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Child Abuse, Intimate Partner Violence, and Resiliency in Incarcerated Women: Attachment as a PTSD Moderator

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CHILD ABUSE, INTIMATE PARTNER VIOLENCE, AND RESILIENCY IN INCARCERATED WOMEN: ATTACHMENT AS A PTSD MODERATOR

by

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This dissertation was submitted by Cassandra M. Groth under the direction of the Chairperson of the dissertation committee listed below. It was submitted to the Center for Psychological Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Clinical Psychology at Nova Southeastern University.

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ABSTRACT

CHILD ABUSE, INTIMATE PARTNER VIOLENCE, AND RESILIENCY IN INCARCERATED WOMEN: ATTACHMENT AS A PTSD MODERATOR

by

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Child abuse (CA) is an epidemic that often leads to mental health outcomes including increased vulnerability to future victimization and intimate partner violence (IPV) (Briere & Elliot, 2003). The purpose of this study was to determine if CA would have more of a psychological impact on IPV survivors who had experienced CA than those who had not. Another purpose of this study was to evaluate secure attachment as a form of resiliency and insecure attachment as a risk factor for developing post-traumatic stress. It was hypothesized that incarcerated female survivors of IPV would have a significantly higher proportion of CA than the proportion of CA in the general population. It was hypothesized that women who had endured abuse as children would have higher rates of sexual dysfunction, poor body image, and insecure attachment styles, than the women who had not experienced CA. Lastly, it was hypothesized that the relation between post-traumatic stress and IPV survivors who had or had not been abused as children would depend on attachment style. A sample of 277 incarcerated female survivors of IPV completed the Battered Woman Syndrome Questionnaire-3 (BWSQ-3). As hypothesized, the proportion of CA in the sample was significantly higher than the proportion of CA in the general population. As predicted, the women in the CA group experienced greater

body shame than the women in the no CA group; however, they did not differ in their beliefs about body control or how they perceive themselves as an outside observer. The women did not differ on sexual satisfaction. The CA group scored higher on insecure attachment and lower on secure attachment than the no CA group. Attachment style was not a moderator; however, after taking into account CA, Anxiety attachment was significantly associated with post-traumatic stress. Additionally, the CA group had significantly higher mean scores on post-traumatic stress than the no CA group. In conclusion, CA resulted in greater body shame, fear of rejection in relationships, and discomfort with trusting and getting close to others. However, these trauma survivors did not differ on surveillance, control beliefs, and sexual satisfaction, suggesting resiliency in CA survivors.

CHAPTER I

Statement of the Problem

The psychological impact of child abuse and intimate partner violence (IPV) may be linked in both direct and indirect ways. In 2013, a nationally estimated 1,520 children died from abuse and neglect, with the majority of these children being killed by their own parents (U.S. Department of Health and Human Services, 2013). These statistics illustrate that child maltreatment is an epidemic in the United States and that it leads to severe outcomes for children and families. Research indicates that men and women who have experienced childhood maltreatment report higher rates, on average, of depression, criminal activity, post-traumatic stress symptoms, body image disturbances, sexual concerns, and suicidal ideation, compared to individuals who have not been abused as children (Briere & Elliot, 2003; Treuer, Koperdák, Rózsa, & Füredi, 2005).

Additionally, childhood abuse and neglect can lead to future victimization and attachment difficulties, with survivors often blaming themselves for the abuse, feeling guilty, and having difficulties with trusting and becoming intimate with others (Kendall-Tackett, 2002; Murthi, Servaty-Seib, & Elliot, 2006). All types of childhood victimization have been associated with increased risk for lifetime victimization, including adult IPV (Widom, Czaja, & Dutton, 2008). It is likely that child victimization makes most survivors more vulnerable to future abuse due to the shame, low self-esteem, insecure attachment styles, and psychological symptoms that often arise after being abused. It may be harder for abuse survivors to form healthy relationships, gain social support, avoid risky behaviors, and protect themselves due to these vulnerabilities.

Both childhood maltreatment and adult IPV can have serious consequences for survivors including the development of psychological disorders and post-traumatic stress disorder (PTSD). However, there are individuals who experience traumatic events, but only have minimal effects or even fully recover without being emotionally harmed; this ability to survive and successfully adapt despite enduring abuse and trauma is known as resiliency (Heller, Larrieu, D'Imperio, & Boris, 1999). There are many factors involved in resiliency and it is important to study these factors to aid in providing better support and intervention programs for trauma survivors.

Resilience to IPV is often associated with factors such as increased social support, higher education, and engaging in mental health services (Coker, Weston, Creson, Justice, & Blakeney, 2005). Attachment style, originally theorized and developed by Bowlby, is another potential form of resiliency for survivors of IPV and child abuse. Having a secure attachment style can help an individual accurately assess stressful situations, effectively cope with these events, and maintain a sense of control over the situation (Mikulincer & Florian, 1998). Contrastingly, when faced with distressing situations, people with insecure attachments are more likely to perceive the situations as threating, uncontrollable, and irreversible. They are more likely to feel helpless, to have more mistrusting views of others, and to socially withdraw when faced with stressful situations (Mikulincer & Florian, 1998).

This study looked at some of the most profoundly impacted IPV survivors who had been incarcerated due to substance abuse and other criminal activities. It was predicted that the proportion of child abuse in this sample would be higher than the proportion of child abuse in the general population. It was also predicted that the women

who had endured abuse as children would have higher rates of sexual dysfunction, poor body image, and insecure attachment styles, than the women who had not experienced child maltreatment. Additionally, this study examined secure attachment style as a potential protective factor for the development of post-traumatic stress symptoms in IPV survivors who had or had not been abused as children.

CHAPTER II

Literature Review

In order to understand the relevance of this study, it is necessary to present past research regarding the mental health effects of child abuse and IPV, as well as factors involved in being resilient to these effects.

Child Abuse, Neglect, and Witnessing IPV

Childhood abuse and neglect are pervasive occurrences that have lasting effects on the emotional and physical well-being of children, and too often result in death. According to the National Center for Injury Prevention and Control (2014), child maltreatment is an act or series of acts of commission or omission by a parent or other caregiver (e.g., clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child. Acts of commission, or child abuse, are defined as deliberate and intentional words or overt actions that cause harm, potential harm, or threat of harm to a child. Whereas, acts of omission are considered to be child neglect and occur when there is a failure to provide for a child's basic physical, emotional, or educational needs or to protect a child from harm or potential harm (National Center for Injury Prevention and Control, 2014).

In 2013, an estimated 3.5 million referrals of child maltreatment were received by social service or child protection service agencies. Of these referrals, 678,932 children were confirmed to be victims of child maltreatment, meaning the unique victim rate was 9.1 victims per 1,000 children in the United States (U.S. Department of Health and Human Services, 2013). However, these statistics are likely much lower than the actual rate of child maltreatment as these instances often occur inside the cover of home and by

the caretakers; consequently, it is estimated that almost three times as many children are maltreated as are reported to child protection service agencies (U.S. Department of Health and Human Services, 1996).

Demographics of Child Abuse and Neglect

Children with the highest risk of being victimized are children under the age of three years old and children with disabilities. The rates of abuse and neglect among children with disabilities are twice as high as the rates among average children (U.S. Department of Health and Human Services, 2007). Disabilities that are often mentioned when reporting child abuse and neglect are intellectual disabilities, emotional disturbances, visual impairments, learning disabilities, physical disabilities, behavioral problems, and medical problems.

Incidences of child abuse and neglect also vary by race. In 2006, the child maltreatment incidence rate for Black children was nearly two times the rate for White children and 1.7 times the rate for Hispanic children (Sedlak et al., 2010). Statistics from a 2013 national incidence report show that boys and girls are equally likely to be victims of child maltreatment with 48.7% of abused children being boys and 50.9% being girls (U.S. Department of Health and Human Services, 2013). It is estimated that more than four children die every day as a result of child abuse and neglect, with the majority of these children being killed by their own parents (U.S. Department of Health and Human Services, 2013). These statistics illustrate that child maltreatment is an epidemic in the United States and that it leads to severe outcomes for children and families.

Types of Abuse

There are many different types of child maltreatment and each State is responsible for providing its own definitions of child abuse and neglect (Child Welfare Information Gateway, 2013c). Most States recognize the four major types of maltreatment: physical abuse, emotional abuse, sexual abuse, and neglect.

Physical abuse is generally defined as physical injury, ranging from minor bruises to severe fractures or death, as a result of punching, kicking, shaking, beating, throwing, or burning inflicted by someone who has responsibility for the child. The injury is considered abuse even if the caregiver did not intend to hurt the child (Child Welfare Information Gateway, 2013c).

Emotional abuse, or psychological abuse, is a pattern of behavior that impairs a child's emotional development or sense of self-worth such as constant criticism, rejection, threats, and withholding love and support. Emotional abuse is difficult to prove, but it is almost always present when other types of maltreatment are occurring.

Sexual abuse is defined as intentional acts made by caregivers such as fondling a child's genitals, penetration, incest, rape, sodomy, indecent exposure, and exploitation through prostitution or the production of pornographic materials. Additionally, sexual abuse can be the persuasion or coercion of any child to engage in or assist another person to engage in any sexually explicit conduct such as molestation, rape, statutory rape, or incest (Child Welfare Information Gateway, 2013c).

Neglect is the failure of a caregiver to provide for a child's basic needs such as not providing food, shelter, supervision, medical treatment, education, attention to emotional needs, or allowing children to use alcohol and illicit drugs (Child Welfare

Information Gateway, 2013c). In some States, abandonment is considered a form of neglect; abandonment occurs when a child's caregiver's identity or whereabouts are unknown, the child has been left alone in circumstances where the child suffers serious harm, or the parent has failed to maintain contact with the child.

Furthermore, the legal system is beginning to recognize the effects that witnessing domestic violence can have on children and is now addressing these issues more in the law and court systems (Child Welfare Information Gateway, 2013a). Exposure to or witnessing domestic violence can be auditory, visual, or inferred, in which the child perceives the consequences of the violence in the home; children who witness violence in the home can suffer emotional and developmental difficulties similar to children who are directly abused (Child Welfare Information Gateway, 2013a; Fergusson & Horwood, 1998).

Substance abuse can also be a factor in child abuse and neglect; for example, when a mother uses substances while pregnant, manufacturing methamphetamine in the presence of a child, or giving drugs or alcohol to a child (Child Welfare Information Gateway, 2013c). In 2013, 79.5% of maltreated children were neglected, 18.0% were physically abused, 9.0% were sexually abused, and 8.7% were psychologically abused (U.S. Department of Health and Human Services, 2013). In most cases, children experience multiple types of abuse and psychological abuse is likely to be present when other forms of maltreatment are occurring.

Effects of Child Abuse and Neglect

Childhood maltreatment is a significant social problem that severely impacts children, families, and society. In the Adverse Childhood Experiences (ACE) study,

Felitti et al. (1998) found a relationship between adverse childhood experiences and health concerns and disease in adulthood. They analyzed seven different categories of adverse experiences including experiencing psychological, physical, or sexual abuse, witnessing violence against one's mother, and living with household members who were substance abusers, mentally ill or suicidal, or who were ever imprisoned.

More than half of the 9,508 respondents reported at least one adverse childhood experience and one-quarter reported two or more categories of exposures (Felitti et al., 1998). Results showed that the categories were strongly interrelated and individuals with multiple exposures were likely to have multiple health risk factors later in life. Respondents who reported four or more adverse exposures had a 4- to 12-fold increased health risk for alcoholism, drug abuse, depression, and suicide attempt, than those individuals who had reported no exposure. These respondents also had an increased risk for poor self-rated health, sexually transmitted diseases, obesity, liver disease, heart disease, and cancer (Felitti et al., 1998).

According to Briere and Elliot (2003), studies show that child maltreatment is relatively common and often associated with a variety of long-term psychological consequences. When compared to individuals who have not been abused as children, men and women who reported experiencing childhood maltreatment reported lower self-esteem, higher rates of anxiety, depression, anger, post-traumatic stress symptoms, body image disturbances, sexual concerns, and suicidal ideation (Briere & Elliot, 2003; Treuer et al., 2005). Research demonstrates that witnessing violence in the home as children also leads to increased rates of behavioral, emotional, and psychological problems such as substance abuse, criminal activity, and conduct disorders (Fergusson & Horwood, 1998).

Childhood abuse and neglect can also lead to attachment difficulties, interpersonal deficits, and later victimization. Individuals who have been abused as children often blame themselves, feel guilty, and have difficulties with trusting and becoming intimate with others (Kendall-Tackett, 2002; Murthi et al., 2006). Furthermore, Widom et al. (2008) found that all types of childhood victimization were associated with increased risk for lifetime victimization including adult IPV. Both childhood maltreatment and adult IPV can have serious consequences for survivors such as the development of psychological disorders and post-traumatic stress disorder (PTSD). However, while many people who undergo traumatic events experience serious negative consequences, some individuals only experience minimal effects, and some fully recover without being further harmed. The ability for people to survive and successfully adapt despite enduring abuse and trauma is known as resiliency (Heller et al., 1999). There are many factors involved in resiliency and it is important to study these factors to aid in providing better support and intervention programs for trauma survivors.

