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Resiliency Factors And Pathways To Incarceration In Female Survivors Of Childhood Sexual Abuse

Kia Asberg
University of Central Florida

RESILIENCY FACTORS AND PATHWAYS TO INCARCERATION IN FEMALE SURVIVORS OF CHILDHOOD SEXUAL ABUSE

by

KIA K. ASBERG
B.S. Florida State University, 2000
M.S. University of Central Florida, 2005

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ABSTRACT

Studies find consistently that survivors of childhood sexual abuse (CSA) are likely to suffer from depression, post-traumatic stress, and problematic substance use, and may experience also a variety of adjustment difficulties in several emotional, behavioral, and interpersonal domains. Involvement with the legal system is one such outcome to consider, especially given the increasing number of women serving time in correctional facilities with nearly two-thirds of these women being survivors of CSA (e.g., Browne, Miller, & Maguin, 1999). The current literature lacks comparisons between female survivors of CSA who have legal involvement and those who do not; hence, the current study addresses the need for a comprehensive investigation of early victimizations and later adjustment. Data were obtained from 169 female inmates and 420 female college students, a number of whom were survivors of CSA (66% and 35.5%, respectively), so that group differences could be examined and relationships among family environment, abuse disclosure history, coping, perceived social support, adjustment (i.e., trauma symptoms, substance abuse, depressive symptomatology, revictimization), and criminal history could be explored. Results suggested that inmate survivors experience poorer functioning overall relative to student survivors of CSA, including more depressive symptoms, trauma symptoms, and substance abuse. Further, avoidance coping by using substances mediated fully the relationship between trauma symptoms and substance abuse for both groups. Finally, severity of CSA, problematic substance use, and social support emerged as significant predictors of incarceration among survivors of CSA. Findings may aid in the refinement of interventions, prevention efforts, and educational programs regarding CSA, and shed light on pathways to incarceration.

I want to dedicate this doctoral dissertation to the members of my family in Sweden, including my mother (Eva Asberg), father (Jan-Olof Asberg), brother (Olof Asberg) and grandmother (Valborg Andersson). You have stood by my throughout this journey and you are always in my thoughts. I also want to dedicate this paper to the Klein family. You have been like a family away from home and I am so thankful for your support. Finally, I would like to dedicate this dissertation to all children who have suffered maltreatment. You matter.

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CHAPTER ONE: INTRODUCTION

The detrimental effect of childhood sexual abuse (CSA) on psychosocial and behavioral functioning in adulthood is undisputed (Finkelhor & Dziuba-Leatherman, 1994; Harmer & Sanderson, 1999; Putnam, 2003). Research suggests that survivors of CSA experience a wide variety of problems in multiple domains (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991) and that exposure to abuse impacts both personality development and interpersonal functioning (Grauerholz, 2000). In particular, depression (Weiss, Longhurst, & Mazure, 1999), symptoms of Post-Traumatic Stress Disorder (PTSD), anxiety, low self-esteem, and behavior problems are prevalent among survivors of CSA (Oates, O'Toole, Lynch, Stern, & Cooney, 1994). For example, Levitan, Rector, Sheldon, and Goering (2003) report that CSA is the most robust and consistent predictor of co-occurring depression and anxiety in adulthood. Similarly, Brown, Cohen, and Johnson (1999) note that, although different forms of childhood maltreatment are linked to adult adjustment, CSA demonstrates the strongest independent relationship. For example, survivors of CSA are at greater risk for depression and suicide in adulthood, irrespective of contextual factors (Brown et al., 1999).

Other research, such as that by Brown and colleagues (1999), indicates that CSA also is associated with more severe outcomes (e.g., suicidality) relative to those resulting from physical abuse or neglect. Further, other studies find that physical abuse and violent sexual abuse in childhood present the greatest risk for adult self-report of suicidal behavior (see Joiner et al., 2007, for a review). Additionally, female survivors of childhood molestation by a caregiver face a significantly higher probability of abusing substances compared to non-victimized women (Miller, Downs, & Testa, 1993). Moreover, some studies identify a link between CSA and

revictimization in adulthood (Arata, 2000; see Beitchman et al., 1992, for a review; Breitenbecher, 2001; Messman-Moore, Long, & Siegfried, 2000; Neumann, Houskamp, Pollock, & Briere, 1996).

Although CSA in and of itself may be considered a risk factor for future adjustment difficulties and health problems (e.g., Jonzon & Lindblad, 2006), some inconsistency in this construct's predictive abilities may be attributed to the measurement of the experience of abuse. For example, in an attempt to explain the variability of outcomes in survivors of abuse, studies investigate characteristics related to the abuse itself, such as its severity (Mannarino, Cohen, Smith, & Moore-Motley, 1991) and duration (Caffaro-Rouget, Lang, & Van-Santen, 1989), as well as the nature of the relationship between perpetrator and victim (e.g., parent versus stranger; Browne & Finkelhor, 1986). These studies find that longer abuse duration, greater severity, and perpetration by a family member or known caregiver predict poorer psychological adjustment in survivors of CSA (Banyard & Williams, 1996; Bennett, Hughes, & Luke, 2000; Kendall-Tackett, Williams, & Finkelhor, 1993). Thus, these factors may prove particularly important when the experience of CSA is assessed.

In addition to increasing an individual's likelihood of experiencing poor psychological adjustment, one potential outcome following CSA that has garnered interest in the past decade is involvement with legal and justice systems (Curtis, Leung, Sullivan, Eschbach, & Stinson, 2001; Widom & Ames, 1994). Such involvement often is viewed as a result of drug and alcohol abuse for self-medication purposes (Battle, Zlotnick, Navits, Guttierez, & Winsor, 2003). Although CSA experiences among female inmates are linked to aspects of adjustment (Islam-Zwart & Vik, 2004) and reports of substance use (Harlow, 1999), there is a dearth of studies examining variables that may affect this relationship in survivors with a legal history (Curtis et al., 2001).

In particular, information about the nature of sexual victimization histories among incarcerated females is limited (Raj et al., 2008). Thus, understanding the correlates of CSA and outcomes for female inmates, as well as comparing them to resilient survivors, is an important next step in developing and using both prevention and intervention efforts with this vulnerable, complex, and, as will be discussed next, steadily growing population.

"We find an incidence rate for child abuse and neglect that is about ten times as high as the incidence rate for all forms of cancer...There is a multi-billion-dollar research base reliably renewed on an annual basis for cancer treatment and prevention. Nothing remotely similar to this exists for child abuse and neglect."

Frank Putnam, M.D. (NIMH)

CHAPTER TWO: LITERATURE REVIEW

The number of women inmates is increasing at a dramatic rate across our nation, more rapidly than rates for their male counterparts (Bureau of Justice Statistics, 1999; Harrison & Beck, 2005; Islam-Zwart & Vik, 2004). Some estimates suggest that the incarceration rate for women has nearly quadrupled in recent decades (Beck & Gilliard, 1995), "making women the fastest growing segment of our incarcerated jail and prison inmates in the United States" (Raj et al., 2008, p. 528). Harsher punishment for substance-related offenses, which are responsible for over half of all arrests among females, appears to account for a significant portion of this increase (Bureau of Justice Statistics, 1999). As the number of women who are arrested and incarcerated in correctional facilities grows each year, corrections and mental health professionals' understanding of their specific needs is lagging behind (Green, Miranda, Daroowalla, & Siddique, 2005; Koons, Burrow, Morash, & Bynum, 1997).

Prevalence Rates of Incarceration and CSA in Female Populations

Also, the role of CSA in the etiology of female crime and delinquency is deserving of further investigation (Siegel & Williams, 2003). For example, self-reported rates of sexual abuse among female inmates housed in general population areas (GP) is 59 percent (Browne, Miller, & Maguin, 1999), whereas other data suggest that as many as 78 percent of mentally ill female inmates have experienced either sexual or physical abuse prior to their incarceration (Snell & Morton, 1994). In a recent study, Raj and colleagues (2008) indicate that 35 percent of female inmates report having experienced CSA (at the age of 11-years or younger), 14 percent report having experienced sexual abuse in adolescence (from the ages of 12- to 17-years), and 22 percent report a history of adult sexual assault (at the age 18-years or older). The findings of this study suggest that rates of victimization from sexual assault in childhood among this sample of

incarcerated females are higher than those of national samples, whereas rates of abuse in adolescence were lower compared to rates reported from a national sample (Tjaden & Thoennes, 2000). Raj and colleagues (2008) point out that the childhood and adolescent sexual abuse categories in their study are not mutually exclusive (e.g., participants can endorse abuse for either and/or both developmental periods). Nonetheless, these results differ from national samples that suggest that the prevalence rate of sexual abuse is higher in adolescence compared to childhood (Tjaden & Thoennes, 2008). Specifically, the decline in abuse from childhood (34 percent) to reported rates for abuse in adolescence (14 percent) is somewhat unusual (Raj et al., 2008). The authors speculate that this decline may be due to the fact that a high number of females in their sample left home before adolescence, secondary to involvement with the foster care system, child protective services, and/or placement with non-parental caretakers, thus escaping further abuse (40 percent; Raj et al., 2008).

In one of the most comprehensive studies of victimization among female inmates to date, several types of abuse and violence are investigated (Browne et al., 1999). Overall, results show that a majority of women in the general corrections population report having experienced sexual molestation or severe violence prior to their current incarceration (Browne et al., 1999). For example, self-reports of inmates' experiences in childhood and adolescence reveal that over two-thirds (70 percent) report severe physical violence by a caretaker or parent. Further, the findings of this study indicate that over half of all respondents (59 percent) report having experienced some form of sexual abuse, including exposure (49 percent), sexual touching (51 percent), and/or vaginal, oral, or anal penetration (41 percent; Browne et al., 1999). Interestingly, few women report that either juvenile or adult courts become involved in a manner that would protect them from these abuse experiences (6 percent and 9 percent, respectively; Browne et al., 1999).

Further, Browne and colleagues (1999) report that the experience of revictimization in adulthood is common among female inmates. For example, in this sample, the experience of severe physical violence at the hands of intimate partners is reported by three-quarters (75 percent) of all respondents, and over one-third (35 percent) report that they have experienced marital rape or been forced to participate in other sexual activity (Browne et al., 1999).

When all forms of violence are considered together in this sample of female inmates, only 6 percent of respondents did *not* report experiencing at least one physical or sexual attack during their lifetime (Browne et al., 1999). Browne and colleagues (1999) conclude that the experience of violence across the lifespan for incarcerated women is pervasive and severe and that reported rates for all acts of abuse far exceed those reported by women in the community. For example, the lifetime prevalence rate of child sexual molestation among female inmates in general population housing (59 percent; Browne et al., 1999) and mental health units (78 percent; U.S. Department of Justice, 1994) stands in stark contrast to the 20 to 27 percent prevalence rates obtained in community-based samples (Finkelhor, 1994) and the self-reported rate of 15 to 33 percent in the general population (e.g., Polusny & Follette, 1995). Other estimates from community samples also may serve as telling points of comparison. Among females in the community, Briere and Elliot (2003) report a 32.3 percent prevalence rate of CSA. Similarly, a more recent study reports that 28.7 percent of female college students have a history of CSA (Filipas & Ullman, 2006).

Given these estimates, it should be noted that prevalence rates of CSA in different populations may vary depending on the measurement and definition of abuse. For example, one study describes rates of CSA among female inmates (23.9 percent) that are equivalent to those in the general population (El-Bassel, Ivanoff, Schilling, Gilbert, & Chen, 1995); however, the

authors note the limitation of using only one self-report item to indicate sexual abuse. In response to such findings, Grayson and Nolen-Hoeksema (2005) indicate that "single-item measures are typically associated with underreporting rather than overreporting of assaults" (p. 139). Based on research to date, however, it is probably safe to conclude that CSA is two to three times more common among incarcerated females than it is in the general public (Harlow, 1999) or among female college students.

CSA and Psychological Symptomatology in Female Inmates

Given the large proportion of female inmates who have experienced sexual abuse, it is not surprising that they also evidence higher prevalence rates of psychopathology compared to the general population (Islam-Swart & Vik, 2004; Jordan, Schlenger, Fairbank, & Caddell, 1996). For example, studies confirm the high rate of psychological distress in female inmates (e.g., Warren et al., 2002). For example, incarcerated female felons score significantly higher on all subscales of the Brief Symptom Inventory (e.g., depression, anxiety, paranoid ideation) compared to a nonclinical sample (Warren et al., 2002), and approximately two-thirds of incarcerated females suffer from mental disorders (e.g., depression, anxiety, PTSD; Battle et al., 2003; Snell & Morton, 1994). Thus, female inmates may be at particular risk for psychopathology in general as well as for the experience of more specific symptom clusters.

In particular, the experience of symptoms associated with PTSD may be especially problematic for female inmates. When statistics for current and past symptomatology are combined in a sample of female inmates, nearly 70 percent meet criteria for PTSD (Zlotnick & Pearlstein, 1997). Other studies of adjustment among female inmates report similarly concerning results. For example, between 22 percent (Green et al., 2005) and 48 percent (Zlotnick & Pearlstein, 1997) of incarcerated females with a history of sexual trauma currently meet criteria

for PTSD. Another study reports that 34 percent of female jail detainees receive a diagnosis of PTSD in their lifetime (Teplin, Abram, & McClelland, 1996), a rate nearly three times that of women in the general community (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Thus, current experiences of psychological symptoms (e.g., PTSD) may be related closely to negative childhood experiences, such as CSA, for female inmates.

Additionally, PTSD puts women at a significantly higher risk for co-occurring substance abuse disorders compared to their non-traumatized cohort (e.g., see Kilpatrick, Resnick, Saunders, & Best, 1998, for a review). Furthermore, empirical studies find a strong association between a history of family violence and the development of later alcohol and drug problems, as well as associated legal problems in survivors, irrespective of whether samples are drawn from clinical or community populations (Downs, Miller, Testa, & Panek, 1992). Thus, adult female offenders are no exception to this finding and often report high levels of substance abuse prior to incarceration (69 percent; Karlberg & James, 2002). Specifically, a study reports that rates of drug and alcohol use are significantly higher among female inmates with a history of abuse (70 percent) when compared to female inmates without a history of abuse (54 percent; Harlow, 1999). Given these findings, it appears that PTSD is a common occurrence in the context of CSA and later incarceration, but CSA and PTSD also may be related closely to the experience of other difficulties later in life, such as substance abuse.

In confirmation of this hypothesis, Widom and Ames (1994) report that children who experience severe child abuse or neglect are at significantly higher risk for arrest as juveniles and adults when compared to a matched control group. Another investigation indicates that sexual contact in childhood is related significantly to drug and alcohol offenses (Chandy, Blum, & Resnick, 1996). Similarly, Curtis and colleagues (2001) find that sexual touching before puberty

predicts significantly later incarcerations during adolescence and adulthood (Curtis et al., 2001), whereas Ireland and Widom (1994) find a relationship between maltreatment and arrests for drug related offenses. Additionally, one of the most consistent findings regarding sexual molestation during childhood is a vulnerability in some survivors to later be involved with violent partners (e.g., Beitchman et al., 1992), a type of revictimization which may increase the risk of legal problems. The relationship between CSA and revictimization in adulthood is not without controversy but is deserving of a closer examination.

As a result, a key to understanding and responding to women as offenders may be an appreciation of their status as crime victims and/or trauma survivors (Richie, Tsenin, & Widom, 2000). Studies identify the intersection – or cycle – of victimization and criminality and explore the pathways by which abuse and neglect in childhood promote criminality later in life by derailing young girls' normal development (Richie et al., 2000). Moreover, abuse experiences may affect negatively cognitive functioning and thus interfere with adaptive responses (van der Kolk, McFarlane, & Weisaeth, 1996). For example, studies suggest that flashbacks, hypervigilance, and other negative affective states (e.g., emotional flooding) may trigger psychological numbing or dissociative states in the traumatized individual (Briere, 1996). Attempts to cope with such states or symptoms may involve use of substances, such as alcohol or drugs. This use of substances then increases the chance of involvement with the legal system (Browne et al., 1999). Given these collective findings, any study examining the experiences of CSA and incarceration status also should account for the experience of specific symptom clusters (e.g., PTSD, substance abuse).

CSA and Revictimization

In general, women with a history of CSA are more likely to report experiences of adult sexual victimization when compared to women with no such prior experience of abuse in childhood (see Breitenbecher, 2001, for a review; Gidycz, Coble, Latham, & Layman, 1993; Gidycz, Hanson, & Layman, 1995; Himelein, 1995; Kessler & Bieschke, 1999; Messman & Long, 1996). For example, a recent review suggests that female survivors of CSA are more than twice as likely to be revictimized in adulthood compared to those without a reported history of CSA (Messman-Moore & Long, 2003). Additionally, a meta-analysis of empirical studies notes a large effect size (.59) for the relationship between CSA and revictimization in adulthood (Roodman & Clum, 2001). Findings from this review also indicate that the severity of childhood abuse predicts significantly the likelihood of being revictimized (Roodman & Clum, 2001). In contrast, another study finds a significant relationship between CSA and revictimization, regardless of the severity, age of onset, or number of perpetrators (Maker, Kemmelmeier, & Peterson, 2001). Moreover, Classen, Gronskaya-Palesh, and Aggarwal's (2005) review notes an independent relationship between CSA and revictimization in adult females when potential confounds (e.g., current age, ethnicity, marital status) are controlled, whereas a twin study suggests a unique effect of CSA on rape in adulthood after controlling for family variables (Nelson et al., 2002).

Further, Finkelhor and Browne (1995) suggest that traumatic sexualization, betrayal, powerlessness, and stigmatization in survivors of CSA are possible responses that may predict revictimization. In other words, the abuse experience is related to children's views of themselves, their affective responses, and their ability to relate to others (Filipas & Ullman, 2006). Other studies propose that survivors of CSA learn maladaptive ways of coping, thereby putting

themselves at greater risk for revictimization (Wheeler & Berliner, 1998). For example, maladaptive coping strategies (e.g., alcohol use, sexual activity) predict revictimization (Gidycz et al., 1995; Koss & Dinero, 1989). Additionally, Filipas and Ullman (2006) find that the number of maladaptive coping strategies used in response to CSA predicts revictimization in a sample of female college students. They hypothesize that female survivors of CSA use avoidance coping to manage their PTSD symptoms. Unfortunately, such coping strategies then exacerbate the negative symptoms of PTSD (e.g., numbing) and put them at risk for revictimization. In their study, however, Filipas and Ullman (2006) indicate that PTSD symptoms alone did not predict revictimization.

