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COMPARING SELF-EFFICACY, POSTTRAUMATIC STRESS DISORDER, AND
COPING IN WOMEN WITH AND WITHOUT A SEXUAL ASSAULT HISTORY
ENROLLED IN SELF-DEFENSE CLASSES

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Bachelor of Science in Psychology

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ABSTRACT

Women attend self-defense courses for a variety of different reasons. These courses have many benefits for women, specifically survivors of sexual assault. Regardless of when the course is taken, pre- or post-assault, female sexual assault survivors experience increases in self-efficacy and decreases in posttraumatic stress symptoms. The current study evaluated the difference in self-efficacy, posttraumatic stress disorder (PTSD), and coping responses in women who attend self-defense courses. While no significant difference existed between survivors of sexual assault and unwanted sexual contact and women without sexual victimization history in self-efficacy and PTSD, a few significant differences emerged in coping responses. Results suggest that female survivors of sexual assault and of unwanted sexual contact cope differently than women without a history of sexual assault or unwanted contact who seek out self-defense classes.

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CHAPTER I

INTRODUCTION

“A significant part of the female victim's experience of rape is the constitutive element. That is, rape is an instance in which discourses of power produce the feminine body as violable and weak...Thus, when women's bodies are defined as a powerful force of counteracting violence, the very power structures that support rape will be crippled” (Henderson, 2007).

Someone in the United States is sexually assaulted on average every two minutes (U.S. Department of Justice). Survivors of sexual assault are four times more likely to contemplate suicide, six times more likely to suffer from posttraumatic stress disorder (PTSD), and 26 times more likely to abuse drugs (World Health Organization, 2002). Given the prevalence and consequences of sexual assault, much research has been dedicated to reducing the incidence of sexual assault and minimizing the negative after-effects for those who are assaulted. Research has shown that survivors of sexual assault are better adjusted when they perceive a sense of control over their own recovery. As perceived control over recovery increases, symptoms of PTSD, depression, anxiety, and general distress tend to decrease (Frazier, 2003; Frazier, Steward, & Mortensen, 2004; Ullman, Filipas, Townsend, & Starzynski, 2007). As one potential way for an individual

to increase their perceived control, self-defense courses have been shown to yield very positive benefits for women in general, especially survivors of sexual assault. Women choose to attend self-defense programs for a plethora of reasons, and whether the training was received before the assault or after the assault, most women seem to experience positive psychological outcomes as a result of their training (Brecklin & Ullman, 2004; Gidycz, Rich, Orchowski, King, & Miller, 2006; Orchowski, Gidycz, & Raffle, 2008).

1.1 Self-Defense Strategies

Certain self-defense strategies (both formal and naturalistic) have been found to help stop a completed rape from occurring (Brecklin & Ullman, 2005; Quinsey & Upfold, 1985; Zoucha-Jensen & Coyne, 1993; Kleck & Sayles, 1990; Ullman, 1997; Guerette & Santana, 2010). While ample research has been dedicated to the impact that self-defense training has on both women with and without sexual assault history, not much research has examined the differences of these two groups before they begin the course. It is important to understand where women are at baseline, before the intervention, in order to understand fully the impact of the self-defense training. Moreover, examining the differences in women who seek self-defense training gives insight into the type of women who attend these courses compared to women who do not. By understanding these differences, future research can focus on how to convince more women to take such extremely beneficial training. It is important to note that while both men and women are sexually assaulted, women are sexually assaulted more often (one [1] out of every six [6] women and one [1] out of every 33 men) and will thus be the

focus of this paper (National Institute of Justice and Centers for Disease Control and Prevention, 1998).

Women often employ naturalistic self-defense strategies during a sexual assault, with mixed results. These strategies can be categorized into four types: forceful physical resistance (e.g. kicking, hitting), forceful verbal resistance (e.g. screaming, threatening), nonforceful physical resistance (e.g. fleeing, blocking behaviors), and nonforceful verbal resistance (e.g. crying, pleading, begging). Forceful physical resistance has found to be the most successful technique (Atkenson, Calhoun, & Morris, 1989; Kleck & Sayles, 1990; Quinsey & Upfold, 1985; Zoucha-Jenson & Coyne, 1993). Nonforceful verbal resistance is used most often by women (57% of the sample), yet is very unsuccessful in deterring or otherwise stopping the assault in both physically violent and nonviolent offenders (Ullman & Knight, 1995). Women use this strategy most often perhaps because of gender socialization, as women are taught to be passive and nonviolent. Research has shown that this strategy is the only one which does not reduce the rates of completed rape, while the other three have some success (Ullman, 2007). Police reports of 150 sexual assaults reveal that nonforceful verbal resistance was negatively correlated with rape avoidance and physical resistance was positively correlated with rape avoidance—it was not specified whether the physical resistance was forceful or nonforceful (Zoucha-Jenson & Coyne, 1993). Women who use nonforceful verbal resistance almost always experience a completed rape (Brecklin & Ullman, 2005; Quinsey & Upfold, 1985; Zoucha-Jensen & Coyne, 1993), indicating that rapists are typically not deterred by these passive strategies and must be confronted physically.

1.2 Why Women Take Self-Defense Classes

There are a number of reasons why women attend self-defense programs. Hollander (2010) asked 292 women to identify the reasons they took a University self-defense class. The most common answer was because of the reputation of the course. Over 70% of the participants indicated that they had heard through friends and acquaintances that the class was a very positive experience. The next most common cluster of responses related to self-efficacy and empowerment, with 63% of participants indicating simply that they wanted to learn how to defend themselves physically, 54% indicating that they wanted to become more assertive or self-confident, and 49% indicating that they wanted to learn how to defend themselves verbally. The third cluster of responses was related to the fear of violence. 75% of the participants indicated that they had experienced some form of sexual victimization, though 9% reported taking the class because they knew someone who had been assaulted, 21% had heard stories of attacks, and 18% were fearful (Hollander, 2010). Brecklin and Ullman (2004) found that self-defense participants who enrolled in postassault training reported more often than nonparticipants that their attempted resistance pretraining either made the offender more aggressive or had no impact. Self-defense training participants were more likely to have experienced more physically and verbally violent assaults than nonparticipants, suggesting that more severe attacks may lead women to seek self-defense training (Brecklin & Ullman, 2004). Because women with greater past victimization severity are at an increased risk for a future victimization, it is important for women with more severe victimization history to seek this type of training (Gidycz, Hanson, & Layman, 1995).

1.3 Self-Defense Benefits

Regardless of the reason it is sought, studies suggest that self-defense is very beneficial for women. These benefits extend even further than simply just efficacy beliefs about self-defense (Weitlauf, Smith, & Cervone, 2000). Women enrolled in a self-defense course were asked to take surveys before and after their ten-week training to assess for changes in their experiences, fears and perceptions of violence, use of safety strategies, perceptions of their bodies, and beliefs about gender. Following the completion of the course, women reported greater self-confidence, more comfort in interactions with strangers, acquaintances, and intimates, more positive image of their body, greater confidence in their ability to detect and act effectively in a dangerous situation, and overall transformed beliefs about men, women, and gender (Hollander, 2004). Similarly, women who received 12 hours of self-defense training reported perceiving themselves as more capable of detecting and reacting to danger, more able to control their emotions during a dangerous situation, and more able to discourage or even escape from an assault using the physical defensive techniques they learned (Weitlauf et al., 2000). When compared to a control group who did not attend a self-defense class, women who had taken the course experienced increases in self-efficacy related to general coping, self-regulatory skills, sport-specific physical competencies, and assertiveness during interpersonal interactions (Weitlauf, Cervone, Smith, & Wright, 2001).