PTSD. An immense amount of research has shown that PTSD is one of the most common psychological outcomes for survivors of abuse (Briere & Elliot, 2003; Kendall-Tackett, 2002). Shenk, Putnam, and Noll (2012) hypothesized that *experiential avoidance* is one causal pathway of PTSD in trauma survivors. Experiential avoidance is characterized by the unwillingness to experience painful events such as thoughts, emotions, memories, and bodily sensations through both physical and psychological avoidance (Shenk et al., 2012). Though experiential avoidance is a criterion for PTSD, not every survivor of trauma develops PTSD; however, despite not having the diagnosis,

they may still utilize avoidance as a maladaptive coping mechanism which can lead to increased post-traumatic stress symptoms.

For individuals who have experienced child abuse and neglect, these painful events may be re-occurring images and emotions of their abuse, hypersensitivity, and increased fear and anxiety; thus, experiential avoidance is used to suppress these negative feelings and perhaps to avoid them altogether (Shenk et al., 2012). Although this can be an effective short-term coping mechanism, experiential avoidance actually maintains and increases PTSD symptoms. Avoidance prevents individuals from fully processing their experiences, and their emotions and thoughts that are associated with the abuse. In the Shenk et al. study (2012), participants consisted of 110 adolescent females, 14-19 years old, who had experienced physical abuse, sexual abuse, neglect, or no abuse. Child maltreatment was substantiated through a Child Protective Services agency. Results supported the hypothesis that avoidance mediates PTSD by preventing survivors from fully processing their experiences and from using healthy coping mechanisms (Shenk et al., 2012).

Another common coping mechanism for trauma that is associated with higher levels of PTSD is dissociation. Dissociation is the structured compartmentalization of mental processes such as thoughts, feelings, and memories that are normally integrated (Hetzel & McCanne, 2005). This defense mechanism is often utilized by children who have been abused as a means to detach themselves from traumatic experiences and to gain some control over their lives. Higher levels of dissociation during and following abuse have been associated with poorer adult outcomes and greater PTSD symptoms (Hetzel & McCanne, 2005).

Using dissociation as a coping mechanism actually prevents individuals from processing their abuse and emotions, and the external cues associated with the trauma; thus, dissociation decreases a person's awareness of environmental clues and makes them more vulnerable. Hetzel and McCanne (2005) found that female college students who reported experiencing child sexual abuse (CSA) and both child physical abuse (CPA) and CSA had significantly more PTSD symptoms than women who experienced CPA alone or who had not been abused. Additionally, higher levels of peritraumatic dissociation were associated with higher levels of PTSD and adult sexual and physical victimization (Hetzel & McCanne, 2005).

In their study, Vranceanu, Hobfoll, and Johnson (2007) found that experiencing multiple types of abuse in childhood is also predictive of increased stress in women; however, stress did not directly predict PTSD. The researchers suggested that stress indirectly affects women by impairing their ability to effectively cope with daily stressors, making it more difficult to form social support networks, and by deteriorating their current social support resources. Research shows that people who have been abused as children have less social support, endorse being less satisfied with their social support networks, and perceive their relationships as less supportive. Furthermore, having fewer social support resources following traumatic events has been associated with greater PTSD symptomatology (Vranceanu et al., 2007). Experiencing adverse childhood events also makes people more susceptible to stress and increases the likelihood that they will perceive stressful events as more anxiety provoking than others.

***Criminal Activity*.** Being exposed to adverse childhood experiences also places children at risk for being involved in the criminal justice system and being incarcerated in

later life. Of all the men and women in prison in the United States, 14% and 36% respectively, have reportedly been abused as children- a rate that is almost twice the rate seen in the general population (Harlow, 1999). A 1999 study at New York's Bedford Hills Correctional Facility found that 82 percent of women had a childhood history of severe physical and/or sexual abuse and that more than 90 percent had suffered physical or sexual violence in their lifetimes (Browne, Miller, & Maguin, 1999). Children who endure abuse and neglect are nine times more likely to become involved in criminal activity (Child Welfare Information Gateway, 2013b). Research by Fergusson and Horwood (1998) indicated that children who have witnessed domestic violence in the home are at an increased risk of developing behavioral and emotional problems such as criminal activity, conduct disorders, and substance abuse.

In 1989, Widom found that 28.6% of her participants who reported being abused and neglected as children had an adult criminal record, compared to 21.1% of the non-abused group. Specifically, men who reported childhood victimization were much more likely to have been arrested than non-abused men (42.0% versus 33.2%) and similar results were found with women (15.9% versus 9.0%). Thus, this study provides evidence for the belief that childhood victimization puts individuals at a greater risk for having a criminal record as an adult (Widom, 1989a).

Widom (1989b) expanded on this research to address the differences in number of juvenile and adult arrests and violent criminal behavior between individuals who have been abused as children and those who have not. Compared to a control group, participants with a reported history of childhood victimization had more arrests as a juvenile (26% versus

17%), more arrests as an adult (29% versus 2l%), and more arrests for any violent offense (11% versus 8%). The abused and neglected individuals also had a significantly higher number of overall lifetime offenses which were committed at significantly younger ages, and they were significantly more likely to be chronic offenders than non-abused individuals (Widom, 1998b).

***Body Image*.** Numerous research studies have shown that CSA often results in body image disturbances (Byram, Wagner, & Waller, 1995; Gerko, Hughes, Hamill, & Waller, 2005). When individuals have a negative body image they often have a distorted perception of their body shape and the way their body really looks. They likely feel uncomfortable and ashamed of their body and do not see themselves as attractive. Gerko et al. (2005) studied 299 women with diagnosed eating disorders who were recruited from an eating disorders clinic; of these participants, 28.8% reported being sexually abused as children. The researchers found that a reported history of CSA was associated with body image disturbances, binge-eating, and purging behaviors (Gerko et al., 2005).

Murthi et al. (2006) also examined the effects of CSA and how it relates to physical self-concept. In their study, physical self-concept assessed the participants' self-evaluation of their physical attributes and how they perceived others' evaluation of their own physical appearance. Murthi et al. (2006) found that individuals with a history of CSA scored lower than their non-abused peers on the physical self-concept indicating that they had more negative views of their physical appearance and body.

Although, there has been considerable research suggesting that CSA is a risk factor for the development of eating disorders and body image disturbances, the role of CPA has been largely unclear (Treuer et al., 2005). Interestingly, Treuer et al. (2005)

found that a history of CPA, and not CSA, was associated with more severe body image distortion in eating disorder patients. Their results suggest that CPA appears to be a more important factor in the development of body image distortion than had previously been thought (Treuer et al., 2005).

Sexual Satisfaction and Functioning. In general, research examining the association between CSA and women's sexual functioning has been conflicting. Some researchers have documented pervasive effects of CSA on sexual functioning, while other studies have shown minimal or no effects (Loeb et al., 2002). Documented effects of CSA on sexual functioning include increased risk of sexual desire disorders, inhibited female orgasms, arousal difficulties, negative attitudes toward sexuality, and lower rates of sexual satisfaction (Loeb et al., 2002). Additionally, women with CSA histories tend to experience less reward and greater distress when thinking about sex which may lead to lower frequency of and less pleasure during sexual activity (Lorenz & Meston, 2012).

Schloredt and Heiman (2003) found that women from a community sample who reported childhood abuse histories had more negative affect during sexual arousal and more lifetime vaginal intercourse partners than non-abused women. Among women who reported experiencing both sexual and physical abuse as children, they endorsed more sexual risk taking and had the greatest reported negative affect during sex than non-abused women and women who had been physically abused alone (Schloredt & Heiman, 2003). Furthermore, CSA survivors tend to view themselves as less romantic and passionate than women who have not been abused (Meston, Rellini, & Heiman, 2006).

Another aspect of child maltreatment and sexual functioning that remains unclear is the contribution of CPA alone. In their study, Davis, Petretic-Jackson, and Ting (2001)

found that individuals who were physically abused as children scored higher on the Trauma Symptom Inventory defensive avoidance and sexual concerns scales than non-abused participants. Another study also showed an association between a history of child physical, emotional, and sexual abuse and adult sexual problems (Mullen, Martin, Anderson, Romans, & Herbison, 1996). Sexual problems included frequency of sexual activity, levels of satisfaction with their current sex lives, present and past sexual difficulties, and attitudes toward sexuality.

However, the tendency for sexual abuse, but not physical abuse to predict sexual symptoms has been found in many studies (Briere & Elliot, 2003; Briere & Runtz, 1990). Briere and Elliot (2003) found that a history of physical abuse was associated with all of the Trauma Symptom Inventory scales except those tapping into sexual symptoms and tension reduction behavior.

Attachment. Attachment theory suggests that as they develop, infants form internal working models and expectations about relationships based on experiences that they have with their caregivers (Bowlby, 1970; Murthi et al., 2006). Based on these interactions, children develop schemas and views about themselves, others, and interpersonal relationships. When caregivers are sensitive and receptive to the needs of their children a secure attachment is formed; this type of attachment is often characterized by positive views of the self, feelings of self-worth, and positive expectations of relationships. In contrast, insensitive and non-receptive caregivers often lead to insecure attachments characterized by either distrust of others and self-reliance, or a continuous fear of rejection and need for reassurance (Frías, Brassard, & Shaver, in

press). Thus, being abused as children, especially by caretakers, often creates unhealthy attachment styles and interpersonal relationships (Murthi et al., 2006).

Becker-Lausen and Mallon-Kraft (1997) indicated that survivors of child maltreatment often have difficulties maintaining healthy relationships, and they often adopt either an avoidant or an intrusive interpersonal style. Individuals with an avoidant style tend to lack warmth, have low self-disclosure, and have few friends and relationships. In contrast, individuals with an intrusive style tend to have an extreme need for closeness; they may be overly demanding, controlling, and overwhelmingly warm (Becker-Lausen & Mallon-Kraft, 1997). Additionally, research shows that women who have experienced CSA often have problems creating and maintaining positive relationships in adulthood, difficulty achieving intimacy in relationships with others, and feelings of isolation and distrust (Frías et al., in press; Murthi et al., 2006).

Researchers have also proposed a disorganized type of attachment style, independent of both secure and insecure attachments, described as the lack of an organized strategy of emotion regulation (van Ijzendoorn, Schuengel, & Bakermans-Kranenburg, 1999). Children with this type of attachment often display fear of their parent, freezing, and contradictory behaviors, such as showing indifference to their mother's return, despite feeling anxious when separated. This disorganized attachment style is often seen in abused children because they are placed in a continuous paradoxical situation in which their caretakers are the source of both their fear and comfort (van Ijzendoorn et al., 1999).

Witnessing domestic violence and being abused as a child may have varied impacts at different developmental stages, with early and prolonged exposure likely

creating more severe problems (Holt, Buckley, & Whelan, 2008). When children are very young they are completely dependent on other people for survival and nurturance making their attachment to a caregiver, especially their mother, vital. If they do not experience a secure attachment to a caregiver they may become excessively irritable, emotionally distressed, have a fear of being alone, and they may not meet their developmental milestones on time. Without a healthy attachment, infants do not experience a sense of security and comfort which reduces their ability to effectively cope with stressful situations in the future (Holt et al., 2008).

Children with sensitive and caring parents are able to develop secure attachments and effective emotional regulation, as the sensitive caregiver's role is to modulate the infant's arousal (Kim & Cicchetti, 2010). Therefore, children learn how to identify, express, and regulate their emotions from their early interactions with their caregivers. In abusive families, caregivers are less likely to provide support when their children are upset; these children often experience overwhelming emotional arousal which leads to difficulties managing and processing negative emotionality. Additionally, emotional dysregulation is related to neurobiological changes and developments that result from early child maltreatment. Early exposure to violence often results in dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis following social interactions and a smaller prefrontal cortex and right temporal lobe (Kim & Cicchetti, 2010; Tarullo & Gunnar, 2006; Tupler & De Bellis, 2006). Thus, research shows that early exposure to violence neurologically affects children's ability to regulate their emotions and modulate their behavioral responses to stressors.

When children become older, 6-12 years old, they become increasingly aware of how viewing domestic violence affects themselves and the abused parent, more often the mother (Holt et al., 2008). They may try to protect their mothers and will likely feel guilty and blame themselves for causing the violence. Additionally, they may try to rationalize their father's abusive behavior by blaming alcohol, stress, or their bad behavior or their mother's bad behavior. Adolescents exposed to adverse experiences are also more likely to have avoidant attachment styles due to the lack of support, care, and security they have experienced from others (Holt et al., 2008). Furthermore, in adolescence, domestic violence affects individuals outside of the home by making it more difficult for them to form healthy intimate relationships with peers due to the unhealthy relationships they witnessed in their family.

