and sexual orientation), only year in school was statistically different between the two groups,  $\chi^2=10.15$ ,  $p=.017$ . To determine which groups differed, four dichotomous variables were created (Year 1, 2, 3, and 4+) and separate chi-squared tests were run. Findings indicated that the rate of acknowledged survivors significantly differs based on a survivors year in school, such that the proportion of 1<sup>st</sup> year students in the unacknowledged group was significantly higher than the portion of 1<sup>st</sup> year students in the acknowledged groups ( $\chi^2=9.42$ ,  $p=.002$ ). Mann-Whitney U non-parametric tests were used to examine the differences in age, social reactions, and psychological symptoms based on acknowledgment status as the continuous variables were not normally distributed. Acknowledged survivors were older ( $U=2218$ ,  $p=.001$ ), experienced more frequent positive social reactions ( $U=2143$ ,  $p=.002$ ), and endorsed more severe PTSD symptoms ( $U=1505$ ,  $p<.001$ ) than unacknowledged survivors. There were no other differences between acknowledged and unacknowledged survivors on the continuous variables included in these analyses (see Table 2). To examine the correlations among study variables, bivariate correlations were run (see Table 3). Overall, study variables were significantly correlated. Specifically, there was a small correlation between acknowledgment status and each of the three social reactions. Except for the non-significant

relationship between positive social reactions and depressive symptoms, there was a small correlation between each of the three social reactions and both depression and anxiety symptoms. Additionally, there was a large correlation between PTSD symptoms and turning against social reactions and a medium correlation between PTSD symptoms and both unsupportive acknowledgment and positive social reactions.

### **Primary Analyses**

**PTSD Symptoms Model.** There was a positive statistically significant total effect of survivors' acknowledgment status on the severity of PTSD symptoms ( $\beta=.43, p<.001$ ). The effect of a previous diagnosis or treatment of PTSD, anxiety, or depression was not significant. Additionally, there was positive statistically significant direct relationship between a survivor's acknowledgment status and the severity of PTSD symptoms the survivor experiences ( $\beta=.30, p<.001$ ). Examination of the total indirect effect indicated that acknowledged survivors experienced a greater severity of PTSD symptoms through social reactions ( $\beta=.14, p=.002$ ; see Table 4). In examination of the indirect effects of each individual social reaction, turning against partially accounted for the relationship between acknowledgement status and severity of PTSD symptoms ( $\beta=.08, p=.033$ ). The indirect effects of unsupportive acknowledged social reactions and positive social reactions were not statistically significant. Acknowledgment status was directly positively associated with each of the three social reactions. This suggests that acknowledged survivors report more frequent turning against, unsupportive acknowledgment, and positive social reactions, compared to unacknowledged survivors. Lastly, turning against and positive social reactions were directly positively associated with PTSD symptoms ( $\beta=.42, p<.001$  and  $\beta=.17, p=.014$ , respectively), which indicates that participants who reported experiencing

more frequent turning against and more frequent positive social reactions, also reported a greater severity of PTSD symptoms. Unsupportive social reactions were not significantly associated with PTSD symptoms. See figure 1.

**Anxiety and Depressive Symptoms Models.** In both the anxiety symptoms model and the depressive symptoms model, a previous diagnosis or treatment of PTSD, anxiety, or depression was a significant covariate ( $\beta=.16, p=.030$ , and  $\beta=.17, p=.014$ , respectively), indicating that participants who reported having a previous diagnosis or treatment of any of the three psychological conditions reported more severe anxiety and depressive symptoms than participants who denied a previous diagnosis of an anxiety or depressive disorder or PTSD. However, in both models, the total effect and the direct effect of a survivor's acknowledgment status on anxiety and depressive symptoms were not significant. Similarly, in the depressive symptoms model, the total indirect effect was not significant, however, in the anxiety symptoms model the total indirect effect was significant ( $\beta=.06, p=.030$ ), indicating that social reactions broadly partially accounted for the relationship between acknowledgment status and severity of anxiety symptoms. In both models, none of the individual indirect effects were significant. As in the PTSD model, acknowledged survivors reported more frequent social reactions of all three types compared to unacknowledged survivors. Lastly, none of the three social reactions were significantly associated with anxiety or depressive symptoms. See figures 2-3.

## **CHAPTER 4: DISCUSSION**

Previously, some studies found that acknowledged survivors of sexual assault reported more severe psychological symptoms than unacknowledged survivors of sexual assault and rape (Layman et al., 1996; Littleton et al., 2006; Littleton & Henderson, 2009; Littleton et al., 2009), while other studies found that unacknowledged survivors reported more severe psychological symptoms (Clements & Ogle, 2009). The purpose of the present study was to better understand the conflicting results in the literature on the relationship between acknowledgment status and psychological symptoms following a sexual assault by examining the role of social reactions to disclosures of sexual assault. It was expected that acknowledged survivors would receive more frequent turning against and unsupportive acknowledged social reactions and less frequent positive social reactions (Littleton et al., 2006). Turning against and unsupportive acknowledged social reactions were hypothesized to be positively associated with psychological symptoms. Though due to conflicting results within the literature, it was unclear how positive social reactions would be related to psychological symptoms (Ahrens et al., 2010; Borja et al., 2006; Hakimi et al., 2018; Littleton, 2010; Orchowski & Gidycz, 2015; Orchowski et al., 2013; Ullman, 1996a; Ullman & Filipas, 2001; Ullman et al., 2007; Ullman & Peter-Hagene, 2014).

### **Acknowledgment Status and Social Reactions to Disclosure**

Relative to unacknowledged survivors, acknowledged survivors more frequently received unsupportive acknowledged reactions and turning against social reactions. These findings are similar to findings of Littleton and colleagues (2006) who analyzed individual subscales of negative social reactions and found that acknowledged survivors experienced more frequent

egocentric reactions (a subtype of unsupportive acknowledged reactions). However, the current findings also contrast with Littleton and colleagues (2006) who did not find a significant difference between other subscales of negative social reactions and acknowledgment status. The terminology that acknowledged survivors use to describe their sexual assault has been hypothesized to account for why they may report more frequent negative social reactions (e.g., turning against and unsupportive acknowledgment). Littleton and colleagues (2006) hypothesized that the labels acknowledged survivors use (e.g., sexual assault and rape) violates disclosure recipients' just world belief (i.e., the belief that "good" events happen to "good" people and "bad" events happen to "bad" people; Lerner, 1980). The disclosure recipient may offer negative social reactions (e.g., blame and stigmatization) to rectify their belief in a just world. By blaming or stigmatizing the survivor, the disclosure recipient is able to explain the negative event, which allows them to continue to view the world as generally just and fair (Littleton et al., 2006).

Contrary to the hypothesis, when acknowledged survivors disclosed, they received more frequent positive social reactions compared to unacknowledged survivors. This finding adds to the literature as no previous studies, to the author's knowledge, have examined the relationship between acknowledgment status and positive social reactions. Previous literature has focused on the relationship between acknowledgment status and negative social reactions (Littleton et al., 2006). It is possible that the relationship between acknowledgment status and positive social reactions occurred because acknowledged survivors disclose to more individuals (Littleton et al., 2006). Ullman and Filipas (2001) found a positive correlation between the number of individuals a survivor disclosed to and the number of positive social reactions the survivor received

(Littleton et al., 2006). Alternatively, acknowledged survivors may receive more frequent positive social reactions due to scripts individuals hold. Scripts provide information on the expected events and order of such events (Abelson, 1981). It is possible that individuals hold scripts for responding to a sexual assault disclosure that include support and aid. However, these scripts may not be activated when unacknowledged survivors disclose as they do not use the term “sexual assault” and instead use benign terms. Therefore, acknowledged survivors may activate the scripts for responding to a sexual assault disclosure in disclosure recipients while unacknowledged survivors may not.

### **Social Reactions and Psychological Symptoms**

This study found that female survivors who received more frequent turning against social reactions, also experienced more severe PTSD symptoms. This finding is consistent with previous research that also found a positive association between negative social reactions and PTSD symptoms (Ahrens et al., 2010; Borja, et al., 2006; Hakimi et al., 2018; Littleton, 2010; Ullman, 2000; Ullman and Filipas, 2001; Ullman & Peter-Hagene, 2014; Ullman et al., 2007). Furthermore, previous research has found turning against social reactions and stigmatizing reactions to be most predictive of PTSD symptoms (Relyea & Ullman, 2015; Ullman & Filipas, 2001). Stigmatizing reactions may lead survivors to internalize negative cognitions such that they are different or worth less as a result of their assault, and in turn, these negative cognitions increase PTSD symptoms (Ullman & Filipas, 2001).