Not only is self-defense training effective for women in general, consistent research indicates that it leads to more positive psychological outcomes for survivors of sexual assault. Women who attended preassault self-defense training report feeling more assertive and less anxious, fearful, helpless, and engaged in fewer avoidant behaviors

following an assault (Brecklin, 2008). They also report increased sense of self-worth and empowerment, as well as feeling greater efficacy in controlling a potential future assault (Brecklin & Ullman, 2004). Women who were moderately victimized during a 2-month follow-up following a self-defense program experienced increases in self-efficacy over time. Those who did not attend the self-defense program and were moderately victimized experienced gradual decreases in self-efficacy (Orchowski et al., 2008). Research has also indicated that self-defense training can have positive psychological outcomes for women when received after an assault. Sexual assault survivors who enrolled in postassault training reported somewhat decreased levels of anxiety compared to survivors who did not enroll in postassault training (Brecklin & Ullman, 2004). This particular study found that there were higher rates of suicidal ideation in the training group than in the control group, but this may be because survivors are more likely to enroll in postassault self-defense training if they experienced more severe assaults. Additionally, women in the training group were more likely to label their experiences as sexual assault, though it is possible that this may be because those who label their trauma as a sexual assault may be more likely to seek treatment than those who do not (Brecklin & Ullman, 2004). The positive outcomes of self-defense training, regardless of if it is pre- or post-assault, counter the effects of completed rape, which often include poorer mental health, increased anxiety, higher rates of suicidal ideation and attempts, and poorer physical health (Ullman, 2007).

1.4 Deterrence of Assault

It is unclear whether formal self-defense training has a deterrent effect on the incidence of sexual assault and rape. One study yielded insignificant results of rape deterrence given the small sample size of those who were attacked during the follow-up periods, though it was found that those who had attended the program were better able to detect and label experiences as sexual assault than those who did not (Gidycz et al., 2006). Others have found that using resistance strategies (physical and verbal) caused the offender to become less aggressive or stop altogether in about half of those surveyed, an effect reported much more often with women who had received preassault training (Brecklin & Ullman, 2005; Quinsey & Upfold, 1985). Furthermore, rapes which occurred indoors, involved weapons, and involved acquaintances were more likely to be completed (Quinsey & Upfold, 1985). In general, it seems that programs which focus on situational factors and employ psychosocial education have not been shown to reduce the completion of sexual assaults whereas programs which focus on women's fears and resistance strategy training (especially forceful physical resistance) have been shown to reduce the incidence of completed rape (Gidycz et al., 2006; Brecklin & Ullman, 2005; Furby, Fischhoff, & Morgan, 1989). These results suggest that the most successful training for women involves teaching them to use physical resistance strategies, reduce their fear, and increase their anger during attacks. Interestingly enough, however, there does not seem to be a difference in the utilization of resistance strategies by women enrolled in self-defense classes and those who were not (Brecklin & Ullman, 2004). It is important to prevent completed rapes, not simply because of the physical injuries involved in the assault, but because completed rapes lead to more serious psychological

outcomes for the survivor than successfully resisted rapes (Brecklin & Ullman, 2005; Fisher, Daigle, & Cullen, 2008).

1.5 Victim Blaming

Despite the overwhelming empirical support, many people are apprehensive about self-defense training for women. Specifically, there has been much resistance from those who are concerned with victim-blaming. There is a fear that too much self-defense advocacy would lead to survivor guilt, such that a survivor who did not pursue training may blame herself for the assault because she had chosen not to receive self-defense training. From a societal standpoint, it may put the sole responsibility of preventing rape onto the woman rather than making it the man's responsibility to avoid raping. Victim blaming is a prevailing problem in the United States, insidiously working its way into the legal system and public eye. If there is a presupposition that the woman must prevent the rape herself, the public may blame the survivor for not fighting back (Henderson, 2007). When juror perceptions of rape victim responsibility were studied, a great emphasis was found to be placed on whether or not the victim physically resisted to the rape. Whereas male jurors were more likely to suggest lighter sentencing for the rapists when the victim was passive rather than resisting, female jurors suggested harsher sentencing for the rapists when the victim was passive rather than when she resisted the assault (Scroggs, 1976). Males attributed greater fault to the passive rape victim and females attributed greater fault to the resistant rape victim. These gender differences are likely a product of socialization, as men are socialized to be assertive and physical and women are socialized to be passive. Both genders recognize situations as sexual assault more often when the

victim resisted, however, and attributed less responsibility to the victim when the rape was not completed (Krulowitz & Nash, 1979). Essentially, regardless of the gender of the outsider, there is a clear bias against the victim based upon whether or not she chose to fight back.

Self-defense training is a very effective combatant against many of the negative psychological effects of sexual assault and even subsequent victim blaming. What is unclear, to date, is whether women with a history of sexual assault who seek self-defense training differ in important ways from women who seek self-defense training without any history of sexual assault. This information is essential for self-defense programs geared towards women that may need to be modified to best accommodate both women with and without a history of sexual violence.

1.6 Posttraumatic Stress Disorder

PTSD is a major concern for traumatized populations, specifically for survivors of sexual assault. The Diagnostic and Statistical Manual of Mental Disorders estimates that 8% of the general population will suffer from PTSD at some point in their lifetime (American Psychiatric Association, 2000). The type of trauma was found to be the greatest risk factor for developing PTSD, with rape being the greatest predictor for women and combat exposure being the greatest predictor for men (Bromet, Sonnega, & Kessler, 1998). Gender is also a risk factor, as women exposed to any trauma are more likely to develop PTSD than men exposed to any trauma (Kessler et al., 1995). A national probability sample found that 31% of female rape victims developed PTSD during their lifetime, compared to only 5% of women who were not victims of crime at

any point in their life (Kilpatrick, Edmunds, & Seymour, 1992). Survivors of sexual assault experience much slower rates of recovery (i.e. reduction of PTSD symptoms) than survivors non-sexual assaults (Gilboa-Schechtman & Foa, 2001). Survivors of trauma are at risk for developing PTSD both because of the trauma itself and also because of risk factors following the trauma. More specifically, PTSD is correlated with attributions of self-blame (Frazier, 2003; Koss, Figueredo, & Prince, 2002; Ullman, 1997) and avoidance coping (Cohen & Roth, 1987; Santello & Leitenberg, 1993; Valentiner, Riggs, Foa, & Gershuny, 1996) in survivors of sexual assault. This indicates that the way in which the survivor views and copes with her trauma has very critical consequences on her recovery.

1.7 Coping Responses in Survivors

Maladaptive coping strategies in sexual assault survivors are predictive of more severe PTSD symptoms (Arata, 1999; Frazier & Burnett, 1994; Frazier, Mortenson, & Steward, 2005; Gutner, Rizvi, Monson, & Resick, 2006; Santello & Leitenberg, 1993; Ullman, 1996; Ullman, Townsend, Filipas, & Starzynski, 2007; Valentiner et al., 1996). Coping theory holds that when stressors are perceived as controllable, the individual uses more approach-coping and less avoidance-coping, leading to higher levels of psychological adjustment (Valentiner, Holahan, & Moos, 1994). Coping responses are not only influenced by the appraised controllability of stressful events (Folkman & Moskowitz, 2000) but are also mediators between perceived controllability and the subsequent adjustment to stressful events (Folkman, Chesney, Pollack, & Coates, 1993; Jensen & Karoly, 1991; Macrodimitris & Endler, 2001).

Self-blame in the wake of a sexual assault is associated with more severe PTSD symptoms (Koss et al., 2002). Specifically when self-blame is attributed to one's own character, maladaptive beliefs are formed (i.e. "I am to blame for my assault") which increase PTSD severity and make them less likely to recover (Koss et al., 2002). Though some theorists have argued that behavioral self-blame is adaptive in that it provides a sense of control for avoiding future assaults (Janoff-Bulman, 1979), research has consistently shown that self-blame is associated with more distress in both survivors of sexual assault (e.g., Arata, 1999; Frazier, 1990, 2000, 2003; Frazier & Schauben, 1994; Meyer & Taylor, 1986) as well as other traumatic events (e.g., Downey, Silver, & Wortman, 1990; Glinder & Compas, 1999). Behavioral self-blame is also associated with self-destructive (i.e. drinking) and avoidant (i.e. excessive sleeping) behaviors (Arata, 1999; Frazier et al., 2005). Moreover, behavioral self-blame has no relation to perceived future control amongst survivors of sexual assault (Frazier, 1990, 2000; Frazier & Schauben, 1994).