Kim and Cicchetti (2010) found that experiencing child maltreatment was associated with emotional dysregulation, externalizing symptomatology, and peer rejection in adolescents. More specifically, they found that experiencing neglect, physical, and/or sexual abuse was related to lower emotion regulation, which in turn, was associated with higher externalizing symptomatology such as excessive emotional reactivity, aggression, and inappropriate affective displays. Additionally, greater externalizing symptomatology was related to peer rejection, as adolescents who display disruptive and aggressive behaviors are more likely to be rejected by their peers. Conversely, higher emotion regulation was predictive of higher peer acceptance, as adolescents with adaptive emotion regulation often have higher social competence and prosocial attributes such as perspective-taking and empathy (Kim & Cicchetti, 2010).

Lev-Wiesel and Sternberg (2012) found that physical and emotional abuse are risk factors for social rejection by adolescent peers based on the rejection sensitivity model influenced by attachment theory. This model suggests that the extent to which an individual perceives being rejected may be inaccurate, but their negative responses to the ambiguous behaviors of others can produce an actual rejection experience and a self-fulfilling prophecy. Children and adolescents who are abused and neglected by caregivers often feel dismissed and thus, expect to be rejected by others. Adolescents who are hypervigilant to rejection are likely to interpret people's behaviors toward them as rejection and thus, act as if they have been rejected often leading to peer alienation (Lev-Wiesel & Sternberg, 2012).

Multiple Types of Abuse

In many cases, individuals report having experienced multiple types of childhood maltreatment with psychological abuse often accompanying other forms of violence. People who experience multiple types of abuse frequently report more severe symptomatology than those who report experiencing a single form of abuse. In Davis et al.'s (2001) study, 115 out of a total 315 female participants reported being sexually and/or physically abused as children. Additionally, 58 (18%) endorsed experiencing CSA only, 35 (11%) reported CPA only, and 22 (7%) endorsed both sexual and physical abuse (Davis et al., 2001).

The women who endorsed CPA or multiple types of abuse reported higher levels of psychological maltreatment than those with a history of sexual abuse alone (Davis et al., 2001). Participants who experienced multiple types of child victimization scored significantly higher on the Dysfunctional Sexual Behavior and Intrusive Experiences

subscales of the Trauma Symptom Inventory than the single abuse groups. These women also endorsed more fear of intimacy than participants who reported experiencing a single type of abuse or no abuse in childhood (Davis et al., 2001).

One-quarter of the 9,508 respondents in the ACE study reported experiencing two or more categories of abuse (Felitti et al., 1998). Results indicated that different types of childhood violence are strongly interrelated and people who suffer from multiple types tend to have various health risk factors in life such as substance abuse, suicide attempts, obesity, and heart disease. Moreover, a strong dose-response relationship was found between the number of childhood exposures and multiple risk factors for the leading causes of death (Felitti et al., 1998). In 1992, Wind and Silvern analyzed the individual and combined effects of childhood physical and sexual abuse on women in adulthood. Women who were both physically and sexually abused as children endorsed significantly more symptomatology on several measures compared to the groups who were either sexually or physically abused. These women also reported a higher number of both sexual and physical assaults in adulthood than the other women in the study (Wind & Silvern, 1992).

Revictimization

Child abuse and neglect makes survivors more vulnerable and greatly increases their risk for future victimization, or revictimization (Widom et al., 2008). In 2000, it was found that women who reported being raped before the age of 18, were twice as likely to report being raped as an adult. Similarly, women were also twice as likely to be physically assaulted as an adult if they had been physically assaulted by an adult caretaker before the age of 18. Women who reported being stalked as a child or

adolescent were actually seven times more likely to report being stalked as an adult (U.S. Department of Justice, 2000).

It is likely that child victimization makes most survivors more vulnerable to future abuse due to the shame, low self-esteem, insecure attachment styles, and psychological symptoms that often arise after being abused. It may be harder for abuse survivors to form healthy relationships, gain social support, avoid risky behaviors, and protect themselves due to these vulnerabilities. Research shows that women who have been severely sexually abused as children have higher rates of sexual activity at a young age, teenage pregnancy, sexually transmitted diseases, unprotected sexual intercourse, multiple sexual partnerships, and future sexual assault and rape (Fergusson, Horwood, & Lynskey, 1997). Women who experience CPA or who witness violence in the home have also been found to be more vulnerable to future abuse. In Bensley, Van Eenwyk, and Simmons' (2003) study, these women had a four-to six-fold increase in risk of physical IPV and a three- to four-fold increase in risk of partner emotional abuse.

Widom and colleagues (2008) analyzed data from a prospective cohort design study in which abused and neglected children were matched with non-abused children and followed prospectively into adulthood. The participants with a history of abuse were found using records from county juvenile and adult criminal courts from the years 1967 through 1971. Specifically, Widom et al. (2008) interviewed 892 participants in the years 2000-2002. Results strongly showed that individuals who were physically abused, sexually abused, or neglected as children were at an increased risk of revictimization compared to the matched control group. Individuals who experienced multiple forms of childhood abuse or neglect experienced subsequent traumas at higher rates than the other

participants. Findings indicated that childhood maltreatment was not a risk factor for all types of future victimization, but rather for traumas classified as interpersonal violence; interpersonal violence included physical and sexual assault/abuse, kidnapping, stalking, and having a family member or friend commit suicide or be murdered (Widom et al., 2008).

Intimate Partner Violence (IPV)

Intimate partner violence is a term that encompasses a broad range of behaviors used to take advantage of and gain power over others. The United States Department of Justice (2013) defines IPV as a pattern of abusive behavior in any relationship that is used by one partner to gain or maintain power and control over another intimate partner. It can be physical, sexual, psychological, or economical actions or threats used to intimidate, manipulate, humiliate, coerce, or hurt someone. Specifically, physical abuse is an assault on a person including hitting, slapping, grabbing, shoving, etc. Sexual abuse consists of coercing or attempting to force any sexual acts without consent (U.S. Department of Justice, 2013). Psychological abuse is the attempt to undermine an individual's sense of self-worth and safety through name-calling, criticism, intimidation, isolating them from others, stalking, threatening physical harm to self, partner, or children, and the destruction of pets and property. Economic abuse is attempting to or making an individual financially dependent by controlling financial resources, withholding access to money, or not allowing a partner to be employed (U.S. Department of Justice, 2013).

IPV is a pervasive and serious public health problem that affects people regardless of race, age, sexual orientation, socioeconomic status, religion, or gender (U.S.

Department of Justice, 2013). According to the National Intimate Partner and Sexual Violence Survey, more than one out of every three women (35.6%) and one out of every four men (28.5%) in the United States has experienced rape, physical violence, and/or stalking by an intimate partner at some point in their lifetime (National Center for Injury Prevention and Control, 2010). It is estimated that 1.5 million women are physically assaulted and/or raped by an intimate partner each year; since most survivors of IPV are repeatedly victimized by their partners, it is estimated that 4.8 million intimate partner physical assaults and rapes against women occur every year (Dutton, 2009).

While men can be victims of IPV, women are subjected to IPV at much higher rates than men and are more likely to be severely injured and even killed by their partners. In the National Violence Against Women Survey (NVAWS), women in the U.S. were significantly more likely than men to be physically or sexually abused by an intimate partner (Howard, Trevillion, Agnew-Davies, 2010). Moreover, statistics show that women who are young, separated, pregnant, and who have experienced child abuse have higher prevalence rates of IPV. This type of violence is one of the most common causes of injury among women and is a significant cause of death in women ranging from 15 to 49 years old (Howard et al., 2010). According to the feminist model, being a girl or woman places individuals in the highest risk category for becoming a victim of male perpetrated IPV (Walker, 2006).

Cycle of Violence

In most battering relationships, women experience multiple types of abuse. Abusive relationships often begin with psychological abuse and then can eventually escalate into physical violence. The longer a woman remains in an abusive relationship,

the more likely she is to experience multiple types of abuse and the more severe the abuse is likely to become. Many women stay in these relationships due to the nature and distinct pattern of IPV known as the cycle of violence (Walker, 2006).

According to Walker (2006), this cycle of violence begins with the initial courtship period and is then followed by three phases that are continuously repeated. The first phase is the *tension-building* phase in which small disagreements and arguments occur and the woman tries to please the man in an effort to defuse the situation. Eventually too much tension is built up and it erupts into the *acute battering incident* phase; this second phase is the shortest part of the cycle, but has the highest risk for physical or sexual damage. The third phase is the *loving-contrition* phase and occurs when the batterer apologizes for his violent acts and engages in loving behavior. Interestingly, in some relationships loving behavior is not displayed, rather there is only a decrease or temporary interruption in the violence which reinforces the victim's belief that this is the "real" relationship (Walker, 2006).

Severity of IPV

Research has shown that more severe and frequent abuse often leads to more damaging negative effects (Chandra, Satyanarayana, & Carey, 2009). Abuse that is severe and long-lasting can decrease a woman's ability to effectively cope and utilize her resources which may leave her feeling hopeless. Women may experience more harmful consequences of abuse when they suffer from multiple types of abuse, when the abusive relationship lasts for a long period of time, and if they have been in multiple abusive relationships. Numerous research studies have shown that women who endure multiple types of abuse such as psychological, physical, and sexual report higher levels of mental

health issues (Bennice, Resick, Mechanic, & Astin, 2003; Coker, et al., 2005; Follette, Polusny, Bechtle, & Naugle, 1996). In other words, experiencing multiple types of abuse can have a cumulative and additive impact on IPV survivors.

As previously mentioned, the longer a woman remains in an abusive relationship, the more likely she is to experience multiple types of abuse, the more injuries she is likely to sustain, and the more severe the abuse is likely to become (Walker, 2009). Over time, a battered woman's ability to cope becomes compromised and the greater psychological impact the abuse will have. Additionally, the more time a woman spends in a relationship, the more she may feel dedicated to making it work and the more difficult it may be to leave (Waldrop & Resick, 2004). More severe effects may also be seen in women who have been in multiple abusive relationships. Coolidge and Anderson (2002) found that women who reported being in multiple abusive relationships had higher rates of depression than women in single abusive relationships.

Effects of IPV

IPV can have serious and long-lasting effects on the survivors and their families. Survivors often suffer from acute and chronic health problems such as broken bones, gynecological problems, cardiovascular conditions, gastrointestinal issues, and death due to the physical assault and psychological torment they endure (Howard et al., 2010). The constant anxiety, fear, and psychological abuse that they are exposed to often leads to mental health effects like depression, PTSD, suicidal ideation, substance abuse, and sleep and eating disorders (Howard et al., 2010). IPV survivors are also at risk for being involved in the criminal justice system. More than one million women are currently

incarcerated or under the control of the justice system in the United States, and rates as high as 85-90% have reported a history of IPV (American Civil Liberties Union, 2011).

One of the most common diagnoses among battered women is PTSD. Studies involving help-seeking populations have found that more than 40% of IPV survivors meet diagnostic criteria for PTSD (Arias & Pape, 1999). In community samples, rates of PTSD in IPV survivors have ranged from 33% to 58% (Coker et al., 2005). Bennice et al. (2003) found a significant relation between physical and sexual violence and symptoms of PTSD in their sample of 62 help-seeking battered women. The women who endured multiple types of abuse such as physical and sexual partner violence reported higher levels of PTSD. Additionally, physical violence was reportedly more severe in the relationships that also involved sexual violence. Sexual violence was found to be independently associated with PTSD severity after controlling for physical violence, suggesting that sexual violence has unique effects on battered women (Bennice et al., 2003).

It is common for female survivors of IPV to report both symptoms of PTSD and comorbid depression. Out of 105 women who were seeking help for mental health problems in South India, 56% reported at least one form of IPV (Chandra et al., 2009). Two-thirds of the participants who reported experiencing IPV also reported being sexually coerced by their partners at some time during the relationship. Although most of these women endorsed PTSD symptoms, only 14% met criteria suggesting that survivors of IPV often experience many of the symptoms associated with PTSD, but do not always meet criteria for the diagnosis (Chandra et al., 2009). Common symptoms endorsed by these women were sleep difficulties, anger, intrusive recollections, impaired

concentration, flashbacks, and nightmares. Results showed that women who reported more severe IPV and sexual coercion had more severe PTSD symptoms, and the women who reported greater PTSD symptoms also endorsed greater depressive symptomatology. (Chandra et al., 2009).

Coker et al. (2005) also found that PTSD symptoms are associated with depressive symptoms among survivors of IPV. Moreover, physical abuse, sexual abuse, and psychological abuse, measured as abuse of power and control, were all positively correlated with PTSD. Results indicated that past victimization and severity of the abuse were risk factors for the development of PTSD (Coker et al., 2005). As this research and previous research has shown, child abuse is a risk factor for both adult victimization and PTSD. Follette et al. (1996) tested the theory that experiencing multiple types of trauma such as child sexual abuse, adult sexual assault, and spousal abuse will have an additive effect on trauma symptoms. Of the 210 female participants who reported different types and severities of abuse, the women who reported more types of abuse had the most severe trauma symptomatology. The women who were seeking mental health services also reported more types of traumatic events and higher levels of PTSD symptomatology (Follette et al., 1996).