Despite the relationship between turning against reactions and PTSD symptoms, the study found no association between such reactions and anxiety or depressive symptoms. This lack of association between turning against and depressive symptoms accords with the findings

of Relyea and Ullman (2015), who found that after accounting for covariates, turning against social reactions were only “marginally related to” depressive symptoms. Additionally, the lack of relationship found between turning against social reactions and anxiety and depressive symptoms is consistent with research by Orchowski and colleagues (2013) that found only controlling social reactions (one subtype of unsupportive acknowledgment) were associated with anxiety and depressive symptoms.

Unsupportive acknowledged social reactions were not associated with PTSD, depressive, or anxiety symptoms. Though Orchowski and colleagues (2013) did find controlling social reactions to be associated with anxiety, depression, and PTSD symptoms, it may be that the strength of the association between control and PTSD, anxiety, and depressive symptoms is not sufficient to be demonstrated when all three subscales of unsupportive acknowledged social reactions are analyzed together. The lack of relationship found between unsupportive acknowledged social reactions and all three psychological symptoms also contrasts with the findings of Relyea and Ullman (2015) who found unsupportive acknowledged social reactions to be associated with PTSD and depressive symptoms. Methodological differences may account for these findings. Participants in Relyea and Ullman’s (2015) study completed PTSD and depressive measures based on symptoms in the past 12 months, whereas participants in this study reported on PTSD symptoms over the past month and depression symptoms over the past two weeks. The reporting timeframes for the current study were based on the timeframes noted in the directions for the measure, which are consistent with the timeframes used in studies examining the psychometric properties of these measures (i.e., the PCL-5 and PHQ-9)The time frame used

in the current study is similar to the time frame used by Orchowski and colleagues (2013) who assessed current psychological symptoms.

The current study found that survivors who experienced more frequent positive social reactions reported more severe PTSD symptoms. In the literature, conflicting findings exist on the relationship between positive social reactions and severity of PTSD symptoms (Orchowski & Gidycz, 2015; Ullman, 2000; Ullman et al., 2007; Ullman & Peter-Hagene, 2014). Consistent with these results, Ullman and Peter-Hagene (2014) found a positive association, though they were doubtful that positive social reactions “cause” PTSD symptoms and suggested that the severity of the assault is responsible for this relationship. Ullman and Peter-Hagene (2014) posit that survivors of severe assaults disclose more frequently and experience a greater severity of PTSD symptoms. As a result of the greater number of disclosures, survivors receive an increase in positive social reactions. Therefore, severity of the assault may at least partially account for the relationship between positive social reactions and PTSD symptoms. Additionally, the relationship between the severity of an assault and the rate of disclosure may account for why acknowledged survivors receive more positive social reactions as their assaults tend to be more severe (e.g., involve the use of force and weapons; Kahn, Jackson, Kully, Badger, & Halvorsen, 2003; Littleton et al., 2006).

Severity of assault is difficult to assess given that sexual assault severity may be conceptualized in multiple ways. Some conceptualizations include the type of sexual victimization (e.g., sexual coercion and rape), use of weapons, varying types of physical force, and threats (Ullman, 1996b; Ullman et al., 1999). Additionally, it is important to note that assault severity is subjective, which further complicates assessment of severity. Therefore, while sexual

assault severity is likely associated with acknowledgment, social reactions, and mental health outcomes, the effect of sexual assault severity was not controlled for in this study due to the complexity of assessing severity.

Lastly, the current finding that there was not a significant association between positive social reactions and anxiety and depressive symptoms aligns with the majority of the literature. Previous studies that examined general psychological symptoms and positive social reactions have found no association (Borja et al., 2006; Orchowksi & Gidycz, 2015). However, Relyea and Ullman (2015), found a small negative association between positive social reactions and depressive symptoms.

### **Indirect Effects**

Acknowledged survivors reported more severe PTSD symptoms via social reactions, specifically, turning against social reactions. Given the aforementioned relationship, turning against social reactions should be assessed when understanding the relationship between acknowledgement status and PTSD symptoms and may provide clinical utility during treatment.

In contrast to the results for PTSD symptoms, acknowledgment status was not associated with the severity of anxiety or depressive symptoms even when indirect effects via social reactions were examined. This lack of relationship suggests that social reactions have a specific relationship to PTSD symptoms and not general psychological distress. This unique relationship may exist as the social reactions and PTSD symptoms are specific to the trauma, while anxiety and depressive symptoms may or may not be related to trauma. Of note, in this study, participants were asked to endorse PTSD symptoms in relation to their worst sexual assault;

however, participants were simply asked to rate cognitive anxiety and depressive symptoms in general over the past two weeks.

### **Limitations and Future Directions**

One limitation of the present study is the cross-sectional nature of the study design; therefore, the temporal relationship between the three variables (acknowledgment status, social reactions, and psychological symptoms) could not be examined. Future studies should use a longitudinal methodological design to determine a temporal relationship.

Additionally, there are several limitations related to the assessment of social reactions in this study. First, the eight subscale reactions that comprise the three social reaction scales (i.e., turning against, positive, and unsupportive acknowledgment) could not be individually examined due to the limited number of questions for each subscale on the shortened version of the SRQ.

Second, survivors may differ in how they perceive different social reactions. Most survivors perceive positive social reactions to be beneficial and turning against social reactions to be harmful, while perceptions of unsupportive acknowledged social reactions tend to be mixed. Some survivors perceive unsupportive acknowledged reactions to be helpful, while other survivors find these reactions harmful (Relyea & Ullman, 2015; Ullman et al., 2017). How survivors perceive social reactions may impact how reactions affect their psychological symptoms and functioning following an assault (Ullman, 2010; Ullman et al., 2017). Perceptions of social reactions were not assessed in the current study. Future studies should assess if perceptions of social reactions moderate the relationship between social reactions and psychological symptoms.

Another limitation of the SRQ-S is that the measure uses a Likert scale with qualitative anchors. Qualitative anchors do not account for the rate of disclosure (e.g., the number of individuals that survivors have disclosed to and the frequency at which they have discussed the sexual assault to those whom they have disclosed to); therefore, two individuals may have received a specific social reaction a similar number of times but select different anchors because of how many times they have disclosed. Furthermore, the distributions of responses to many of the SRQ-S items were zero-inflated. Given this distribution, future studies should examine whether the effects of social reactions (e.g., psychological symptoms) differ for individuals who have received a social reaction once and individuals who have repeatedly received a specific social reaction. If the relationship between psychological symptoms and those who have received a social reaction once and those who have repeatedly received a social reaction, do not differ, a dichotomized measure may better represent the social reactions survivors receive when they disclose their sexual assault. If dichotomized measures are not appropriate, then future research should examine how to best assess reactions to disclosure while accounting for differential rates of disclosure.

Additionally, the sample was comprised exclusively of college women; therefore, the results can only be generalized to female undergraduate sexual assault survivors. Future studies should examine female survivors not attending college and male survivors. Future studies that include men should also look to better understand how rape myths about men (e.g., men cannot be raped, if a man is raped, the man is to blame; Struckman-Johnson & Struckman-Johnson, 1992) influence acknowledgment status and the social reactions male survivors receive (Artimes et al., 2014). It is possible that male survivors who more strongly endorse belief in these rape

myths are less likely to be acknowledged survivors. Additionally, rape myths may moderate the relationship between acknowledgment status and the social reactions male survivors receive, because acknowledged survivors receive more turning against (e.g., blame) social reactions as a disclosure recipient's belief in rape myths increases (Arttime et al., 2014).

Additionally, while individuals who identified their sexual orientation as non-heterosexual were included in the sample, the impact of sexual orientation was not examined in this study. It is unknown if the relationships examined in this study are consistent for individuals who do and who do not identify as heterosexual. Previous research has found that sexual orientation moderated the relationship between negative social reactions and PTSD symptoms (Sigurvinsdottir & Ullman 2015). Future studies should examine the role of sexual orientation in the relationship between social reactions and psychological symptoms and assess if sexual orientation continues to moderate the relationship between negative social reactions and PTSD symptoms when the three-factor scale is utilized.