Self-blame, as a coping mechanism, is important to assess among self-defense training attendees because it is correlated with greater feelings of powerlessness, decreased assertive resistance, and greater instances of immobility during the assault (Nurius, Norris, Macy, & Huang, 2004). Research has yielded mixed results regarding the amount of self-blame experienced by women with preassault self-defense training compared to women with no preassault self-defense training. One study found that at the 3-month and 6-month follow up assessments, women who attended a pre-assault self-defense/risk-reduction program experienced significantly less self-blame and greater offender blame than the control group (Gidycz et al., 2006). Similarly, women that were assaulted during

the 4-month follow-up after attending a risk reduction program reported feeling the same amount of blame towards the self, the rapist, and society as the women who did not take the program and were assaulted during the follow-up. These results are significant, as they demonstrate that self-defense training does not cause the survivor to feel as though she should have been able to defend herself (Orchowski et al., 2008). However, other studies have found the opposite, as one study found that survivors of sexual assault who had received preassault training felt greater responsibility for their assaults, which may be a result of their feeling as though they should have perceived more accurately the situation as being dangerous or risky (Brecklin & Ullman, 2005). The victimized women also reported feeling less fearful and more angry during the assault, but felt a lesser degree of nonconsent than those without the training (Brecklin & Ullman, 2005). These results seem counterintuitive, as past research has indicated that women who were angry during their assault were less likely to experience self-blame (Nurius, Norris, Young, Graham, & Gaylord, 2000). Self-defense classes stress the importance of controlling one's emotions in order to more effectively fend off an attacker, and a woman who feels angry rather than fearful during an assault may be more likely to fight back. One potential reason for this illogical discord may be the slight difference in the definitions of self-blame and responsibility. Blame may be perceived as a moral wrongdoing while responsibility attribution may be associated more with the survivor's perceptions of her ability to control future events (Krulowitz & Nash, 1979).

Avoidance coping, or coping by way of avoiding a stressor and reminders of the stressor, appears to be an adaptive strategy in dealing with trauma in the immediate aftermath. Specifically, it allows the victim to navigate the crisis period in a simpler and

more narrow way. However, this type of coping actually leads to greater psychological maladjustment in the long term. By avoiding dealing with the trauma, a victim cannot process, acknowledge, and work through the thoughts and feelings associated with it (Resick & Schnicke, 1993). Avoidance strategies such as withdrawal, behavior disengagement, and denial are all strongly correlated with poorer psychological outcomes for victims of rape, particularly pertaining to symptoms of PTSD (Cohen & Roth, 1987; Frazier et al., 2005; Santello & Leitenberg, 1993; Ullman, 1996; Valentiner et al., 1996). Perceived control over the recovery process is positively correlated with cognitive restructuring and expressing emotions, and negatively correlated with social withdrawal and problem avoidance (Frazier et al., 2005). A structural equation modeling analysis involving community-residing women revealed that negative social reactions were associated with more avoidance coping, self-blame, and PTSD symptoms. More severe assaults were associated with more negative social reactions, less self-blame, and more PTSD symptoms. Greater dependence on avoidance coping was associated with more PTSD symptoms. The authors suggest a potential causal relationship, with negative reactions leading to more avoidance coping which then leads to more negative reactions in subsequent disclosures (Ullman et al., 2007). This would be in keeping with previous research indicating that victims are not only blamed for their assaults but also for coping poorly (Silver, Wortman, & Crofton, 1990; Winkel & Koppelaar, 1991).

Substance abuse is another common coping response in trauma survivors. Data collected from an epidemiological survey of non-institutionalized individuals in the United States found that 21.4% of those who met criteria for PTSD engaged in self-medication behavior, with 14.4% abusing alcohol and 7% abusing other drugs.

Substance abuse in this population was associated with significantly lower mental health-related quality of life (Leeies, Pagura, Sareen, & Bolton, 2010). Alcohol abuse is also a significant correlate of PTSD in rape survivors (Acierno et al., 1999). A study looking at the association between traumatic life events and substance abuse found that 1,419 of those surveyed (11.1%) experienced sexual assault, molestation, rape, or unwanted sexual advances and met criteria for a substance abuse disorder. In those with the aforementioned sexual victimization history, 9.2% had substance abuse but no PTSD while 33% had both substance abuse and PTSD. Assaultive violence, along with childhood mistreatment, were the only experiences predictive of substance abuse disorders in both people who did and did not meet criteria for PTSD (Fetzner et al., 2011).

Religious coping has been well documented as bring about very positive mental health outcomes (Ano & Vasconcelles, 2005; Harrison et al., 2001; Pargament, 1997). A recent poll found that 95% of Americans believe in God and 87% consider religion to be an important aspect of their lives (Gallup, 2002), and with so many Americans being affected by sexual assault it can be assumed that many survivors turn to religion to cope. Religious coping is generally divided into two categories: positive religious coping and negative religious coping (Pargament, Smith, Koenig, & Perez, 1998). Positive religious coping includes finding meaning in life and feeling spiritually connected to others and to God, and negative religious coping includes religious struggle and disconnection, such as questioning the existence and benevolence of God (Pargament, Tarakeshwar, Ellison, & Wulff, 2001). A positive relationship exists between positive religious coping and stress-related growth by way of changes in perceptions or behaviors (Pargament et al., 1998;

Park & Cohen, 1993; Shaw, Joseph, & Linley, 2005). This type of coping also leads to more positive adjustment in emotional well-being, life satisfaction, personal growth, and mental health. Negative religious coping, however, is associated with more negative psychological adjustment (Ano & Vasconcelles, 2005). Sexual assault can lead to a number of changes in religious coping, ranging from questioning one's faith or denouncing religion altogether (Ryan, 1998), to experiencing increases in spirituality and reliance upon positive religious coping (Kennedy, Davis, & Taylor, 1998). The latter is especially true in African Americans, as 71% of African Americans in a sample experienced increases in spirituality after an assault compared to only 38% of Caucasians (Kennedy et al., 1998). Interestingly, however, a separate study found that African American survivors did not seem to benefit more from religious coping, in spite of it being a preferred coping response (Ahrens, Abeling, Ahmad, & Hinman, 2010). On the contrary, Caucasians who engaged in religious coping experienced greater relief from posttraumatic stress symptoms. A main effect existed for all ethnicities, however, such that positive religious coping lead to higher levels of psychological well-being and lower levels of depression, and negative religious coping lead to higher levels of depression. Many sexual assault survivors engaged in negative religious coping, with 80% reporting religious avoidance, 70% using pleading/making bargains with God, and 50% experiencing religious discontent as a result of the sexual assault (Ahrens et al., 2010).

1.8 Self-Efficacy as an Expression of Control

Self-efficacy is defined as the belief that one has the ability to manage one's personal functioning and environmental demands, which works to regulate cognitive,

motivational, affective, and decisional functioning (Benight & Bandura, 2004).

Individuals with high self-efficacy feel confident in their level of control over threats, whereas individuals with low self-efficacy tend to view potential threats as unmanageable and dwell on their coping deficiencies. In doing so, these individuals are more distressed and are less able to function effectively (Bandura, 1997; Jurusalem & Mittag, 1995; Lazarus & Folkman, 1984). Control beliefs (i.e. one's personal capability to manage aversive events) are a significant predictor of enduring posttraumatic stress, even after the effect of assault severity was controlled for (Kushner, Riggs, Foa, & Miller, 1993). Self-efficacy was also found to be a predictor of posttraumatic stress in victims of childhood sexual abuse (Benight & Lehman, 2002). Self-efficacy appears to be a crucial aspect in combatting posttraumatic stress reactions. Because much of a rape victim's experience centers on the loss of control, it makes sense that self-defense programs which highlight self-efficacy would be appealing to many women.