Another possible consequence of IPV is Battered Woman Syndrome (BWS). BWS is a construct developed by Walker (2006) that has been empirically shown to be a sub-category of PTSD. This syndrome consists of multiple symptoms such re-experiencing the abuse as if it were reoccurring even when it is not, and attempting to avoid memories or feelings of the abuse by avoiding activities, people, and emotions. Moreover, women who have BWS may experience hypervigilance, interpersonal

difficulties, body image distortion, somatic concerns, and sexual dysfunction (Walker, 2006).

Resiliency

Although it is common for survivors of IPV to experience short and long-term effects, some individuals are able to more effectively cope with the abuse and consequently experience fewer negative outcomes. These women are considered more resilient because they are able to take advantage of their resources and are less vulnerable to the negative effects of abuse (Masten, Best, & Garmezy, 1990). Protective factors are resources and attributes that buffer individuals from the psychological harm that is normally associated with traumatic experiences (Carlson, McNutt, Choi, & Rose, 2002). Coker et al. (2005) found that higher education, increased social support, engaging in mental health treatment, and higher socioeconomic status were protective factors that increase survivors' resiliency and reduce PTSD symptoms.

Research indicates that social support is the strongest protective factor for battered women (Carlson et al., 2002). Social support buffers survivors from the negative impacts of IPV by increasing their awareness of coping skills, allowing them to discuss their experiences with confidantes, and increasing their self-esteem. However, women who experience severe abuse are less likely to benefit from protective factors due to the overwhelming nature of this abuse and the erosion of protective factors (Carlson et al., 2002). Thus, women who experience severe levels of IPV will likely have higher rates of PTSD symptomatology, despite having sufficient social support and protective factors.

Attachment

Attachment style, originally theorized and developed by Bowlby, is another potential protective factor for battered women. Having a secure attachment is a personal resource that can help an individual accurately assess stressful situations, effectively cope with these events, and improve his or her adjustment (Mikulincer & Florian, 1998). Secure attachments may also give a person a sense of control and self-efficacy, while also ensuring confidence in seeking help from others in times of need which often buffers the effects of psychological distress. Additionally, secure individuals tend to be more tolerant of stressful situations and feel unpleasant emotions without being overwhelmed by them. Individuals with secure attachments deal with distress by acknowledging it, problem-solving, and turning to others for emotional and instrumental support. Contrastingly, insecure attachments are potential risk factors which may result in poor coping and maladjustment. When faced with distressing situations, people with insecure attachments are more likely to perceive the situations as threating, uncontrollable, and irreversible. They are more likely to feel helpless, to respond with strong emotions, to have more mistrusting views of others, and to socially withdraw when faced with stressful situations (Mikulincer & Florian, 1998).

Mikulincer, Florian, and Weller (1993) analyzed a sample of young adults who had experienced missile attacks during the Gulf War to conduct the first systematic study that attempted to assess the role of adult attachment style. They found that attachment style is associated with individual differences in coping and adjustment with war-related stress. Secure participants sought out greater social support during the missile attacks and endorsed lower levels of posttraumatic stress than insecure participants. Anxious-

ambivalent individuals showed a heightened reliance on maladaptive emotion-focused coping and reported higher levels of posttraumatic distress in response to the attacks. Avoidant persons were found to elude their emotions by suppressing their anxiety and depression, while indirectly expressing their distress through higher somatization and hostility after the war (Mikulincer et al., 1993).

Attachment theory has been applied to adulthood and adapted to empirically test the dimensions underlying the three attachment patterns: closeness, dependency, and anxiety (Collins & Read, 1990). *Closeness* relates to a secure attachment style and reflects the ease, desire, and comfort one has in becoming close to his/her partner. The *dependent* attachment style involves the extent to which a person feels he/she can depend on others to be available when needed. The *anxiety* attachment style is a person's concern and fear of abandonment and rejection (Collins & Read, 1990). Scott and Babcock (2010) hypothesized that attachment style would moderate the relation between IPV and PTSD. They posited that the Anxiety attachment style would be a risk factor for developing more severe PTSD symptoms in women who have experienced IPV due to the heightened fear of being rejected. Dependent attachment was also predicted to be a risk factor for PTSD as being dependent on a partner and putting trust in that partner is incongruous with the partner being abusive. They hypothesized that Close attachment styles would protect against PTSD (Scott & Babcock, 2010).

Scott and Babcock (2010) found that physical abuse was associated with PTSD symptoms, and Dependency and Anxiety attachment styles moderated the relationsh between IPV and PTSD. More specifically, these attachment styles were risk factors that strengthened the relation between IPV and PTSD. Battered women who have anxious

attachment patterns may be at risk for developing PTSD due to their predisposition of fear of abandonment and rejection. In this study, the women who have dependent attachment patterns are at a higher risk due to their lack of independence, their reliance on their abusive partner for support, and their fear of loss in ending long-term relationships. In contrast, closeness did not moderate the relation between IPV and PTSD. Although, the Close attachment style was not a moderator, this attachment style was negatively correlated with IPV and PTSD (Scott & Babcock, 2010). Scott and Babcock (2010) indicated that closeness may not have been found to be a moderator due to the limitations of using a cross-sectional design and not controlling for factors such as other traumatic events and women's perpetration of violence toward their partner.

When children are young, the initial relationships that they have with their caretakers have immense influence on the development of their attachment style. Van Ijzendoorn (1995) found that the attachment style of the parent will predict the attachment style of their child with as high as 80% predictability. Therefore, if children grow up with non-responsive parents and/or experience child abuse and neglect, they will likely develop insecure attachment styles that affect their current and future relationships. When women with insecure attachment styles are in abusive relationships, they may be less likely to seek help outside of their relationships because they believe that no one will be there to help them (van Ijzendoorn, 1995). Fortunately, this relation between early childhood experiences and adult attachment can be changed through positive attachment experiences with a friend, intimate partner, or mental health provider.

While the majority of research indicates that attachment styles are relatively stable, there have been studies that suggest that attachment styles are actually flexible and

can change in both childhood and adulthood in response to various life changes (Cozzarelli, Karafa, Collins, & Tagler, 2003; Solomon, Dekel, & Mikulincer, 2008). Cozzarelli et al. (2003) examined the predictors of stability and change in adult attachment styles in a community sample of 442 women who underwent a common stressor (abortion) that often leads to disruptions in social relationships; these disruptions were expected to affect attachment style. Over a two-year time period, 46% of the women changed their attachment style suggesting that attachment is not as stable as previously believed (Cozzarelli et al., 2003).

More specifically, results indicated that having a history of depression and/or abuse was associated with increases in insecure attachment styles over time; whereas, increases in self-esteem and perceptions of social support were related to greater secure attachment styles (Cozzarelli et al., 2003). Women who remained secure were more likely to have gotten married and to have experienced less distress than women who remained insecure. Additionally, the women who changed from secure to insecure attachment styles reported having experienced the end of an intimate relationship and/or reported being the victims of a rape or assault more often than the other groups of women (Cozzarelli et al., 2003).

Purpose

The purpose of the current study was to examine the impact that child maltreatment had on IPV survivors in various mental health aspects. The specific goal was to determine if being abused as children would have a greater impact on these IPV survivors on factors such as body image, sexual functioning and quality, and attachment style, than IPV survivors who had not been abused as children. Another purpose of this

study was to evaluate the impact that secure attachment styles may have had on these women as a potential source of resilience and the impact that insecure attachment styles may have had as a potential source of risk in terms of developing post-traumatic stress symptoms. The goal was to determine if the relation between post-traumatic stress symptomatology and IPV survivors who had been abused as children versus those who had not, depended on attachment style.

Hypothesis 1

Incarcerated female survivors of IPV will have a significantly higher proportion of child abuse and neglect, than the proportion of child maltreatment in the population, as adverse childhood experiences, criminal activity, and IPV have been shown to be strongly associated with one another (American Civil Liberties Union, 2011; Bensley et al., 2003; Harlow, 1999; Widom, 1989a; Widom, 1989b).

Research indicates that children who endure abuse and neglect are nine times more likely to become involved in criminal activity (Child Welfare Information Gateway, 2013b). According to Harlow (1999), 14% of men and 36% of women in prison in the United States in 1999 had reportedly been abused as children- a rate that was almost twice the rate seen in the general population at that time. Widom (1989a) found that 15.9% of women who reported childhood victimization had been arrested compared to 9.0% of women who had not been abused as children. Compared to a control group, participants with a reported history of childhood victimization had more arrests as a juvenile (26% versus 17%), more arrests as an adult (29% versus 2l%), and more arrests for any violent offense (11% versus 8%) (Widom, 1998b). Furthermore, Wolff and Shi

(2010) found that over one-quarter of incarcerated men reported being abandoned during childhood or adolescence.

Childhood victimization is also a risk factor for future victimization and IPV. Bensley et al. (2003) found that women who experienced CPA had a four-to six-fold increase in risk of physical IPV and a three- to four-fold increase in risk of partner emotional abuse as adults. Widom and colleagues (2008) analyzed data from a prospective cohort design study in which abused and neglected children were matched with non-abused children and followed prospectively into adulthood. Results suggested that individuals who were physically abused, sexually abused, or neglected as children were at an increased risk of revictimization compared to the matched control group. Furthermore, being an IPV survivor also puts women at risk for being involved in the criminal justice system. In 2011, more than one million women were incarcerated or under the control of the justice system in the United States, and rates as high as 85-90% have reported a history of IPV (American Civil Liberties Union, 2011).

Hypothesis 2

Among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly higher levels, on average, of poor body image as measured by the Surveillance, Body Shame, and Control Beliefs scales of the Objectified Body Consciousness Scale (OBCS), than those women who have not been abused as children.

Individuals who have endured CSA tend to have lower physical self-concept meaning they have more negative views of their physical appearance and body and believe that other people view their body as negative as well (Murthi et al., 2006). They

likely feel uncomfortable and ashamed of their body and do not see themselves as attractive. Gerko et al. (2005) studied 299 women with diagnosed eating disorders who were recruited from an eating disorders clinic; of these participants, 28.8% reported being sexually abused as children. The researchers found that a reported history of CSA was associated with body image disturbances, binge-eating, and purging behaviors (Gerko et al., 2005). Interestingly, Treuer et al. (2005) found that a history of CPA, and not CSA, was associated with more severe body image distortion in eating disorder patients. Their results suggest that CPA appears to be a more important factor in the development of body image distortion than had previously been thought (Treuer et al., 2005).

Hypothesis 3

Among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly lower levels, on average, of quality of sexual functioning as measured by the Sexual Cognition/Fantasy, Sexual Arousal, Sexual Behavior/Experience, Orgasm, Sexual Drive/Relationship, and Total Score scales of the Derogatis Interview for Sexual Functioning- Self Report (DISF-SR), than those women who have not been abused as children.

As previously mentioned, research examining the association between CA and women's sexual functioning has been conflicting. Some researchers have documented pervasive effects of CSA on sexual functioning, while other studies have shown minimal or no effects (Loeb et al., 2002). Other findings indicate that only CSA negatively impacts sexual functioning, while other studies indicate that both CPA and CSA or even CPA alone impacts sexual functioning.

Documented effects of CA on sexual functioning include inhibited female orgasms, negative attitudes toward sexuality, and lower rates of sexual satisfaction (Loeb et al., 2002). Women with CSA histories tend to experience less reward and greater distress when thinking about sex and they tend to view themselves as less romantic and passionate than women who have not been abused (Lorenz & Meston, 2012; Meston et al., 2006).

Among women who reported experiencing both sexual and physical abuse as children, they endorsed more sexual risk taking and had the greatest reported negative affect during sex than non-abused women and women who had been physically abused alone (Schloredt & Heiman, 2003). Additionally, in 2001, Davis et al. found that individuals who were physically abused as children scored higher on sexual concerns scales than non-abused participants.

Hypothesis 4

Among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly higher levels, on average, of insecure attachment styles and significantly lower levels, on average, of secure attachment styles than those women who have not been abused as children, as measured by the Close, Depend, and Anxiety scales of the Adult Attachment Scale (AAS). More specifically, the women who have been abused as children will have significantly lower levels on the Close and Depend scales and significantly higher levels on the Anxiety scale, than the women who have not experienced CA.

Children form internal working models about the world and others around them through their early interaction with their caregivers. Children who have parents who are

sensitive to their needs and provide them with their needs learn how to express and regulate their emotions, learn how to interact with others, and learn how to trust others and form secure attachments (Kim & Cicchetti, 2010). When children are abused and neglected, they do not get their needs met, they often do not learn emotional regulation, and they cannot trust the people around them; thus, they often develop insecure attachments characterized by distrust of others and self-reliance (Frías et al., in press). Individuals who have been abused as children are more likely to worry about being rejected and unloved (Anxiety), and less likely to feel comfortable with closeness (Close) and to believe that they can depend on others when needed (Depend) (Collins, 1990).