Additionally, research supports a relationship between the occurrence of psychological symptoms, possibly exacerbated by the experience of CSA, and the likelihood of revictimization. In particular, research suggests that dissociation and affective numbing, commonly associated with PTSD in CSA survivors, may lower individuals' awareness of their surroundings, thereby increasing the likelihood of being revictimized (Briere & Runtz, 1987; Chu, 1992). In contrast, other studies find that PTSD symptoms may increase directly individuals' vulnerability to sexual revictimization (Arata, 2000; Boney-McCoy & Finkelhor, 1995). For example, one study of college students reports that CSA and adult revictimization is mediated by self-blame and PTSD symptomatology (Arata, 2000).

Because of the often compounded negative effects from revictimization in childhood survivors and the prevalence of such experiences among female inmates, investigating predictors of this outcome is an important aim of the proposed study. Findings also may illuminate factors that perpetuate the cycle of violence and abuse that is the reality for so many survivors of CSA and for female inmates with such experiences.

Potentially Relevant Theoretical Frameworks

Several theoretical frameworks pertaining to the development of difficulties in survivors of childhood maltreatment have been proposed. These frameworks may be particularly relevant to understanding the path of women who are incarcerated at some point during their life times. One of the most comprehensive theories to date is Briere's (1992b) *self-trauma model* of abuse and other maltreatment. According to this primarily cognitive-behavioral model, abusive acts toward children impact negatively their cognitive development, affect regulation, and tolerance skills, thereby promoting the use of emotional, cognitive, and behavioral avoidance in order to survive the extreme distress promoted by abuse (Briere, 1992b; see Putnam, 2003, for a review). Although this avoidance is recognized as adaptive, in that it protects children from overwhelming emotions that may occur suddenly (e.g., intense emotional reactions to objectively benign stimuli in the environment; Briere, 2002), these avoidance responses may hinder these children from developing or seeking alternative coping resources and outside support. Through this process, Briere (2002) suggests that children are deprived of normal development and learning related to attachment.

Additionally, the impact of childhood maltreatment for survivors can involve the development of faulty assumptions regarding self and others (e.g., perceived helplessness, fear of others; Briere, 1992b) and the formation of negative expectations pertaining to their esteem and others' trustworthiness (see Briere, 2002, for a review). These internal working models (Bowlby, 1988) may affect adult survivors' capacity for developing and maintaining relationships (see Briere, 2002, for a review). From this theoretical perspective, one may speculate that early trauma, such as that experienced in the context of CSA, affects individuals' perceptions of resources (e.g., social support) and their ability to effectively seek support for coping purposes.

Consistent with this theoretical model, a review of the empirical literature suggests that survivors of CSA in both clinical and community samples experience significantly more interpersonal difficulties compared to women without a reported history of CSA (Rumstein-McKean & Hunsley, 2001).

Additionally, some theorists suggest that the experience of sexual trauma may affect negatively *specific* cognitive functions (e.g., concentration) and thereby interfere with individuals' execution of adaptive responses (e.g., accurate interpretation of environmental cues; van der Kolk et al., 1996). Most importantly for the content of the current study, misinterpretation of the environment (e.g., risk perception) may contribute to interpersonal difficulties as well as an increased risk of revictimization (Wilson, Calhoun, & Bernat, 1999). These experiences, in turn, may exacerbate symptoms (see Classen et al., 2005, for a review) and strengthen reliance on avoidance strategies (Briere, 2002). Scientific testing of these theoretical models, however, has yielded mixed results. Specifically, variability in predictors and outcomes for survivors of CSA exist throughout the literature (e.g., Briere, 1992a; Classen et al., 2005). Thus, careful attention must be paid to methodology issues and interpretation of findings across studies. Overall, the relationships described in these frameworks warrant further study.

Resiliency

Although reports of childhood abuse predict strongly psychological adjustment (e.g., Joiner et al., 2007; Russel, 1986) and reported revictimization later in life (e.g., Breitenbecher, 2001; Messman-Moore & Long, 2000) as well as involvement in criminal activity (Widom & Ames, 1994; Widom & Maxfield, 2001), the majority of survivors of CSA *do not* come in contact with the legal system. Thus, "abuse is not destiny" (Mullen, Martin, Anderson, Romans, & Herbison, 1994, p. 45). For example, Curtis and colleagues (2001) note that, although sexual

touching before puberty predicts significantly incarceration in adolescence and adulthood, 80 percent of those with this experience *did not* evidence legal problems. Additionally, not all individuals who are abused as children develop psychopathology and maladaptive behaviors (Browne & Finkelhor, 1986). Hence, further investigation of protective variables (Cummings, Davies, & Campbell, 2000; DeHart, 2004) and *mechanisms* by which the association between CSA and adjustment occurs (e.g., Whiffen & MacIntosh, 2005) is warranted. Specifically, this second generation of research (e.g., Merrill, Thomsen, Sinclair, Gold, & Milner, 2001) is examining more closely moderators and mediators in the relationship between CSA and outcomes.

In recent years, the research community and clinicians have moved beyond psychopathology toward a focus on strengths and adaptation (e.g., Dumont, Spatz Widom, & Czaj, 2007; Lam & Grossman, 1997; Thomas & Hall, 2008). Additionally, researchers argue that "the consequences of childhood sexual abuse need to be understood from both sides of the coin (psychopathology and resilience) in order to clarify the emerging picture and to improve existing treatment programs as well as to generate new prevention and intervention strategies" (Lam & Grossman, 1997, p. 178). The development of a resilient trajectory or profile is viewed generally as stemming from the interaction between characteristics of children, their families, and their social environments (Luthar, Cicchetti, & Becker, 2000). These interactive characteristics can be either risk factors (e.g., increase the probability of negative outcomes) or protective factors (e.g., facilitate positive outcomes following adversity; Masten, 1994).

Many such variables may promote resiliency. Resiliency is described as the capacity for adaptation despite unfortunate or traumatic circumstances (Waller, 2001) and a dynamic process involving the interaction between biological, psychological, and social factors that ameliorate the

effects of stress and trauma to facilitate adjustment (Luthar & Cicchetti, 2000; Luthar & Ziegler, 1991). Positive adaptation, then, is evidenced by an absence of clinically significant symptoms (Luthar et al., 2000). Using this criteria (as indicated by scores in the nonclinical range on measures of depression and anxiety), Spaccarelli and Kim (1995) find that 44 percent of their sample of teenage girls are resilient. Moreover, studies find that women who report a history of CSA along with the presence of protective factors parallel those without histories of abuse in terms of their adult adjustment (Lam & Grossman, 1997). For example, a recent study of narratives from resilient ("thriving") survivors of childhood maltreatment finds that, although these women experience intermittent symptoms of anxiety and depression, they demonstrate "persistence and competence in solving problems" and evidence normal adjustment (Thomas & Hall, 2008, p. 163).

Additionally, a meta-analysis by Jumper (1995) suggests that there is less impairment following sexual abuse among college student females as compared to community and clinical samples of survivors. Jumper (1995) suggests that identification of adjustment processes in college student populations is important for clinicians because it "could help determine factors which facilitate appropriate psychological adjustment" (p. 725). In other words, illuminating strategies and resources utilized by those who exhibit resilience – and harnessing these strengths for future programming purposes with female inmates – is an important aspect of the present study. Thus, an understanding of protective factors that may prevent incarceration for female survivors of CSA is warranted. Several potential protective factors that will be examined in this study are discussed next.

Coping

In general, the way in which an individual copes with stressful or traumatic events is linked to adjustment (Compas & Epping, 1993; DiPalma, 1994; Himelein & McElrath, 1996; Tremblay, Hébert, & Piché, 1999). For example, the ways in which individuals cope with stress predicts significantly the likelihood that they will become depressed or anxious (Blalock & Joiner, 2000). Using Lazarus and Folkman's (1984) definition, coping refers to the process of appraising threat and mobilizing cognitive and behavioral resources to combat stress and the emotions evoked by stress. In response to extreme stress (e.g., CSA), adequate mobilization of resources may not be developmentally possible or appear feasible in the minds of children; thus, other strategies may be used to deal with overwhelming feelings (Briere, 1992b, 2002).

In particular, research suggests that avoidance coping is a common coping strategy in individuals who have been abused sexually (Spaccarelli, 1994; Wolfe & Birt, 1997). For example, Gibson and Leitenberg (2001) find that social withdrawal and avoidance coping are adopted more commonly by adult female college students with a history of CSA relative to those without such histories. Similarly, Bal, Crombez, Van Oost, and Debourdeaudhuij (2003) report that adolescents who have been abused sexually more frequently use avoidance coping strategies than those who have experienced other types of stressful events. In Bal and colleagues' (2001) study, findings also suggest that avoidance coping in response to abuse experiences mediates the relationship between sexual abuse and psychological distress. For example, using a sample of college students, Polusny, Rosenthal, Zachary, and Aban (2004) report that adolescent sexual victimization contributes to increased experiential avoidance, which then is associated with greater negative outcomes (i.e., depressive symptoms and other types of distress). Similarly, Coffey, Leitenberg, Henning, Turner, and Bennett (1996) find that coping strategies involving

avoidance or disengagement are related to poorer adjustment in adulthood. Although some studies indicate that avoidance strategies (e.g., minimizing the event) protect the individual in the short-term, active coping is believed generally to promote better adjustment in the long-term (Herman-Stahl, Stemmler, & Peterson, 1995).

Use of alcohol and illegal drugs, another manifestation of avoidance coping, also appears to be one way of coping that is commonly used by survivors of childhood abuse. For example, Kendall-Tackett, Marshall, and Ness (2000) report that individuals with a history of victimization are significantly more likely to use drugs. Similarly, Briere and Runtz (1987) indicate that female survivors of CSA are ten times more likely to report a history of being addicted to drugs and two times more likely to experience alcohol addiction. A study by Schuck and Widom (2001) supports the notion that childhood victimization plays a causal role in the development of alcohol symptoms. Additionally, research notes that alcohol-related problems are more common among female survivors of CSA relative to individuals who were not abused (Moncrieff & Farmer, 1998). Further, women who experienced CSA are more likely to use illegal substances (e.g., amphetamines, cocaine; Jarvis, Copeland, & Walton, 1998). Moreover, using alcohol to cope with distress or negative emotions mediates partially the relationship between CSA and alcohol problems in adult females (Grayson & Nolen-Hoeksema, 2005).

In contrast, a review of the literature notes several flaws in a majority of studies reporting a mediation effect of avoidance behavior (e.g., substance use) on adjustment (Whiffen & MacIntosh, 2005). Most noteworthy was the frequent violation of mediation conditions set by Baron and Kenny (1986) across studies. Whiffen and MacIntosh (2005) note, however, that, in one of the studies where all assumptions of mediation are met, avoidance coping mediates partially the link between traumatic events and outcomes (e.g., PTSD symptoms and depression;

Bal et al., 2003). Other reviews suggest that the use of avoidant coping may be adaptive in response to the traumatic experience itself, but prolonged use or reliance on such strategies may mediate adjustment (see Aldwin, 1993, for a review). Although coping is studied in relation to adjustment among incarcerated females (e.g., Negy, Woods, & Carlson, 1997), the literature is lacking investigations among those inmates who also have experienced CSA. Thus, coping style and motives for using substances (e.g., avoidance of negative affective experiences) may be important predictors of outcomes for those who have a history of CSA. In particular, the likelihood of individuals engaging in maladaptive coping may be related, in part, to their perceptions of alternative resources and available supports.

Social Support

In the last decade, social support has garnered interest as a potential moderator of negative outcomes in survivors of childhood abuse, but the process by which social support operates is understood poorly (Tremblay et al., 1999). Investigations of adult survivors of CSA identify social support as an important variable for resilience (Spaccarelli & Kim, 1995). For example, among teenage survivors of CSA, only the quality of the relationship with a non-offending parent and the total level of abuse-related stress emerge as significant predictors of resilience (Spaccarelli & Kim, 1995). Additionally, Runtz and Schallow (1997) report that social support accounts for over half of the variance in functioning among adults who have experienced physical or sexual abuse. Moreover, a meta-analysis indicates that a lack of social support is related significantly to symptoms of PTSD in trauma survivors (Brewin, Andrews, & Valentine, 2000). Similarly, a lack of social support is related to increases in PTSD symptoms, higher levels of depression, and other types of psychological maladjustment among young adults with a history of physical maltreatment (McLewin & Muller, 2006). Tremblay and colleagues (1999)

also suggest that social support influences positively the cognitive evaluation (i.e., appraisal) of sexual abuse experiences, thus affecting outcomes in survivors. Moreover, children and adolescents who have experienced sexual abuse report lower levels of depression and higher self-esteem when parental support is adequate (Feiring, Taska, & Lewis, 1998).

Social support also may influence other predictors of adjustment (Trembley et al., 1999), including the ways in which individuals cope with stress. For example, family supports may model appropriate coping behavior, whereas friends may help to decrease individuals' sense of isolation after a traumatic event (e.g., natural disasters; Vernberg, La Greca, Silverman, & Prinstein, 1996). Additionally, Bal and colleagues' (2003) investigation of survivors of CSA and other types of trauma in adolescence indicates that perceptions of high social support are associated directly with fewer trauma-related symptoms. The authors note, however, that these findings are especially robust for non-sexual trauma. Furthermore, a study of adult females who have experienced CSA suggests that a specific type of social support, termed appraisal support, predicts significantly PTSD symptom development (Hyman, Gold, & Cott, 2003). Given these findings, social support should be examined further as a potential protective factor in the context of CSA. For many survivors, however, supports may not be readily available or may, in some instances, add to the experience of distress. Thus, understanding individuals' perceptions of an environment that may or may not have lent support following CSA also is important to the proposed investigation.

Family Environment and Disclosure

As noted, the role of the family in providing support and other resources for the purposes of facilitating coping behavior appears pivotal to children's adjustment following abuse. Failure to provide such protective factors, possibly as a result of the chaos and conflict within the family, is linked to negative outcomes. For example, studies find that CSA is related to a dysfunctional family background (Hanson, 1990), which may affect psychological adjustment in survivors of CSA. Moreover, one review suggests that family environment is a better predictor of psychological distress in adult females than the CSA experience itself (Rind, Tromovitch, & Bauserman, 1998). Results of another study fail to support the hypothesis that family environment mediates the association between CSA and depression; however, findings of this study suggest that family conflict and control mediate anxiety symptoms (Yama, Tovey, Fogas, & Teegarden, 1992). Given these findings, it may be the case that different family characteristics may mediate the relationship between CSA and differential psychological symptomatology.

In addition to the direct impact of family factors, research indicates that the family environment in which the abuse occurs may affect disclosure as well as subsequent psychological adjustment (Alaggia, 2004). For example, some studies find that the family and other supports may be related to the likelihood of children disclosing their experience of abuse (Amaya-Jackson, Socolar, Hunter, Runyan, & Colindres, 2000). This finding may be particularly important, as the timing of such probes and disclosures has an impact on well-being. Moreover, the disclosure of abuse is an important variable to consider because of its potential to disrupt the entire family system. Such disruption may have consequences for child development and adjustment (Amaya-Jackson et al., 2000). Disclosure of abuse is generally divided into three

categories: 1) Purposeful, 2) Accidental, or 3) Prompted/Elicited (Jones, 2000). Purposeful disclosure refers to the intentional reporting of abuse to a caregiver or other individual, whereas accidental disclosure refers to "accidental discovery through a third-party" (Allagia, 2004, p. 1218). Finally, prompted or elicited disclosure implies some investigative effort (e.g., interviewing, counseling, supportive environments). Ruggiero and colleagues (2004) note that the literature generally defines *disclosures* as those children who told someone about the abuse, whereas *nondisclosures* involve children who did not elect to disclose but who experienced a discovery of the abuse by a third party.

Furthermore, factors related to children's disclosure of their abusive experiences may be related to mental health outcomes (Jones, 2000). Specifically, the response that survivors receive at the time of their disclosure or at the discovery of the abuse is linked to adjustment. For example, Ullman (2003) reports that a negative reaction from others is related generally to worse outcomes for survivors of CSA, including more psychological symptoms and relationship problems. Among children in foster care, reaction to disclosure is the most important predictor of their adjustment (Gries et al., 2000). Specifically, lower depression scores are found for those who report full support from foster parents compared to those who report only partial support (Gries et al., 2000). Moreover, a study by Testa, Miller, Downs, and Panek (1992) indicates that those who receive positive support at the time of abuse disclosure experience fewer psychological symptoms and report higher self-esteem relative to those who receive negative support or report that they receive no support. Overall, the research community will argue that a positive reaction to disclosure is essential for adjustment (Gries et al., 2000).

Finally, it can be argued that the impact of abuse is a function of personal, familial, and social environments rather than simply characteristics of the abuse (Spaccarelli & Kim, 1995)

and that a contextual perspective is essential to understand survivors' recovery (Ullman, 1999). In other words, the role of the family environment is important to consider when examining psychological symptoms and outcomes (Briere & Elliot, 2003). For example, recent research suggests that a holistic-interactionistic view may explain better the functioning of individuals with a history of CSA and that development following abuse is both dynamic and complex (Jonzon & Lindblad, 2006). Thus, the present study will investigate the interplay among the aforementioned variables so as to increase our understanding of the impact of CSA and the legal involvement of women.

Present Study

Substantial evidence has been garnered to suggest that experiencing CSA can have detrimental effects on women's psychological adjustment and interpersonal functioning (for reviews, see Beitchman et al., 1992; Berliner & Elliott, 2002; Briere & Jordan, 2004; Browne & Finkelhor, 1986). Studies also link CSA to a heightened risk for PTSD, the abuse of substances (Briere & Runtz, 1987), revictimization (see Messman-Moore et al., 2003 for a review), and incarceration (Ireland & Widom, 1994). Beyond the direct relationship between abuse characteristics (e.g., severity) and outcomes, research has identified protective factors that add to our understanding of adjustment in survivors of CSA. For example, coping style (O'Dougherty Wright, Fopma-Loy, & Fischer, 2005) and social support (Feiring et al., 1998; McLewin & Muller, 2006; Runtz & Schallow, 1997) predict generally a variety of outcomes in survivors of CSA. Moreover, studies examine family reactions to disclosure of abuse as a predictor of psychological adjustment (Ullman & Filipas, 2005). For example, negative social reactions are related to more PTSD symptomatology (Ullman & Filipas, 2005). Also, a meta-analysis suggests that family environment is a strong predictor of psychological adjustment in CSA survivors

(college students; Rind et al., 1998). With few exceptions, however, these protective factors have not been investigated among female inmates.