1.9 Hypotheses

While the notion that self-defense training helps deter future completed rapes remains debatable (Gidycz et al., 2006; Brecklin & Ullman, 2005; Quinsey & Upfold, 1985), previous research is virtually unanimous that it can have very beneficial psychological outcomes for women. Improved coping skills, self-regulatory skills (Weitlauf et al., 2001) self-confidence, body image, comfort with interpersonal interactions, self-defense self-efficacy, and transformed ideas about gender are common effects of self-defense training (Hollander, 2004). Moreover, feelings of self-efficacy extend beyond just the self-defense realm, providing valid evidence that self-defense training is a multifaceted

benefit for women (Weitlauf et al., 2000; Weitlauf et al., 2001). If self-defense training can lead to less PTSD symptoms, greater feelings of self-efficacy, and healthier coping behaviors in daily life for female survivors of sexual assault, this type of training should be greatly encouraged for this population. In the current study, the constructs of self-defense self-efficacy, PTSD symptoms, and coping were assessed in participants enrolled in self-defense courses throughout the country. These constructs were examined at Time 1, before the participants attended the first class, in order to see the differences at baseline in self-efficacy, PTSD, and coping responses in survivors of sexual assault and unwanted sexual contact and women without a history of sexual victimization. By understanding where both groups are at baseline, future research can not only focus on better understanding the impact self-defense training has for each group, but we may be able to create profiles of the types of women that seek self-defense courses, and thereby better design and disseminate training to those who may benefit most. Therefore, the current study will examine the following hypotheses:

- H1: Survivors of sexual assault and unwanted sexual contact enrolled in a self-defense course will report significantly lower self-efficacy than women with no history of sexual victimization.
- H2: Survivors of sexual assault and unwanted sexual contact enrolled in a self-defense course will report significantly higher PTSD symptoms than women with no history of sexual victimization
- H3: Survivors of sexual assault or unwanted sexual contact and women with no history of sexual victimization enrolled in a self-defense course will report significant differences in coping strategies.

H3a: Survivors will report significantly greater incidence of substance use, behavioral disengagement, and self-blame than women with no history of sexual victimization.

CHAPTER II

METHOD

2.1 Participants

Forty one women were recruited from Rape Aggression Defense (R.A.D.) programs throughout the country. Adult women age 18 or older enrolled in the RAD course were permitted take the survey. R.A.D. instructors volunteered on a class-by-class basis to distribute the survey to the participants. Participants who decided to take the survey could choose to enter into a drawing to win one of ten (10) \$25 gift cards to Amazon.com

2.2 Procedure

The participants were asked to take an online survey before the first R.A.D. course. The Rape Aggression Defense System, founded in 1989, is a comprehensive course that provides information to women regarding awareness, prevention, risk reduction and risk avoidance. The course also features hands-on defense training which simulates assault scenarios using protective gear. R.A.D. operates on the theory that when students are able to employ the skills they have learned during stressful multiple-aggressor simulations, they are able to hone their confidence in their decision-making abilities, physical abilities, and safety awareness (Rape Aggression Defense Systems, Inc., 2006).

2.3 Measures

The survey was posted on a website, surveymonkey.com, and included the following measures: The Self-Defense Self-Efficacy Scale (Ozer & Bandura, 1990), The National Violence Against Women Survey (NVAWS; Tjaden & Thoennes, 1998), PTSD Symptom Scale: Self-Report Version (PSS-SR; Foa, Riggs, Dancu, & Rothbaum, 1993), and the Brief COPE (Carver, 1997). Demographic information was collected regarding the following variables: Race/ethnicity, annual individual income level, annual household income level, date of birth, employment status, and current education.

The Self-Defense Self-Efficacy Scale (Ozer & Bandura, 1990) is a comprehensive self-report scale that measures three major domains of perceived coping capabilities: Activities self-efficacy, interpersonal self-efficacy, and self-defense efficacy. Activities self-efficacy is measured in 17 items regarding the how often the participant takes part in certain activities on their own and how often they avoid taking part in certain activities because of concern over personal safety (e.g. “Please rate on a scale from 0-10 how many of these activities you actually do, right now, on your own: Work activities outside usual hours”). Participants rate on an 11-point likert scale how many activities they participate in, where 0 = don’t do any and 10 = do many. The second major domain that is assessed is interpersonal self-efficacy, which includes eight questions involving the participant’s ability to cope with potential social threats, hassles, and coercive behavior in dating situations, the workplace, and public arenas such as at parties, on the street, and on public transportation (e.g. “You are waiting for the bus at a bus stop. There is no one standing next to you but there are other people fairly close by. A man walks up to the stop and starts verbally hassling you. He comes up close but has not touched you. How confident

are you that you can, as of now, state firmly that you do not want to talk to him?”). The participant is asked to rate their confidence level on an 11-point likert scale, where 0 = cannot do at all and 10 = certain can do. The third domain, self-defense efficacy, is comprised of 12 items relating to the participant’s perceived ability to execute various self-defense techniques to disable or otherwise combat assaultive attacks from both stranger and acquaintance perpetrators (e.g. “You are walking on a public street when a man grabs you from behind. At the moment that this happens, you do not see any other people close by. How confident are you that you can, as of now, stomp to the instep of the foot to cause pain”). The participant again rates their confidence ability on a likert scale where 0 = cannot do at all and 10 = certain can do. The final two items assess the participant’s risk estimate and discernment, asking them to rate from 0 to 10 how widespread the participant believes sexual assault to be in society and how difficult he or she finds it is to differentiate between dangerous and safe situations. Internal consistency reliabilities were calculated for all three domains, with reliability coefficients at .96 for activity efficacy, .88 for interpersonal efficacy, and .97 for self-defense efficacy. Factor loadings were also assessed and specified that the three self-efficacy scales tap similar but only partially overlapping domains, with variances of 48%, 16%, and 8% (Ozer & Bandura, 1990).

The National Violence Against Women Survey was first used in 1995 and included 8,000 women and 8,005 men interviewed over the phone by randomized calling. To reduce sampling bias, the demographics of the sample population were compared to and weighted against the current demographic information at that time (according to the U.S. Census Bureau’s 1995 report). The questionnaire asks the participant to indicate all of

the listed traumatic events that she has experienced during her lifetime, including natural disasters and witnessing violent crimes. To achieve accurate data, the NVAWS does not explicitly ask the participant if she has been raped, as many women do not identify an experience as rape even if it fits the technical or legal definition. Rather, questions are phrased in a very concise and behaviorally specific way (e.g. “Has a man or boy ever made you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, by sex we mean putting a penis in your vagina.”) The participant selects either “yes” or “no”.

To assess posttraumatic symptom severity, participants who indicated that they have experienced any trauma answered the 17 items of the PTSD Symptom Scale: Self-Report Version (Foa et al., 1993). The questionnaire asks the participant to rate how often each symptom (according to the current criteria) has bothered her in the past 2 weeks with respect to the traumatic event. The participant rates on a 4-point likert scale, where 1 = not at all or only one time, 2 = once per week or less or once in a while, 3 = two to four times per week or half the time, and 4 = five or more times per week or almost always (e.g. “Trying to avoid activities, people, or places that remind you of the traumatic event?”). The PSS-SR has very high internal consistency for the whole scale (.91) as well as for each symptom cluster (.78 for re-experiencing, .82 for arousal, and .80 for avoidance). When compared to diagnoses based on a widely used diagnostic tool, the Structured Clinical Interview for the DSM (SCID), the PSS-SR established validity with a kappa of .68 (Foa et al., 1993).

The Brief COPE (Carver, 1997) is a shortened version of the original COPE that is used to assess an individual’s ability to cope to life stressors. The full COPE contained

60 items, with four (4) items per scale, resulting in quite a bit of redundancy. The Brief COPE, which covers both adaptive and dysfunctional modes of coping, consists of only 14 scales with two items per scale: Active Coping ($\alpha = .68$), Planning ($\alpha = .73$), Positive Reframing ($\alpha = .64$), Acceptance ($\alpha = .57$), Humor ($\alpha = .73$), Religion ($\alpha = .82$), Using Emotional Support ($\alpha = .71$), Using Instrumental Support ($\alpha = .64$), Self-Distraction ($\alpha = .71$), Denial ($\alpha = .54$), Venting ($\alpha = .50$), Substance Use ($\alpha = .90$), Behavioral Disengagement ($\alpha = .65$), and Self-Blame ($\alpha = .69$). Aside from Venting, Denial, and Acceptance, all of the reliabilities exceeded .60, indicating internal reliability of the abbreviated scales. The Brief COPE asks the participant to rate on a 4-point likert scale how much he or she uses each coping strategy when confronted with stressful events, where 1 = I usually don't do this at all, 2 = I usually do this a little bit, 3 = I usually do this a medium amount, and 4 = I usually do this a lot (e.g. "I try to get advice or help from other people about what to do").