Furthermore, survivors of child victimization tend to have difficulties maintaining healthy relationships and often develop an avoidant or intrusive interpersonal style. Individuals with an avoidant attachment style tend to lack warmth, have low self-disclosure, and have few friends and relationships. Individuals with an intrusive style tend to have an extreme need for closeness; they may be overly demanding, controlling, and overwhelmingly warm (Becker-Lausen & Mallon-Kraft, 1997). Additionally, women who have experienced CSA often have problems creating and maintaining positive relationships in adulthood, difficulty achieving intimacy in relationships with others, and feelings of isolation and distrust (Frías et al., in press; Murthi et al., 2006).

Hypothesis 5

The relation between post-traumatic stress symptomatology and IPV survivors who have been abused as children versus those who have not been abused as children will depend on attachment style. Post-traumatic stress symptomatology will be measured using the Post-traumatic Stress-Total Scale of the Detailed Assessment of Posttraumatic

Stress (DAPS) and attachment styles will be determined using the AAS. More specifically, it is hypothesized that the secure attachment styles (Close and Depend) will buffer the effects that CA has on survivors of IPV in terms of developing post-traumatic stress symptoms, while the insecure attachment style (Anxiety) will act as a risk factor.

The Close and Depend attachment styles of the AAS are hypothesized to be protective factors because having a secure attachment can be a personal resource that helps individuals accurately assess situations and relationships and effectively cope with stressful situations (Mikulincer & Florian, 1998). Furthermore, when coping with traumatic events such as CA, IPV, and incarceration, women with these secure attachment styles are more likely to feel like they can depend on others when needed, are more likely to feel comfortable with reaching out to their social support network for help, and are more likely to have a sense of control over the situations. Contrastingly, it is hypothesized that the Anxiety attachment style will strengthen the relation between post-traumatic stress symptoms and incarcerated IPV survivors who have or have not been abused as children because insecure attachment styles tend to result in poor coping and maladjustment (Mikulincer & Florian, 1998). When faced with distressing situations, such as CA, IPV, and incarceration, these women are more likely to perceive the situations as threating, uncontrollable, and irreversible. They are more likely to feel helpless, to respond with strong emotions, to fear rejection by others, and to socially withdraw when faced with stressful situations (Mikulincer & Florian, 1998).

Similarly, Mikulincer et al. (1993) found that attachment style is associated with individual differences in coping and adjustment with war-related stress. Secure participants sought out greater social support during the missile attacks and endorsed

lower levels of posttraumatic stress than insecure participants; while individuals with insecure attachment styles used maladaptive coping mechanisms such as emotion-focused coping or suppression of their anxiety and depression which resulted in higher levels of posttraumatic distress and somatization (Mikulincer et al., 1993).

Scott and Babcock (2010) hypothesized that the Anxiety attachment style would be a risk factor for developing more severe PTSD symptoms in women who have experienced IPV due to the heightened fear of being rejected. Although the Depend attachment style is generally seen as a secure attachment style, the researchers predicted it would be a risk factor for PTSD due to their participants being women currently in abusive relationships. Therefore, they believed that being dependent on a partner and putting trust in that partner is incongruous with the partner being abusive (Scott & Babcock, 2010). They found that the Close attachment style did not moderate the relation between IPV and PTSD, but both the Anxiety and Depend styles did moderate the relation. They posited that battered women who have anxious attachment patterns may be at risk for developing PTSD due to their predisposition of fear of abandonment and rejection. Furthermore, the women who had the Depend attachment style may be at a higher risk due to their reliance on their abusive partner for support and their fear of loss in ending long-term relationships (Scott & Babcock, 2010).

CHAPTER III

Methods

Participants

Data collected for this study was gathered from an existing database from an ongoing research project entitled "The Battered Woman Syndrome Questionnaire-3 Validation Study." All data was de-identified. Participants were incarcerated women recruited from a county jail in South Florida. Participation criteria were: (1) the woman must have been involved in at least one intimate relationship (i.e., spouse, boyfriend/girlfriend) in which she was the victim of psychological, physical, and/or sexual abuse, and (2) she must be at least 18 years old. The sample was ethnically diverse with participants born in the United States, Greece, Barcelona, Trinidad, and Colombia. Participants were recruited with the approval of the Broward Sheriff's Office, who allowed researchers to inform inmates of the study and recruit in general population units in the primary women's detention center. Additionally, the study was approved by the Institutional Review Board at Nova Southeastern University (NSU-IRB).

Participants in the final sample of 277 ranged in age from 18 to 76 years (M = 36.41, SD = 10.95). The participants' reported formal years of schooling ranged from 2 to 20 years (M = 11.80, SD = 2.87). In terms of race, 49.1% (n = 136) of participants identified as Caucasian, 6.5% (n = 18) identified as Hispanic, 10.5% (n = 29) identified as African American, 2.9% (n = 8) identified as American Indian, 0.4% (n = 1) identified as Asian American, 9.4% (n = 26) identified as Multiracial, 3.2% (n = 9) identified as African/Black, 2.5% (n = 7) identified as East Indian, and 15.5% (n = 43) identified as an "other" racial identity.

Measures

The women participating in the study were administered the Battered Woman Syndrome Questionnaire, Third Edition (BWSQ-3), which includes supplemental measures. The supplemental measures included are the Detailed Assessment of Posttraumatic Stress (DAPS), the Trauma Symptom Inventory (TSI), the Adult Attachment Scale (AAS), the Derogatis Interview for Sexual Functioning- Self Report (DISF-SR), and the Objectified Body Consciousness Scale (OBCS).

BWSQ-3

The BWSQ was created by Lenore Walker in 1978 for a National Institute of Mental Health (NIMH) funded study (Walker, 1984). The questionnaire was revised in 2002; in 2003, Dr. Walker and her graduate students revised the BWSQ to eliminate questions that did not discriminate between participants, as well as to update the questionnaire to reflect changes that had occurred in the field. The original questionnaire took four to six hours to administer; while the BWSQ was significantly shortened in length overall, new scales were added. Data for the present study is based upon this third edition of the BWSQ. Data for the current study was archival and no new data was collected for the purposes of this study.

The BWSQ-3 is a semi-structured clinical interview that assesses the characteristics of female survivors of IPV who have been involved in one or several abusive relationships and exposed to a spectrum of psychological, physical, and/or sexual violence. The BWSQ-3 consists of numerous sections that address the following areas: demographics, childhood history, somatic complaints, childhood abuse, significant battering relationships, power and control, sexuality, legal history, and substance use. The

BWSQ-3 also gathers information on four battering experiences including the first, most recent, worst, and typical incident. For each experience there is an assessment of psychological, physical, and sexual abuse. Finally, the questionnaire also contains numerous supplemental measures that assess participants' attachment styles, body image, sexual functioning, and post-traumatic stress symptoms.

The supplemental measures of interest in this study are the DAPS, AAS, DISF-SR, and OBCS. Measures of interest were selected based on research demonstrating sound reliability and validity, as well as the specific nature of the measures and their ability to best address the research questions posed.

DAPS

Posttraumatic stress symptomatology was assessed using the Detailed Assessment of Posttraumatic Stress (DAPS; Briere, 2001), a comprehensive 104-item clinical measure of trauma exposure and post-traumatic stress in individuals ages 18 years and older who have a history of exposure to one or more potentially traumatic events. Items assess for an individual's immediate psychological reactions, posttraumatic stress symptoms, and level of posttraumatic impairment (Briere, 2001). This measure has two validity scales that evaluate under- and over-reporting of symptoms, four clinical scales that assess reexperiencing, hyperarousal, avoidance, and impairment, and three supplementary scales that assess event-related dissociation, substance abuse, and suicidality. The DAPS allows for a tentative DSM-IV diagnosis of posttraumatic stress disorder and acute stress disorder.

The DAPS has been standardized on a normative group of 406 men and women who have experienced at least one traumatic event. The probable DSM-IV PTSD

diagnosis generated by the DAPS has good sensitivity (.88) and specificity (.86) with a good kappa coefficient (.73) when compared to the Clinician Administered PTSD Scale (CAPS), which is considered an industry standard when measuring PTSD (Briere, 2001). The alpha coefficients of the clinical scales ranged from low (0.57) to high (0.96) in the normative sample with a mean coefficient of 0.83 (Sbordone, Saul, & Purisch, 2007). These results indicate that with the exception of the Negative Bias and Relative Trauma Exposure Scales, the scales are internally consistent. No data is available in the test manual about test-retest reliability. The response bias scales demonstrated good convergent and discriminant validity with other self-report measures of response validity, and the clinical scales demonstrated good convergent and discriminant validity with other self-report measures of PTSD and other types of psychopathology (Sbordone et al., 2007).

AAS

Attachment styles were assessed using the Adult Attachment Scale (AAS; Collins & Read, 1990), an 18-item scale designed to measure three dimensions of adult attachment: closeness, dependency, and anxiety. The advantages of using this dimensional approach include increased power and accuracy by not forcing participants into one category when they may have characteristics of several categories. The three subscales measure the extent to which a person feels comfortable with closeness and intimacy (Close), the extent to which an individual feels they can depend on others when needed (Depend), and the extent to which a person worries about being rejected or unloved (Anxiety) (Collins, 1996). Respondents answer items such as “I find it relatively easy to get close to people,” “I find it difficult to allow myself to depend on others,” and

"I often worry that my partner does not really love me" on a five-point Likert scale, ranging from 1 (*not at all characteristic of me*) to 5 (*very characteristic of me*).

Cronbach's alpha for the Depend, Anxiety, and Close items were .75, .72, and .69 respectively. Test–retest reliability (2-month interval) scores for the AAS were .68 for Close, .71 for Depend, and .52 for Anxiety (Goldman & Anderson, 2007). In 1996, Collins used a revised version of the Adult Attachment Scale; results indicated that the Close and Depend subscales were fairly strongly correlated (r = .53), and the Anxiety subscale was moderately negatively correlated with the Close (r = −.34) and Depend (r = −.46) subscales. Sperling, Foelsch, and Grace (1996) found the AAS and the Attachment Style Measure (ASM) to be closely associated. Convergent validity between the Anxiety Scale on the AAS and the Anxiety scale on the ASM was r = .71 (p < .001); convergent validity between and the Close scale on the AAS and the Secure scale on the ASM was r = .79 (p < .01) (Sperling et al., 1996). Cronbach's alphas for Close, Depend, and Anxiety in this current sample were .54, .68, and .69, respectively demonstrating poor to acceptable internal consistency.

DISF-SR

Quality of sexual functioning was measured using the Derogatis Interview for Sexual Functioning- Self Report (DISF-SR), a brief, 25-item, gender-keyed, multidimensional assessment designed to measure an individual's current sexual functioning (Derogatis, 1997). The DISF-SR is divided into five sections that represent aspects of human sexual functioning including sexual cognition and fantasy, sexual arousal, sexual behavior and experiences, orgasm, as well as sexual drive and relationship. A total score that represents overall sexual functioning is also generated.

Some items are coded on a frequency scale ranging from 0 (*not at all*) to 8 (*four or more times per day*) and from 0 (*never*) to 4 (*always*). The DISF-SR was normed on a community sample of 277 individuals. Internal consistency coefficients (n = 168) for the Sexual Cognition and Fantasy, Sexual Arousal, Sexual Behavior and Experience, Orgasm, and Sexual Drive and Relationship scales were .79, .76, .77, .80, and .74, respectively. Test-retest reliability coefficients with a one-week time interval (n = 122) for the Sexual Cognition and Fantasy, Sexual Arousal, Sexual Behavior and Experience, Orgasm, Sexual Drive and Relationship, and Total Score scales were .90, .82, .81, .83, .80, and .86, respectively (Derogatis, 1997).

Additionally, based on a sample of 168 community individuals, the average correlation among subtests was .27; whereas, the average correlation with the total score was .62 affirming construct independence and a unique contribution of test components to the total score. In a study with 43 men diagnosed with adenocarcinoma of the prostate, sensitivity was 89%, specificity was 75%, and the predictive value of a positive classification of sexually functional or sexually dysfunctional was 86% ($p < .002$) (Derogatis, 1997). Internal consistency coefficients for the Sexual Cognition and Fantasy, Sexual Arousal, Sexual Behavior and Experience, Orgasm, and Sexual Drive and Relationship scales for this current sample were .93, .89, .79, .93, .76, respectively, demonstrating fair to excellent internal consistency.

OBCS

The Objectified Body Consciousness Scale (OBCS; Mckinley & Hyde, 1996) was used as a measure of body image. This scale is a 24-item measure, with eight items assessing each of the three subscales: Body Surveillance (e.g., “I often worry about

whether the clothes I am wearing make me look good"), Body Shame (e.g., "I would be ashamed for people to know what I really weigh"), and Control Beliefs (e.g., "When I can't control my weight, I feel like something must be wrong with me"). Items are rated on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The OBCS scales have been demonstrated to be factorially sound, internally consistent for women over a wide age range, and reliable over time (Mckinley & Hyde, 1996). Internal consistencies for the Body Surveillance, Body Shame, and Control Beliefs scales were found to be .89, .75, and .72, respectively. Test-retest reliabilities over a two-week interval were .79 ($p < .001$), .79 ($p < .001$), and .73 ($p < .001$), respectively (McKinley & Hyde, 1996).