Given the dramatic increase in female incarcerations over the past few decades (Beck & Gilliard, 1994; Harrison & Beck, 2005) and the fact that many of these female inmates have endured CSA (Browne et al., 1999; Raj et al., 2008), more research is needed to illuminate the predictors of adjustment, resiliency factors, and pathways to incarceration in this vulnerable population (Islam-Zwart & Vik, 2004; Raj et al., 2008). As a result, the present study addresses the need for a comprehensive investigation of potential correlates of CSA in female inmates and aims to contribute to the existing CSA literature by comparing female inmates to a sample of college students with a reported history of CSA. To our knowledge, no study has compared directly female inmates with CSA experiences to females who have been abused sexually but who are on a resilient trajectory (e.g., college students) on the aforementioned variables.

Moreover, the inclusion of resilient or high functioning survivors is important for the identification of positive adjustment variables (Jumper, 1995). Further, this information could enhance our understanding of how individuals manage to thrive in the face of childhood adversity such as CSA (Thomas & Hall, 2008), consistent with the trend of the past decade to emphasize a less pathogenic view (Lam & Grossman, 1997). Overall, findings of the proposed study may enhance our understanding of ways in which CSA and adjustment are related to intrapersonal and interpersonal variables. Overall, it is assumed that working models of [interpersonal] experiences and relationships change over the course of individuals' lives and "provide adults with the flexibility they need to function adaptively" (McLewin & Muller, 2006, p. 173). Thus, the role of social support and coping warrants further investigation as well,

especially in the context of incarceration. Finally, the results also may aid in the development of interventions with female inmates who have experienced CSA.

Hypotheses

Hypothesis 1. Predictors of Adjustment. A higher abuse severity, more negative reactions to disclosure, past and current use of avoidance coping, and lower social support are expected to be related to negative adjustment (i.e., trauma symptoms, depressive symptoms, and substance abuse) in both female inmates and college student survivors of CSA. It also is expected that relationships among adjustment variables will be found in both groups.

Hypothesis 2. Group Differences. Incarcerated females will be more likely to report poorer family functioning and to have experienced more negative reactions to their disclosures of abuse. Also, incarcerated females are expected to perceive their social support as less adequate when compared to their college student counterparts. Additionally, it is predicted that incarcerated females will be more likely to report maladaptive coping strategies in response to their abuse and in current situations (e.g., different types of avoidance). Female inmates also are expected to report more symptoms of PTSD and depression, as well as substance-related consequences, compared to college students. Finally, female inmates are expected to be significantly more likely to have experienced revictimization in adulthood compared to female college student survivors of CSA.

Hypothesis 3. Mediation Models. Avoidant coping in response to CSA is expected to mediate the relationship between CSA and PTSD symptoms in both groups of survivors. Also, current use of avoidant coping and perceptions of social support are expected to mediate independently the relationship between PTSD symptomatology and substance-related consequences in both female inmates and college students. Finally, avoidant coping and

perceived social support will mediate independently the relationship between CSA and revictimization experiences in adulthood for both groups.

Hypothesis 4. Overall Model. Finally, the present study aimed to explore the extent to which select demographics, family environment, abuse characteristics, disclosure reactions, perceived social support, avoidance coping, substance-related consequences, and PTSD symptomatology predict involvement with the legal system.

CHAPTER THREE: METHODOLOGY

Participants

Participants for the present study were recruited from undergraduate psychology courses at a large university in the southeastern United States (N=420) as well as from the female detention center of a county correctional facility (N=169). Females of any ethnicity and race who were 18-years of age and older were eligible for participation. The suggested sample size for a multiple regression analysis ($\alpha = .05$) with seven independent variables and statistical power of .80 is 102 participants in order to detect a medium ($R = .36$) effect size (Cohen, 1992). Thus, in order to investigate hypothesized relationships and explore group differences among survivors, both groups were over-sampled to ensure that a sufficient proportion of participants had experiences relevant to the study questions. Demographic information and description of the overall sample of inmates and students will be described next.

Demographics. Inmate participants (N=169) ranged in age from 18- to 62-years with an average age of 34.67-years (*SD*=9.53), whereas student participants (N=420) ranged in age from 18- to 49-years with an average age of 20.59-years (*SD*=3.38). Both samples were primarily Caucasian/White (Inmates = 63.6 percent; Students = 61.2 percent). For the inmate sample, African-Americans comprised the second largest ethnic group (26.1 percent), followed by those from the Hispanic/Latina ethnicity (4.8 percent). Among students, Hispanic/Latina was the second largest ethnic group (17.5 percent), followed by African-Americans (13.2 percent). One inmate (.6 percent) and 4 students (2.7 percent) endorsed an Asian-American background, whereas a Native American background was endorsed by 2.4 percent of inmates and .3 percent of students. Some "other" ethnicity was endorsed by 2.4 percent of inmates and 4.6 percent of students.

Participant and Parental Education. Inmate participants had an average of 11.74 years of education (*SD*=2.9), with an average GPA of 2.6 (*SD*=.84). In contrast, students had an average of 14.67 years of education (*SD*=1.87) and an average GPA of 3.09 (*SD*=.48). In particular, 45 percent of inmates reported less than a high school education, which is comparable to previous studies of incarcerated females (e.g., 43 percent high school drop out rate: Raj et al., 2008; 44 percent with less than high school education: Green et al., 2005). Further, 34.3 percent of inmates had earned their high school diploma or equivalent, 25.7 percent of inmates reported "some college", 6.7 percent had an Associate's degree, and 4.2 percent of inmates had graduated college at the time of their participation.

With regard to the parents of participants, 24.4 percent of inmates reported that neither of their parents had earned a high school diploma (e.g., endorsed "some high school" or "less than high school"), whereas only 3.9 percent of students reported that their parents had not earned a high school degree or equivalent. Additionally, 27.3 percent of inmates reported having a parent who went on to college (including "some college", Associates degree, etc.), compared to 54.7 percent of college students. Specifically, 27.5 percent of students and 6.7 percent of inmates had a parent with at least a Bachelor's degree, 20.1 percent of students and 6.1 percent of inmates had a parent with a Master's degree, and 7.2 percent of students reported that they had a parent with a Doctorate degree or equivalent. No female inmate reported having a parent with a Doctorate degree.

Moreover, 79.4 percent of inmates and 68.9 percent of students reported that they were in a regular education classroom throughout the majority of their academic career, whereas 8.5 percent of inmates and 29 percent of students had been in a gifted program. Furthermore, 12.1 percent of inmates and .6 percent of students (1 student) had been in a SLD program for most of

their schooling. For the college student sample, most were in their Freshman year of study (33.3 percent), followed by Junior (26.1 percent), Senior (21.9 percent) and Sophomore (18.6 percent) class standings, respectively. Not surprisingly, given the average age of inmates, a majority (91.3 percent) were not enrolled in college at the time of the study; however, the inmate sample did include five college Freshmen (3.4 percent), four Sophomores (2.7 percent), one Junior (.7 percent), and one graduate student (.7). Among inmates, 5.6 percent estimated that 90 percent or more ("9 out of 10") of their high school friends went to college, whereas a majority (52.4 percent) of students endorsed that 90 percent of their friends went to college. For students, the "90 percent or more" category was the most frequently endorsed, followed by the "80 to 90 percent" category (18.6 percent). Among inmates, the most frequently endorsed category (36.7 percent) was for "less than 10 percent of my high school friends went to college".

Marital Status and Living Arrangements. With regard to inmate participants, 57.8 percent were unmarried (i.e., single/dating = 36.1 percent and serious relationship/engaged = 21.7 percent), 6.2 percent were married, 21.4 percent were separated from their spouse, 18 percent were divorced, 4.3 were widowed, and 1.2 percent had remarried. Further, 81.3 percent of these inmate participants reported that they were parents. In contrast, 96 percent of students were unmarried (i.e., single/dating = 76 percent and serious relationship/engaged = 20.1 percent), and almost all students (96.6 percent) reported that they did not have children. A majority of students (76.1 percent) endorsed that they were renting an apartment or a home, and most students in this sample reported that they were living currently with friends, family, or a combination of friends and family (86.8 percent). Among inmates, 24.8 percent reported that they were homeless prior to incarceration, with an additional 2.5 percent endorsing that they were living in a shelter. Moreover, 9.3 percent were living in a motel room, whereas 24.8 percent reported that they were

renting an apartment or room prior to incarceration. Overall, more than one third of female inmates were either living in the streets, in a shelter, or in a motel room prior to incarceration. Finally, 6.2 percent of inmates reported that they owned a home.

Family Income and Foster Care Involvement. Approximately half of inmates (49 percent) and one third of students (35 percent) reported a current income of $10,000 or less. With regard to the inmate sample, 81.9% made $29,000 or less annually (including support from spouse or family), compared to 55.7 percent of student participants. Among students, over one third of the sample (35.9 percent) noted a family income above $70,000 during childhood, and an additional 15 percent of students noted a childhood family income of 60,000 to $70,000. Moreover, 60.7 percent of inmates and 14.5 percent of students reported that they had received free lunch in school (before the age of 18-years) because their parents could not afford a meal plan. In addition, 23.4 percent of inmates and 1.2 percent of students (4 students) had experienced involvement with Child Protective services (e.g., Department of Children and Families) or entered some form of foster care before the age of 18-years.

Legal History. In terms of participants' legal histories, 4.5 percent of students reported some form of legal involvement (e.g., arrest), and 3.7 percent noted that they had spent some amount of time in jail. Of student participants, 2.7 percent (10 students) had been arrested for alcohol related crimes, 1.1 percent (4 students) for drug related offenses, and 2.4 percent (9 students) for theft. No student in this sample reported a history of prostitution, robbery, or domestic violence arrests. Further, 3.2 percent (12 students) reported some substance use treatment in their past.

Among female inmates, 28.3 percent reported a history of incarceration for trespassing, 25.9 percent noted incarceration for alcohol related crimes (e.g., DUI), 70.3 percent reported

incarceration for drugs or illicit substances (e.g., possession, paraphernalia), 42.5 reported incarcerations for theft, 10.2 percent were incarcerated for robbery, 43.1 percent were incarcerated for prostitution, and 28.7 percent were incarcerated for domestic violence. The average number of incarcerations among female inmates was 2.18 (*SD*=2.16). Among inmates, 24.1 percent reported that they had spent time in prison. A majority of inmates (57.4 percent) had been in some form of substance use treatment.

Among female inmates, 35.5 percent reported that they had a parent or caretaker who had been incarcerated. In contrast, 11.1 percent of students endorsed that a parent or caretaker had spent time in jail or prison.

Unwanted Sexual Experiences and CSA. With regard to female inmates, 65.7 percent (110 of 169) reported that they had experienced some form of unwanted or non-consensual sexual experience before the age of 18-years (e.g., exposure/non-contact, fondling, molestation, forced intercourse), which is consistent with previous literature that suggests a majority of females who are incarcerated have experienced CSA (e.g., Browne et al., 1999). In contrast, 35.5 percent (149 of 420) of college student participants reported such unwanted or non-consensual experiences. This figure is slightly higher than those reported in previous studies of college students (28.7 percent; Filipas & Ullman, 2006) but is lower than that reported in a recent study of college students' experiences (41.6 percent; Young, Harford, Kinder, & Savell, 2007).

Specifically, 54.5 percent of inmates and 18.7 percent of students reported that they had experienced exposure or non-contact sexual exploitation against their will (e.g., someone masturbated in front of them or exposed their genitals) before the age of 18-years, whereas 57.4 percent of inmates and 14.1 percent of students reported that someone had completed non-consensual sexual fondling or touching of their bodies before the age of 18-years. Moreover,

58.3 percent of inmates and 14.1 percent of students reported being molested sexually in childhood, and 43.2 percent of inmates and 5.5 percent of students reported attempted non-consensual intercourse before the age of 18-years. Further, 41.3 percent of inmates and 5.5 percent of students reported that someone completed a non-consensual act of intercourse with them before the age of 18-years. Finally, 68.2 percent of inmates reported that they had been raped after the age of 18-years, whereas 8.6 percent of students endorsed this item.

Table 1. *Types of Experiences Reported Among Survivors before the Age of 18-years*

Variable	*Inmates*	*Students*
Any type of non-consensual/CSA	65.6 % (N=111)	35.5 % (N=149)
Exposure	54.5 %	18.7 %
Touching/Fondling	57.4 %	14.1 %
Molestation	58.3 %	14.1 %
Completed Intercourse	41.3 %	5.5 %

Procedure

Following full board review and subsequent IRB approval from the University of Central Florida as well as approval from Orange County Corrections, eligible women who volunteered to participate were provided with an informed consent form that introduced them to the study and outlined any foreseeable risks or discomforts as well as their right to discontinue their participation at any time without penalty. To ensure the anonymity of study participants, the present study obtained a waiver for signatures on the informed consent. Participants who volunteered to proceed after reading the consent form (Appendix A) were asked to fill out a questionnaire that took approximately one hour to complete (Appendices C-M). The

questionnaire inquired about various demographic variables (e.g., age, marital status, family income, living arrangement, involvement with the legal system), life experiences (e.g., childhood and adulthood victimization), family environment, perceptions of social support, utilization of various coping strategies, substance use (e.g., motives and consequences), and current adjustment (e.g., PTSD symptoms, depressive symptomatology). The questionnaire was filled out via a web-based program developed for research participation at the University of Central Florida (for college student participants) and at data collection sessions with paper measures in the Female Detention Center (FDC) at Orange County Corrections (for female inmate participants). Specifically, female college students who were registered with the campus-based Psychology extra credit program completed the series of questionnaires online in the laboratory (N=380) or via paper-and-pencil (due to technical error; N=40), whereas female inmates filled out the same questionnaires solely in a paper-and-pencil format in dorms and classrooms in the FDC. Studies show that data collected on-line tends not to differ from that collected in paper-and-pencil format (e.g., Finegan & Allen, 1994). Some caution should be noted, however, in terms of administration of on-line surveys and socially desirable responding (e.g., Whitener & Klein, 1995). To address concerns noted by Whitener and Klein (1995), the present study allowed on-line participants to scan multiple items, go back to previous items, and change answers within the survey. College student participants were offered extra credit for their participation. In contrast, correction regulations prohibited any type of incentive or payment to be provided to incarcerated participants.

Although there were no foreseeable costs or risks associated with participation in this study, some of the questionnaire items were obviously sensitive in nature, which poses the risk of transient emotional distress in participants. As a result, the investigators remained alert to

negative responses to the questionnaires provided and were prepared to intervene with assistance (e.g., allowing participants to withdraw from the study, referring them for mental health services), if needed. During the course of the study, only one student participant elected to discontinue the study prematurely for reasons unrelated to the study content (i.e., due to a time conflict in her schedule). Among incarcerated participants, seven incomplete packets were returned with reasons specified as having either conflicting medical appointments or trustee duties within the jail. All participants were debriefed so as to assess any distress associated with participation. Further, contact information for the counseling center on campus, which provides mental health services to college students enrolled at the University of Central Florida free of charge, was given to college student participants in the debriefing form (Appendix O). Female inmates were encouraged in the debriefing form (and in person, if needed) to contact mental health staff via the automated sick call system already in place at the FDC should they have wished to discuss further their study participation.

Measures

Demographics. Participants completed a brief questionnaire regarding demographics information, including their age, gender, ethnicity, marital status, legal history, and household income. See Appendix C for a sample of the demographics questionnaire.

Childhood Sexual Experiences. A modified version of Jonzon and Lindblad's (2006) Child Sexual Abuse Index (CSAI) was used to assess various aspects of participants' childhood experiences. Specifically, participants were asked to respond to a series of questions (yes/no) about unwanted sexual events that they may have experienced before the age of 18-years. Jonzon and Lindblad (2006) derived their questions from the Abuse Dimensions Inventory (Chaffin, Whetty, Newlin, Crutchfield, & Dykman, 1997). Chaffin and colleagues (1997) asked

professionals to rate the severity of specific abuse characteristics and found inter-rater reliability coefficients of .96 to .99 across domains. Taking these findings a step further, Jonzon and Lindblad (2006) assigned weights based on the *type of experience* (i.e., Non-contact = 1, Contact but no penetration = 2, and Penetration = 3), *frequency* (i.e., Once = 1, A few times/year = 2, A few times/month = 3, and Every week = 4), *duration* (i.e., Once = 1, 1 to 4 years = 2, 5 to 10 years = 3, and Over 10 years = 4), and use of *violence or physical force* (i.e., Yes = 1) in order to obtain a child sexual abuse severity score. The CSA Index also included questions about the type of perpetrator (i.e., stranger, acquaintance, relative, or peer) and, for the purpose of the present study, a question about disclosure of the abuse. The Kuder-Richardson for this measure in the present study was .91. See Appendix D for the CSA Index.

Adult Sexual Experiences. The Sexual Experiences Survey (SES; Koss & Oros, 1982) was used to measure the adult sexual experiences of participants. The most frequently used version of the SES consists of ten items (yes/no) used to assess sexual victimization after the age of 18-years. For example, participants were asked, "After the age of 18, have you had sexual intercourse with a man when you didn't want to because he used some degree of physical force (twisting your arm, holding you down, etc.)?" In a previous study, the Cronbach alpha for this measure was .74 (Koss & Gidycz, 1985). The Kuder Richardson for the present study was .93. See Appendix E for the SES.

Family Environment. The 62-item Family Adaptability and Cohesion Evaluation Scales, 4th edition (FACES-IV; Gorall, Tiesel, & Olson, 2006), was used to assess various dimensions of healthy and problematic aspects of family functioning. Specifically, four unbalanced scales (e.g., Disengaged, Enmeshed, Rigid, and Chaotic) and two balanced scales (e.g., Balanced Cohesion and Balanced Flexibility/Control) are generated from the FACES-IV. The Disengaged and

Enmeshed subscales are indicative of Cohesion extremes within the family system, whereas the Rigid and Chaotic subscales represent extremes in terms of Flexibility. Reliability for the six subscales ranged from .77 to .89 in a previous study (Gorall et al., 2006). Moreover, a total Circumplex Ratio score is calculated by dividing the average of the balanced scales by the average of the unbalanced scales and may be viewed as a summary of a family's balanced (health) and unbalanced (problem) characteristics (Gorall et al., 2006). The Cronbach alphas for the present study were adequate, ranging from .65 to .92. See Appendix F for sample of the FACES-IV.