Lastly, time since the sexual assault was not taken into account. The time since the assault may affect a survivor's acknowledgment status. Littleton and colleagues (2006) demonstrated a positive association between the time since the rape and acknowledgment likelihood. Similarly, other studies found unacknowledged survivors reported their assaults occurred more recently than acknowledged survivors (Cleere & Lynn, 2013; Littleton et al., 2009). Furthermore, as time since the sexual assault increases, the negative psychological outcomes resulting from the sexual assault may lessen. Rothbaum and colleagues (1992) found that as the time since a rape increased, the number of women meeting diagnostic criteria for

PTSD decreased. It is important that future studies examining acknowledgment status and psychological symptoms following a sexual assault take time since the assault into account.

### **Implications**

Given the extensive existing research on the detrimental effects of negative social reactions, it is unsurprising that researchers are working to reduce these reactions from disclosure recipients. However, in an effort to decrease negative social reactions, researchers are attempting to increase positive social reactions (Edwards & Ullman, 2018). Prior to the implementation of interventions that increase the frequency of positive social reactions, the positive relationship between positive social reactions and PTSD symptoms should be further elucidated.

Additionally, given the relationship between social reactions and psychological symptoms, it is imperative that clinicians not only understand the survivor's sexual assault experience and psychological symptoms, but also their experience disclosing their sexual assault, and how the responses to their disclosures have affected them. Understanding the impact of the social reactions on the survivor, may be beneficial in identifying targets for treatment (e.g., negative cognitions of self-worth).

### **Conclusion**

The present study investigated the relationship between acknowledgment status and psychological symptoms (PTSD, anxiety, and depression) via social reactions. Results suggest that social reactions partially account for the relationship between acknowledgment status and PTSD and anxiety symptoms. Specifically, turning against social reactions partially accounted for the relationship between acknowledgement status and PTSD symptoms. Given these

findings, it is imperative that clinicians working with survivors of sexual assault not only assess survivors' psychological symptoms but also assess the social reactions survivors have received and the impact of these social reactions. Additionally, future research is warranted to understand the mechanisms as to why acknowledged survivors received more frequent social reactions of all three types and the mechanism as to why social reactions (and which specific social reactions) led to a greater severity of PTSD and anxiety symptoms.

**APPENDIX A: FIGURES**

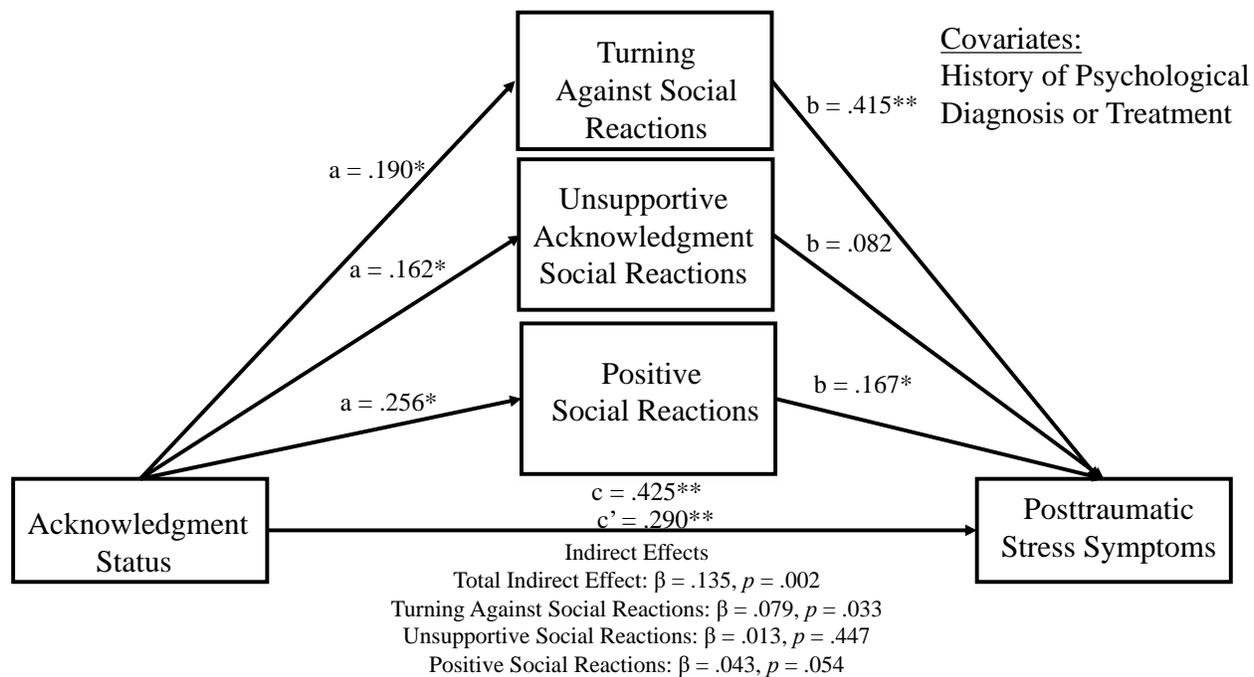


Figure 1. Model of the indirect effects of acknowledgment status on posttraumatic stress disorder symptoms via social reactions to disclosure.

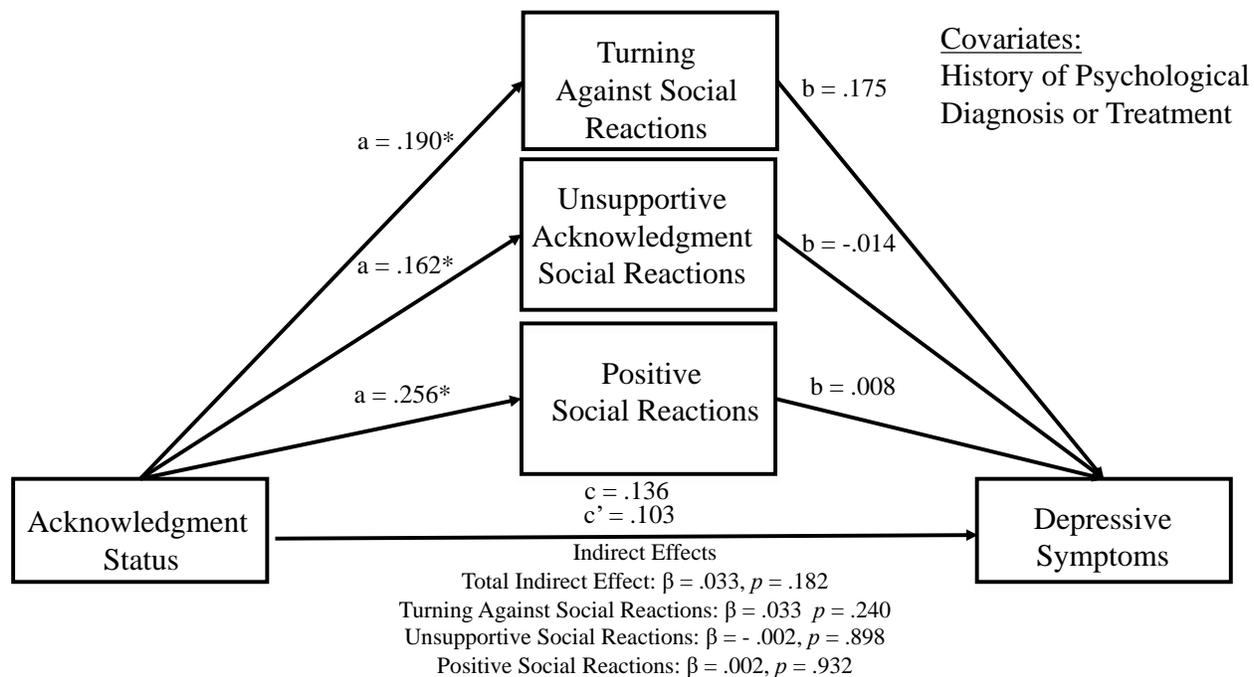


Figure 2. Model of the indirect effects of acknowledgment status on depressive symptoms via social reactions to disclosure.