Additionally, the Surveillance scale correlated strongly with public self-consciousness ($r(112) = .73$, $p < .001$) demonstrating convergent validity, but had no significant relationship with either private self-consciousness or social anxiety, demonstrating discriminant validity (McKinley & Hyde, 1996). Significant negative correlations were found between a measure of body esteem and the Body Shame ($r = -.51$, $p < .001$) and Surveillance ($r = .39$, $p < .001$) scales. Results also indicated that women who restricted their food intake believed more strongly that they could control how their body looks, than women in the non-restricted eating group ($p < .02$), demonstrating construct validity for the Control Beliefs scale (McKinley & Hyde, 1996). Internal consistency coefficients for the Body Surveillance, Body Shame, and Control Beliefs scales for this current sample were found to be .77, .77, and .74, respectively, demonstrating fair internal consistency.

Procedure

Approval to conduct archival research using the existing BWSQ-3 database was obtained from the primary investigator of the BWSQ-3, as well as the Institutional Review Board (IRB) at Nova Southeastern University. The data was de-identified in order to maintain participant confidentiality. Multiple measures were administered as part of the complete battery, but only selected measures as described above were included in the analyses.

Recruitment

Participants for the BWSQ-3 were recruited by trained clinical psychology practicum students enrolled in doctoral training under the supervision of a licensed psychologist. All practicum students completed Nova Southeastern University Citi training. Recruiters went into women's units in the county jail, described the study and the inclusion criteria, and collected contact information of those interested in participating. Interviewers were then assigned to go into the jail and complete the interviews. Each interviewer completed a thorough standardized training prior to administration and received a copy of the manual for reference. Women interested in participating, who did not meet inclusion criteria, were given a list of available community resources and were encouraged to seek services once they were released from jail. Data was de-identified through the use of subject ID numbers and participant contact information was locked in a secure cabinet at Nova Southeastern University.

Administration

Trained psychology graduate students went into the jail during specified hours and administered the questionnaire and supplemental measures in a room used for

visitation. The administrator and participant were closely monitored by jail staff (Sheriff's Deputies). A consent form was verbally reviewed with each participant, who in turn provided her written consent to participate in the research project. The consent form outlined the potential risks and benefits of participating in the study, limits of confidentiality, the requirements of the participant, and the individual's right to discontinue participation in the study at any time without consequences. The BWSQ-3 averaged two to three hours to administer face-to-face. If there were any questions during administration, they were answered as best as possible.

Preliminary Analyses

For hypothesis 1, the proportion of child abuse in the population was obtained from the 24th edition of the annual report on child abuse and neglect data collected via the National Child Abuse and Neglect Data System which reported that 9.1 per 1,000 children in the population experienced substantiated child maltreatment (U.S. Department of Health and Human Services, 2013). Since the National Child Abuse and Neglect Data System did not take into account witnessing abuse in the home as substantiated child maltreatment, the women in the sample who reported witnessing abuse as a child only (n = 24) and did not report any other type of child abuse, were coded as not being abused as children. For hypotheses 2-5, witnessing domestic violence in the home as a child was coded as CA due to numerous research studies indicating that witnessing abuse can have the same emotional and developmental effects on children as being physically, psychologically, or sexually abused (Child Welfare Information Gateway, 2013a; Fergusson & Horwood, 1998).

CHAPTER IV

Results

The results of the analyses for each hypothesis are provided in the following section. Data analysis was conducted using the IBM Statistical Package for the Social Sciences (SPSS) Version 22.0 (IBM Corp., 2013). The level of significance was set at $\alpha = .05$.

Hypothesis 1

The first hypothesis stated that the proportion of reported childhood abuse in the sample of incarcerated female survivors of IPV will be significantly higher than the proportion of childhood abuse in the population. Of the 277 participants, 184 (66.4%) of the women reported being abused as a child and 93 (33.6%) of the women did not report experiencing child abuse compared to the expected values of 2.5 (.90%) being abused as children and 274.5 (99.1%) not experiencing child abuse. A chi-square goodness of fit test was used to test this hypothesis. Results indicated that the proportion of reported child abuse in the sample was significantly higher than the proportion of child abuse in the population, $\chi^2(1, N = 277) = 13{,}185.70$, $p < .0001$, $w = 6.899$. According to Cohen (1988), this effect size is considered a large effect.

Hypothesis 2

The second hypothesis stated that among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly higher levels, on average, of poor body image as measured by the Surveillance, Body Shame, and Control Beliefs scales of the Objectified Body Consciousness Scale (OBCS), than those women who have not been abused as children. A subset of participants ($n = 173$) were used for

these analyses as not every participant completed this supplemental measure. Of these 173 women, 136 had been abused as children and 37 had not been abused as children. Three separate independent *t*-tests were conducted to test for mean differences between those with CA and those without CA on Surveillance, Body Shame, and Control Beliefs (see Table 1).

For the first independent *t*-test, the assumption of homogeneity of variance was tested using Levene's Test for Equality of Variances, $F(1, 171) = 1.441$, $p = .232$, indicating that the assumption of homogeneity of variance was tenable. Results from the *t*-test indicated that there was no significant mean difference between the Surveillance scores for the CA ($M = 33.78$, $SD = 10.88$) and no CA groups ($M = 30.76$, $SD = 12.53$), $t(171) = 1.449$, $p = .149$, $r^2 = .012$, post-hoc power = .302. Using the rule of thumb for *r*-squared, this is a small effect size (Cohen, 1988).

For the second independent *t*-test, the assumption of homogeneity of variance was tested and met using Levene's Test for Equality of Variances, $F(1, 171) = .076$, $p = .783$. Results indicated that there was a significant mean difference between Body Shame scores for the CA ($M = 24.09$, $SD = 10.50$) and no CA groups ($M = 19.27$, $SD = 10.64$), $t(171) = 2.468$, $p = .015$, $r^2 = .034$, post-hoc power = .689. Using the rule of thumb for *r*-squared, this is a small effect size. As hypothesized, women who were abused as children scored significantly higher on Body Shame than the women who were not abused as children.

Lastly, results indicated that the assumption of homogeneity of variance was tested and met using Levene's Test for Equality of Variances, $F(1, 171) = .020$, $p = .889$ for the third independent *t*-test. Results indicated that there was no significant mean

difference between Control Beliefs scores for the CA (M = 36.49, SD = 10.47) and no CA groups (M = 36.97, SD = 11.23), $t(171) = -.244$, $p = .808$, $r^2 < .001$, post-hoc power = .057. This is considered a small effect size.

Table 1

Group Differences for Body Image Between Women Who Have or Have Not Been Abused as Children

	Child Abuse		No Child Abuse					
OBCS	M	SD	M	SD	*t*	df	*p*	r^2
Surveillance	33.78	10.88	30.76	12.53	1.449	171	.149	.012
Body Shame	24.09	10.50	19.27	10.64	2.468	171	.015*	.034
Control Beliefs	36.49	10.47	36.97	11.23	-.244	171	.808	.0003

Note. OBCS = Objectified Body Consciousness Scale. *$p < .05$.

Hypothesis 3

Among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly lower levels, on average, of quality of sexual functioning as measured by the Sexual Cognition/Fantasy, Sexual Arousal, Sexual Behavior/Experience, Orgasm, Sexual Drive/Relationship, and Total Score scales of the Derogatis Interview for Sexual Functioning- Self Report (DISF-SR), than those women who have not been abused as children. A subset of participants (n = 175) were used for these analyses as not every participant completed this supplemental measure. Of these 175 participants, 136 were in the CA group and 39 were in the no CA group. Six separate independent *t*-tests were run to analyze this data with CA being the independent variable and Sexual Cognition/Fantasy, Sexual Arousal, Sexual Behavior/Experience, Orgasm,

Sexual Drive/Relationship, and Total Score scales being the dependent variables (see Table 2).

For the first independent *t*-test, the assumption of homogeneity of variance was satisfied using Levene's Test for Equality of Variances, $F(1, 173) = .733$, $p = .393$. Results indicated that there was no significant mean difference between the Sexual Cognition/Fantasy scores for the CA ($M = 16.14$, $SD = 12.51$) and no CA groups ($M = 17.62$, $SD = 12.85$), $t(173) = -.646$, $p = .519$, $r^2 = .002$, post-hoc power = .098. Using the rule of thumb for *r*-squared, this is a small effect size.

The assumption of homogeneity of variance was also satisfied with the second independent *t*-test $F(1, 173) = .000$, $p = .994$. Results demonstrated that there was no significant mean difference between the Sexual Arousal scores for the CA ($M = 10.80$, $SD = 10.81$) and no CA groups ($M = 11.90$, $SD = 11.36$), $t(173) = -.552$, $p = .582$, $r^2 = .002$, post-hoc power = .085. Using the rule of thumb for *r*-squared, this is a small effect size.

For the third independent *t*-test, the assumption of homogeneity of variance was also satisfied, $F(1, 173) = .146$, $p = .703$. Results indicated that there was no significant mean difference between the Sexual Behavior/Experience scores for the CA ($M = 10.00$, $SD = 9.42$) and no CA groups ($M = 10.72$, $SD = 9.94$), $t(173) = -.414$, $p = .679$, $r^2 = .001$, post-hoc power = .070. This is considered a small effect size.

The assumption of homogeneity of variance was satisfied using Levene's Test for Equality of Variances, $F(1, 173) = .059$, $p = .809$ for the fourth independent *t*-test. Results indicated that there was no significant mean difference between the Orgasm scores for the CA ($M = 9.04$, $SD = 8.41$) and no CA groups ($M = 10.87$, $SD = 8.30$),

$t(173) = -1.204$, $p = .230$, $r^2 = .008$, post-hoc power = .224. Using Cohen's (1988) rule of thumb for *r*-squared, this is a small effect size.

For the fifth independent *t*-test, the assumption of homogeneity of variance was satisfied using Levene's Test for Equality of Variances, $F(1, 173) = .082$, $p = .775$. Results indicated that there was no significant mean difference between the Sexual Drive/Relationship scores for the CA ($M = 12.98$, $SD = 6.36$) and no CA groups ($M = 14.41$, $SD = 6.53$), $t(173) = -1.233$, $p = .219$, $r^2 = .009$, post-hoc power = .232. Using the rule of thumb for *r*-squared, this is a small effect size.

For the sixth and final independent *t*-test within this hypothesis, the assumption of homogeneity of variance was also met, $F(1, 173) = .313$, $p = .576$. Results suggested that there was no significant mean difference between the Total scores for the CA ($M = 58.96$, $SD = 41.17$) and no CA groups ($M = 65.51$, $SD = 40.41$), $t(173) = -.880$, $p = .380$, $r^2 = .004$, post-hoc power = .141. This is considered a small effect size.

Table 2

Group Differences for Sexual Satisfaction Between Women Who Have or Have Not Been Abused as Children

	Child Abuse		No Child Abuse					
DISF-SR	M	SD	M	SD	*t*	df	*p*	r^2
Sexual Cog/Fant	16.14	12.51	17.62	12.85	-.646	173	.519	.002
Sexual Arousal	10.80	10.81	11.90	11.36	-.552	173	.582	.002
Sexual Beh/Exp	10.00	9.42	10.72	9.94	-.414	173	.679	.001
Orgasm	9.04	8.41	10.87	8.30	-1.204	173	.230	.008
Sexual Drive/Rel	12.98	6.36	14.41	6.53	-1.233	173	.219	.009
Total	58.96	41.17	65.51	40.41	-.880	173	.380	.004

Note. DISF-SR = Derogatis Interview for Sexual Functioning- Self Report.

Hypothesis 4

Among incarcerated female survivors of IPV, those who have experienced childhood abuse will have significantly higher levels, on average, of insecure attachment styles and significantly lower levels, on average, of secure attachment styles than those women who have not been abused as children, as measured by the Close, Depend, and Anxiety scales of the Adult Attachment Scale (AAS). More specifically, the women who have been abused as children will have significantly lower levels on the Close and Depend scales and significantly higher levels on the Anxiety scale, than the women who have not experienced CA. A subset of participants (n = 209) were used for these analyses as not every participant completed this supplemental measure. Of these 209 participants, 165 had been abused as children and 44 had not experienced CA. Three separate

independent *t*-tests were used to analyze this data with CA being the independent variable and Close, Depend, and Anxiety scales being the dependent variables (see Table 3).

The assumption of homogeneity of variance for the first independent *t*-test was tested and met using Levene's Test for Equality of Variances, $F(1, 207) = .110$, $p = .741$. Results demonstrated that there was a significant mean difference between the Close scores for the CA ($M = 2.91$, $SD = .75$) and no CA groups ($M = 3.34$, $SD = .75$), $t(207) = -3.397$, $p = .001$, $r^2 = .053$, post-hoc power = .922. Using the rule of thumb for *r*-squared, this is a small effect size. As hypothesized, the women who had been abused as children had significantly lower scores on the Close scale than the women who had not been abused.