Coping. To remain consistent with the transactional model of coping, a modified version (no filler items) of the Ways of Coping Questionnaire (WOC/WAYS; Folkman & Lazarus, 1988) was used to assess current coping behaviors. The WOC consists of 50 items pertaining to eight cognitive and behavioral coping strategies that individuals might have used in the past two weeks when faced with an identified stressor. The eight subscales are labeled Confrontive Coping (e.g., aggressive efforts to alter situation, risk taking), Distancing (e.g., detach oneself and minimize significance), Self-Controlling (e.g., emotion-focused coping), Seeking Social Support, Accepting Responsibility, Escape-Avoidance (e.g., cognitive and behavioral avoidance), Planful Problem Solving, and Positive Reappraisal. Folkman, Lazarus, Dunkel-Schetter, Delongis, and Gruen (1986) reported moderate to high internal consistency estimates for the eight subscales, with Cronbach alpha coefficients ranging from .61 to .79. The Escape-Avoidance subscale is of particular interest to the present study given its previously demonstrated relationship to psychological adjustment. For the present study, the Cronbach alpha for the WAYS Escape-Avoidance subscale was .69. See Appendix G for the WOC/WAYS.

Coping with CSA Experience. To assess survivors' ways of coping with their unwanted sexual experience, the Coping: How I Deal With Things scale (Burt & Katz, 1987, 1988) was used. This measure assesses five dimensions of coping with a sexual assault experience (i.e., Avoidance, Self-Destructive Behavior, Cognitive Strategies, Anxious Behavior, and Expressiveness). For example, to assess coping with trauma, the 29-item scale uses question stems such as "Sleeping a lot and trying not to think about what happened" (i.e., Avoidance), "Giving yourself permission to feel your feelings and considering any feelings to be okay" (i.e., Expressiveness), "Snapping at people for no apparent reason, generally feeling irritable, or feeling like you are about to explode" (i.e., Anxious Behavior), "Trying to rethink the situation and see it from a different perspective" (i.e., Cognitive), and "Getting yourself into dangerous or risky situations more than you usually would" (i.e., Self-Destructive). This method of assessing individuals' responses to sexual trauma is consistent with the Lazarus and Folkman's (1984) theory of coping (Runtz & Schallow, 1997). Each item is rated on a seven-point Likert-type scale where 1 = "Never", 2 = "Rarely", 3 = "Sometimes", 4 = "Half the time", 5 = "Often", 6 = "Usually", and 7 = "Always". The Cronbach alphas for the present study were .93 for the Cognitive Coping subscale, .95 for Expressive Coping, .93 for Nervous/Anxious Coping, .94 for Avoidance Coping, and .91 for Self-Destructive Coping. See Appendix H for the How I Deal scale.

Substance Motives. To assess participants' motives for using substances, a modified version of the Drinking Motives Measure (Cooper, Russell, Skinner, & Windle, 1992) was used. Specifically, the five-item Drinking to Cope with Distress subscale of this measure was used. Each item taps into individuals' motives for using substances (e.g., "To forget my worries") and is rated on a four-point Likert-type scale where 1 = "Never/Almost Never", 2 = "Sometimes", 3

= “Often”, and 4 = “Always/Almost Always.” This subscale has demonstrated good reliability in previous studies, with a Cronbach alpha of .81 (Grayson & Nolen-Hoeksema, 2005). The Cronbach alpha for the present study was .93. See Appendix I for the DMM.

Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a 12-item measure that was used to assess perceptions of social support adequacy from family, friends, and significant others in survivors of CSA. For example, participants are asked to rate items such as “I get the emotional support I need from my family” on a 7-point Likert scale where 1 = Very Strongly Disagree and 7 = Very Strongly Agree. A higher score on the MSPSS is indicative of higher perceived social support. Higher perceived social support correlates with fewer depressive and anxious symptoms as measured by the Hopkins Symptom Checklist. The MSPSS also is correlates negatively with the BDI-II in a college student sample (Asberg, Bowers, Renk, & McKinney, 2008). The authors reported an internal reliability of .88 for the total scale. The Cronbach alpha for the present study was .94. See Appendix J for the MSPSS.

Social Reactions. The 48-item Social Reactions Questionnaire (SRQ; Ullman, 2000) was used to assess the frequency of positive and negative reactions that survivors received when they disclosed their CSA experience. Items such as “Told you that you were not to blame” are rated on a 5-point Likert type scale where 0 = Never and 4 = Always. Factor analysis of the SRQ identified two types of positive reactions (i.e., tangible aid/information support, emotional support/validation/belief) and five negative reactions (i.e., taking control of the survivor’s decisions, blaming the survivor, expression of stigma/treating the survivor differently, attempting to distract or avoid talking about the abuse, and egocentric responses/not focusing on survivor’s needs). Also, psychometric properties of the SRQ are adequate, with Pearson correlations

ranging from .68 to .77 in a previous study (Ullman, 2000). The Cronbach alpha for the present study was .91. See Appendix K for the SRQ.

Depression. The Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item instrument used to measure depressive symptoms in adults. Specifically, items of the BDI-II reflect symptoms that correspond to criteria for a diagnosis of a depressive disorder (e.g., Loss of Interest). Each item of the BDI-II is rated on a 4-point scale from 0 to 3, with total scores ranging from 0 (minimal) to 63 (severe). Generally, a score between 0 and 13 indicates a minimal level of depression, whereas a score of 14 to 19 is considered mild depression, a score of 20 to 28 suggests moderate depression, and a score of 29 of higher is indicative of severe depression. A clinical cut-off score of 16 is generally used. Use of the BDI-II with college students in previous studies suggests good psychometric properties (Steer & Clark, 1997). Internal consistency of the BDI-II ranged from .92 to .93, with a .93 test-retest reliability in a previous study (Beck et al., 1996). The BDI-II correlates positively with widely used measures of depression, hopelessness, suicidal ideation, and anxiety. The Cronbach alpha for the present study was .94. See Appendix L for a sample question of the BDI-II.

Trauma Symptoms. The Trauma Symptom Checklist (TSC-40; Briere & Runtz, 1989) is a research measure that evaluates symptomatology associated with childhood or adult traumatic experiences. It measures aspects of posttraumatic stress and other symptom clusters found in some traumatized adult individuals. The TSC-40 is a revision of the earlier TSC-33 (Briere & Runtz, 1989). The TSC-40 is a 40-item self-report instrument consisting of six subscales: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index (SATI), Sexual Problems, and Sleep Disturbance, as well as a Total Score. Each symptom item (e.g., Flashbacks: sudden, vivid, distracting memories) is rated according to its frequency of occurrence over the prior two

months, using a four point scale ranging from 0 ("Never") to 3 ("Often"). Studies using the TSC-40 indicated that it is a relatively reliable measure (i.e., subscale alphas typically range from .66 to .77, with alphas for the Total Score averaging between .89 and .91). The utility of the TSC-40 was confirmed in a sample of adult women with histories of sexual abuse (Elliot & Briere, 1992). The Total Score was used for the present study as an indicator of trauma symptomatology in survivors of CSA. The Cronbach alpha for the present study was .94. See Appendix M for the TSC-40.

Substance Abuse. The Inventory of Drug Use Consequences (InDUC-R6; Tonigan & Miller, 2002) was used to assess behaviors associated with use of alcohol and/or drugs in adults. The scale consists of 50 questions about consequences stemming from substance use (alcohol or drugs) in the past six months. Participants are asked how frequently they have experienced specific consequences (e.g., "I have gotten into trouble [because of substances]"; "A friendship or close relationship has been damaged by my drinking or drug use") where 0 = Never, 1 = Once or a few times, 2 = Once or twice per week, and 3 = Daily or almost daily. Tonigan and Miller (2002) reported good to excellent test-retest reliability (r = .75 to .93) for four of the five subscales (i.e., Impulse Control, Social Responsibility, Physical, and Interpersonal Consequences) in a study of lifetime substance use and consequences. The Intrapersonal Consequences subscale, however, had poor reliability (r =.34). A total score of substance use consequences is also generated from the InDUC-R6 (Tonigan & Miller, 2002). The present study used this total score as an indicator of negative consequences stemming from substance use. The Cronbach alpha for the present study was .96. See Appendix N for the InDUC-R6 scale.

CHAPTER FOUR: RESULTS

Sample Selection

From the overall sample of 169 female inmates and 420 female college students, survivors of childhood sexual abuse or other unwanted sexual experiences were identified. Specifically, 110 female inmates (66 percent) and 149 female college students (35.5 percent) endorsed at least one unwanted sexual experience before the age of 18-years. These groups were used for subsequent analyses. For all analyses, an alpha level of .05 was used to indicate statistical significance unless otherwise noted.

Descriptive Statistics

First, means and standard deviations for study variables were calculated using SPSS for Windows 13.5 (SPSS, 2005). The mean score on the measure of depression (BDI-II = 27.80) for inmates fell just under the cut-off for severe depression. In contrast, students' mean score on the measure of depression (BDI-II = 13.55) fell in mild range and was similar to that found in previous studies with college students. With regard to trauma symptoms, scores on the Trauma Symptom Checklist (TSC = 58.24) were moderately high for inmates, whereas their scores on the measure of negative substance use consequences was severe (InDUC = 83.88). In contrast, student survivors scored generally in the normative range on indicators of trauma (TSC = 37.03) as compared to students who were seen for services at a university counseling center (TSC = 35.12; Brandyberry & MacNair-Semands, 1998).

Students' scores on an indicator of substance use consequences (InDUC = 13.03) is low in comparison to scores of women seeking outpatient treatment for substance use (M=60.20) as reported by Tonigan and Miller (2002) and on the low end given the range of the measure (range = 0 to 150). Given the non-clinical sample of college students examined in this study, however,

these scores are in the expected range. The InDUC measure has been used previously to assess relationships between substance use consequences and sexual abuse in clinical samples (e.g., Liebschutz et al., 1998), but, to our knowledge, no previous study has used the InDUC with a college student sample. For the purpose of the present study, however, the utility of the InDUC can be deemed highly appropriate given that the measure is meant to assess problematic substance use rather than diagnostic criteria for substance use disorders.

Additionally, inmates' mean score on the measure of social support (MSPSS = 51.70) fell in the below average range and is similar to scores in clinical samples (see Clara, Cox, Enns, Murray, & Torgrude, 2003, for a review), whereas the mean social support score for the student group (MSPSS = 67.92) fell in the average range but somewhat lower compared to non-clinical samples of college students (e.g., Asberg et al., 2008; Clara et al., 2003; Dahlem et al., 1991). The MSPSS has demonstrated relationships with other measures of support and also is related to measures of depressive symptomatology (see Clara et al., 2003, for a review). Moreover, in terms of global avoidance coping, scores for inmates (WAYS –Avoid =13.09) and students (WAYS – Avoid=10.34) were slightly higher than scores observed in a sample of adults who completed the WAYS in a hospital setting two weeks before surgery (WAYS – Avoid = 9.08) and four months post-surgery (WAYS – Avoid= 7.05) as reported by Sorlie and Sexton (2000).

Relationships Among Variables

Next, bivariate relationships among study variables were explored using a correlation matrix for inmate and student survivors, respectively. These correlations were used to examine Hypothesis 1. See Table 1 for correlations.

Table 2. *Correlations Among Study Variables for Inmate Survivors*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.TSC	1																		
2. InDUC	.25**	1																	
3. MSPSS	-.17	.14	1																
4. Escape Avoidance	.24*	.16	.10	1															
5. BDI-II	.62**	.13	.00	.25**	1														
6. DMM Coping	.40**	.60**	.03	.14	.25**	1													
7. SRQ Blame	.20	.12	.02	.19	.31**	.00	1												
8. SRQ Ego centric	.30**	.37**	-.04	.38**	.27*	.23*	.27*	1											
9. SRQ Belief	-.10	.16	-.10	.05	-.13	.13	-.58**	.34**	1										
10. SRQ Info Aid	.14	.21	.02	.33**	.04	.27*	-.30**	.49*	.71*	1									
11. SRQ Distract	.09	.40**	.04	.25*	.06	.16	.30	.68**	.21	.22*	1								
12. SRQ Control	.29**	.39**	-.07	.38**	.27*	.22*	.40**	.79**	.27*	.44*	.70**	1							
13. SRQ Treat Different	.29**	.36**	-.07	.20	.24*	.14	.57**	.62**	-.11	.02	.71**	.70*	1						
14. SRQ Emotional Sup.	-.17	.17	-.05	.10	-.17	.11	-.55**	.37**	.90**	.74**	.24*	.29**	-.10	1					
15. How Cognitive	.19	.25*	.08	.31**	.04	.26*	-.12	.40**	.37**	.53**	.23*	.30**	.13	.41*	1				
16. How Expressive	-.04	-.10	-.03	.17	-.17	.00	-.16	.18	.31**	.38**	-.01	.11	-.11	.33	.52**	1			
17. How Nervous Anxious	.44**	.20	-.01	.38**	.37**	.36**	.21	.33**	.03	.33**	.13	.32*	.18	.06	.50**	.29	1		
18. How Avoid	.40**	.08	-.05	.21*	.25**	.27*	.23*	.19	-.21	.09	.12	.18	.19	-18	.38**	.23*	.65**	1	
19. How Self Destruct	.54**	.48**	-.01	.33**	.41**	.56**	.29*	.28*	-.09	.13	.16	.31**	.22*	-.06	.34**	-.16	.57**	.42*	1

Note. ** Correlation is significant at the 0.01 level 2-tailed. * Correlation is significant at the 0.05 level 2-tailed.

Table 3. *Correlations Among Study Variables for Student Survivors*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.TSC	1																		
2. InDUC	.29**	1																	
3. MSPSS	.27**	-.07	1																
4. Escape Avoidance	.45**	.14	-.04	1															
5. BDI-II	.70**	.16*	-.24**	.38**	1														
6. DMM Coping	.29**	.70**	-.06	.24**	.23**	1													
7. SRQ Blame	.12	.12	-.17	-.13	-.04	.19	1												
8. SRQ Ego centric	.23*	.13	-.12	.13	.38	.22*	.23*	1											
9. SRQ Belief	-.06	-.09	.21	.14	.00	-.13	-.76*	.13	1										
10. SRQ Info Aid	.03	-.02	.02	-.08	.07	-.04	-.14	.28*	.45**	1									
11. SRQ Distract	.17	.12	-.16	.25*	.21	.15	-.01	.68**	.33**	.14	1								
12. SRQ Control	.32**	-.05	-.11	.14	.24*	-.03	.17	.66**	.16	.35**	.60**	1							
13. SRQ Treat Different	.35**	.21	-.18	.15	.28*	.21	.42*	.73**	-.08	.18	.64**	.77**	1						
14. SRQ Emotional Sup.	.03	-.08	.30**	.12	.06	-.06	.67**	.16	.91**	.38**	.37**	.14	-.14	1					
15. How Cognitive	.11	.07	-.04	.25**	.14	.21*	-.21	.39**	.47**	.45**	.46**	.31**	.26*	.43**	1				
16. How Expressive	-.12	-.01	.24*	.11	-.15	.06	-.24*	.23*	.46**	.30*	.27*	.11	-.02	.42**	.62**	1			
17. How Nervous Anxious	.32**	.09	-.07	.35**	.32**	.20*	.18	.40**	.05	.21	.42**	.55**	.40**	.09	.42**	.35**	1		
18. How Avoid	.17	.02	-.01	.36**	.27**	.11	-.08	.21	.13	.06	.30**	.28*	.13	.13	.37**	.28**	.38**	1	
19. How Self Destruct	.15	.30**	-.21*	.12	.24*	.37**	.19	.44**	-.02	.07	.38**	.28*	.35**	-.03	.37**	.17	.43**	.46**	1

Note. ** Correlation is significant at the 0.01 level 2-tailed. * Correlation is significant at the 0.05 level 2-tailed

Relationships Between Abuse Severity and Outcomes. Among inmate survivors, severity of childhood abuse and unwanted sexual experiences before the age of 18-years (CSAI total) was related to more substance use consequences (InDUC score; $r = .31$, $p < .01$) but not to trauma symptoms (TSC score) or depressive symptoms (BDI-II score). Similarly, severity of CSA was related to student survivors' reports of substance abuse consequences ($r = .31$, $p < .001$) but not to their trauma symptoms or current depressive symptoms. In summary, severity of CSA was related to substance abuse but not to other outcomes among inmates and students, respectively.

Relationships Between Abuse and Variables. Further, inmate and student survivors' CSA severity scores were related significantly to their use of avoidance coping *specifically* in response to the CSA experience (How I Deal– Avoid; $r = .27$, $p < .01$, and $r = .33$, $p < .001$, respectively), their self-destructive coping (How I Deal– Self-Destruct; $r = .28$, $p < .01$, and $r = .22$, $p < .02$, respectively), and their cognitive coping (How I Deal– Cognitive; $r = .32$, $p < .01$, and $r = .30$, $p < .01$, respectively). For inmate survivors, abuse severity also was related to use of nervous/anxious coping behaviors in response to CSA (How I Deal – Nervous/Anxious; $r = .27$, $p < .05$). In contrast, abuse severity was not related significantly to nervous/anxious coping for student survivors. Further, severity of CSA was related to overall adult coercive or violent sexual experiences (including rape) in adulthood as indicated by the SES total score for both inmates and college students ($r = .19$, $p < .05$, and $r = .27$, $p < .01$, respectively). Overall, abuse severity was related to avoidance coping, self-destructive coping, and cognitive coping among inmates and students as well as to inmates' use of anxious/nervous coping. Abuse severity also was related to inmate and college student survivors' adult sexual experiences.

Relationships Between Disclosure Reactions and Outcomes. For both inmate and student survivors, ego-centric reactions from the environment in response to disclosure of CSA (SRQ –

Egocentric) was related to current trauma symptoms ($r = .30$, $p < .01$, and $r = .23$, $p < .05$, respectively) and depressive symptomatology ($r = .27$, $p < .05$, and $r = .34$, $p < .01$, respectively). Among inmate survivors, but not students, an ego-centric reaction from the environment was related to negative consequences from substance use ($r = .37$, $p < .01$). Further, results indicated that receipt of ego-centric reactions in response to CSA disclosure was related to both inmates' and students' adult revictimization scores ($r = .24$, $p < .05$, and $r = .22$, $p < .05$, respectively).