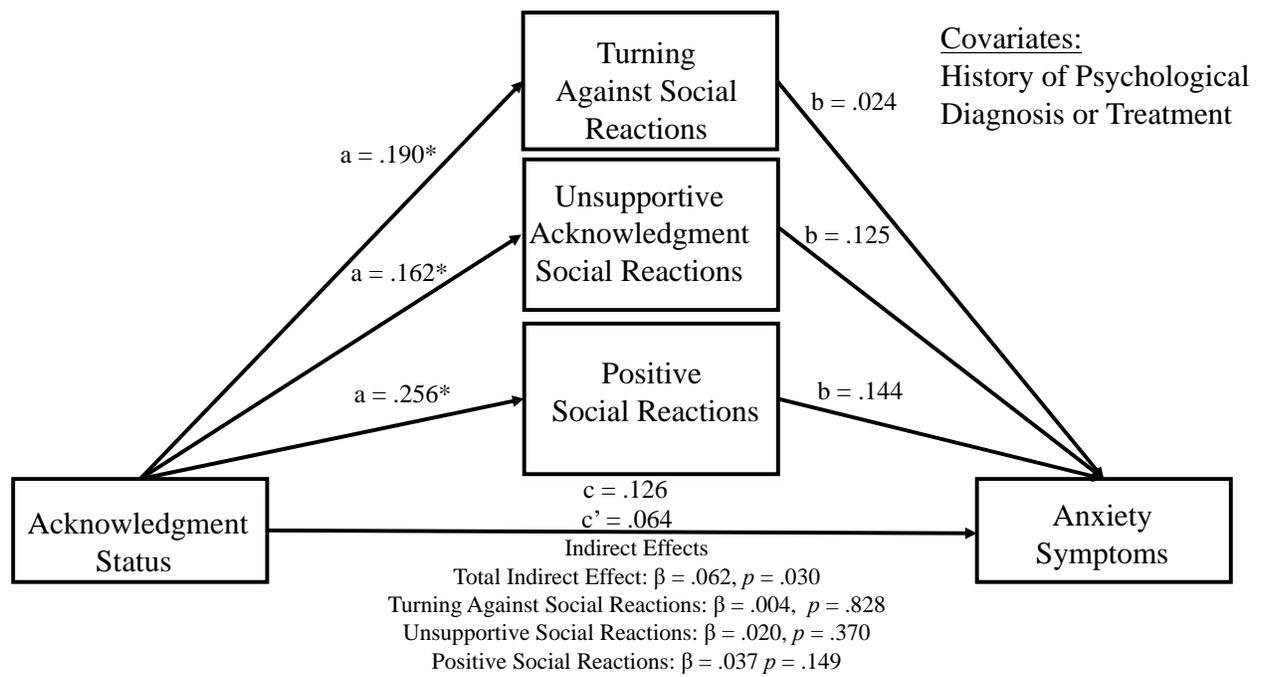


Figure 3. Model of the indirect effects of acknowledgment status on anxiety symptoms via social reactions to disclosure.

## **APPENDIX B: TABLES**

Table 1 *Descriptive statistics of categorical variables*

	Total Sample <i>n</i> =164		Acknowledged Survivors <i>n</i> =56		Unacknowledged Survivors <i>n</i> =108		Group Comparison	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	$\chi^2$	<i>p</i>
Race							0.118 <sup>a</sup>	0.99
White	105	64	35	62.5	70	64.8		
Hispanic	29	17.7	10	17.9	19	17.6		
Black	19	11.6	7	12.5	12	11.1		
Asian	4	2.4	1	1.8	3	2.8		
Biracial	4	2.4	2	3.6	2	1.9		
Other	2	1.2	0	0	2	1.9		
American Indian	1	0.6	1	1.8	0	0		
Year in School							10.15 <sup>b</sup>	0.017
1	80	48.8	18	32.1	62	57.4	9.42 <sup>c</sup>	.002
2	24	14.6	10	17.9	14	13		
3	35	21.3	15	26.8	20	18.5		
4	21	12.8	10	17.9	11	10.2		
5+	4	2.4	3	5.4	1	0.9		
Sexual Orientation							1.20	0.753
Heterosexual	123	75	41	73.2	82	75.9		
Gay/Lesbian	7	4.3	2	3.6	5	4.6		
Bisexual	26	15.9	11	19.6	15	13.9		
Other	8	4.8	2	3.6	6	5.5		

<sup>a</sup>Asian, biracial, other and American Indian were combined for the  $\chi^2$  analysis.

<sup>b</sup>Year 4 and year 5+ were combined for the  $\chi^2$  analysis.

<sup>c</sup>To determine which groups differed, four dichotomous variables were created (Year 1, 2, 3, and 4+) and separate chi-squared tests were run. The proportion of 1st year students in the unacknowledged group is significantly higher than the portion of 1st year students in the acknowledged groups.

Table 2 *Descriptive statistics of continuous variables*

	Total Sample <i>n</i> =164			Acknowledged Survivors <i>n</i> =56			Unacknowledged Survivors <i>n</i> =108			Group Comparison	
	Mean	<i>SD</i>	Range	Mean	<i>SD</i>	Range	Mean	<i>SD</i>	Range	<i>U</i> Test Statistic	<i>p</i>
Age	20.03	3.99	30	21.5	5.90	30	19.26	2.16	15	2118	0.001
PCL-5 Score	23.8	19.77	80	35.24	21.4	79	17.92	16.08	66	1505	<.001
GAD-7 Score	8.35	5.39	21	9.29	5.81	21	7.87	5.11	21	2590	0.132
PHQ-9 Score	8.86	6.52	27	10.07	7.25	27	8.23	6.05	27	2612	0.152
Turning Against Social Reactions	0.93	0.94	4.00	1.18	1.11	4.00	0.80	0.81	3.17	2494.5	0.064
Unsupportive Acknowledged Social Reactions	1.12	0.90	4.00	1.32	0.99	4.00	1.01	0.84	3.17	2506.5	0.072
Positive Social Reactions	1.81	1.00	4.00	2.17	1.05	4.00	1.63	0.93	4.00	2143	0.002

*Notes.* PCL-5=PTSD Checklist for DSM-5. PHQ-9=Patient Health Questionnaire 9-item measure. GAD-7= Generalized anxiety disorder scale 7-item measure.

Table 3 *Bivariate correlations*

Variables	1	2	3	4	5	6	7
1. Acknowledgment Status	1.00						
2. Turning Against Social Reactions	.19*	1.00					
3. Unsupportive Acknowledgment Social Reactions	.16*	.67**	1.00				
4. Positive Support Social Reactions	.26**	.18*	.50**	1.00			
5. PCL-5 Score	.42**	.56**	.49**	.35**	1.00		
6. PHQ-9 Score	.13	.25**	.16*	.06	.41**	1.00	
7. GAD-7 Score	.13	.20**	.26**	.23**	.47**	.76**	1.00

\*  $p < .05$

\*\*  $p \leq .01$

*Notes.* PCL-5=PTSD Checklist for DSM-5. PHQ-9=Patient Health Questionnaire 9-item measure.

GAD-7= Generalized anxiety disorder scale 7-item measure.

*Table 4 Indirect Effect Estimates*

Dependent Variable	Mediator	Indirect Effect	<i>p</i>
PTSD Symptoms	Total Indirect Effect	.135	.002
	Positive Social Reactions	.043	.054
	Turning Against Social Reactions	.079	.033
	Unsupportive Acknowledgment Social Reactions	.013	.447
Depressive Symptoms	Total Indirect Effect	.033	.182
	Positive Social Reactions	.002	.932
	Turning Against Social Reactions	.033	.240
	Unsupportive Acknowledgment Social Reactions	-.002	.898
Anxiety Symptoms	Total Indirect Effect	.062	.030
	Positive Social Reactions	.037	.149
	Turning Against Social Reactions	.004	.828
	Unsupportive Acknowledgment Social Reactions	.020	.370

*Notes.* PTSD=Posttraumatic stress disorder.