CHAPTER III

RESULTS

3.1 Demographic Information

Thirty seven participants were used in the final sample; four were excluded due to submitting blank surveys. Demographic information for those who responded was computed using descriptive statistics. Participants ranged in age from 20 to 75, with a mean age of 36. Caucasian participants comprised 86.5% of the sample, with African Americans representing 8%, and Asians representing 5.5%. The mean annual individual income level was \$30,000, with the median annual household income level in the \$40,001 to \$50,000 range. Fifty four percent of the sample was employed full time, 30% worked part time, 11% were unemployed by choice, and 5% indicated that they were unemployed but searching for employment. Thirty two percent indicated that they were currently an undergraduate student, 11% indicated that they were a graduate student, and 57% were neither. Six of the 37 participants (16%) indicated that they experienced an unwanted sexual encounter that met the legal definition for rape (penetration), and 15 (40.5%) experienced some type of unwanted sexual contact. The average age of participants who had experienced a sexual assault was 43 ($SD = 18.77$) compared to 34.6 for women with no sexual assault history ($SD = 14.16$).

3.2 Psychometrics

Prior to running the analysis, the data was corrected for outliers and missing data. Psychometric work was run, including Cronbach's alpha for reliability of the structure. The PSS-SR had great reliability, with a Cronbach's alpha of .99. The Self-Defense Self-Efficacy Scale also had good reliability, with a Cronbach's alpha of .98. In this study, the Brief COPE had somewhat mixed reliability: Active Coping ($\alpha = .68$), Planning ($\alpha = .48$), Positive Reframing ($\alpha = .74$), Acceptance ($\alpha = .21$), Humor ($\alpha = .87$), Religion ($\alpha = .89$), Using Emotional Support ($\alpha = .83$), Using Instrumental Support ($\alpha = .96$), Self-Distraction ($\alpha = .28$), Denial ($\alpha = .77$), Venting ($\alpha = .39$), Substance Use ($\alpha = .68$), Behavioral Disengagement ($\alpha = -.04$), and Self-Blame ($\alpha = .74$). Because acceptance and venting were unreliable in both the original work and in the current study, they were eliminated from further analyses. Although the current study revealed an unreliable Cronbach's alpha for planning, self-distraction, and behavioral disengagement, previous research has supported their use and were therefore used cautiously in the analyses, as they may have due to a smaller sample size. An independent-samples t-test was conducted to compare the self-efficacy, PTSD, and coping response scores for survivors of both sexual assault and any type of unwanted sexual contact and women with no history of sexual victimization.

3.3 Self-Efficacy Differences

There was no significant difference in self-efficacy scores between women with a history of unwanted sexual contact (M_1) and without a history of unwanted sexual contact (M_2) ($M_1 = 5.32$, $SD = 1.87$; $M_2 = 5.42$, $SD = 5.42$); $t(34) = -.177$, $p = .860$ (two-tailed).

There was also no significant difference between women with and without a history of sexual assault in self-efficacy ($M_1 = 5.56$, $SD = 1.76$; $M_2 = 5.34$, $SD = 1.64$), $t(34) = .291$, $p = .773$ (two-tailed).

3.4 Posttraumatic Stress Disorder Differences

There was no significant difference in PTSD scores for survivors of unwanted sexual contact ($M_1 = 1.00$, $SD = 1.68$) and survivors of trauma who did not indicate unwanted sexual contact ($M_2 = .69$, $SD = 1.97$); $t(18) = .428$, $p = .670$ (two-tailed). There was also no significant difference in PTSD scores for women with and without a history of sexual assault ($M_1 = .83$, $SD = 1.33$; $M_2 = .85$, $SD = 1.95$); $t(24) = -.019$, $p = .985$ (two-tailed).

3.5.1 Coping Differences: Hypothesis 3a

Contrary to H3a, substance use was not used significantly more in survivors of unwanted sexual contact ($M_1 = 2.23$, $SD = .12$) and women without a history of unwanted sexual contact ($M_2 = 2.50$, $SD = .92$), $t(29) = -.972$, $p = .339$ (two-tailed), or more often in survivors of sexual assault ($M_1 = 2.17$, $SD = .41$) than in women without a history of sexual assault ($M_2 = 2.44$, $SD = .82$), $t(29) = -.785$, $p = .439$ (two-tailed). There was no significant difference in the use of behavioral disengagement for survivors of unwanted sexual contact ($M = 2.85$, $SD = .80$) and women without a history of unwanted sexual contact ($M = 2.56$, $SD = .70$), $t(29) = 1.070$, $p = .293$ (two-tailed). Behavioral disengagement did approach significance, however, with survivors of sexual assault ($M_1 = 3.17$, $SD = .98$) using it more frequently than women without a history of

sexual assault ($M_2 = 2.56$; $SD = .65$); $t(29) = 1.856$, $p = .074$ (two-tailed). Self-blame was approaching significance for both sets of groups, with survivors of unwanted sexual contact using it more often than women without a history of unwanted sexual contact ($M_1 = 4.75$, $SD = 1.66$; $M_2 = 3.78$, $SD = 1.73$); $t(28) = 1.530$, $p = .137$ (two-tailed), and survivors of sexual assault using it more often than women without a history of sexual assault ($M_1 = 5.20$, $SD = 2.17$; $M_2 = 3.96$, $SD = 1.62$); $t(28) = .481$, $p = .150$ (two-tailed).

3.5.2 Coping Differences

Of the coping responses, only one yielded significant differences in scores between survivors of unwanted sexual contact and women without a history of unwanted sexual contact: Active coping ($M_1 = 4.92$, $SD = 1.66$; $M_2 = 6.33$, $SD = 1.45$); $t(29) = -2.513$, $p = .018$ (two-tailed) was used significantly more often by women without a history of unwanted sexual contact. While not significant, positive reframing was approaching significance ($M_1 = 4.62$, $SD = 1.19$; $M_2 = 5.61$, $SD = 1.75$); $t(29) = -1.769$, $p = .087$ (two-tailed). Planning also revealed some group differences and was approaching significance for survivors of unwanted sexual contact and women without a history of unwanted sexual contact ($M_1 = 5.38$, $SD = .96$; $M_2 = 6.18$, $SD = 1.63$); $t(28) = -1.554$, $p = .131$ (two-tailed). There were no significant differences in scores for women with and without a history of unwanted sexual contact in the remaining coping responses.

When comparing survivors of sexual assault with women without a history of sexual assault, humor was endorsed significantly more by survivors ($M_1 = 5.60$; $SD = 1.52$; $M_2 = 3.48$; $SD = 3.48$); $t = 2.831$, $p = .009$ (two-tailed). Self-distraction was also

not significant, but was used less often by survivors of sexual assault ($M_1 = 4.50$, $SD = 1.52$), and more often by women without a history of sexual assault ($M_2 = 5.44$, $SD = 1.26$); $t(29) = -1.580$, $p = .125$ (two-tailed).

CHAPTER IV

DISCUSSION

Women report a number of reasons for seeking self-defense training. Many responses are related to desired increases in self-efficacy and empowerment, or a previous sexual victimization (Hollander, 2010). Fortunately, previous research suggests that self-defense training leads to increased self-efficacy and greater psychological outcomes for women in general (Weitlauf et al., 2000; Weitlauf et al., 2001; Orchowski et al., 2008; Hollander, 2004; Brecklin & Ullman, 2004). Whether the training was received before or after a sexual assault, survivors still experience many positive benefits. Women report using fewer avoidant behaviors (Brecklin, 2008) and gradual increases in self-efficacy over time (Orchowski et al., 2008). With sexual assault being the greatest risk factor for women developing PTSD (Bromet et al., 1998), and maladaptive coping strategies leading to increased PTSD symptoms (Arata, 1999; Frazier & Burnett, 1994; Frazier, Mortenson, & Steward, 2005; Gutner, Rizvi, Monson, & Resick, 2006; Santello & Leitenberg, 1993; Ullman, 1996; Ullman, Townsend, Filipas, & Starzynski, 2007; Valentiner, Riggs, Foa, & Gershuny, 1996), it is crucial that tools are available to women to help increase their perceived control. A great deal of research has focused on the reasons why women sign up for self-defense courses and the benefits they receive from doing so, but not much has been aimed at evaluating baseline differences between women

with and without sexual assault history that attend self-defense courses. The current study sought to answer the question of how these two groups differ in terms of self-efficacy, PTSD, and coping responses in order to create a useful profile of what type of woman attends self-defense courses.