For inmate survivors, being blamed by the social environment in response to abuse disclosure (SRQ – Blame) was related to higher levels of depressive symptomatology and revictimization ($r = .31$, $p < .01$, and $r = .22$, $p < .05$, respectively). Further, reactions pertaining to control (SRQ – Control) was related to all three outcomes for inmate survivors (i.e., trauma symptoms: $r = .29$, $p < .01$, depression: $r = .27$, $p < .05$, and substance use consequences: $r = .39$, $p < .001$), as well as to their revictimization scores ($r = .24$, $p < .05$). In addition, being treated differently in response to abuse disclosure (SRQ – Treat different) was related to trauma symptoms ($r = .29$, $p < .01$), depressive symptoms ($r = .24$, $p < .05$), and substance use consequences ($r = .36$, $p < .001$) for inmate survivors. In contrast, this type of response did not show a significant relationship with outcomes for students. Further, having an environment that responded with distraction attempts when the abuse was disclosed (SRQ – Distract) was related to more negative consequences stemming from substance use in the inmate survivor group ($r = .40$, $p < .001$) but not in the student survivor group. Moreover, receipt of emotional support (SRQ – Emotional support) was related negatively to students' re-victimization scores ($r = .24$, $p < .05$); however, this type of response was not related to the other outcomes for students.

Overall, results indicated several significant relationships between social reactions and outcomes, particularly for inmate survivors. Specifically, blame reactions, controlling responses, ego-centric reactions, and being treated differently following abuse disclosure all were related to outcome variables (e.g., trauma symptoms, depression, and substance use consequences) for inmate survivors. Distraction responses from the environment also were related to inmate survivors' substance use. For students, ego-centric reactions were related to trauma symptoms and depressive symptoms, whereas emotional support corresponded with lower revictimization scores among students.

Relationships Between Social Support and Outcomes. Results indicated further that current perceived social support (MSPSS) was related significantly to depressive symptomatology and trauma symptoms ($r = -.24$, $p < .01$, and $r = -.27$, $p < .001$, respectively) for student survivors, but social support was not related significantly to substance use consequences for this group. For inmate survivors, perceived social support was not related significantly to outcome variables. Thus, social support appeared to demonstrate important relationships with outcomes for student survivors but not for inmate survivors.

Relationships Between Coping and Outcomes. For both inmates and college students, use of avoidance coping (How I Deal – Avoid) in response to CSA was related to current depressive symptomatology ($r = .25$, $p < .05$, and $r = .27$, $p < .01$, respectively). This type of coping also was related to higher levels of trauma symptomatology for inmates ($r = .40$, $p < .001$) but not for students. Avoidance coping in response to the experience of CSA was not related significantly to substance use consequences for either group of survivors. Additionally, results indicated that all types of coping used by student survivors in response to CSA (i.e., cognitive, expressive, avoidant, nervous/anxious, and self-destructive coping) correlated significantly with their report

of overall adult coercive or violent sexual experiences (including rape) as indicated the SES total score (*r*'s between .23 and .33). These relationships between abuse-specific coping and adult sexual experiences were not significant in the sample of inmate survivors.

Current use of avoidance coping (WAYS – Escape/Avoid) was related to inmate survivors' and student survivors' trauma symptoms ($r = .24$, $p < .05$, and $r = .38$, $p < .001$, respectively) and depressive symptoms ($r = .25$, $p < .01$, and $r = .45$, $p < .001$, respectively), but current use of avoidance coping was not related significantly to substance use consequences for either group. Not surprisingly, more frequent use of alcohol or drugs to cope with negative affect (DMM – Coping), which can be conceptualized as a type of avoidance coping, was related significantly to substance-related consequences for inmate and student survivors ($r = .60$, $p < .001$, and $r = .70$, $p < .001$, respectively). Further, results indicated that survivors' use of substances for coping purposes was related to trauma symptoms for both inmates and students ($r = .40$, $p < .001$, and $r = .29$, $p < .001$, respectively). Results also suggested that this type of avoidance coping was related significantly to depressive symptoms in both inmate and student survivors ($r = .62$, $p < .01$, and $r = .23$, $p < .01$, respectively). Moreover, coping with negative affect by using substances was related to re-victimization scores for inmates ($r = .22$, $p < .05$) but not for students.

Also, relationships among the different coping variables were found. Specifically, survivors' retrospective report of escape-avoidance coping in response to CSA (How I Deal – Avoid) was related to their current reliance on general avoidance coping (WAYS – Escape/Avoid) for both inmates and students ($r = .21$, $p < .05$, and $r = .31$, $p < .001$, respectively).

Overall, avoidance coping by using substances was related significantly to all outcomes (e.g., trauma symptoms, depressive symptoms, substance use consequences) for both the inmate and student groups. In addition, avoidance coping by using substances was related to inmates' revictimization scores. Furthermore, avoidance coping in response to CSA was related to all outcomes and to revictimization for inmates, whereas this type of coping was related only to students' depressive symptoms. Finally, current use of "global" avoidance coping was related to trauma symptoms and depressive symptoms for both inmates and students.

Relationships Between Family Functioning and Study Variables. Several subscales of the FACES – IV were related to variables of interest for survivors. For example, for student survivors of CSA, chaotic family functioning (FACES – Chaotic) was related significantly to lower perceived social support ($r = -.23$, $p < .05$). This relationship was not significant for inmate survivors. Furthermore, flexible family functioning (FACES – Flexible) was related significantly to perceived social support for students ($r = .45$, $p < .001$), but this relationship was not significant for inmate survivors. Flexible family functioning also was related to reactions of belief in response to abuse disclosure (SRQ – Belief) for students ($r = .30$, $p < .05$). Similarly, for students, flexible family functioning showed a positive and significant relationship to scores on the SRQ – Emotional Support subscale ($r = .28$, $p < .05$) as well as a significant negative relationship with scores on the How I Deal – Self-Destructive subscale pertaining to coping with CSA ($r = -.24$, $p < .05$). Flexible family functioning was not related significantly to study variables for inmate survivors.

Moreover, disengaged family functioning scores (FACES – Disengaged) was correlated with student survivors' perception of social support and depressive symptoms ($r = -.40$, $p < .001$, and $r = .21$, $p < .05$, respectively), but disengaged family functioning was not related

significantly to perceived social support or depressive symptomatology for inmate survivors. In contrast, disengaged family functioning was correlated significantly and negatively with inmate survivors' use of expressive coping and cognitive coping (r = -.21, p < .05, and r = -.26, p < .05, respectively) in response to the CSA experience.

Furthermore, enmeshed family functioning (FACES – Enmeshed) was related to scores on the SRQ – Control subscale for student survivors (r =.29, p < .05). This type of family functioning also was related significantly and negatively to students' scores on the How I Deal – Avoid subscale (r = -.24, p < .05). Enmeshed family functioning did not evidence any significant relationship with study variables for inmate survivors, however. Additionally, results indicated that cohesive family functioning (FACES – Cohesion) was related to higher perceptions of social support (r =.41, p < .001) and lower levels of depressive symptoms (r = -.25, p < .05) for student survivors of CSA, but this relationship was not found in the group of inmate survivors.

Similarly, satisfaction with family functioning (FACES – Satisfaction) was related positively with perceived social support (r = .50, p < .001) and negatively with depressive symptoms (r = -.26, p < .01) for student survivors but not for inmates. Moreover, higher satisfaction with family functioning among student survivors was related significantly to less use of self-destructive coping and cognitive coping in response to abuse (r = -.25, p < .05, and r = -.20, p < .05, respectively). These relationships between satisfaction and coping were not significant for inmates. For inmate survivors, however, satisfaction with family functioning was related negatively to adult revictimization (SES – total) and social reactions of belief (SRQ – Belief) in response to abuse disclosure (r = -.26, p < .001, and r = .22, p < .001, respectively). Family functioning variables were not related significantly to students' reports of re-

victimization in adulthood or the reactions that they received when childhood abuse was disclosed.

In summary, family functioning demonstrated significant relationships with study variables, especially for student survivors. Specifically, chaotic and flexible family functioning were related to students' perceptions of social support. Flexible family functioning also was related to students' use of self-destructive coping, receipt of emotional support, and being believed in response to disclosure. Furthermore, disengaged family functioning was related to perceptions of support and depressive symptoms for students as well as to inmates' use of expressive and cognitive coping. Moreover, enmeshed family functioning was related to controlling reactions from students' supports and to more avoidance coping, whereas cohesive functioning and satisfaction with family-of-origin was related to students' perception of support and depressive symptoms. Finally, satisfaction with family functioning was related to less maladaptive coping among students as well as to inmates' revictimization scores and belief reactions.

Relationships Among Outcome Variables. For inmate and student survivors, trauma symptoms were related significantly to depressive symptoms ($r = .62$, $p < .001$, and $r = .70$, $p < .001$, respectively) and negative substance use consequences ($r = .25$, $p < .01$, and $r = .29$, $p < .001$, respectively). Depressive symptomatology also was related to substance use consequences for student survivors ($r = .16$, $p < .05$), but this relationship was not significant for inmates. For inmates, substance related consequences were related to re-victimization scores ($r = .47$, $p < .001$).

Comparison of Inmates Versus College Students

Next, a series of *t*-tests was conducted to examine differences on measures between college student participants and inmate participants. Given the large number of variables (i.e., scales) for which group differences were assessed, a more conservative approach to data interpretation was used. Specifically, a Bonferroni correction was applied so as to decrease the risk of committing a Type I error at the .05 alpha level. These analyses were used to examine Hypothesis 2. Results of *t*-test analyses (table 2) indicated that inmate survivors differed from their college student counterparts on most study variables.

Table 4. *Group Differences on Study Variables*

	Inmates		Students		
Variables	*M*	*SD*	*M*	*SD*	*t*
CSA Severity	3.64	1.60	1.95	1.58	-13.62**
FACES – Cohesion/Dimension	32.48	33.08	60.27	31.90	6.59***
FACES – Balanced/Flexible	41.02	27.41	51.42	25.41	3.06**
FACES – Disengaged (%)	45.64	21.75	31.51	18.07	-5.39***
FACES – Enmeshed (%)	27.85	12.90	21.63	10.01	-4.11**
FACES – Chaotic (%)	34.97	21.83	28.11	15.52	-2.75**
FACES – Communicate	21.41	13.04	36.18	8.22	5.42***
FACES – Communicate (%)	38.71	31.87	54.98	28.46	4.08***
FACES – Satisfaction	24.37	12.59	32.60	9.46	5.67***
FACES – Satisfaction (%)	26.42	26.90	39.24	29.18	3.51**
How I Deal – Avoid	25.10	7.56	18.55	8.99	-5.62***
How I Deal – Cognitive	18.86	7.90	14.77	7.21	-3.82***
How I Deal – Express	23.18	9.10	23.31	9.20	.10
How I Deal – Nervous	21.43	6.98	12.02	5.48	-10.49***
How I Deal – Destruct	15.14	5.76	7.18	3.92	-11.22***

	Inmates		Students		
Variables	*M*	*SD*	*M*	*SD*	*t*
SRQ – Blame	8.24	5.24	5.99	4.69	-2.54*
SRQ – Ego-centric	6.90	5.40	3.93	3.97	-4.08***
SRQ – Belief	12.37	6.56	12.22	6.85	-.14
SRQ – Info/Aid	8.61	7.04	5.31	4.00	-3.69***
SRQ – Distract	9.68	6.21	5.45	4.52	-5.10***
SRQ – Control	8.11	5.73	5.22	4.77	-3.65***
SRQ – Treat different	7.02	5.54	3.45	4.05	-4.95***
SRQ – Support	12.06	7.25	12.58	7.10	.47
MSPSS Total Support	21.06	5.88	23.90	4.32	6.00**
WAYS Escape Avoidance	13.09	5.50	10.34	4.44	-4.29***
DMM Substance Coping	14.39	4.67	9.04	4.08	-9.63***
BDI-II Depression	27.80	13.88	13.81	9.80	-9.06***
InDUC Substance Abuse	83.88	49.23	13.93	14.69	-17.09***
TSC Trauma symptoms	58.24	23.49	37.03	17.06	-8.06***
SES – Adult Experiences	6.36	3.33	1.70	1.99	-13.05***

Note. *M* = mean. *SD* = standard deviation.
* $p < .05$ ** $p < .01$ *** $p < .001$

CSA and Outcomes. Consistent with our hypothesis, female inmates scored significantly higher on the Childhood Sexual Abuse Index (*M*=3.64, *SD*=1.60) compared to female student survivors (*M*=1.95, *SD*=1.58), indicating a higher degree of abuse severity among the incarcerated sample. Moreover, results indicated that inmate survivors experienced significantly more trauma symptoms (*M*=58.24, *SD*=23.49) compared to student survivors (*M*=37.03, *SD*=17.06) and that inmates' scores on a measure of depressive symptomatology (*M*=27.80, *SD*=13.88) were significantly higher than students' scores (*M*=13.81, *SD*=9.80). Also, inmates experienced more negative consequences as a result of substance use (*M*=83.88, *SD*=49.23) compared to their student counterparts (*M*=13.93, *SD*=14.69). Moreover, inmate survivors

scored significantly higher on the Sexual Experiences Survey (*M*=6.36, *SD*=3.33) compared to student survivors (*M*=1.70, *SD*=1.99), indicating more instances of sexual victimization and coercive sexual encounters (including rape) in adulthood (after the age of 18-years) in the incarcerated sample. Overall, inmate survivors reported a higher severity of CSA, more symptoms of trauma and depression, and more substance use consequences. In addition, inmates were more likely to have experienced revictimization relative to their college student survivor counterparts.

Past and Current Coping. In terms of coping at different stages of development, results indicated that inmate survivors used more Escape-Avoidance coping and Self-Destructive means of coping (*M*=25.10, *SD*=7.56, and *M*=15.14, *SD*=5.76, respectively) in response to their experience of CSA compared to student survivors (*M*=18.55, *SD*=8.99, and *M*=7.18, *SD*=3.92, respectively). Likewise, inmate survivors reported significantly more use of Cognitive and Nervous/Anxious coping (M=18.86, *SD*=7.97, and *M*=21.43, *SD*=6.98, respectively) relative to student survivors (*M*=14.77, *SD*=7.21, and *M*=12.02, *SD*=5.48, respectively). Inmate survivors and student survivors did not differ significantly in their use of Expressive coping in response to CSA. Overall, results indicated that inmate survivors relied more on maladaptive coping strategies relative to student survivors, whereas no differences were found between inmate survivors and student survivors in their report of expressive coping.

In terms of current coping, inmates used escape-avoidance coping in their everyday life more often (*M*=13.09, *SD*=5.50) than student survivors (*M*=10.34, *SD*=4.44). Additionally, inmates' use of substances to cope with negative affect was significantly higher (*M*=14.39, *SD*=4.67) than students' use (*M*=9.04, *SD*=4.08). Overall, inmate survivors of CSA used

significantly more avoidance coping as adults, including use of drugs and alcohol to cope with negative affect.

Social Reactions. In terms of reactions that survivors experienced from others when the abuse was disclosed or discovered (as measured by the SRQ), inmates and students differed significantly in several areas. Specifically, female inmates were more often blamed for the abuse (M=8.24, SD=5.24) compared to student survivors (M=5.99, SD=4.69). Inmates also reported more egocentric responses from their environment (M=6.90, SD=5.40) compared to students (M=3.93, SD=3.97). Further, individuals in inmate survivors' lives more often attempted to use distraction (M=9.68, SD=6.21) in response to the disclosure of the abuse relative to individuals in students' lives (M=5.45, SD=4.52). In addition, inmate survivors were more likely to endorse that their environment treated them differently as a result of the abuse being discovered or disclosed (M=7.02, SD=5.54) compared to students (M=3.45, SD=4.05). Other individuals tried to control the inmate survivor's situation (M=8.11, SD=5.73) more frequently than what was reported by student survivors (M=5.22, SD=4.77). There were no group differences on social reactions pertaining to belief (in the abuse) or emotional support. In contrast, inmates reported significantly lower perceived social support currently (M=51.70, SD=16.22) as compared to students (M=62.87, SD=11.99). Overall, results indicated that inmate survivors received significantly more negative reactions to disclosure of CSA and perceived themselves as having less social support currently relative to student survivors of CSA.

Family Functioning. Results indicated that student survivors scored higher on family functioning pertaining to Balanced Flexibility (M=51.42, SD=25.14) as compared to inmates (M=41.02, SD=27.41), whereas inmates scored higher on the Disengaged subscale of family functioning (M=45.64, SD=21.75) as compared to students (M=31.51, SD=18.07). Likewise,

inmate survivors scored higher on the scale of Enmeshed family functioning (*M*=27.85, *SD*=12.90) as compared to student survivors (*M*=21.63, *SD*=10.01). Furthermore, group differences were found on scales of Chaotic family functioning (FACES – Chaotic percentage score), with inmates scoring significantly higher on this scale (*M*=34.97, *SD*=21.83) compared to students (*M*=28.11, *SD*=15.52). Additionally, student survivors endorsed more Cohesive family functioning (*M*=60.27, *SD*=31.90) as compared to their inmate counterparts (*M*=32.48, *SD*=33.08).

On the FACES-IV subscales pertaining to Communication, student survivors' scores were higher in terms of raw scores (*M*=36.18, *SD*=8.22) and percentage scores (*M*=54.98, *SD*=28.46) compared to inmates' scores (raw: *M*=21.41, *SD*=13.04; percentage: *M*=38.71, *SD*=31.87). Results indicated that students were significantly more satisfied with their family's level of functioning as noted by higher raw scores on FACES-Satisfaction (*M*=32.60, *SD*=9.46) and higher satisfaction percentage ratings (*M*=39.24, *SD*=29.18) compared to inmate survivors (*M*=24.37*, SD*=12.59, and *M*=26.42, *SD*=26.90, respectively). In terms of survivors' family-of-origin, inmate survivors endorsed more disengaged and chaotic family functioning relative to students, whereas students were more likely to report higher levels of satisfaction, more cohesion, and more effective communication.

Demographics. Next, the present study examined a *t*-test (for the continuous variable of age) and a series of Chi-Square analyses (for dichotomous variables) to assess differences between inmate survivors and student survivors on demographics. Results suggested that inmate survivors were significantly older (*M* = 34.32, *SD* = 9.37) than their college student counterparts (*M* = 21.16, *SD* = 4.43). Interestingly, inmate survivors were not significantly more likely to be of minority status relative to student survivors, χ^2 (1) = .68, $p < .41$. Inmates were, however,

more likely to have less than a high school education relative to student survivors, $\chi^2(1) = 46.41$, $p < .001$, and more likely to have been in foster care $\chi^2(1) = 42.01$, $p < .001$. Results also indicated that inmate survivors were more likely to be parents compared to student survivors, $\chi^2(1) = 152.92$, $p < .001$.