## **APPENDIC C: APPROVAL LETTERS**



University of Central Florida Institutional Review Board  
 Office of Research & Commercialization  
 12201 Research Parkway, Suite 501  
 Orlando, Florida 32826-3246  
 Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Approval of Human Research

**From:** UCF Institutional Review Board #1  
 FWA00000351, IRB00001138

**To:** Amie R. Newins, PhD and Co-PIs: Emily Bernstein, Matthew Cook, & Roselyn Peterson

**Date:** March 08, 2018

Dear Researcher:

On 03/08/2018 the IRB approved the following human participant research until 03/07/2019 inclusive:

Type of Review: UCF Initial Review Submission Form  
 Expedited Review Category #7

Project Title: Social and Psychological Health Behaviors

Investigator: Amie R. Newins, PhD

IRB Number: SBE-18-13778

Funding Agency:

Grant Title:

Research ID: N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 03/07/2019, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

This letter is signed by:

Signature applied by Kamille Chaparro on 03/08/2018 12:25:19 PM EST

Designated Reviewer



UNIVERSITY OF CENTRAL FLORIDA

**Institutional Review Board**  
FWA00000351  
IRB00001138, IRB00012110  
Office of Research  
12201 Research Parkway  
Orlando, FL 32826-3246

### Memorandum

To: Emily Bernstein  
From: UCF Institutional Review Board (IRB)  
CC: Amie Newins  
Barbara Fritzsche  
Wendy Cartier  
  
Date: March 26, 2020  
Re: Request for IRB Determination

---

The IRB reviewed the information related to your thesis *SEXUAL ASSAULT ACKNOWLEDGEMENT AND PSYCHOLOGICAL SYMPTOMS: THE INDIRECT EFFECT OF SOCIAL REACTIONS TO DISCLOSURES*.

Your project data is covered under the following protocol previously approved by the IRB. You are listed as a study team member on the study and your use of the de-identified secondary data is not restricted by the protocol.

IRB study name (project title)	IRB Approval Number
Social and Psychological Health Behaviors	SBE-18-13778

If you have any questions, please contact the UCF IRB [irb@ucf.edu](mailto:irb@ucf.edu).

Sincerely,

Renea Carver  
IRB Manager

## **APPENDIX D: QUESTIONNAIRES**

## Demographic Characteristics Measure

1. How old are you (in years)? \_\_\_\_\_
2. What is your preferred gender?
  - Male
  - Female
  - Male to female transgender
  - Female to male transgender
  - Other: \_\_\_\_\_
3. What is your race/ethnicity?
  - African American/Black/African Origin
  - Asian American/Asian Origin/Pacific Islander
  - Latino/Latina/Hispanic
  - American Indian/Alaskan Native
  - European Origin/White/Caucasian
  - Bi-racial/Multi-racial
  - Other: \_\_\_\_\_
4. Are you a member of a social (not academic) Greek Organization/Fraternity/Sorority?
  - Yes
  - No
5. What is your affiliation with the United States Military? (Select all that apply)
  - I am not affiliated with the United States Military
  - Active duty
  - National Guard
  - Reserves
  - Veteran
  - Other: \_\_\_\_\_
6. Where do you live?
  - Campus dorm
  - Greek housing
  - Off-campus, non-university housing

- Parent or guardian's house
- Other: \_\_\_\_\_

7. What is your sexual orientation?

- Heterosexual
- Gay/Lesbian
- Bisexual
- Asexual
- Questioning
- Other: \_\_\_\_\_

8. What year are you in school?

- First year
- Second year
- Third year
- Fourth year
- Fifth+ year

9. What clubs do you participate in? (Select all that apply)

- Intramural/Club sports
- Intercollegiate Athletics
- Academic Professional Organization
- Honor Society (Academic or Professional)
- Student Government
- Volunteering Organization
- Political Activism Organization
- Religious Organization
- Arts, Music, or Media Organization
- Military Organization
- Other (please specify): \_\_\_\_\_
- No Clubs or activities

10. How many different partners have you had consensual sexual activity (i.e., oral, vaginal, or anal sex) with in your lifetime? \_\_\_\_\_

Sexual Experiences Survey – Short Form Victimization

[https://journals.sagepub.com/doi/pdf/10.1111/j.1471-6402.2007.00385.x?casa\\_token=S04G42MOfdcAAAAA:kUu8\\_zJca5fJMzPVdTsaYEtNZcwWztUy8ThKgwfJ7zTfGtACYMHgjJ6-ArKkw0km\\_gkY1Ff5GNaYmZA](https://journals.sagepub.com/doi/pdf/10.1111/j.1471-6402.2007.00385.x?casa_token=S04G42MOfdcAAAAA:kUu8_zJca5fJMzPVdTsaYEtNZcwWztUy8ThKgwfJ7zTfGtACYMHgjJ6-ArKkw0km_gkY1Ff5GNaYmZA)

### Sexual Assault Characteristics Measure

On the previous page, you answered “yes” to at least one of the unwanted sexual experiences listed. Please answer the following questions about those events.

1. On how many total separate occasions did these experiences occur?

- One
- Two
- Three
- Four
- Five or more

If these experiences occurred on more than one occasion, then please think about the **most serious/traumatic event you have experienced** when answering the following questions.

2. How old were you (in years) when the unwanted sexual experience occurred? \_\_\_\_\_

3. What was your relationship with the other individual(s) involved in the unwanted sexual experience? (Select all that apply. If multiple other individuals were in the same category, please list the length of time you’ve known the person for the individual you’ve known the longest.)

- Family member (Length of time known [in months]\_\_\_\_\_)
- Romantic partner (Length of time known [in months]\_\_\_\_\_)
- Friend (Length of time known [in months]\_\_\_\_\_)
- Someone you knew, but you were not close to (Length of time known [in months] \_\_\_\_\_)
- Stranger
- Other: (Length of time known [in months]\_\_\_\_\_)

4. Does the other individual attend UCF? (If multiple other individuals, does at least one attend UCF)?

- No
- Yes
- Do not know

5. How well did you know the other individual at the time of the unwanted sexual experience? (If multiple other individuals were involved, please rate how well you knew the one you’ve known the longest).

- Did not know at all

- Slightly/moderately acquainted
- Very well acquainted
- Extremely well acquainted

6. Did the other individual(s) do any of these things during the unwanted sexual experience?  
(Select all that apply)

- Verbal threats, such as threatening to end the relationship.
- Threaten physical force, such as saying “you will get hurt.”
- Use physical force, such as twist your arm or hold you down.
- Use physical violence, such as hitting, slapping or choking you.
- Use a weapon, such as a knife.
- None of the above.
- Other: \_\_\_\_\_

7. Did you do any of these things during the unwanted sexual experience? (Select all that apply)

- Freeze or find yourself unable to move or speak
- Act disinterested in the person
- Reason, plead or ask them to stop
- Cry or sob
- Scream for help
- Say “no”
- Run away
- Physically struggle
- Physically fight back
- None of the above.
- Other: \_\_\_\_\_

8. Do any of the following apply to the other individual(s)? (Select all that apply)

- From a ‘good family/home’
- Member of a social (not academic) Greek Organization/Fraternity/Sorority
- A good student
- An athlete
- Owns a nice car
- Has a good job
- Did not know well enough to determine

9. Where did you first encounter the other individual(s) on the day of the unwanted sexual

experience?

- At school
- At work
- At the gym
- At a party
- At a social event for work/school
- Out with friends (e.g., at a bar)
- Other: \_\_\_\_\_

10. Where did the unwanted sexual experience occur? (Select all that apply)

- Home
- School
- Work
- Gym
- At a party
- At a social event for work/school
- At a bar
- In public
- In private
- Other: \_\_\_\_\_

11. Had the other person consumed/used any substances (e.g., alcohol, marijuana, illicit prescription medications, illicit drugs) prior to the unwanted sexual experience?

- Alcohol
- Drugs
- Both
- Neither
- Unable to determine

12. Did you consume/use any substances (e.g., alcohol, marijuana, illicit prescription medications, illicit drugs) prior to the unwanted sexual experience?

- Alcohol
- Drugs
- Both
- Neither
- Unsure (e.g., believe you may have consumed substances without your knowledge)
  
- Don't remember

13. Looking back on the experience, how do you characterize the unwanted sexual experience?  
(Select the one that fits best)

- I have not labelled the experience.
- It was a miscommunication.
- It was a sexual assault.
- It was a rape or date rape.
- It was a crime other than sexual assault or rape
- Other \_\_\_\_\_

14. Who have you told about the experience? (Select all that apply)

- Police/Law enforcement
- Female friends (How many did you tell?\_\_\_\_\_)
- Male friends (How many did you tell?\_\_\_\_\_)
- Mother
- Father
- Sibling(s)
- Academic professional/University employee (not the Title IX Coordinator of Office of Student Conduct)
- Title IX Coordinator
- Office of Student Conduct
- Hospital or Medical Professional
- Psychologist/Therapist/Counselor/Social Worker
- Other: \_\_\_\_\_
- I have not told anyone about the experience

15. Briefly describe the unwanted sexual experience in your own words, including any behaviors that the other individual(s) exhibited or your response to the other individual(s).