There were no significant demographic differences between women with and without a history of sexual assault. Although survivors of sexual assault tended to be older than women without a history of sexual assault (43 years compared to 34.6), this difference was not significant. Additionally, there were no significant differences in self-efficacy in women with a history of sexual assault or unwanted sexual contact and women without a history of sexual victimization. This is perhaps representative of the type of women who self-select into self-defense programs. Survivors who seek and attend self-defense courses may have higher self-efficacy than survivors who do not seek such courses. By simply considering attending a self-defense course, a survivor is already exhibiting some self-efficacy and confidence in her ability to do well in the class. Hollander (2010) found that a small sample of women decided not to enroll in a self-defense course because of fears about the class and themselves.

There was also no significant difference between survivors of both sexual assault and any unwanted sexual contact and women without a history of sexual victimization in PTSD symptoms. Given the lifetime prevalence of PTSD at 31% in survivors of sexual assault (Kilpatrick et al., 1992), these results contradict past research. Within the current sample, only six women disclosed experiences that met the legal definition for rape, so the insignificance of PTSD in this group is likely a result of insufficient participant numbers. Upon closer examination of the data, only six participants endorsed any PTSD

symptom, and of those, none of them met criteria for PTSD. A bigger sample size might produce results more consistent with previous findings regarding the prevalence of PTSD.

Among survivors of unwanted sexual contact in general, a significant difference existed between women with and without a history of unwanted sexual contact in active coping, which was used significantly more often in women without a history of unwanted sexual contact. Active coping pertains to any psychological or behavioral response used to change either the stressor itself or the thoughts surrounding it. This correlation supports previous research that PTSD is associated with avoidance coping (Cohen & Roth, 1987; Santello & Leitenber, 1993). Sexual assault survivors that use avoidance coping tend to experience poorer psychological outcomes (Cohen & Roth, 1987; Frazier et al., 2005; Santello & Leitenber, 1993; Ullman, 1996; Valentiner et al., 1996). One might expect the inverse of these results to be true, such that women who have not been sexually assaulted use more active coping because survivors use more avoidance coping. Positive-reframing and planning were both endorsed more often by women without a history of unwanted sexual contact, likely because of similar reasoning. Similar to survivors of sexual assault, survivors of unwanted sexual contact experienced more (yet not significantly more) self-blame than women without a history of unwanted sexual contact.

The only significant difference between survivors of sexual assault and women without a history of sexual assault was in the use of humor as a coping mechanism. Survivors of sexual assault used significantly more humor to cope than women without a history of sexual assault. While this result was not predicted, it certainly makes sense

when viewed as a distancing mechanism. The use of humor can create much needed distance from sources of stress (Kuiper & Olinger, 1998), providing the individual an alternate and less threatening view of the stressful situation (Geisler & Weber, 2010; Kidd, Miller, Boyd, & Cardena, 2009; Kuiper, Martin, & Olinger, 1993). This theory has been demonstrated in a number of studies assessing effective detachment and distancing from stressful events using humor (Abel, 2002; Geisler & Weber, 2010; Kuiper et al., 1993). Although humor was the only significant difference, other coping mechanisms revealed differences between the groups. Behavioral disengagement was seen more often in survivors of sexual assault than women without a history of sexual assault. Survivors of sexual assault are more likely to withdraw effort from attempting to attain a particular goal that is being interfered with by an unmanageable stressor. Because adjustment to stressful events is mediated by perceived controllability (Folkman et al., 1993; Jensen & Karoly, 1991; Macrodimitris & Endler, 2001), an individual who feels a lack of controllability will not be able to adjust to life stressors as easily. Women experience a unique separation from personal control when they are forced into a sexual act without their consent, and often times the theme of control lost continues long after the assault. If a survivor adapts the schema of uncontrollability in the world, there is little motivation to continue working towards a goal that is being impeded by an outside force. Interestingly, self-distraction was used more often by women without a history of sexual assault than survivors. Self-distraction is a form of psychological disengagement, which intuitively seems would be associated with behavioral disengagement. However, as seen in the criteria for PTSD, a common reaction to trauma is the experiencing of unwanted and intrusive thoughts. Although the PTSD symptoms were not endorsed very often by the

current sample, it is possible that survivors actually did have more intrusive thoughts/memories than perhaps they were aware, making it more difficult for survivors of sexual assault to disengage psychologically. Both behavioral disengagement and self-distraction had very low Cronbach's alpha scores, however, so these suggestions must be accepted cautiously. Perhaps if there were a bigger sample size, the reliability of those constructs would be greater and more could be said about their implications. Finally, while not significant, self-blame was endorsed more with survivors of sexual assault, which is consistent with previous research (Arata, 1999; Frazier, 1990, 2000, 2003; Frazier & Schauben, 1994; Meyer & Taylor, 1986) as well as data from studies of other traumatic events (e.g., Downey, Silver, & Wortman, 1990; Glinder & Compas, 1999). Aside from humor, the results for women with and without a history of sexual assault must be analyzed warily given the lack of significant data.

The results of the current study offer some help to inform self-defense courses in the future. With the deficits in the use of active coping in women who had experienced any type of unwanted sexual contact (a large number in the current sample), self-defense classes should include the encouragement of using active coping in their protocols. Although the self-efficacy differences were insignificant, active coping seems to be an extension of perceived self-efficacy; whereas perceived self-efficacy relates to one's confidence in one's ability to do something, active coping is the actual change in one's behavior or thoughts in order to reduce a stressor. The use of humor as a coping response is a response favored by survivors of sexual assault, which suggests that including humor in the course may resonate better with survivors and perhaps help thwart any issues with attrition. Both groups of survivors reported greater, yet insignificant, amounts of self-

blame and, while also insignificant, women with a history of unwanted sexual contact had greater difficulty with positive coping responses such as positive reframing and planning. A significant portion of self-defense training involves teaching women to plan ahead for potential assaults and to think more positively about their own abilities. Given the results, courses should focus more on the benefits of reframing past or future assaults in a more positive light as well as emphasizing their capability to plan ahead. Survivors of sexual assault tended to use negative coping responses like behavioral disengagement and were not as able to self-distract as women without a history of sexual assault. In reframing previous assaults in a more positive and realistic way, survivors of sexual assault may be better able to avoid ruminating, losing motivation, and withdrawing effort from attaining an important yet difficult goal. In general, the results of the current study provide self-defense instructors with a profile of women who attend training, and specifically the areas in which they are already strong and the areas in which they would benefit from improvement. Moreover, this knowledge may help with recruiting women with histories of sexual victimization into self-defense courses. By emphasizing that the course can be seen as fun, survivors of sexual assault who prefer humor as a coping mechanism may be encouraged to enroll, perhaps subduing fears they have that the course will be too difficult or that it will focus too much on their victimization, in addition to providing the tools necessary to develop their emotional and physical strength.

4.1 Limitations

One limitation to the current study was the inconsistency in which participants received the survey. Because RAD course instructors were responsible for distributing the survey, participants received it at varying times; some participants received the survey with ample time to complete before their first RAD course, while others did not receive it until after the first class met (though the latter only occurred in rare instances and during courses which were longer than four classes). Another limitation to the study is the lack of demographic diversity. Although there was great diversity in age, there was little diversity in ethnicity. A vast majority of the participants were Caucasian, limiting the generalizability of the results to all populations. Finally, the sample size was relatively small and created a number of difficulties. There were a number of reliability issues with the Brief COPE which may be accounted for by the lack of a significant sample size. Meaning can be derived only cautiously regarding the coping responses given the mixed reliability. If future research increases the sample size, the results will have greater and less ambiguous meaning. Moreover, the coping responses of positive reframing, planning, self-blame, behavioral disengagement, and self-distraction were all approaching significance, perhaps not quite reaching it because of the sample size.

It is also worth mentioning that the Brief COPE had mixed reliability in its original publication (Carver, 1997). The Brief COPE is a shortened version of the original COPE (Carver, Scheier, & Weintraub, 1989), which contains 60 items, with four items per construct. Carver explains that the Brief COPE has similar factor loadings as the original COPE, and that the relatively small ratio of participants to items in the sample contributed to the mixed reliability (Carver, 1993). The author also suggests that neither

the original COPE nor the Brief COPE be used as an all-or-none tool to assess coping if that is the main variable measured in a study. Rather, the Brief COPE should be used as a convenient tool to get an idea, in general, of how the individual copes to life stressors (Carver, 1993). It was for this reason that the Brief COPE was used in the current study, as the extensiveness of the Self-Defense Self-Efficacy Scale resulted in concerns about the length of the survey and participants opting not to complete it.