Moreover, relative to student survivors, inmates were more likely to have received free lunch in school because their parents could not afford a meal plan, $\chi^2(1) = 49.55$, $p < .001$, and to report an annual family income in childhood that was $30,000 or less, $\chi^2(1) = 8.34$, $p < .01$. Similarly, relative to students, inmates reported more frequently a childhood family income of *less* than $10,000, $\chi^2(1) = 4.68$, $p < .001$. In contrast, inmate survivors were not more likely to report a *current* family income of $30,000 or less relative to students, $\chi^2(1) = .78$, $p < .24$. Finally, inmates were more likely to have been in treatment for substance abuse compared to students, $\chi^2(1) = 108.57$, $p < .001$. Overall, inmates were significantly older and more likely to come from impoverished backgrounds related to their college student counterparts.

Table 5. *Group Differences on Demographic Variables*

Variable	χ^2	*df*	*p*
Non White	.68	1	.41
Less than high school education	46.41	1	.001
Foster care	42.01	1	.001
Children	152.92	1	.001
Free Lunch in School	49.55	1	.001
Childhood family income less than 30K	8.34	1	.01
Childhood family income less than 10K	4.68	1	.001
Current family income less than 30K	.78	1	.24

Regression Analyses: Mediators Between CSA and Outcomes For CSA Survivors

Also, to examine predictor variables and mediation relationships (Hypothesis 3), a series of regression analyses were conducted. To establish mediation, a significant relationship between the predictor variable and the dependent variable must be indicated. Second, the hypothesized mediator must be associated significantly with both the predictor variable and the dependent variable. Finally, when the predictor variable and the potential mediator are entered simultaneously into the prediction model, mediation is indicated if only the mediator remains statistically significant (Baron & Kenny, 1986).

CSA Severity, Avoidant Coping, and Trauma Symptoms. To examine avoidant coping as a mediator in the relationship between CSA severity and individuals' trauma symptoms, regression equations using these variables were examined for both inmates and college students. For inmates, CSA severity did not predict significantly trauma symptoms, F (1, 109) = .004, p <.95. As a result, Baron and Kenny's (1986) guidelines for determining mediation could not be met (i.e., failure to establish a significant relationship between the initial variable and the outcome variable). As a result, no further regression equations were examined. Similarly, for college students, CSA severity did not predict significantly trauma symptoms, F (1, 147) = 3.00, p <.09, also violating Baron and Kenny's (1986) guidelines for determining mediation. As a result, no further regression equations were examined. Thus, results failed to support the hypothesis that avoidant coping in response to CSA would mediate the relationship between CSA severity and trauma symptoms for both inmates and college students.

Table 6. *Regression Analysis for CSA Severity as a Predictor of Trauma Symptoms*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
CSA Severity	.00	.01	.06	.95	.02	-.141	-1.73	.09

Trauma Symptoms, Avoidant Coping, Social Support, and Substance Use. To examine independently avoidant coping and perceptions of social support as mediators in the relationship between trauma symptoms and substance abuse consequences, regression equations using these variables were examined. For inmates and students, respectively, avoidant coping did not predict significantly substance abuse consequences for inmates, F (1, 105) = 2.68, $p < .11$, or college students, F (1, 147) = 2.82, $p < .10$. Similarly, social support did not predict significantly substance abuse consequences for inmates, F (1, 103) = 1.91, $p < .17$, or students, F (1, 147) =.66, $p < .42$. Given that these findings would not support Baron and Kenny's (1986) guidelines for mediation, no further regression analyses were examined. Thus, results did not support the hypothesis that avoidant coping and social support would mediate independently the relationship between trauma symptoms and substance use consequences.

Table 7. *Regression Analysis for Avoidant Coping as Predictor of Substance Use Consequences*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
Avoidant Coping	.03	.16	1.64	.11	.02	.14	1.68	.09

Table 8. *Regression Analysis of Social Support as a Predictor of Substance Use Consequences*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
Social Support	.02	.14	1.38	.17	.00	-.07	-.81	.42

Trauma Symptoms, Use of Substances for Negative Affect as a Form of Avoidant Coping, and Substance Abuse. To examine the use of substances as a means of coping with negative affect (i.e., avoidant coping) as a mediator in the relationship between trauma symptoms and individuals' abuse of substances, regression equations using these variables were examined for both inmates and college students. Specifically, inmate survivors' trauma symptoms predicted significantly substance abuse, F (1, 109) = 7.12, p < .009, and avoidant coping, F (1, 109) = 20.20, $p < .001$. Further, their avoidant coping predicted their substance abuse, F (1, 109) = 61.40, $p < .001$. Given these findings, Baron and Kenny's (1986) first and second guidelines for mediation were fulfilled. Next, inmate survivors' trauma symptoms and avoidant coping were entered in the first and second block of a regression equation, respectively, to test the last Baron and Kenny (1986) guideline. For this regression equation, the overall model was significant, F (2, 108) = 30.43, $p < .001$. In this equation, trauma symptomatology was no longer related significantly to the substance abuse outcome variable ($p < .88$), indicating full mediation in the sample of inmate survivors.

Further, a Sobel test was used to examine the indirect effects of the predictor on the dependent variable after accounting for the effects of the mediator (e.g., Preacher & Hayes, 2004). Specifically, the Sobel test suggested that the indirect effect of trauma symptoms on

substance use consequences (via avoidance coping) was not significantly different from zero ($p <$ .99), confirming avoidance coping as a mediator.

Next, to examine avoidance coping by use of substances as a mediator between trauma symptoms and substance abuse among student survivors of CSA, a series of regression equations were examined. Specifically, student survivors' trauma symptoms predicted significantly substance abuse, F (1, 147) = 13.39, $p < .001$, and avoidance coping, F (1, 147) = 13.53, $p <$ .001. Furthermore, their avoidance coping predicted substance abuse, F (1, 147) = 144.65, $p <$ .001. Next, student survivors' trauma symptoms and avoidance coping were entered in the first and second block of a regression equation, respectively. Although the overall model was significant, F (2, 146) = 74.10, $p < .001$, the trauma symptom variable no longer predicted significantly substance abuse ($p < .13$), indicating full mediation based on the guidelines of Baron and Kenny (1986).

Thus, regression analyses that explored trauma symptomatology as a predictor of substance abuse by way of using alcohol or drugs specifically to cope with negative affect (conceptualized as a form of avoidant coping) met criteria for mediation college students. Finally, the Sobel test of indirect effects indicated that the impact of trauma symptoms on substance abuse via avoidance coping was not significantly different from zero among college student survivors ($p < .10$), confirming avoidance coping as a mediator.

Table 9. *Use of Substances for Negative Affect as a Form of Avoidant Coping as a Mediator Between Trauma Symptoms and Substance Abuse*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
Trauma Symptoms	.06	.25	2.67	.01	.08	.29	3.66	.001
Step 2.								
Trauma Symptoms	.06	.01	.15	.88	.08	.09	1.51	.13
Avoidant Coping	.36	.60	7.11	.001	.50	.68	11.12	.001

CSA Severity, Avoidant Coping, and Revictimization. Further, the present study examined a series of regression equations to explore the utility of avoidance coping (by substance use) as a mediator in the relationship between CSA severity and revictimization experiences among inmate and student survivors. Among inmates, CSA severity predicted significantly revictimization, F (1, 108) = 3.99, $p < .05$, but inmates' avoidance coping did not predict significantly revictimization, F (1, 90) = .02, $p < .89$. As a result, Baron and Kenny's (1986) guidelines for investigating mediation could not be met, and no further regression equations were examined among inmate survivors. Similarly, CSA severity predicted significantly revictimization for student survivors, F (1, 147) = 11.15, $p < .001$, but students' avoidance coping did not predict their revictimization experiences, F (1, 149) = .85 $p < .36$. Consequently, no further regression equations were examined. Thus, overall, results failed to support the hypothesis that current avoidance coping specifically by use of substances mediates the relationship between CSA severity and revictimization for inmates and college students.

Table 10. *Regression analysis of CSA Severity as a Predictor of Revictimization*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
CSA Severity	.04	.19	2.00	.05	.07	.27	3.34	.001

Table 11. *Regression analysis of Avoidant Coping by Use of Substances as a Predictor of Revictimization*

	Inmates				Students			
Step of Analysis/ Variable	r^2	*Beta*	*t*	*p*	r^2	*Beta*	*t*	*p*
Step 1.								
Avoidant Coping	.00	-.02	- .14	.89	.01	.08	.92	.36

Regression Analyses: Overall Model Predicting Adjustment

Finally, the present study examined an overall model of adjustment. Specifically, the present study explored the extent to which select demographics, family environment, abuse severity, negative reactions to disclosure of CSA, perceived social support, avoidant coping, substance abuse, and trauma symptomatology predicted survivors' involvement with the legal system (Hypothesis 4). In particular, to explore incarceration as an outcome, a logistic regression analysis was conducted. Multivariate analyses in the form of direct logistic regression allows for prediction of group membership (e.g., incarcerated versus not incarcerated). This procedure is appropriate when discrete, continuous, and/or dichotomous variables are potential predictors of a dependent variable (e.g., group membership; Tabachnik & Fidell, 2001). For the present study, logistic regression was used to explore characteristics of survivors (N = 275) who

were either currently incarcerated or had experienced previous involvement with the legal system in the form of arrest and/or incarceration.

By default, SPSS logistic regression is run in two steps. The first step, called step 0, tests a model which includes only the dependent variable (null model). For the present study, this model was statistically significant, χ^2 (1) = 6.07, $p < .01$, and predicted correctly 57.5 percent of survivors. Next, a test of the full model, which included the predictors described above, also was statistically significant, χ^2 (8) = 249.17, $p < .001$. The model was able to classify correctly 96.2 percent (152 of 158) of survivors who were not incarcerated and 87.2 percent (102 of 117) of survivors who were incarcerated, for an overall rate of 92.4 percent correctly identified survivors (254 of 275).

Next, relationships between each independent variable and the dependent variable were examined. Specifically, results indicated that CSA severity ($p < .01$), substance abuse ($p < .001$), and perceived social support ($p < .001$) were significant predictors of incarceration in this sample of survivors. Also, avoidant coping (by using substances) approached significance ($p < .054$). In contrast, the dichotomous variables of ethnicity (i.e., white versus non-white) and education (i.e., less than high school education versus high school or higher levels of education) did not predict significantly incarceration. Further, results indicated that trauma symptoms, family functioning, and social reactions of blame also did not predict significantly incarceration in this sample of CSA survivors. See Table 3 for logistic regression results.

Table 12. *Logistic Regression Predicting Incarceration Among Female Survivors of CSA*

Predictor	*B*	*S.E.*	χ^2	*p*	*Exp (B)*
Non-White Ethnicity	.11	.49	.05	.828	1.11
Less than High School	-19.22	5536.18	.00	.10	.00
FACES Balanced Cohesion	.01	.01	2.57	.109	1.01
CSA Severity	.49	.14	11.47	.001	1.63
SRQ Blame Reaction	.05	.06	.52	.473	1.05
MSPSS Social Support	-.06	.02	15.21	.001	.94
DMM Avoidance Coping	-.14	.07	3.73	.054	.87
TSC Trauma Symptoms	.02	.01	1.86	.173	1.02
InDUC Substance Abuse	.08	.02	27.50	.001	1.09

Note. Exp (B) represents the odds ratio.

CHAPTER FIVE: DISCUSSION

Unwanted sexual experiences and CSA were prevalent occurrences in this sample of incarcerated females and female college students. Specifically, 66 percent of inmates and 35.5 percent of students reported some form of non-consensual sexual experience before the age of 18-years. These numbers are similar to previous research with female inmates (e.g., 59 percent; Browne et al., 1999) and a recent study of college students (41.6 percent; Young et al., 2007). Certainly, these prevalence rates are concerning. When it is considered that CSA is associated with a variety of negative outcomes in adulthood, including PTSD symptoms (Oates et al., 1994), depression (Weiss et al., 1999), substances abuse (Briere & Runtz, 1987), revictimization (Messman-Moore & Long, 2003), and risk of incarceration (Ireland & Widom, 1994), it is apparent that there is a great need for further programs that promote the prevention of CSA.

As expected, findings of the present study suggested that, not only are CSA experiences more common among incarcerated women, but these survivors also report a higher degree of abuse severity, clinical levels of depression (i.e., in the moderate to severe range of depressive symptomatology), more trauma symptoms, problematic substance use and greater occurrences of revictimization in adulthood relative to their college student counterparts. In contrast, college student survivors in this study fit the definition of resilience, reporting nonclinical levels of depression. In addition, the more resilient student survivors indicate that they have higher levels of social support, which is associated with lower levels of trauma symptoms and depression. These relationships are in line with those documented in previous research and with our hypothesis that survivors who have adequate supports are no worse off in terms of their adjustment than their non-abused counterparts (Lam & Grossman, 1997). Interestingly, current perceptions of social support are not related to psychological adjustment for the inmate survivors

in this sample. One possible explanation is that inmate survivors are incarcerated currently and removed from potential sources of support at this time. It also may be the case that access to alternative resources (e.g., support from corrections staff, case management, legal representation) is more important for adjustment in a jail setting relative to perceived social support from family, friends, and significant others.

Sadly, findings of the present study indicate that female inmates are blamed more often for the sexual abuse that they experienced, that they received more egocentric responses from their environment when disclosing the abuse, and that individuals in their lives more often attempted to use distraction as a response when finding out about the abuse. In addition, relative to college student survivors, inmate survivors are more likely to endorse that their environment treated them differently after disclosure and that others tried to control their situation. Consequently, several types of negative reactions are related to inmates' psychological adjustment (e.g., substance abuse, depression, and trauma symptoms). The present study indicates that inmates and students report similar amounts of emotional support and are equally likely to be believed when their CSA was disclosed, both of which predict better positive outcomes (Ullman, 2003). It may be the case, however, that negative reactions to CSA disclosure override any positive support that may be received and are related more strongly to adjustment in survivors. For example, being believed in response to disclosing CSA may not be a protective factor if the belief reaction is accompanied by blame, differential treatment, and egocentric responses from caregivers and supports. Further, a previous study reports that negative social reactions to rape are linked to poorer psychological adjustment and that supportive responses are not related significantly to outcomes in survivors (e.g., Davis,

Brickman, & Baker, 1991). Thus, the findings of this study have important implications for educating parents and other family members regarding helpful responses to CSA disclosures.

Consistent with previous studies that link negative social reactions to abuse disclosure and higher levels of PTSD symptomatology (Ullman & Filipas, 2005), findings of the present study suggest that survivors who were being treated differently or received controlling or egocentric reactions to CSA disclosure also report higher levels of trauma symptomatology. For student survivors, negative reactions to CSA disclosure also are related to higher levels of depressive symptomatology. Further, given that inmates received more negative social reactions to disclosure relative to students, it is not surprising that inmates use more maladaptive ways to cope, including nervous or anxious coping, escape-avoidance coping, and self-destructive means in their coping attempts. These findings are consistent with the literature that suggests that social support may impact indirectly the way a person copes (natural disasters; Vernberg et al., 1996), in turn affecting outcomes. In contrast, the finding that egocentric responses from the environment are not related significantly to avoidance coping for inmates or students differs from some previous research (e.g., college student survivors of rape; Littleton & Redecki Breitkopf, 2006), whereas the significant relationship between blame reactions and avoidance in our sample of student survivors is similar to previous studies (e.g., Ullman, 1996). Thus, the important interplay among social support, coping, and outcomes in survivors of CSA is clearly complex and warrants further study.

Moreover, findings indicate that inmate survivors continue to rely on various types of avoidance coping as adults and do so to an even greater extent than their college student counterparts. Certainly, these coping tendencies may have implications for psychological adjustment. Specifically, findings suggest that the student survivors demonstrate more effective

coping relative to inmate survivors (i.e., students use less avoidant coping and report less reliance on substances to cope with negative affect relative to inmates). This finding is consistent with those of a recent investigation of resilient females (Thomas & Hall, 2008). In particular, Thomas and Hall (2008) conclude that, although "thriving" survivors of CSA may experience intermittent symptoms of depression and anxiety in their lifetime, they utilize more effective problem solving skills and overall function normally. Thus, the present study's finding that avoidance coping in the form of substance use to escape negative affect mediate fully the relationship between trauma symptoms and substance abuse is of particular importance. Further, therapeutic interventions that address the manner in which survivors are coping with their abuse experiences may prove particularly important in facilitating the adjustment of these individuals. The effectiveness of such interventions for improving the adjustment of CSA survivors deserves further study.

Moreover, avoidance coping in response to the CSA experience did not mediate the relationship between CSA severity and trauma symptoms among survivors, and current use of more general avoidance coping failed to mediate the relationship between CSA severity and the outcomes of revictimization as well as the relationship between trauma symptoms and substance abuse. Given these findings, future studies may wish identify more specific types of avoidance coping (e.g., substance use) and take into account the developmental stage of the survivor. Similarly, social support did not mediate the relationship between trauma symptoms and substance use consequences among survivors in the present study. Possible explanations, however, may differ for inmates and students. For example, the fact that inmates are removed from their supports during incarceration (as noted previously) has implications for the salience of the support variable in predicting adjustment.

In addition, it is possible that a lack of variability in students' perception of support may explain the absence of a mediational effect. Similar to the findings of previous studies (e.g., Littleton & Radecki Breitkopf, 2006), our sample of college students report that they have high satisfaction with supports overall. As a result, future studies may want to investigate the impact of different levels of support (high versus low) for survivors. An alternative explanation may be that inmate survivors perceive their families, friends, and significant others as *contributing* to stress instead of viewing them as supportive, which is consistent with research among clinically depressed individuals (e.g., Joiner, 2000).

In contrast to previous studies that link CSA severity to psychological adjustment (e.g., Banyard & Williams, 1996; Bennett et al., 2000; Kendall-Tackett et al., 1993), CSA severity was not related to trauma symptoms or depression in our sample of inmate and student survivors. One possible explanation is that current substance abuse or other characteristics of these individuals are more accurate indicators of psychological functioning of survivors relative to their trauma-specific symptoms. For example, severity of CSA is linked to more problematic substance use over the past six months for both inmates and college student survivors. Although this finding is consistent with previous studies that find a relationship between CSA and problematic alcohol use (e.g., Moncrieff & Farmer, 1998) or abuse of illegal substances (e.g., Jarvis et al., 1998), future studies should continue to examine the relationships between CSA severity and survivors' characteristics and current levels of psychological adjustment.