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For the following items, please rate your agreement with each statement on a 0 (*strongly disagree*) to 5 (*strongly agree*) scale.

16. I wish I could better remember the experience.

0 = Strongly Disagree  1  2  3  4  5 = Strongly Agree

17. I wish I did *not* remember the experience so vividly.

0 = Strongly Disagree  1  2  3  4  5 = Strongly Agree

18. I wish I had been more verbal/asked the other individual(s) to stop.

0 = Strongly Disagree     1             2             3             4             5 =  
Strongly Agree

19. I wish the other individual(s) had been more responsive to my actions.

0 = Strongly Disagree     1             2             3             4             5 =  
Strongly Agree

20. How many individuals perpetrated the unwanted sexual experience? \_\_\_\_\_

#### Participatory Distress Measure

21. How much did the previous questions about unwanted sexual experiences negatively impact your emotional state?

- 1 = Not at all
- 2
- 3
- 4
- 5
- 6 = Significant impact

22. Would you be willing to complete a similar study in the future?

- No
- Yes

23. Please briefly explain why you would or would not be willing to participate in a similar study in the future:

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Social Reactions Questionnaire-Shortened

<https://connect.springerpub.com/content/sgrvv/32/6/1096>

PCL-5

[https://www.ptsd.va.gov/professional/assessment/documents/PCL5\\_Standard\\_form.PDF](https://www.ptsd.va.gov/professional/assessment/documents/PCL5_Standard_form.PDF)

## Patient Health Questionnaire-9

[https://www.phqscreeners.com/images/sites/g/files/g10060481/f/201412/PHQ-9\\_English.pdf](https://www.phqscreeners.com/images/sites/g/files/g10060481/f/201412/PHQ-9_English.pdf)

Generalized Anxiety Disorder 7-item (GAD-7) scale

[https://www.phqscreeners.com/images/sites/g/files/g10060481/f/201412/GAD-7\\_English.pdf](https://www.phqscreeners.com/images/sites/g/files/g10060481/f/201412/GAD-7_English.pdf)

### History of Psychological Disorders Questionnaire

Has a health care professional (e.g., doctor, psychologist, psychiatrist, counselor, therapist) ever told you that you have a diagnosis of or provided treatment for any of the following conditions? (select all that apply)

- Anxiety
- Posttraumatic Stress Disorder (PTSD)
- Depression
- Substance Use Problems
- Other \_
- None of These

\*\*The following items will be administered to participants who selected any response other than “None of These” to the question above. The items will be administered for each diagnosis indicated.\*\*

How old were you when you first received a diagnosis of or treatment for [QUALTRICS WILL INSERT DIAGNOSIS SELECTED ABOVE]?

\_\_\_\_\_years

Did you first receive the diagnosis of or treatment for [QUALTRICS WILL INSERT DIAGNOSIS SELECTED ABOVE] before or after the unwanted sexual experience?

- Before
- After

Has a health care professional (e.g., doctor, psychologist, psychiatrist, counselor, therapist) ever told you that you have a diagnosis of or provided treatment for any of the following conditions? (select all that apply)

- Anxiety
- Posttraumatic Stress Disorder (PTSD)
- Depression
- Substance Use Problems
- Other \_
- None of These

How old were you when you first received a diagnosis of or treatment for [QUALTRICS WILL INSERT DIAGNOSIS SELECTED ABOVE]?

\_\_\_\_\_years

## REFERENCES

- Abelson, R. P. (1981). Psychological status of the script concept. *American Psychologist*, *36*(7), 715–729. doi:1037/0003-066X.36.7.715
- Ahrens, C. E., & Aldana, E. (2012). The ties that bind: understanding the impact of sexual assault disclosure on survivors' relationships with friends, family, and partners. *Journal of Trauma & Dissociation*, *13*, 226-243. doi: 10.1080/15299732.2012.642738
- Ahrens, C. E., Stansell, J., & Jennings, A. (2010). To tell or not to tell: The impact of disclosure on sexual assault survivors' recovery. *Violence and Victims*, *25*, 631-648. doi: 10.1891/0886-6708.25.5.631 doi: 10.1037/a0033376
- Arttime, T. M., McCallum, E. B., & Peterson, Z. D. (2014). Men's acknowledgment of their sexual victimization experiences. *Psychology of Men & Masculinity*, *15*(3), 313.
- Basile, K. C., Chen, J., Black, M. C., & Saltzman, L. E. (2007). Prevalence and characteristics of sexual violence victimization among US adults, 2001-2003. *Violence and Victims*, *22*, 437-448. doi: 10.1891/088667007781553955
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of general psychiatry*, *4*(6), 561-571. doi:10.1001/archpsyc.1961.01710120031004
- Becker, J. V., Skinner, L. J., Abel, G. G., Axelrod, R., & Treacy, E. C. (1984). Depressive symptoms associated with sexual assault. *Journal of Sex & Marital Therapy*, *10*, 185-192. doi: 10.1080/00926238408405944
- Beres, M. A. (2014). Rethinking the concept of consent for anti-sexual violence activism and education. *Feminism & Psychology*, *24*(3), 373-389. doi: 10.1177/0959353514539652
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., &

- Stevens, M. R. (2011). The national intimate partner and sexual violence survey: 2010 summary report. *Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 19, 39-40.*
- Bondurant, B. (2001). University women's acknowledgment of rape: Individual, situational, and social factors. *Violence Against Women, 7, 294-314.*  
doi:10.1177/1077801201007003004
- Borja, S. E., Callahan, J. L., & Long, P. J. (2006). Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress, 19, 905-914.* doi: 10.1002/jts.20169
- Botta, R. A., & Pingree, S. (1997). Interpersonal communication and rape: Women acknowledge their assaults. *Journal of Health Communication, 2, 197-212.* doi: 10.1080/108107397127752
- Boudreaux, E., Kilpatrick, G., Resnick, H. S., Best, C. L., & Saunders, B. E. (1998). Criminal victimization, posttraumatic stress disorder, and comorbid psychopathology among a community sample of women. *Journal of Traumatic Stress, 11, 665-678.* doi: 10.1023/A:1024437215004
- Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of general psychiatry, 48, 216-222.* doi:10.1001/archpsyc.1991.01810270028003
- Briere, J., & Jordan, C. E. (2004). Violence against women: Outcome complexity and implications for assessment and treatment. *Journal of Interpersonal Violence, 19, 1252-1276.* doi:10.1177/0886260504269682
- Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual

- assault on women's mental health. *Trauma, Violence, & Abuse, 10*, 225-246. doi:  
10.1177/1524838009334456
- Cleere, C., & Lynn, S. J. (2013). Acknowledged versus unacknowledged sexual assault among college women. *Journal of Interpersonal Violence, 28*, 2593-2611. doi:  
10.1177/0886260513479033
- Clements, C. M., & Ogle, R. L. (2009). Does acknowledgment as an assault victim impact postassault psychological symptoms and coping? *Journal of Interpersonal Violence, 24*, 1595-1614. doi: 10.1177/0886260509331486
- Cook, S. L., Gidycz, C. A., Koss, M. P., & Murphy, M. (2011). Emerging issues in the measurement of rape victimization. *Violence Against Women, 17*, 201-218. doi:  
10.1177/1077801210397741
- Crome, S. A., & McCabe, M. P. (2001). Adult rape scripting within a victimological perspective. *Aggression and Violent Behavior, 6*, 395-413. doi: 10.1016/S1359-1789(00)00013-
- Dworkin, E. R., Menon, S. V., Bystrynski, J., & Allen, N. E. (2017). Sexual assault victimization and psychopathology: A review and meta-analysis. *Clinical Psychology Review, 56*, 65-81. doi:10.1016/j.cpr.2017.06.002
- Edwards, K. M., & Ullman, S. E. (2018). Preliminary Data on an Intervention to Reduce Negative Social Reactions to Victims' Disclosures. *Journal of College Student Development, 59*(1), 105-110. doi:10.1353/csd.2018.0007.
- Eisenberg, D., Nicklett, E. J., Roeder, K., & Kirz, N. E. (2011). Eating disorder symptoms among college students: Prevalence, persistence, correlates, and treatment-seeking. *Journal of American College Health, 59*, 700-707. doi:

10.1080/07448481.2010.546461

- Feehan, M., Nada-Raja, S., Martin, J. A., & Langley, J. D. (2001). The prevalence and correlates of psychological distress following physical and sexual assault in a young adult cohort. *Violence and Victims, 16*(1), 49-63. doi: 10.1891/0886-6708.16.1.49
- Filipas, H. H., & Ullman, S. E. (2001). Social reactions to sexual assault victims from various support sources. *Violence and victims, 16*(6), 673.
- Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior, 30*, 6-38. doi: 10.1177/0093854802239161
- Fisher, B. S., Sloan, J. J., Cullen, F. T., & Lu, C. (1998). Crime in the ivory tower: The level and sources of student victimization. *Criminology, 36*(3), 671-710. doi: 10.1111/j.1745-9125.1998.tb01262.x
- Frank, E., Turner, S. M., & Duffy, B. (1979). Depressive symptoms in rape victims. *Journal of Affective Disorders, 1*, 269-277. doi: 10.1016/0165-0327(79)90013-2
- Gil-Rivas, V., Fiorentine, R., Anglin, M. D., & Taylor, E. (1997). Sexual and physical abuse: Do they compromise drug treatment outcomes? *Journal of Substance Abuse Treatment, 14*, 351-358. doi: 10.1016/S0740-5472(97)84631-4
- Gioia, D. A., & Manz, C. C. (1985). Linking cognition and behavior: A script processing interpretation of vicarious learning. *Academy of Management Review, 10*, 527-539. doi: 10.5465/amr.1985.4278987
- Golding, J. M., Siegel, J. M., Sorenson, S. B., Burnam, M. A., & Stein, J. A. (1989). Social support sources following sexual assault. *Journal of Community Psychology, 17*, 92-107. doi:10.1002/1520-6629(198901)17:1<92::AID-

- Hakimi, D., Bryant-Davis, T., Ullman, S. E., & Gobin, R. L. (2018). Relationship between negative social reactions to sexual assault disclosure and mental health outcomes of Black and White female survivors. *Psychological Trauma: Theory, Research, Practice, and Policy, 10*, 270-275. doi:10.1037/tra0000245
- Johnson, S. M., Murphy, M. J., & Gidycz, C. A. (2017). Reliability and validity of the sexual experiences survey—short forms victimization and perpetration. *Violence and Victims, 32*, 78-92. doi: 10.1891/0886-6708.VV-D-15-00110
- Jordan, C. E., Combs, J. L., & Smith, G. T. (2014). An exploration of sexual victimization and academic performance among college women. *Trauma, Violence, & Abuse, 15*, 191-200. doi: 10.1177/1524838014520637
- Kahn, A. S., Jackson, J., Kully, C., Badger, K., & Halvorsen, J. (2003). Calling it rape: Differences in experiences of women who do or do not label their sexual assault as rape. *Psychology of women quarterly, 27*(3), 233-242. doi: 10.1111/1471-6402.00103
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic in stress disorder the National Comorbidity Survey. *Archives of General Psychiatry, 52*, 1048-1060. doi: 10.1001/archpsyc.1995.03950240066012
- Kilpatrick, D. G., Edmunds, C. N., & Seymour, A. K. (1992). *Rape in America: A report to the nation*. Arlington, VA: National Victim Center.
- Kilpatrick, D. G., Resick, P. A., & Veronen, L. J. (1981). Effects of a rape experience: A longitudinal study. *Journal of Social Issues, 37*(4), 105-122. doi: 10.1111/j.1540-4560.1981.tb01073.x
- Kirkpatrick, C., & Kanin, E. (1957). Male sex aggression on a university campus. *American*

*Sociological Review*, 22, 52-58. doi: 10.2307/2088765

Krebs, C., Lindquist, C., Berzofsky, M., Shook-Sa, B., Peterson, K., Planty, M., ... Stroop, J.

(2016). Campus Climate Survey Validation Study: Final technical report.

Washington, DC: Bureau of Justice Statistics. Retrieved from

<https://www.bjs.gov/content/pub/pdf/ccsvsfr.pdf>

Krebs, C. P., Lindquist, C. H., Warner, T. D., Fisher, B. S., & Martin, S. L. (2007). The campus sexual assault (CSA) study: Final report. *Washington, DC: National Institute of Justice*. Retrieved from [www.ncjrs.gov/pdffiles1/nij/grants/221153.pdf](http://www.ncjrs.gov/pdffiles1/nij/grants/221153.pdf)

Kristiansen, C. M., & Giulietti, R. (1990). Perceptions of Wife Abuse: Effects of Gender, Attitudes toward Women, and Just-World Beliefs among College Students.

*Psychology of Women Quarterly*, 14(2), 177–189. <https://doi.org/10.1111/j.1471-6402.1990.tb00013.x>

Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, 32, 509-515. doi: 10.3928/0048-5713-20020901-06

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16, 606-613. doi: 0.1046/j.15251497.2001.016009606.x

Koss, M. P. (1985). The hidden rape victim: Personality, attitudinal, and situational characteristics. *Psychology of Women Quarterly*, 9, 193-212. doi: 10.1111/j.14716402.1985.tb00872.x

Koss, M. P. (2018). Hidden rape: Sexual aggression and victimization in a national sample of students in higher education. In *Rape and society* (pp. 35-49). New York, NY: Routledge.

Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., ... & White, J. (2007).

Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, *31*, 357-370. doi: 0.1111/j.1471- 6402.2007.00385.x

Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, *55*, 162-170. doi: 10.1037//0022-006X.55.2.162

Layman, M. J., Gidycz, C. A., & Lynn, S. J. (1996). Unacknowledged versus acknowledged rape victims: situational factors and posttraumatic stress. *Journal of Abnormal Psychology*, *105*, 124- 131. doi: 10.1037//0021-843X.105.1.124

Lerner, M. J., (1980). The belief in a just world. In *The Belief in a just World* (pp. 9-30). Boston, MA: Springer.

Littleton, H. L. (2010). The impact of social support and negative disclosure reactions on sexual assault victims: A cross-sectional and longitudinal investigation. *Journal of Trauma & Dissociation*, *11*, 210-227. doi:10.1080/15299730903502946

Littleton, H. L., Axsom, D., Breitkopf, C. R., & Berenson, A. (2006). Rape acknowledgment and postassault experiences: How acknowledgment status relates to disclosure, coping, worldview, and reactions received from others. *Violence and Victims*, *21*, 761-778. doi:10.1891/0886-6708.21.6.761

Littleton, H., Axsom, D., & Grills-Taquechel, A. (2009). Sexual assault victims' acknowledgment status and revictimization risk. *Psychology of Women Quarterly*, *33*, 34-42. doi: 10.1111/j.1471- 6402.2008.01472.x

- Littleton, H., Breitkopf, C. R., & Berenson, A. B. (2007). Rape scripts of low-income European American and Latina women. *Sex Roles, 56*(7-8), 509-516. doi: 10.1007/s11199-007-9189-1
- Littleton, H., & Henderson, C. E. (2009). If she is not a victim, does that mean she was not traumatized? Evaluation of predictors of PTSD symptomatology among college rape victims. *Violence Against Women, 15*, 148-167. doi: 10.1177/1077801208329386
- Lorenz, K., Ullman, S. E., Kirkner, A., Mandala, R., Vasquez, A. L., & Sigurvinsdottir, R. (2018). Social reactions to sexual assault disclosure: A qualitative study of informal support dyads. *Violence against women, 24*(12), 1497-1520. Doi: 0.1177/1077801217732428
- Martin, P. Y., & Powell, R. M. (1994). Accounting for the “second assault”: Legal of rape organizations’ framing victims. *Law & Social Inquiry, 19*, 853-890. doi: 10.1111/j.17474469.1994.tb00942.x
- Martin, S. L., Macy, R. J., & Young, S. K. (2011). Health and economic consequences of sexual violence. In J. W. White, M. P. Koss, & A. E. Kazdin (Eds.), (*Violence against women and children, Vol. 1. Mapping the terrain pp. 173-195*). Washington, DC, US: American Psychological Association.
- Marx, B. P., & Soler-Baillo, J. M. (2005). The relationships among risk recognition, autonomic and self-reported arousal, and posttraumatic stress symptomatology in acknowledged and unacknowledged victims of sexual assault. *Psychosomatic Medicine, 67*, 618-624. doi: 10.1097/01.psy.0000171809.12117.79
- Muehlenhard, C. L., Humphreys, T. P., Jozkowski, K. N., & Peterson, Z. D. (2016). The complexities of sexual consent among college students: A conceptual and empirical