For the second independent *t*-test, the assumption of homogeneity of variance was tested and satisfied using Levene's Test for Equality of Variances, $F(1, 207) = 1.908$, $p = .169$. Results indicated that there was a significant mean difference between the Depend scores for the CA ($M = 2.32$, $SD = .74$) and no CA groups ($M = 2.73$, $SD = .85$), $t(207) = -3.237$, $p = .001$, $r^2 = .048$, post-hoc power = .896. Using the rule of thumb for *r*-squared, this is a small effect size. As hypothesized, the women who had been abused as children had significantly lower scores on the Depend scale than the women who had not been abused.

For the third independent *t*-test, the assumption of homogeneity of variance was also met, $F(1, 207) = 1.094$, $p = .297$. Results demonstrated that there was a significant mean difference between the Anxiety scores for the CA ($M = 2.99$, $SD = .92$) and no CA groups ($M = 2.63$, $SD = 1.00$), $t(207) = 2.265$, $p = .025$, $r^2 = .024$, post-hoc power = .616. This is considered a small effect size. The women who had been abused as children had

significantly higher scores on the Anxiety scale than the women who had not been abused.

Table 3

Group Differences for Attachment Between Women Who Have or Have Not Been Abused as Children

	Child Abuse		No Child Abuse					
AAS	M	SD	M	SD	*t*	df	*p*	r^2
Close	2.91	.75	3.34	.75	-3.397	207	.001**	.053
Depend	2.32	.74	2.73	.85	-3.237	207	.001**	.048
Anxiety	2.99	.92	2.63	1.00	2.265	207	.025*	.024

Note. AAS = Adult Attachment Scale. *$p < .05$. **$p < .01$.

Hypothesis 5

The relation between post-traumatic stress symptomatology and IPV survivors who have been abused as children versus those who have not been abused as children will depend on attachment style. Post-traumatic stress symptomatology will be measured using the Post-traumatic Stress-Total Scale of the Detailed Assessment of Posttraumatic Stress (DAPS) and attachment styles will be assessed using the AAS. More specifically, it is hypothesized that the secure attachment styles (Close and Depend) will buffer the effects that CA has on survivors of IPV in terms of developing post-traumatic stress symptoms, while the insecure attachment style (Anxiety) will strengthen the relation and act as a risk factor.

A subset of participants ($n = 74$) were used for these analyses as not every participant completed this supplemental measure. Of these 74 participants, 60 were in the CA group and 14 were in the no CA group. The mean and standard deviation scores on

the Post-traumatic Stress-Total Scale for the women in the CA group were 73.58 and 17.50, respectively, and 57.71 and 10.31, respectively, for the women in the no CA group. To test for moderation effects, three general linear models were employed with CA as the factor, the Close, Depend, and Anxiety scales of the AAS as the covariate variables, and the Post-traumatic Stress-Total Scale of the DAPS as the dependent variable. The interactions of CA and Close, CA and Depend, and CA and Anxiety were analyzed (see Table 4). For all analyses conducted for hypotheses 5, the homogeneity of variance assumption was not met; however, Myers and Well (1991) indicated that general linear models are fairly robust against this violation.

For the first general linear model, results showed no significant mean differences among post-traumatic stress-total scores based on CA when controlling for levels of Close attachment, $F(1, 70) = .031$, $p = .861$, partial $\eta^2 < .001$, post-hoc power = .053. Results also showed no significant mean differences among post-traumatic stress-total scores based on Close attachment style, $F(1, 70) = 1.419$, $p = .238$, partial $\eta^2 = .020$, post-hoc power = .217, and the interaction effect, $F(1, 70) = .190$, $p = .664$, partial $\eta^2 = .003$, post-hoc power = .071. Based on Cohen's (1988) widely used rule of thumb, all of these effect sizes are considered to be small effects. The relation between CA and post-traumatic stress symptomatology did not depend on the Close attachment style.

Because the interaction was not significant, the interaction was removed and the general linear model was reanalyzed with CA and Close as the main effects. After taking into account the effect of CA, there was no significant association between post-traumatic stress-total scores and Close attachment with a small effect size, $F(1, 71) = 1.539$, $p = .219$, partial $\eta^2 = .021$, post-hoc power = .232. After controlling for the effect of Close

attachment, there was a significant association between post-traumatic stress-total scores and CA with a small effect size, $F(1, 71) = 8.783$, $p = .004$, partial $\eta^2 = .110$, post-hoc power = .832. Being abused as a child led to higher adjusted scores, on average, of post-traumatic stress ($M = 73.36$, $SE = 2.12$), compared to the women who were not abused as children ($M = 58.68$, $SE = 4.44$).

For the second general linear model, results showed no significant mean differences among post-traumatic stress-total scores based on CA when controlling for levels of Depend attachment, $F(1, 70) = .016$, $p = .901$, partial $\eta^2 < .001$, post-hoc power = .052. Results also indicated that the post-traumatic stress-total scores, on average, did not significantly differ based on Depend attachment style, $F(1, 70) = 2.101$, $p = .152$, partial $\eta^2 = .029$, post-hoc power = .298, and the interaction effect, $F(1, 70) = .690$, $p = .409$, partial $\eta^2 = .010$, post-hoc power = .130. Based on Cohen's (1988) widely used rule of thumb, all of these effect sizes are small effects. The relation between CA and post-traumatic stress symptomatology did not depend on the Depend attachment style.

Because the interaction was not significant, the interaction was removed and the general linear model was reanalyzed with CA and Depend as the main effects. After taking into account the effect of CA, there was no significant association between post-traumatic stress-total scores and Depend attachment with a small effect size, $F(1, 71) = 1.458$, $p = .231$, partial $\eta^2 = .020$, post-hoc power = .222. After controlling for the effect of Depend attachment, there was a significant association between post-traumatic stress-total scores and CA with a medium effect size, $F(1, 71) = 8.228$, $p = .005$, partial $\eta^2 = .104$, post-hoc power = .808. Being abused as a child led to higher adjusted scores, on

average, of post-traumatic stress (M = 73.30, SE = 2.13), compared to the women who were not abused as children (M = 58.92, SE = 4.49).

Lastly, for the third general linear model, results revealed no significant effect of interaction on post-traumatic stress-total scores, $F(1, 70) = .625$, $p = .432$, partial $\eta^2 = .009$, post-hoc power = .122, and no significant effect of CA on post-traumatic stress-total scores when controlling for Anxiety attachment, $F(1, 70) = .162$, $p = .689$, partial $\eta^2 = .002$, post-hoc power = .068. Using Cohen's (1988) rule of thumb, these effect sizes are small effects. The relation between post-traumatic stress symptomatology and IPV survivors who had been abused as children versus those who had not been abused as children did not depend on the Anxiety attachment style.

Because the interaction was not significant, the interaction was removed and the general linear model was reanalyzed with CA and Anxiety as the main effects. After taking into account the effect of CA, there was a significant association between post-traumatic stress-total scores and Anxiety attachment with a large effect size, $F(1, 71) = 11.562$, $p = .001$, partial $\eta^2 = .140$, post-hoc power = .918. After controlling for the effect of Anxiety attachment, there was a significant association between post-traumatic stress-total scores and CA with a medium effect size, $F(1, 71) = 10.275$, $p = .002$, partial $\eta^2 = .126$, post-hoc power = .885. Being abused as a child led to higher adjusted scores, on average, of post-traumatic stress (M = 73.35, SE = 1.98), compared to the women who were not abused as children (M = 58.71, SE = 4.11).

Table 4

Examining Attachment Style as a Moderator of the Relation Between CA and Post-traumatic Stress Symptoms

Variable	df	MS	*F*	*p*	partial η^2	power
Close						
CA	1	8.322	.031	.861	.000	.053
Close	1	384.722	1.419	.238	.020	.217
CA*Close	1	51.467	.190	.664	.003	.071
Error	70	271.162				
Depend						
CA	1	4.234	.016	.901	.000	.052
Depend	1	566.430	2.101	.152	.029	.298
CA*Depend	1	185.958	.690	.409	.010	.130
Error	70	269.546				
Anxiety						
CA	1	38.244	.162	.689	.002	.068
Anxiety	1	1194.748	5.046	.028*	.067	.601
CA*Anxiety	1	147.911	.625	.432	.009	.122
Error	70	236.777				

Note. Dependent Variable = Post-traumatic Stress-Total Scale. MS = Mean Square.
*$p < .05$.

CHAPTER V

Discussion

This study sought to explore the relationship between CA, IPV, and resiliency in women who have been profoundly impacted by trauma. The goals of this study were to (1) determine if CA had a greater impact on these IPV survivors on factors such as body image, sexual functioning and quality, and attachment style, when compared to IPV survivors who had not been abused as children, and (2) determine if the relation between post-traumatic stress symptomatology and IPV survivors who had been abused as children versus those who had not, depended on attachment style.

As hypothesized the proportion of reported CA in the sample was significantly higher than the proportion of CA in the population. This finding is consistent with past research that suggests that CA is a risk factor for being involved in the criminal justice system, as well future victimization and IPV. According to Harlow (1999), 14% of men and 36% of women in prison in the United States in 1999 had reportedly been abused as children- a rate that was almost twice the rate seen in the general population at that time. Children who have been abused and neglected are nine times more likely to become involved in criminal activity (Child Welfare Information Gateway, 2013b). Furthermore, Widom (1989a) found that 15.9% of women who reported childhood victimization had been arrested compared to 9.0% of women who had not been abused as children.

Bensley et al. (2003) found that women who experienced CPA had a four-to six-fold increase in risk of physical IPV and a three- to four-fold increase in risk of partner emotional abuse as adults. In a prospective cohort design in which abused and neglected children were matched with non-abused children and followed into adulthood, the

participants who were physically abused, sexually abused, or neglected as children were at an increased risk of revictimization compared to the matched control group (Widom et al., 2008). As all of the participants in this study were IPV survivors, the findings are consistent with this research demonstrating that CA and IPV are associated with each other.

As predicted in hypothesis 2, the women who were abused as children had significantly higher levels of body shame than the women who had not been abused as children. These findings are consistent with numerous research studies that indicate that CA results in poor body image and body shame (Byram et al., 1995; Gerko et al., 2005; Watson, 2012). Murthi et al. (2006) found that individuals with a history of CSA scored lower than their non-abused peers on the physical self-concept indicating that they had more negative views of their physical appearance and body.

The body is a vital aspect of an individual in which she communicates with others and experiences the world. According to feminist and objectification theory, girls and women are socialized to associate their identities with their bodies, as they are often socialized to view their sexualized bodies as their sense of self-worth (Watson, 2012). Self-objectification occurs when women internalize these views and see their bodies as objects to be evaluated by others, particularly men. When the body is violated, women learn that the world is unsafe, and due to self-objectification their overall sense of identity and worth may be affected leading to body shame and depression. Specifically, body shame occurs when a woman evaluates herself against a cultural standard and perceives that she does not meet this standard (Watson, 2012). Thus, it is not surprising that CA,

which often makes children feel unsafe, treats their bodies as objects, and violates their bodies, leads to body shame.

However, in hypothesis 2, the Surveillance and Control Beliefs scales did not differ based on CA. These results are inconsistent with research that indicates that CA leads to worse overall views of body image. Interestingly, Augustus-Horvath and Tylka (2009) found that when compared with women ages 18 –24, women ages 25 and older reported similar levels of body shame, but lower levels of body surveillance. Therefore, the older women self-objectified and viewed their bodies as objects to be evaluated by others to a lesser degree than the younger women, but still reported similar levels of body shame (Augustus-Horvath & Tylka, 2009). It is possible that the women aged 25 and older in this study responded similarly leading to these non-significant findings.

Additionally, Watson (2012) found that CSA was associated with increased body shame, but CSA did not predict self-objectification and surveillance among women. Watson (2012) suggested that self-objectification likely results from more indirect experiences of sexual objectification throughout a woman's lifetime such as objectifying jokes, media representations, and gazing, rather than direct assaults alone. Furthermore, the Body Surveillance scale which measures the construct of viewing yourself as an outside observer may not fully capture self-objectification and one's internal sense of self-worth (Watson, 2012).

It is also important to consider that these women were incarcerated and although sexual objectification of women occurs in jail settings, these women had much less access to media outlets and societal objectification. They might have also been

preoccupied with the stressful situation of being in jail; thus, they may have been less worried about their appearance and their control over their body.

For hypothesis 3, sexual satisfaction and functioning did not significantly differ on any of the DISF-SR scales based on CA. Although the hypothesis was not supported, the findings are partially consistent with past literature. Research examining the association between CA and women's sexual functioning has been consistently conflicting. Some researchers have documented pervasive effects of CSA on sexual functioning, while other studies have shown minimal or no effects (Greenwald, Leitenberg, Cado, & Tarran, 1990; Loeb et al., 2002; Rind, Tromovitch, & Bauserman, 1998). Other findings indicate that only CSA negatively impacts sexual functioning, while other studies indicate that both CPA and CSA or even CPA alone impacts sexual functioning.