Moreover, findings of the present study suggest that student survivors grew up in more balanced, flexible, and cohesive families compared to inmates, whereas inmates' families of origin were more likely to be disengaged, enmeshed and chaotic. Also, relative to inmate survivors, student survivors report more effective communication in their families of origin and

are generally more satisfied with their families' overall level of functioning. Considering that CSA is not related to trauma symptoms among survivors in this sample but that inmates are significantly more distressed compared to students, it may be that family functioning predicts better psychological adjustment than the abuse experience itself. Such findings are consistent with previous research (Rind et al., 1998) and further suggest the importance of the family in assisting in recovery from CSA experiences.

Finally, the present study illuminates predictors of incarceration for female survivors of childhood sexual abuse (N=275). As expected, more severe CSA and substance abuse increase the risk of incarceration, whereas higher perceived social support decreases significantly the risk of incarceration among survivors of CSA. These findings corroborate those of previous research that link specifically severity of abuse to greater risk of delinquency (e.g., Ireland, Smith, & Thornberry, 2002). This relationship has implications for interventions and program development for survivors of CSA, suggesting that those who had more severe experiences of CSA will require more intensive programs. Findings also may be viewed as strengthening those of a recent study that found a positive correlation between perceived social support and legal involvement (Staton-Tindall, Royse, & Leukfeld, 2007).

Also, minority status, high school completion, cohesive family functioning, avoidance coping, or trauma symptoms in this sample of survivors did not predict participants' risk of incarceration. It may be that, although females from culturally diverse backgrounds are more likely to be arrested relative to Caucasian females and abuse predicts some forms of arrests (e.g., violent crimes), being abused *does not* impact women's incarceration risk differently depending on the cultural diversity of their backgrounds (e.g., Makarios, 2007). The literature regarding the effects of minority status on legal involvement is, however, mixed, and the present study agrees

with current research that argues for a multicultural approach (Makarios, 2007; Young et al., 2007). It also is possible that demographic variables (e.g., level of education) would demonstrate different relationships with outcomes if investigated in a community-based sample of survivors. By definition, survivors in the college student group who may have had legal involvement could not endorse less than a high school education. Also, given that inmate survivors were more likely to have grown up poor (e.g., annual family income in childhood reported to be $10,000 or less), specific implications of socioeconomic status on legal involvement, as well as the interaction of ethnicity and family income, warrant further study.

Limitations of the present study should be noted when interpreting the findings of this study. Particular limitations of this study include that the sample was primarily Caucasian, that only self-report measures from both inmates and college students were utilized, that the design was cross-sectional (rather than longitudinal) in nature, and that CSA was the exclusive focus (i.e., as opposed to other forms of child maltreatment). Specifically, it is possible that findings of the present study may generalize poorly to more diverse samples and to survivors of other types of abuse. For example, future research efforts may want to focus on ethnic and racial minorities who may respond differently to adversity (i.e., when compared to Caucasian females; Simmons, 2002). Also, our resilient group of college students may not be representative of survivors in the greater community. In particular, other studies suggest that college students are a nonclinical sample of individuals who experience the least adverse impact of CSA (Young et al., 2007). Such a recommendation must be viewed within the opinions of some researchers, however, as some studies argue that "the effects of abuse within the female population is general" (Makarios, 2007, p. 111). Further, the present study investigated exclusively the impact of CSA among *female* survivors of CSA, which may limit our ability to generalize findings to male survivors of

CSA. A recent study of female and male undergraduates, however, indicates that the detrimental effects of CSA on psychological adjustment d0 not vary by gender (Young et al., 2007). Nonetheless, the specific impact of CSA on male adult adjustment is still in its infancy and deserves further attention.

In addition, it is possible that the self-report aspect of this study is related to individuals' endorsements of abusive experiences. For example, time since the abused occurred as well as positive adjustment in adulthood may be related to the accuracy of individuals' memory for adverse events (Robins et al., 1985). The consensus in the literature appears to be that under-reporting of both CSA and psychiatric symptoms (i.e., relative to over-reporting) is a more common occurrence (Joiner et al., 2007). Future studies could, however, consider the inclusion of collateral information (e.g., sibling reports, records of substantiated abuse) as well as the assessment of study variables at different points in time. These changes to the research methodology would strengthen the inferences that could be drawn from future studies.

Also, future research may want to take into account the effects of physical abuse, emotional abuse, neglect, and combinations of different types of child maltreatment on adult psychological adjustment. It should be noted, however, that some studies fail to find a significant difference in adjustment between compound victims (i.e., individuals who have experienced multiple types of abuse) and survivors of CSA only (Kamsner & McCabe, 2000). Also, a recent study showed that, although both abuse severity and multiple abuse types predict independently greater trauma symptomatology among male and female undergraduate students, abuse severity shows a stronger association with adjustment (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007). Thus, future research may find that abuse severity is a more important predictor to consider relative to the type(s) of abuse that have been experienced.

In lieu of limitations, however, several strengths and important contributions should be noted. For example, this study may be one of the first to investigate specifically differences between female inmates and college student survivors in terms of abuse severity, family functioning, coping, social support, and psychological adjustment. For example, although previous studies examine predictors of outcomes following CSA for inmates (Green et al., 2005) and students (e.g., Banyard, Arnold, & Smith, 2000; Young et al., 2007) as well as differences between college students with and without a history of CSA (e.g., Filipas & Ullman, 2006), the present study utilizes the same measures across groups, improving the accuracy of comparisons. Moreover, the detailed assessment of individuals' CSA experience is a strength of the present study. Specifically, rather than categorizing individuals as either survivors or non-survivors, several aspects of CSA are examined (e.g., type of experience, relationship to perpetrator, number of perpetrators, age of onset, violence/injury, duration of abuse, frequency of abuse). This information also allowed for the calculation of a CSA severity index.

Additionally, different types of coping behaviors are examined as predictors of functioning for both inmate and student survivors of CSA. Given that various types of avoidance coping show different relationships with outcomes in our samples of CSA survivors, it is possible that the findings of the present study may aid in the refinement of clinical interventions that target specifically individuals' patterns of coping. Finally, the present study illuminates both traditional (e.g., trauma symptoms, depression, substance abuse) and nontraditional (e.g., incarceration) indicators of adjustment, while simultaneously addressing the need for thorough investigations of risk and resilience in survivors of CSA. Ultimately, the findings of the present study may help inform the public and mental health professionals of the prevalence of CSA in

different segments of the population and alert policy makers and the community at large of the widespread impact of CSA.

In conclusion, as there are continued increases in the number of female inmates, many whom have experienced CSA (Browne et al., 1999), identification of pathways to incarceration in survivors is of great importance. Specifically, this study indicates that CSA severity, perceived social support, and problematic substance use are linked to a greater risk of incarceration and suggest that these factors should be assessed in efforts to prevent delinquency and promote resilient trajectories in survivors of CSA. Also, clinical interventions for survivors of CSA should take into account the severity of the CSA, the adequacy of survivors' support, and the way in which survivors use substances. By considering this information, services can be tailored specifically to individuals' needs and perceptions of resources. Finally, the findings of the present study may aid in the development of prevention initiatives and interventions with CSA survivors, particularly those that are incarcerated or at risk for involvement with the legal system, and may be a step in the direction of breaking the cycle of violence.

APPENDIX A: CONSENT FORM

APPROVED BY
University of Central Florida
Institutional Review Board
IRB Designated Reviewer

Appendix A

CONSENT FORM

PROJECT: Female Resiliency, Experiences, and Environment: College Students
(Project FREE)
INVESTIGATORS: Kia Asberg, M.S., & Kimberly Renk, Ph. D.
CONTACT: Kimberly Renk, Ph.D., (407) 823-2218, krenk@pegasus.cc.ucf.edu
University of Central Florida, Psychology Building, Room 141

You are being asked to participate in a project conducted through the Psychology Department at the University of Central Florida. A basic description of the purpose of the project, the procedures to be used, and the potential benefits and risks of participation are provided below. Please read this explanation carefully, and ask any questions prior to proceeding to the study. If you then choose to participate, please press the appropriate button or place a checkmark in the box at the bottom of this consent form.

The project titled; "Female Resiliency, Experiences, and Environment: College Students" is being conducted by Kia Asberg, a graduate student in the clinical psychology program at the University of Central Florida, under the supervision of Dr. Kimberly Renk, an Associate Professor in the Department of Psychology, University of Central Florida. You should note that participation in this study is entirely voluntary; you can withdraw your consent at any time without giving a reason and without penalty. You also can ask to have information related to you removed from the research records or destroyed. The following information has been made available:

You will be one of approximately 500 participants of the research study.

Purpose: The purpose of this study is to investigate the relationship between life experiences, family environment, social support, coping, and mood. It is hoped that a better understanding of this relationship will aid in the understanding the role experiences, social support, and coping play in many aspects of life.

Duration and Location: Your participation in this study will last approximately **45 minutes** and will be completed online (via a website at UCF). You should note that duration may vary from person-to-person.

Procedures: During this study, the following will occur:

1. You will be asked to answer questions about basic demographic information
2. You will be asked to complete a questionnaire about various experiences, social support, coping, and mood. Some items will ask you about your sexual, victimization, substance use, and criminal history.
3. You will be provided with a debriefing form that includes references and contact information for the experimenters and contact information for the UCF Counseling Services

Exclusions: You are not eligible to participate in this study if you are under age 18.

Risks and Discomforts: There are minimal risks associated with this study. Specifically, this study may involve some emotional discomfort due to personal questions asked during the questionnaire. Some items will ask you to provide sensitive information, for example about your sexual, victimization, substance use, and criminal history. Please note that you do not have to answer every question and you will be able to leave the question blank if you desire. If you experience psychological distress after completing these questions, it is recommended that you contact the investigator in your data collection session immediately. If you are still feeling distressed, it is recommended that you contact the UCF Counseling Center at 407-823-2811 for assistance. Please note that the server that holds the information you provide is password protected and has measures in place to prevent access by outside persons. Only the investigators of this study will have access to the information on the server. When entering the Experimentrak server, you will be using your own account, which is linked to your name. However, once you enter the study link, your name is not recorded as a piece of data.

Benefits: You will not benefit directly from this research except that you will learn more about how research is conducted and perhaps learn about your reactions and perceptions of various life experiences.

New Findings: You will be given any new information gained during the course of this study that might affect your willingness to continue my participation.

Confidentiality: Every effort will be taken to protect your identity and the confidentiality of the information you provide in this online study. Your answers to the online questionnaire will be stored in a separate secure file from your contact information and name, once they are exported from the online server. Also, the online server has security measures such as password protection to prevent access to the aforementioned information from outside parties. Only the investigators will have access to the data on the secure server and the information that is being downloaded from the server. As noted, once the data set is downloaded, the data will be on a password protected secure computer in the locked laboratory of the faculty investigator. The faculty investigator only provides limited access to this lab space for those who are working with her on research. Specifically, only research team members who guarantee to maintain the confidentiality and anonymity of research materials will handle your surveys. It should be noted that once the data set is downloaded by the principal investigator or the faculty investigator, there will be no link to your name, so there will be no way to identify which participant provided which responses. You will not be identified in any report or publication of this study or its results.

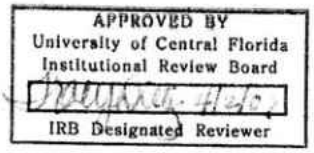
Payment to Participants: If you are participating in this experiment as a pre-approved extra credit exercise for a course that you are enrolled in, you will receive the appropriate amount of extra credit in return for your participation. Otherwise, you agree that you will not receive compensation for participation in this study.

Offer to Answer Questions: You will have the opportunity to ask, and to have answered, any questions you may have about this research at any point during the study. If you have additional questions, you may contact Kia Asberg or Dr. Kimberly Renk at (407) 823-2218.

If you believe you have been injured during participation in this research project, you may file a claim with UCF Environmental Health & Safety, Risk and Insurance Office, P.O. Box 163500, Orlando, FL 32816-3500 (407) 823-6300. The University of Central Florida is an agency of the State of Florida for purposes of sovereign immunity and the university's and the state's liability for personal injury or property damage is extremely limited under Florida law. Accordingly, the university's and the state's ability to compensate you for any personal injury or property damage suffered during this research project is very limited.

Information regarding your rights as a research volunteer may be obtained from:

Barbara Ward, IRB Coordinator
Institutional Review Board (IRB)
University of Central Florida (UCF)
12443 Research Parkway, Suite 302
Orlando, Florida 32826-3252
Telephone: (407) 823-2901



I have read the information provided above and I voluntarily agree to participate in this study. ☐ (check)
In addition, I certify that I am 18 years of age (unfortunately, individuals under 18 years of age are not permitted to participate in this study). By proceeding to the survey, I am providing my informed consent.
[FOR ONLINE PARTICIPANTS, THERE WILL BE WEB BUTTONS HERE INDICATING:]

I AGREE
(Only pressing "I AGREE" will send them to the questionnaire)

APPENDIX B: IRB HUMAN SUBJECTS APPROVAL

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

EXPEDITED CONTINUING REVIEW APPROVAL NOTICE

From : **UCF Institutional Review Board**
FWA00000351, Exp. 5/07/10, IRB00001138

To : **Kia Asberg** and **Kimberly Renk**

Date : **April 07, 2008**

IRB Number: **SBE-07-04361**

Study Title: **Female Resiliency, Experiences, and Environment: Inmates**

Dear Researcher,

This letter serves to notify you that the continuing review application for the above study was reviewed and approved by the IRB Chair on **4/4/2008** through the expedited review process according to 45 CFR 46 (and/or 21 CFR 50/56 if FDA-regulated).

Continuation of this study has been approved for a one-year period. The expiration date is 4/3/2009. This study was determined to be no more than minimal risk and the categories for which this study qualified for expedited review are:

5. Research involving materials (data, documents, records, or specimens) that have been collected or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

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

All data must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Use the Unanticipated Problem Report Form or the Serious Adverse Event Form (within 5 working days of event or knowledge of event) to report problems or events to the IRB. Do not make changes to the study (i.e., protocol methodology, consent form, personnel, site, etc.) before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 04/07/2008 03:48:01 PM EDT

Joanne Muratori

IRB Coordinator

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

EXPEDITED CONTINUING REVIEW APPROVAL NOTICE

From : **UCF Institutional Review Board**
FWA00000351, Exp. 5/07/10, IRB00001138

To : **Kia Asberg** and Co-PIs: **Elizabeth Baksh, Kimberly Renk, Melissa Middleton, Pamela Brown, and Samantha Scott**

Date : **March 19, 2008**

IRB Number: **SBE-07-04339**

Study Title: **Female Resiliency, Experiences, and Environment: College Students**

Dear Researcher,

This letter serves to notify you that the continuing review application for the above study was reviewed and approved by the IRB Chair on **3/19/2008** through the expedited review process according to 45 CFR 46 (and/or 21 CFR 50/56 if FDA-regulated).

Continuation of this study has been approved for a one-year period. The expiration date is 3/18/2009. This study was determined to be no more than minimal risk and the category for which this study qualified for expedited review is:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

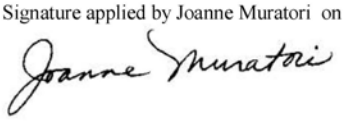
Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must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

All data must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Use the Unanticipated Problem Report Form or the Serious Adverse Event Form (within 5 working days of event or knowledge of event) to report problems or events to the IRB. Do not make changes to the study (i.e., protocol methodology, consent form, personnel, site, etc.) before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 03/19/2008 03:13:59 PM EST



IRB Coordinator

APPENDIX C: DEMOGRAPHICS

Demographics Form

1). Your Age: _____years

2). What best describes your ethnicity? (Circle)

1. Caucasian/White 2. African-American/Black 3. Hispanic/Latin
4. Asian-American 5. Native-American 6. Other_____

3). If you are currently enrolled in college/university, what is your class standing? (Circle)

1. Freshman 2. Sophomore 3. Junior 4. Senior
5.Graduate student 6. Not in college

4). Which of the following best describes your level of education? (Circle)

1. Less than high school 2. Some high school 3. Graduated high school/GED
4. Some college 5. Associates degree 6. Bachelor's Degree
7. Masters Degree 8. Doctorate
9. Other (please explain): _____

5). How many years of education to you have? _____years

6). Estimated English reading level or 9th grade English grade (A, B, C, etc.): _____

7). Estimated Math level or 9th grade Math grade (A, B, C, etc.): _____

8). Current or most recent GPA: _____ (Leave blank if you can't recall)

9). Approximately what percentage of your friends from high school went to college? (Check)

1. 10% or less (one or less than one out of ten friends): ☐
2. 20-30% (two or three out of ten friends): ☐
3. 40% (four out of ten friends): ☐
4. 50% (half of your friends went to college) ☐
5. 60% (more than half or 6 out of ten friends) ☐
6. 70-80% (seven or eight of ten friends went to college) ☐
7. 90% or more (nine out of ten or almost all of your friends went to college) ☐

10. Which best describes your current (usual) living situation? (Circle)

1. I own a home 2. I rent a home/apartment/room 3. I am homeless/streets

4. I am living in someone else's home/house/apartment (not paying rent)

5. I stay in a motel room 6. I stay in a shelter 7. I live in a group home/residential

8. Other: _____

11. Which best describes your current (usual) living arrangement or roommate situation? (Circle)

I live with: 1. Nobody (by myself) 2. Friend(s)

3. Significant other 4. Family member(s)

Please specify (husband, mother, aunt, children):_____

12. Which of these choices best describes your marital status (Please circle):

1. Single 2. Engaged/Serious relationship 3. Married 4. Separated 5. Divorced

6. Widowed 7. Remarried (if so, how many previous marriages _____)

13. Do you have any children? YES NO

14. If YES, how many children do you have? ____

15. If YES, do you have custody of your children? (Circle)

1. YES 2. NO 3. Some, not all 4. I don't have children

16. Estimate your yearly income, including help from parents/family/spouse (Please circle):

1. Less than $10,000 2. $10,000 - $19,999 3. $20,000 - $29,999

4. $30,000-39,999 5. $40,000 - $49,999 6. $50,000 - $59,999

7. $60,000 - $70,000 8. More than $70,000

9. I get a check every month for _____ dollars. (SSI/SSDI)

17. What is the highest level of education completed by EITHER of your parents? (Circle)

1. Less than High school 2. Some High school 3. High school/GED

4. Some college 5. Associates degree 6. Bachelor's degree

7. Master's degree 8. Doctorate

9. I don't know

18. During your childhood, what was your approximate family income? (Circle)

1. Less than $10,000 2. $10,000 - $19,999 3. $20,000 - $29,999

4. $30,000-39,999 5. $40,000 - $49,999 6. $50,000 - $59,999

7. $60,000 - $70,000 8. More than $70,000

9. I don't know

19. Before you were 18 years old, did you ever receive free lunch in school because you could not afford a meal plan? (Circle) YES NO

20. Before you were 18 years old, were you ever placed in foster care or in the custody of child protective services (e.g., DCF) ? YES NO

Please *circle* the items that best describes your past and current legal problems:

21. Have you ever been arrested but not charged with a crime? YES NO
22. If YES, how many times have you been arrested but not charged?