4.2 Future Research

Future research will look at the impact of the RAD self-defense training on self-efficacy, PTSD, and coping responses to examine any differential impact of the training on these factors comparing women with and without a history of sexual assault. Future studies should expand the sample size so that individual differences can be better accounted for. In addressing the limitations of diversity and sample size, future research could either substantiate or clarify the differences between these groups and provide helpful protocols for self-defense courses seeking to make an impact on each group. Overall, however, the significant results of the study suggest some clear distinctions in coping responses between survivors of sexual victimization and women without a history of sexual victimization that would likely be replicated.

REFERENCES

- Abel, M. (2002). Humor, stress, and coping strategies. *Humor: International Journal of Humor Research, 15*, 365-381.
- Acierno, R., Resnick, H., Kilpatrick, D.G., Saunders, B., & Best, C.L. (1999). Risk factors for rape, physical assault, and posttraumatic stress disorder in women: Examination of differential multivariate relationships. *Journal of Anxiety Disorders, 13*(6), 541-563.
- Ahrens, C.E., Abeling, S., Ahmad, S., & Hinman, J. (2010). Spirituality and well-being: The relationship between religious coping and recovery from sexual assault. *Journal of Interpersonal Violence, 25*(7), 1242-1263.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC.
- Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*, 461-480.
- Arata, C. M. (1999). Coping with rape: The roles of prior sexual abuse and attributions of blame. *Journal of Interpersonal Violence, 14*, 62-78.
- Atkeson, B. M., Calhoun, K. S., & Morris, K. T. (1989). Victim resistance to rape: The relationship of previous victimization, demographics, and situational factors. *Archives of Sexual Behavior, 18*(6), 497-507.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Benight, C.C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour and Research Therapy, 42*, 1129-1148.

- Benight, C. C., & Lehman, V. (2002). Coping self-efficacy as a predictor of posttraumatic symptoms in incarcerated and non-incarcerated women survivors of childhood sexual abuse. Unpublished manuscript.
- Brecklin, L. R. (2008). Evaluation outcomes of self-defense training for women: A review. *Aggression and Violent Behavior, 13*, 60-76.
- Brecklin, L.R., & Ullman, S.E. (2004). Correlates of postassault self-defense/assertiveness training participation for sexual assault survivors. *Psychology of Women Quarterly, 28*, 147-158.
- Brecklin, L. R., & Ullman, S. E. (2005). Self-defense or assertiveness training and women's responses to sexual attacks. *Journal of Interpersonal Violence, 20*(6), 738- 762.
- Bromit, E., Sonnega, A., & Kessler, R.C. (1998). Risk factors for DSM-III-R posttraumatic stress disorder: Findings from the national comorbidity survey. *American Journal of Epidemiology, 147*(4), 353-361.
- Carver, C.S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine, 4*(1), 92-100.
- Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Cohen, L., & Roth, S. (1987). The psychological aftermath of rape: Long-term effects and individual differences in recovery. *Journal of Social and Clinical Psychology, 5*, 525–534.

- Downey, G., Silver, C., & Wortman, C.B. (1990). Reconsidering the attribution-adjustment relation following a major negative event: Coping with the loss of a child. *Journal of Personality and Social Psychology*, 59 (5), 925-940.
- Fetzner, M.G., Hon, B.A., McMillan, K.A., Sareen, J., & Asmundson, G.J. (2011). What is the association between traumatic life events and alcohol abuse/dependence in people with and without PTSD? Findings from a nationally representative sample. *Depression and Anxiety*, 28, 632–638
- Fisher, B. S., Daigle, L. E., & Cullen, F. T. (2008). Rape against women: What can research offer to guide the development of prevention programs and risk reduction interventions? *Journal of Contemporary Criminal Justice*, 24, 163-177.
- Foa, E.B., Riggs, D.S., Dancu, C.V., & Rothbaum, B.O. (1993). Reliability and validity of a brief instrument for assessing posttraumatic stress disorder. *Journal of Traumatic Stress*, 6, 459-473.
- Folkman, S., Chesney, M., Pollack, L., & Coates, T. (1993). Stress, control, coping, and depressive mood in human immunodeficiency virus-positive and -negative gay men in San Francisco. *Journal of Nervous and Mental Disease*, 181, 409–416.
- Folkman, S., & Moskowitz, J. (2000). Positive affect and the other side of coping. *American Psychologist*, 55, 647–654.
- Frazier, P.A. (1990). Victim attributions and post-rape trauma. *Journal of Personality and Social Psychology*, 59 (2), 298-304.
- Frazier, P.A. (2000). The role of attributions and perceived control in recovery from rape. *Journal of Personal and Interpersonal Loss*, , (2-3), 203-225.

- Frazier, P.A. (2003). Perceived control and distress following sexual assault: A longitudinal test of a new model. *Journal of Personality and Social Psychology*, 84(6), 1257-1269.
- Frazier, P. A., & Burnett, J. (1994). Immediate coping strategies among rape victims. *Journal of Counseling and Development*, 72, 633–639.
- Frazier, P. A., Mortensen, H., & Steward, J. (2005). Coping strategies as mediators of the relations among perceived control and distress in sexual assault survivors. *Journal of Counseling Psychology*, 52, 267–278.
- Frazier, P.A. & Schauben, L. (1994). Causal attributions and recovery from rape and other stressful life events. *Journal of Social and Clinical Psychology*, 13, 1-14.
- Frazier, P., Steward, J., Mortensen, H. (2004). Perceived control and adjustment to trauma: A comparison across events. *Journal of Social and Clinical Psychology*, 23 (3), 303-324.
- Furby, L., Fischhoff, B., & Moran, M. (1989). Judged effectiveness of common rape prevention and self-defense strategies. *Journal of Interpersonal Violence*, 4(1), 44-64.
- Gallup, G. (2002). *Religion in America*. Princeton, NJ: The Princeton Religion Research Center.
- Geisler, F. C. M., & Weber, H. (2010). Harm that does not hurt: Humour in coping with self-threat. *Motivation and Emotion*, 34, 446-456
- Gidycz, C. A., Hanson, K., & Layman, M. J. (1995). A prospective analysis of the relationships among sexual assault experiences: An extension of previous findings. *Psychology of Women Quarterly*, 19, 5–29.

- Gidycz, C.A., Rich, C.L., Orchowski, L., King, C., & Miller, A.K. (2006). The evaluation of sexual assault self-defense and risk-reduction program for college women: A prospective study. *Psychology of Women Quarterly*, 30, 173-186.
- Gilboa-Schechtman, E., & Foa, E.B. (2001). Patterns of recovery from trauma: The use of intraindividual analysis. *Journal of Abnormal Psychology*, 110(3), 392-400.
- Glinder, J.G., & Compas, B.E. (1999). Self-blame attributions in women with newly diagnosed breast cancer: A prospective study of psychological adjustment. *Health Psychology*, 18 (5), 475-481.
- Guerette, R.T., & Santana, S. (2010). Explaining self-protective behavior effects on crime incident outcomes: A test of opportunity theory. *Crime and Delinquency*, 56 (2), 198-226.
- Gutner, C. A., Rizvi, S. L., Monson, C. M., & Resick, P. A. (2006). Changes in coping strategies, relationship to the perpetrator, and posttraumatic distress in female crime victims. *Journal of Traumatic Stress*, 19, 813–823.
- Harrison, M. O., Koenig, H. G., Hays, J. C., Eme-Akwari, A. G., & Pargament, K. I. (2001). The epidemiology of religious coping: A review of recent literature. *International Review of Psychiatry*, 13(2), 86-93.
- Henderson, H. (2007). Feminism, Foucault, and rape: A theory and politics of rape prevention. *Berkeley Journal of Gender, Law, and Justice*, 22, 225-253.
- Hollander, J.A. (2004). "I can take care of myself": The impact of self-defense training on women's lives. *Violence Against Women*. 10, 205-235.
- Hollander, J.A. (2010). Why do women take self-defense classes? *Violence Against Women*, 16(4), 459-478.

- Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. *Journal of Personality and Social Psychology*, 37 (10), 1798-1809.
- Jensen, M., & Karoly, P. (1991). Control beliefs, coping efforts, and adjustment to chronic pain. *Journal of Consulting and Clinical Psychology*, 59, 431–438.
- Jerusalem, M., & Mittag, W. (1995). Self-efficacy in stressful life transitions. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 177–201). Cambridge University Press: New York.
- Kennedy, J., Davis, R., & Taylor, B. (1998). Changes in spirituality and well-being among victims of sexual assault. *Journal for the Scientific Study of Religion*, 37, 322-328.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C.B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52, 1048-1060.
- Kidd, S. A., Miller, R., Boyd, G. M., & Cardena, I. (2009). Relationships between humor, subversion, and genuine connection among persons with severe mental illness. *Qualitative Health Research*, 19(10), 1421-1430.
- Kilpatrick, D. G., Edmunds, C. N., & Seymour, A. K. (1992). *Rape in America: A report to the nation*. Arlington, VA: National Victim Center.
- Kleck, G., & Sayles, S. (1990). Rape and resistance. *Social Problems*, 37(2), 149-162.
- Koss, M. P., Figueredo, A. J., & Prince, R. J. (2002). Cognitive mediation of rape's mental, physical, and social health impact: Test of four models in cross-sectional data. *Journal of Consulting and Clinical Psychology*, 70, 926–941.

- Krulewitz, J.E., & Nash, J.E. (1979.). Effects of rape victim resistance, assault outcome, and sex of observer on attributions about rape. *Journal of Personality*, 47, 557-573.
- Kuiper, N. A., Martin, R. A., & Olinger, L. J. (1993). Coping humour, stress, and cognitive appraisals. *Canadian Journal of Behavioural Science*, 25, 81-96.
- Kuiper, N. A., & Olinger, J. (1998). Humor and mental health. In H. Friedman (Ed.). *Encyclopedia of mental health* (Vol. 2, pp. 445-458). San Diego: Academic Press.
- Kushner, M. G., Riggs, D. S., Foa, E. B., & Miller, S. M. (1993). Perceived controllability and the development of posttraumatic stress disorder (PTSD) in crime victims. *Behavior Research and Therapy*, 31, 105–110.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leeies, M., Pagura, J., Sareen, J., & Bolton, J.M. (2010). The use of alcohol and drugs to self-medicate symptoms of posttraumatic stress disorder. *Depression and Anxiety*, 27, 731-736.
- Macrodimitis, S., & Endler, N. (2001). Coping, control, and adjustment in Type 2 diabetes. *Health Psychology*, 20, 208–216.
- Meyer, C.B., & Taylor, S.E. (1986). Adjustment to rape. *Journal of Personality and Social Psychology*, 50 (6), 1226-1234.
- National Institute of Justice & Centers for Disease Control & Prevention. *Prevalence, Incidence and Consequences of Violence Against Women Survey*. 1998.
- Nurius, P.S., Norris, J., Macy, R.J., & Huang, B. (2004). Women's situational coping with acquaintance sexual assault. *Violence Against Women*, 10(5), 450-478.

- Nurius, P.S., Norris, J., Young, D.S., Graham, T.L., & Gaylord, J. (2000). Interpreting and defensively responding to threat: Examining appraisals and coping with acquaintance sexual aggression. *Violence and Victims, 15*, 187-208.
- Orchowski, L.M., Gidycz, C.A., & Raffle, H. (2008). Evaluation of a sexual assault risk reduction and self-defense program: A prospective analysis of a revised protocol. *Psychology of Women Quarterly, 32*, 204-218.
- Ozer, E.M., & Bandura, A. (1990) Mechanisms governing empowerment effects: A self-efficacy analysis. *Journal of Personality and Social Psychology, 58*(3), 472-486.
- Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York: Guilford.
- Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37*, 710-724.
- Pargament, K. I., Tarakeshwar, N., Ellison, C. G., & Wulff, K. M. (2001). Religious coping among the religious: The relationships between religious coping and well-being in a national sample of Presbyterian clergy, elders, and members. *Journal for the Scientific Study of Religion, 40*, 497-513.
- Park, C. L., & Cohen, L. H. (1993). Religious and nonreligious coping with the death of a friend. *Cognitive Therapy and Research, 17*, 561-577.
- Quinsey, V. L., & Upfold, D. (1985). Rape completion and victim injury as a function of female resistance strategy. *Canadian Journal of Behavioural Science, 17*(1), 40-50.

- Rape Aggression Defense Systems, Inc. (2006). *The R.A.D. system of self-defense: Basic physical defense system instructor manual*. Denham Springs, LA.
- Resick, P. A., & Schnicke, M. K. (1993). *Cognitive processing therapy for rape victims: A treatment manual*. Thousand Oaks, CA: Sage.
- Ryan, P. L. (1998). Spirituality among adult survivors of childhood violence: A literature review. *Journal of Transpersonal Psychology*, 30, 39-51.
- Santello, M. D., & Leitenberg, H. (1993). Sexual aggression by an acquaintance: Methods of coping and later psychological adjustment. *Violence and Victims*, 8, 91-104.
- Scroggs, J.R. (1976). Penalties for rape as a function of victim provocativeness, damage, and resistance. *Journal of Applied Social Psychology*, 6(4), 360-368.
- Shaw, A., Joseph, S., & Linley, P. A. (2005). Religion, spirituality, and posttraumatic growth: A systematic review. *Mental Health, Religion and Culture*, 8(1), 1-11.
- Silver, R. C., Wortman, C. B., & Crofton, C. (1990). The role of coping in support provision: The self-presentational dilemma of victims of life crises. In I. G. Sarason, B. R. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 397-426). New York: Wiley.
- Tjaden, P., & Thoennes, N. (1998) Prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey. *Research in Brief, Washington, D.C.: U.S. Department of Justice, National Institute of Justice*, April 1998, NCJ 169592.
- Ullman, S. E. (1996). Social reactions, coping strategies, and self-blame attributions in adjustment to sexual assault. *Psychology of Women Quarterly*, 20, 505-526.

- Ullman, S. E. (1997). Attributions, world assumptions, and recovery from sexual assault. *Journal of Child Sexual Abuse*, 6, 1–19.
- Ullman, S. E. (2007). A 10-year update of “Review and critique of empirical studies of rape avoidance”. *Criminal Justice and Behavior*, 34(3), 411-429.
- Ullman, S.E., & Knight, R.A. (1995). Women’s resistance strategies to different rapist types. *Criminal Justice and Behavior*, 22(3), 263-283.
- 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 (5), 821-831.
- Ullman, S. E., Townsend, S. M., Filipas, H. H., & Starzynski, L. L. (2007). Structural models of the relations of assault severity, social support, avoidance coping, self-blame, and PTSD among sexual assault survivors. *Psychology of Women Quarterly*, 31, 23–37.
- U.S. Department of Justice. *National Crime Victimization Survey*. 2006-2010.
- Valentiner, D. P., Holahan, C. J., & Moos, R. H. (1994). Social support, appraisals of event controllability, and coping: An integrative model. *Journal of Personality and Social Psychology*, 66, 1094-1102.
- Valentiner, D. P., Riggs, D., Foa, E. B., & Gershuny, B. S. (1996). Coping strategies and PTSD in female victims of sexual assault and nonsexual assault. *Journal of Abnormal Psychology*, 105, 455–458.
- Winkel, F. W., & Koppelaar, L. (1991). Rape victims’ style of self presentation and secondary victimization by the environment. *Journal of Interpersonal Violence*, 6, 29–40.

- Weitlauf, J.C., Cervone, D., Smith, R.E., & Wright, P.M. (2001). Assessing generalization in perceived self-efficacy: Multidomain and global assessments of the effects of self-defense training for women. *Personality and Social Psychology Bulletin*, 27(12), 1683-1691.
- Weitlauf, J.C., Smith, R.E., & Cervone, D. (2000). Generalization effects of coping-skills training: Influence of self-defense training on women's efficacy beliefs, assertiveness, and aggression. *Journal of Applied Psychology*, 85(4), 625-633.
- World Health Organization, 2002.
- Zoucha-Jensen, J. M., & Coyne, A. (1993). The effects of resistance strategies on rape. *American Journal of Public Health*, 83(11), 1633-1634.