Greenwald et al.'s (1990) final sample consisted of 54 women (aged 23-61 years old) who had been sexually abused as children (15 or younger) and 54 matched non-abused control participants. Results showed that the abused women reported more disturbances on a scale that examined psychological symptoms associated with sexual abuse; however, the abused and non-abused women did not differ on self-reported levels of sexual satisfaction or sexual dysfunction (Greenwald et al., 1990). It is also possible that the effects of CA are being expressed in other ways that survivors are not aware of or are not classifying as sexual dysfunction. For example, CSA has been associated with somatic complaints, lower abdominal pain, and painful menstruation (Loeb et al., 2002).

As predicted in hypothesis 4, the women who had been abused as children had significantly higher scores, on average, on the Anxiety scale (insecure attachment) and

significantly lower scores, on average, on the Close and Depend scales (secure attachment styles) as compared to the women who had not experienced CA. These findings suggest that in terms of relationships with others, the women who had been abused as children feared rejection and being unloved, felt more uncomfortable getting close with others, and did not believe that they could depend on others for support, more than the women with no CA. These findings are consistent with research regarding the relation between CA and attachment development (Becker-Lausen & Mallon-Kraft, 1997; Frías et al., in press).

When children are abused and neglected, they do not get their needs met, they often do not learn emotional regulation, and they cannot trust the people around them; thus, they often develop insecure attachments characterized by distrust of others and self-reliance (Frías et al., in press). Survivors of child maltreatment tend to have difficulties maintaining healthy relationships and often develop an avoidant or intrusive interpersonal style. Avoidant attachment styles are characterized by a lack of warmth, low self-disclosure, and having few friends and relationships. Individuals with an intrusive style tend to have an extreme need for closeness; they may be overly demanding, controlling, and overwhelmingly warm (Becker-Lausen & Mallon-Kraft, 1997). Participants who scored low on the Depend scale may perceive that they cannot count on others, they may not trust others, and thus, they may respond by being avoidant. Participants who scored high on the Anxiety scale may cope with their fear of rejection by being intrusive with others. Contrastingly, children who have parents who are sensitive to their needs and provide them with their needs learn how to express and regulate their emotions, learn

how to interact with others, and learn how to trust others and form secure attachments (Kim & Cicchetti, 2010).

Lastly, hypothesis 5 was unsupported by the results. The relation between post-traumatic stress symptomatology and IPV survivors who had been abused as children versus those who had not been abused as children did not depend on attachment style. These findings are partially inconsistent with the limited research available that analyzes attachment style as a moderator. Scott and Babcock (2010) found that the Close attachment style did not moderate the relation between IPV and PTSD, but both the Anxiety and Depend styles did moderate the relation. It was likely that the battered women in their study who had anxious attachment styles were at greater risk for developing PTSD due to their fears of rejection and abandonment; the battered women with dependent attachment styles were at a greater risk of developing PTSD likely due to their beliefs that they could depend and rely on their abusive partners for support.

These unexpected findings are likely due to small sample sizes among the groups which would have greatly diminished the power of the analyses; subsequently, decreasing the ability to detect statistical significance (Suresh & Chandrashekara, 2012). Furthermore, it is possible that the women's abuse histories were so severe and long-lasting that their ability to effectively cope and utilize a resource such as a secure attachment style was exhausted (Carlson et al., 2002). Results did suggest that having a secure attachment style did not predict post-traumatic stress scores, but having an insecure attachment style did. It seems that in this sample, having an insecure attachment style may have affected the women more greatly than having a secure attachment style.

Interestingly, Solomon et al. (2008) discovered that post-traumatic stress symptoms may actually predict attachment orientations better than attachment orientations predict an increase in PTSD symptoms. These researchers assessed 103 Israeli ex-prisoners of war (ex-POWs) and 106 matched control veterans of the 1973 Yom Kippur War at two points in time (18 years and 30 years after the war). The matched veterans were combat soldiers who fought on the same fronts as the ex-POWs and participants were matched based on personal and military background. The ex-POWs had been captured during the war and subjected to severe and prolonged psychological and physical abuse, including neglect. It has been suggested in the literature that after enduring repeated abuse in captivity, survivors tend to develop a unique form of PTSD called complex PTSD (Solomon et al., 2008).

With complex PTSD, symptoms tend to affect a person's personality, relationships, and attachment; survivors of prolonged captivity and abuse tend to waver between intense attachment and fearful avoidance. This is consistent with previous research mentioned above that indicates that survivors of CA often form insecure attachment styles described as avoidant or intrusive/anxious (Becker-Lausen & Mallon-Kraft, 1997). Abuse survivors with an avoidant style may remain distant from others because they do not trust them, while individuals with an anxious style may have an intrusive need to be close to their partners out of fear of them leaving.

Solomon et al. (2008) found that, at both times, the ex-POWs reported more post-traumatic symptoms than the control veterans. From Time 1 to Time 2, the post-traumatic symptoms increased only among the ex-POWS and remained the same for the control veterans. In terms of attachment anxiety and avoidance, these styles remained the same or

slightly decreased for the control veterans, but increased with time for the ex-POWs. Furthermore, these increases in attachment anxiety and avoidance were positively associated with an increase in post-traumatic symptoms. Lastly, early PTSD symptoms were found to predict later attachment better than early attachment predicted later PTSD symptoms (Solomon et al., 2008).

It has been suggested that attachment styles are less stable in individuals who have experienced negative life events such as war captivity, CA, IPV, and incarceration, than attachment styles of people who have not experienced such distressful events; people who have endured negative life events are more vulnerable to changes in attachment styles, especially during times of change and stress, due to having unstable views of the world and others (Solomon et al., 2008). Thus, it may be difficult to measure and analyze attachment style as a moderator between post-traumatic stress and child abuse as attachment styles are not stable and may fluctuate more often than initially believed, especially in a sample of women who have experienced multiple abuses.

After removing the interaction effects from the general linear models, CA was found to be significantly associated with post-traumatic stress symptoms. Consistent with previous research findings, the women who were abused as children had significantly higher levels, on average, of post-traumatic stress symptomatology compared to the women who were not abused as children. An immense amount of research has shown that PTSD is one of the most common psychological outcomes for survivors of abuse (Briere & Elliot, 2003; Kendall-Tackett, 2002). According to Vranceanu et al. (2007), experiencing adverse childhood events makes people more susceptible to stress and

increases the likelihood that they will perceive stressful events as more anxiety provoking than others.

Clinical Implications

Consistent with previous research, the results of this study demonstrate that childhood abuse often results in mental health consequences, particularly body shame and the development of insecure attachment styles. Additionally, these effects are long-lasting and can be seen in adulthood; therefore, the most important implication is the need to prevent CA before it even occurs through psychoeducation and preventative programs. Unfortunately, CA is so endemic, with an estimated 3.5 million referrals of child maltreatment being received by social service agencies each year, that it is currently inevitable and thus, it is vital for therapy to be accessible to these children to diminish the mental health effects and prevent them from remaining into adulthood (U.S. Department of Health and Human Services, 2013).

The findings from this study can help inform the best practices for clinicians who work with women who have been abused. Results were consistent with previous research indicating that being abused as a child can lead to greater levels of body shame when compared to women who have not been abused as children (Murthi et al., 2006; Watson, 2012). Since child abuse often leaves the survivor feeling alone, helpless, and confused, they may be unaware of how the abuse has affected them. Clinicians should encourage clients to openly discuss their views and feelings about their bodies, while also informing them of how body shame may be developed in women.

According to self-objectification theory, body shame occurs when a woman evaluates herself against a cultural standard and perceives that she does not meet this

standard (Watson, 2012). Since women are socialized to associate their identities with their bodies, the belief that their bodies do not meet cultural standards can affect their feelings and self-worth and can lead to depression and disordered eating (Treuer et al., 2005). Furthermore, when the body is violated through CA, girls learn that the world is unsafe; due to self-objectification, or the internalization that their bodies are objects to be evaluated by others, their overall sense of identity and worth may be affected leading to body shame and depression (Watson, 2012). Additionally, it would be beneficial for clinicians to be self-aware of how the sexual objectification of women in society has affected their own views of women and possible self-objectification; by being self-aware, the pattern of objectification can be counteracted in therapy.

Consistent with previous literature, this study indicated that CA was associated with lower levels of secure attachment and higher levels of insecure attachment (Becker-Lausen & Mallon-Kraft, 1997; Frías et al., in press). These findings suggest that clinicians need to provide a safe and trusting environment to help individuals develop more secure attachments. Having a secure attachment can be resource for women that can help them more accurately assess stressful situations and effectively cope with these situations (Mikulincer & Florian, 1998). While the majority of research indicates that attachment styles are relatively stable, there have been studies that suggest that attachment styles are actually flexible and can change in both childhood and adulthood in response to various life changes (Cozzarelli, Karafa, Collins, & Tagler, 2003; Solomon, Dekel, & Mikulincer, 2008).

Although the findings did not indicate that attachment was a protective factor, social support has been found to be the strongest protective factor for battered women

(Carlson et al., 2002). Social support has also been associated with attachment since attachment styles encompass the way people think about and interact with others. Subsequently, it is important to encourage clients to increase their social support networks and challenge any unrealistic insecure thoughts they may have about others. By increasing their social support, they will likely increase their ability to be resilient against distressing situations and be more likely to adopt a more secure attachment pattern.

Findings also indicated that the women did not differ on sexual functioning and surveillance and control beliefs suggesting that these incarcerated female survivors of IPV have likely successfully coped in certain aspects of their lives despite their profound abuse. Clinicians should reinforce this resiliency in abuse survivors and encourage this resiliency in all aspects of a person's life. This reinforcement of resiliency can be achieved by encouraging clients to increase their social support and coping methods that do not involve self-blame, as these factors have been shown to decrease the risk for psychological symptoms and revictimization in CSA survivors (Walsh, Blaustein, Knight, Spinazzola, & van der Kolk, 2007).

Limitations

It is necessary to attend to certain limitations within the study. Often participants in research examining IPV and abuse are recruited from help-seeking populations such as shelters and agencies that help women; thus, these findings may not reflect abuse survivors as a whole (Waldrop & Resick, 2004). Although the women in the current study were not recruited from a traditional help-seeking population, they chose to participate after being informed of the subject matter. Women who were not included in this study and/or who did not want to participate may have had different levels of abuse,

mental health effects, and attachment patterns. Thus, the findings cannot be generalized to all IPV survivors. Also, some of the participants had minimal levels of education which could have resulted in them not understanding all of the questions on the supplemental measures and affected the accuracy of their responses.

Furthermore, the women in this study were in a jail setting which could have created a unique limitation to the attachment and sexual satisfaction analyses. Being incarcerated could have altered their perceptions of interpersonal relationships and the way they responded to the AAS items as they were in an unsafe environment and isolated from their families, friends, and significant others. Additionally, due to the women being incarcerated, many of the women were likely not being sexually satisfied which could have altered their responses to the DISF-SR. Also, many of these women have been sexually abused and may not understand what it means to have a healthy sexual relationship with intimate partners. Due to the women in this study being incarcerated, the findings cannot be generalized to all survivors of IPV.

Cronbach's alpha for the Close scale of the AAS ($\alpha = .54$) for this current sample was considerably lower than the cutoff; thus, interpretations of results using this scale should be done with caution. Limitations specific to hypothesis 5 are small, uneven sample sizes and the assumption of homogeneity of variance not being met. Only a small subset of the overall participants completed the DAPS which greatly diminished the power of the analyses; subsequently, decreasing the ability to detect statistical significance (Suresh & Chandrashekara, 2012). Therefore, the results should be interpreted with caution. Lastly, when the BWSQ was originally administered, the original AAS was used in the interview. Compared to the revised AAS, the AAS has

lower internal consistency and has two items that often confused participants and tended to load weakly on factor analyses (Collins, 1996).

Future Directions

A primary focus for this study was to better understand attachment as a potential risk and/or protective factor of post-traumatic stress in abused women, in order to aid clinicians in providing better treatment and interventions. The majority of research involving CA and IPV survivors focuses on the negative consequences of this abuse, but rarely discusses resiliency factors. Future research should address resiliency so that clinicians and survivors can better understand what helps abuse survivors successfully cope and adapt to their trauma experiences.

Furthermore, research on attachment as a moderator, as well as attachment stability and instability is limited. The majority of attachment research suggests that attachment is relatively stable throughout a person's life; however, other studies have shown that attachment can be changed based on the types of experiences and relationships that a person has in their lives. Cozzarelli et al. (2003) found that over a two-year time period, 46% of the women in their study had changed their attachment style. Having a history of depression and/or abuse was associated with increases in insecure attachment styles over time; the women who changed from secure to insecure attachment reported having experienced the end of an intimate relationship and/or reported being the victims of a rape or assault more often than the other groups of women (Cozzarelli et al., 2003). More research is needed to demonstrate how attachment style changes over time and what type of personal characteristics and experiences elicit these

changes. Having a better understanding of how an individual can change from having an insecure attachment style to a secure attachment style can be influential in therapy.

Findings from this study indicated that the women who were abused as children had greater body shame, but did not differ on surveillance and control beliefs when compared to the women who were not abused as children. Future studies could assess in more depth, how these three constructs of body image differ and how CA impacts each factor. It would be beneficial to assess whether each of these factors has different causal pathways and moderators.

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