- review. *The Journal of Sex Research*, 53(4-5), 457-487. doi:  
10.1080/00224499.2016.1146651
- Muthen, L. K., & Muthen, B. O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthen & Muthen
- Neville, H. A., & Heppner, M. J. (1999). Contextualizing rape: Reviewing sequelae and proposing a culturally inclusive ecological model of sexual assault recovery. *Applied and Preventive Psychology*, 8, 41-62. doi:10.1016/S0962-1849(99)80010-9
- Orchowski, L. M., & Gidycz, C. A. (2012). To whom do college women confide following sexual assault? A prospective study of predictors of sexual assault disclosure and social reactions. *Violence Against Women*, 18, 264-288. doi:0.1177/1077801212442917
- Orchowski, L. M., & Gidycz, C. A. (2015). Psychological consequences associated with positive and negative responses to disclosure of sexual assault among college women: A prospective study. *Violence Against Women*, 21, 803-823. doi:10.1177/1077801215584068
- Orchowski, L. M., Untied, A. S., & Gidycz, C. A. (2013). Social reactions to disclosure of sexual victimization and adjustment among survivors of sexual assault. *Journal of Interpersonal Violence*, 28, 2005-2023. doi:10.1177/0886260512471085
- Pegram, S. E., & Abbey, A. (2016). Associations between sexual assault severity and psychological and physical health outcomes: Similarities and differences among African American and Caucasian survivors. *Journal of Interpersonal Violence*, 1-21. Published online before print. doi:10.1177/0886260516673626

- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401. doi: 10.1177/014662167700100306
- Relyea, M., & Ullman, S. E. (2015). Unsupported or turned against: Understanding how two types of negative social reactions to sexual assault relate to postassault outcomes. *Psychology of Women Quarterly, 39*, 37-52. doi:10.1177/0361684313512610
- Resick, P. A., Monson, C. M., & Chard, K. M. (2017). *Cognitive processing therapy for PTSD: A comprehensive manual*. Guilford Publications.
- Rosenthal, M. Z., Hall, M. L. R., Palm, K. M., Batten, S. V., & Follette, V. M. (2005). Chronic avoidance helps explain the relationship between severity of childhood sexual abuse and psychological distress in adulthood. *Journal of Child Sexual Abuse, 14*(4), 25-41. doi: 10.1300/J070v14n04\_02
- Rothbaum, B. O., Foa, E. B., Riggs, D. S., Murdock, T., & Walsh, W. (1992). A prospective examination of post-traumatic stress disorder in rape victims. *Journal of Traumatic Stress, 5*, 455-475. doi:10.1002/jts.2490050309
- Ruggiero, K. J., Del Ben, K., Scotti, J. R., & Rabalais, A. E. (2003). Psychometric properties of the PTSD Checklist—Civilian version. *Journal of Traumatic Stress, 16*, 495-502. doi:10.1023/A:1025714729117
- Sigurvinsdottir, R., & Ullman, S. E. (2015). The role of sexual orientation in the victimization and recovery of sexual assault survivors. *Violence and Victims, 30*(4), 636-648. doi: 10.1891/0886-6708.VV-D-13-00066
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine, 166*, 1092-

1097. doi:10.1001/archinte.166.10.1092

- Starzynski, L. L., Ullman, S. E., Filipas, H. H., & Townsend, S. M. (2005). Correlates of women's sexual assault disclosure to informal and formal support sources. *Violence and Victims, 20*, 417-432. doi:10.1891/088667005780927593
- Struckman-Johnson, C., & Struckman-Johnson, D. (1992). Acceptance of male rape myths among college men and women. *Sex Roles, 27*(3-4), 85-100. doi: 10.1007/BF00290011
- Symonds, M. (1980). The "second injury" to victims. *Evaluation and change, 7*(1), 36-38.
- Tjaden, P., & Thoennes, N. (2006). *Extent, nature, and consequences of rape victimization: Finding from the National Violence Against Women Survey*. Retrieved from <https://www.ncjrs.gov/pdffiles1/nij/210346.pdf>
- Ullman, S. E. (1996a). Social reactions, coping strategies, and self-blame attributions in adjustment to sexual assault. *Psychology of Women Quarterly, 20*, 505-526. doi: 10.1111/j.1471-6402.1996.tb00319.x
- Ullman, S. E. (1996b). Correlates and consequences of adult sexual assault disclosure. *Journal of interpersonal violence, 11*(4), 554-571. doi: 10.1177/088626096011004007
- Ullman, S. E. (1999). Social support and recovery from sexual assault: A review. *Aggression and Violent Behavior, 4*, 343-358. doi: 10.1016/S1359-1789(98)00006-8
- Ullman, S. E. (2000). Psychometric characteristics of the Social Reactions Questionnaire: A measure of reactions to sexual assault victims. *Psychology of Women Quarterly, 24*, 257-271. doi: 10.1111/j.1471-6402.2000.tb00208.x
- Ullman, S. E. (2010). *Talking about sexual assault: Society's response to survivors*. American Psychological Association.

- Ullman, S. E., & Filipas, H. H. (2001). Predictors of PTSD symptom severity and social reactions in sexual assault victims. *Journal of Traumatic Stress, 14*, 369-389. doi: 10.1023/A:1011125220522
- Ullman, S. E., & Filipas, H. H. (2005). Gender differences in social reactions to abuse disclosures, post-abuse coping, and PTSD of child sexual abuse survivors. *Child abuse & neglect, 29*(7), 767-782. doi: 10.1016/j.chiabu.2005.01.005
- Ullman, S. E., Filipas, H. H., Townsend, S. M., & Starzynski, L. L. (2007). Psychosocial correlates of PTSD symptom severity in sexual assault survivors. *Journal of Traumatic Stress, 20*, 821-831. doi:10.1002/jts.20290
- Ullman, S. E., Karabatsos, G., & Koss, M. P. (1999). Alcohol and sexual assault in a national sample of college women. *Journal of interpersonal violence, 14*(6), 603-625. doi: 10.1177/088626099014006003
- Ullman, S. E., & Peter-Hagene, L. (2014). Social reactions to sexual assault disclosure, coping, perceived control, and PTSD symptoms in sexual assault victims. *Journal of Community Psychology, 42*, 495-508. doi: 10.1002/jcop.21624
- Ullman, S. E., Relyea, M., Sigurvinsdottir, R., & Bennett, S. (2017). A short measure of social reactions to sexual assault: the social reactions questionnaire-shortened. *Violence and Victims, 32*, 1096- 1115. doi: 10.1891/0886-6708.VV-D-16-00066
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD Checklist for DSM-5 (PCL-5)*. Scale available from the National Center for PTSD at [www.ptsd.va.gov](http://www.ptsd.va.gov)
- Wilson, L. C., & Miller, K. E. (2016). Meta-analysis of the prevalence of unacknowledged rape. *Trauma, Violence, & Abuse, 17*, 149-159. doi: 10.1177/1524838015576391

- Wilson, L. C., Miller, K. E., Leheney, E. K., Ballman, A. D., & Scarpa, A. (2017). Examining the psychological effect of rape acknowledgment: the interaction of acknowledgment status and ambivalent sexism. *Journal of Clinical Psychology, 73*, 864-878. doi: 10.1002/jclp.22379
- Winfield, I., George, L. K., Swartz, M., & Blazer, D. G. (1990). Sexual assault and psychiatric disorders among a community sample of women. *American Journal of Psychiatry, 147*, 335-341. doi: 10.1176/ajp.147.3.335
- Yates, S., Axom, D., & Tiedeman, K. (1999). The help-seeking process for distress after disasters. In R. Gist & B. Lubin (Eds.), *Response to disaster: Psychosocial, community, and ecological approaches* (pp. 133–165). Philadelphia: Brunner/ Mazel.