1 2 3 4 5 or more Never been arrested

23. Have you ever been arrested AND charged with a crime? YES NO
24. If YES, how many times have you been arrested and charged with a crime?

1 2 3 4 5 or more Never been arrested

25. Have you ever spent any time in jail? YES NO
26. If YES, how many times have you been in jail? _____

1 2 3 4 5 or more Never been arrested

27. Have you ever spent time in prison YES NO
28. If YES, how many years total have you spent in prison?

1 year 2 years 3 years 4 years 5-7 years 8-10 years More than 10

29. For how many years total have you been incarcerated (include prison and jail):

1 year 2 years 3 years 4 years 5-7 years 8-10 years More than 10

30. Number of incarcerations overall (including current incarceration if applicable): _____

1 2 3 4 5 or more Never been incarcerated

31. Have you ever been arrested for trespassing? YES NO
32. Have you ever been arrested for an alcohol related crime? (DUI, Open container)YES NO
33. Have you ever been arrested for a drug related crime?(Paraphernalia, possession)YES NO
34. Have you ever been arrested for theft or forgery? YES NO
35. Have you ever been arrested for robbery? YES NO
36. Have you ever been arrested for prostitution? YES NO
37. Have you ever been arrested for domestic violence? YES NO
38. Have you ever been treated for substance abuse? YES NO

39. If YES, what was your substance/drug of choice? (If you were addicted to more than one substance, please circle the one that caused you the most severe problems) Please Circle

1. Alcohol 2. Marijuana/Cannabis 3. Cocaine/Crack 4. Methamphetamine

5. Heroin (including methodone) 6. Prescription pills (pain pills, Xanax/Valium)

7. I answered no/Not applicable

If YES, what was your age when you first started ABUSING substances of any kind? _____

APPENDIX D: CHILDHOOD SEXUAL ABUSE INDEX

CSAI

1. Before the age of 18, did you experience any unwanted sexual events? **YES NO**
2. Before the age of 18, were you sexually abused or molested? **YES NO**

3. If **YES** to either of the two questions above, please indicate the type of unwanted event(s) that you experienced:
a) Exposure only or non-contact sexual exploitation (e.g., someone masturbated in front of you or exposed their genitals to you): **YES NO**
b) Someone attempted sexual fondling or attempted sexual touching: **YES NO**
c) Someone completed sexual fondling or completed sexual touching: **YES NO**
d) Someone attempted anal or vaginal intercourse with you (including use of object): **YES NO**
e) Someone completed anal or vaginal intercourse (including use of object): **YES NO**

4. Was any violence or physical force used during the event(s)? **YES NO**
5. Were you injured or thought your life was in danger when the event(s) happened? **YES NO**

6. Your age when the unwanted sexual experience first occurred or the sexual abuse began: ____
7. Your age when the unwanted sexual experience or abuse ended: _____

8. How often did this type of event happen to you? (Please check)
Once ____ A few times per year ____ A few times per month ____ Every week ____

9. What was the person's relationship to you? (Circle any that applies)
a) Stranger (completely unknown to you): **YES NO**
If **YES,** please note the number of strangers who did this to you: _____
Was the stranger more than five years older than you? **YES NO**
b) Acquaintance (known to you, but not a family member, including baby sitter, teacher, neighbor, clergy): **YES NO**
If **YES**, please note the number of acquaintances that did this to you: _____
Was the acquaintance more than five years older than you? **YES NO**
c) Family member or relative (including mother, father, step-parent, foster parent, grandfather, aunt, uncle, brother, sister or any other male or female relative or care taker): **YES NO**
If **YES**, please note the number of family members or relatives who did this to you: ____
Was the family member or relative more than five years older than you? **YES NO**
d) Peer or "friend" (same age or less than 5 years older than you) **YES NO**
If **YES**, please note the number of peers or friends who did this to you: ____

Did you ever tell anyone about the experience? **YES NO**
If **YES**, how was your situation affected after you told someone or after someone found out?
No change _____ Made it better _____ Made it worse _____

Please explain: _____

APPENDIX E: SEXUAL EXPERIENCES

SES

After the age of 18, have you ever: **Please circle YES or NO**

1. Been in a situation where a man became so sexually aroused that you felt it was useless to stop him even though you did not want to have sexual intercourse?	YES	NO
2. Had sexual intercourse with a man even though you did not want to because he threatened to end your relationship otherwise?	YES	NO
3. Had sexual intercourse with a man when you didn't really want to because you felt pressured by his persistent arguments?	YES	NO
4. Been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to try to make you engage in kissing or petting when you didn't want to?	YES	NO
5. Been in a situation where a man tried to get sexual intercourse with you when you didn't want to by threatening to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate, but for various reasons sexual intercourse did not occur?	YES	NO
6. Been in a situation where a man used some degree of physical force (twisting your arm, holding you down, slapping, etc.) to try to have sexual intercourse with you, but for various reasons sexual intercourse did not occur?	YES	NO
7. Had sexual intercourse or engaged in a sexual activity with a man when you didn't want to because he threatened to use physical force (twisting your arm, holding you down, hurt you in some way, etc.) if you didn't cooperate?	YES	NO
8. Had sexual intercourse with a man when you didn't want to because he used some degree of physical force (twisting your arm, holding you down, etc.)?	YES	NO
9. Been in a situation where a man obtained sexual acts with you such as anal or oral intercourse when you didn't want to by using threats or physical force (twisting your arm, holding you down, etc.)?	YES	NO
10. Have you ever been raped?	YES	NO

APPENDIX F: FACES-IV

FACES-IV SAMPLE

Part I.

Fill in the corresponding number on the line next to each statement. Thank you!

Strongly Disagree = 1
Generally Disagree = 2
Undecided = 3
Generally Agree = 4
Strongly Agree = 5

5. There are strict consequences for breaking the rules in our family. _____

16. Family members are too dependent on each other. _____

27. Our family seldom does things together. _____

Part II.

Fill in the number on the line next to each statement. Thank you!

Very Dissatisfied = 1
Somewhat Dissatisfied = 2
Generally Satisfied = 3
Very Satisfied = 4
Extremely Satisfied = 5

How satisfied are you with:

54. Your family's ability to cope with stress. _____

60. The way problems are discussed. _____

APPENDIX G: WAYS OF COPING

WOC/WAYS

Please read each item below and indicate, by circling the appropriate number, to what extent you used the strategy in <u>the most stressful situation you have experienced in the previous week.</u>

0 = Not used 1 = Used somewhat 2 = Used quite a bit 3 = Used a great deal

		Not Used	Used Somewhat	Used quite a bit	Used a great deal
1/1.	Just concentrated on what I had to do next - the next step.	0	1	2	3
2./6	I did something which I didn't think would work, but at least I was doing something.	0	1	2	3
3/7.	Tried to get the person responsible to change his/her mind.	0	1	2	3
4/8.	Talked to someone to find out more about the situation.	0	1	2	3
5/9.	Criticized or lectured myself.	0	1	2	3
6/10.	Tried not to burn my bridges but leave things in the open somewhat.	0	1	2	3
7/11.	Hoped a miracle would happen.	0	1	2	3
8/12.	Went along with fate, sometimes I just have bad luck.	0	1	2	3
9/13.	Went along as if nothing happened.	0	1	2	3
10/14.	I tried to keep my feelings to myself.	0	1	2	3
11/15.	Looked for the silver lining so to speak; tried to look on the bright side of things.	0	1	2	3
12/16.	Slept more than usual.	0	1	2	3
13/17.	I expressed anger to the person who caused the problem.	0	1	2	3
14/18.	Accepted sympathy and understanding from someone.	0	1	2	3
15/20.	I was inspired to do something creative.	0	1	2	3
16/21.	Tried to forget the whole thing.	0	1	2	3
17/22.	I got professional help.	0	1	2	3
18/23.	Changed or grew as a person in a good way.	0	1	2	3
19/25.	I apologized or did something to make up.	0	1	2	3
20/26.	I made a plan of action and followed it.	0	1	2	3
21/28.	I let my feelings out somehow.	0	1	2	3
22/29.	Realized I brought the problem on myself.	0	1	2	3
23/30.	I came out of the experience better than when I went in.	0	1	2	3
24/31.	Talked to someone who could do something concrete about the problem.	0	1	2	3

25/33.	Tried to make myself feel better by eating, drinking, smoking, using drugs or medication and so forth.	0	1	2	3
26/34.	Took a big chance or did something very risky.	0	1	2	3
27/35.	I tried not to act too hastily or follow my first hunch.	0	1	2	3
28/36.	Found new faith.	0	1	2	3
29/38.	Rediscovered what is important in life.	0	1	2	3
30/39.	Changed something so things would turn out all right.	0	1	2	3
31/40.	Avoided being with people in general.	0	1	2	3
32/41.	Didn't let it get to me; refused to think about it too much.	0	1	2	3
33/42.	I asked a relative or friend I respected for advice.	0	1	2	3
34/43.	Kept others from knowing how bad things were.	0	1	2	3
35/44.	Made light of the situation; refused to get too serious about it.	0	1	2	3
36/45.	Talked to someone about how I was feeling.	0	1	2	3
37/46.	Stood my ground and fought for what I wanted.	0	1	2	3
38/47.	Took it out on other people.	0	1	2	3
39/48.	Drew on my past experiences; I was in a similar position before.	0	1	2	3
40/49.	I knew what had to be done, so I doubled my efforts to make things work.	0	1	2	3
41/50.	Refused to believe that it had happened.	0	1	2	3
42/51.	I made a promise to myself that things would be different next time.	0	1	2	3
43/52.	Came up with a couple of different solutions to the problem.	0	1	2	3
44/54.	I tried to keep my feelings from interfering with other things too much.	0	1	2	3
45/56.	I changed something about myself.	0	1	2	3
46/58.	Wished that the situation would go away or somehow be over with.	0	1	2	3
47/59.	Had fantasies about how things might turn out.	0	1	2	3
48/60.	I prayed.	0	1	2	3
49/62.	I went over in my mind what I would say or do.	0	1	2	3
50/63.	I thought about how a person I would admire would handle the situation and used that as a model.	0	1	2	3

APPENDIX H: HOW I DEAL

How I Deal

INSTRUCTIONS: These are questions about ways someone might have handled abuse, rape, or molestation that happened to them in childhood. If you answered "YES" to the question about having experienced any type of aversive sexual event or molestation before you were 18 years old, **please circle how often you used each of these strategies to deal with your experience** of abuse. If you have recently made changes in your life, for example through participation in a program for survivors of sexual assault or abuse, please answer these 29 questions based on how you have dealt with the experience for the majority (most) of your life or before you came into the program. If you answered "NO" to the question about molestation or abuse, please put X in the box below. Thank you!

I was not molested, abused, raped, or sexually assaulted before I turned 18 years old. I did not experience any aversive (negative) sexual experience before the age of 18. Because I was not abused or molested as a child, I will put an X in this box: □

How I dealt with the abuse: (CIRCLE)

1. Trying to rethink the situation and to see it from a different perspective.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

2. Taking concrete actions to make positive changes in your life.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

3. Changing your habitual ways of doing things, for example, things in your daily routine.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

4. Sleeping a lot and trying not to think about what happened.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

5. Finding out more information about sexual assault and other women's experiences.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

6. Going over the molestation/rape situation again and again, trying to figure out why it happened and exactly what happened at each point.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

7. Avoiding people, places, or situations that remind you of the rape/molestation.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

8. Giving yourself permission to feel your feelings and considering any feelings to be "okay."

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

9. Crying, screaming, or giggling a lot when you are by yourself

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

10. Directly showing your feelings when you are with others – actually crying, screaming, expressing confusion, and the like.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

11. Talking to family and friends about your feelings.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

12. Doing things for yourself just because they make you feel good.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

13. Trying to forget the rape/molestation/abuse ever happened.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

14. Trying to ignore all thoughts and feelings about the rape/molestation/abuse.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

15. Blaming yourself for what happened, going over all the things you did wrong, holding yourself responsible for the assault/abuse, or chewing yourself out for having been "so dumb."

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

16. Snapping at people for no apparent reason, generally feeling irritable, or feeling like you are about to explode.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

17. Trying intellectually to understand what happened to you and why you have felt the ways you have.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

18. Drinking a lot of alcohol or taking other drugs more than usual.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

19. Getting yourself into dangerous or risky situations more than you usually would.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

20. Examining your life activities, relationships, and priorities, and getting rid of things that aren't really important to you.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

21. Telling yourself and/or others that you are determined not to let the rape/abuse ruin your life or make you a victim forever, and that you are not going to let the rape defeat you emotionally.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

22. Eating or smoking cigarettes more than usual.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

23. Going over all the things that you did that were "good" and helped you get through the rape/abuse alive.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

24. Thinking about killing yourself.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

25. Getting more involved in your religion, changing religions, or becoming more religious.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

26. Talking to a therapist or counselor (including psychologists, psychiatrists, or social workers) about your experiences.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

27. Taking prescription drugs (such as Valium) to help yourself relax.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

28. Keeping busy and trying to distract yourself from being bothered by the rape/molestation/abuse experience.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

29. Staying inside your house or apartment, and going out as little as possible.

Never	***Rarely***	***Sometimes***	***Half the time***	***Often***	***Usually***	***Always***

APPENDIX I: DRINKING MOTIVES

DMM

For each of the statements of reasons listed below, please **circle** how often you used any substance (alcohol or drugs) **for that reason** during the last year.

1 = Never/almost never (if you never/almost never used substance for this reason)
1 = Sometimes (if you sometimes used a substance for this reason)
2 = Often (if you often used a substance for this reason)
3 = Always/almost always (if you always or almost always used a substance for this reason)

1. To relax	1	2	3	4
2. To forget my worries	1	2	3	4
3. Because I feel more self-confident or sure of myself	1	2	3	4
4. Because it helps when I feel depressed or nervous	1	2	3	4
5. To cheer me up when I'm in a bad mood	1	2	3	4
6. Because I like the feeling	1	2	3	4
7. Because it is exciting	1	2	3	4
8. To get high	1	2	3	4
9. Because it is fun	1	2	3	4
10. Because it makes me feel good	1	2	3	4
11. As a way to celebrate	1	2	3	4
12. Because it is what most of my friends do when we get together	1	2	3	4
13. To be sociable	1	2	3	4
14. Because it is customary on special occasions	1	2	3	4
15. Because it makes a social gathering more enjoyable	1	2	3	4

APPENDIX J: SOCIAL SUPPORT

MSPSS

Please **circle** the answer choice that most closely matches your agreement or disagreement about the following twelve statements.

1. There is a special person who is around when I am in need.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

2. There is a special person with whom I can share my joys and sorrow.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

3. My family really tries to help me.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

4. I get the emotional support I need from my family.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

5. I have a special person who is a real source of comfort to me.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

6. My friends really try to help me.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

7. I can count on my friends when things go wrong.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

8. I can talk about my problems with my family.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

9. I have friends with whom I can share my joys and sorrows.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

10. There is a special person in my life who cares about my feelings.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

11. My family is willing to help me make decisions.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

12. I can talk about my problems with my friends.

Very strongly disagree	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Very strongly agree

APPENDIX K: SOCIAL REACTIONS

SRQ

INSTRUCTIONS: The following is a list of behaviors that other people responding to a person with an experience of childhood sexual abuse often show. If you were molested, abused, touched inappropriately, or raped by someone as a child, **please indicate how often you experienced each of the listed responses from other people by placing the appropriate number on the line next to each example of a response.**

If you were molested, abused, touched inappropriately, or raped by someone as a child, but you never told anyone or the event was never discovered, please check this box and leave the questionnaire blank. □

If you were NOT molested, abused, touched inappropriately, or raped by someone as a child, please check this box and leave the questionnaire blank: □

HOW OTHER PEOPLE RESPONDED OR REACTED TO YOUR EXPERIENCE OF ABUSE...

0	1	2	3	4
NEVER	RARELY	SOMETIMES	FREQUENTLY	ALWAYS

____ 1. Told you it was not your fault

____ 2. Pulled away from you

____ 3. Wanted to seek revenge on the perpetrator

____ 4. Told others about your experience without your permission

____ 5. Distracted you with other things

____ 6. Comforted you by telling you it would be all right or by holding you

____ 7. Told you he/she felt sorry for you

____ 8. Helped you get medical care

____ 9. Told you that you were not to blame

____ 10. Treated you differently in some way than before you told him/her that made you uncomfortable

____ 11. Tried to take control of what you did/decisions you made

____ 12. Focused on his/her own needs and neglected yours

0	1	2	3	4
NEVER	RARELY	SOMETIMES	FREQUENTLY	ALWAYS

____ 13. Told you to go on with your life

____ 14. Held you or told you that you were loved

____ 15. Reassured you that you are a good person

____ 16. Encouraged you to seek counseling

____ 17. Told you that you were to blame or shameful because of this experience

____ 18. Avoided talking to you or spending time with you

____ 19. Made decisions or did things for you

____ 20. Said he/she feels personally wronged by your experience

____ 21. Told you to stop thinking about it

____ 22. Listened to your feelings

____ 23. Saw your side of things and did not make judgments

____ 24. Helped you get information of any kind about coping with the experience

____ 25. Told you that you could have done more to prevent this experience from occurring

____ 26. Acted as if you were damaged goods or somehow different now

____ 27. Treated you as if you were a child or somehow incompetent

____ 28. Expressed so much anger at the perpetrator that you had to calm him/her down

____ 29. Told you to stop talking about it

____ 30. Showed understanding of your experience

____ 31. Reframed the experience as a clear case of victimization

____ 32. Took you to the police

____ 33. Told you that you were irresponsible or not cautious enough

____ 34. Minimized the importance or seriousness of your experience

0	1	2	3	4
NEVER	RARELY	SOMETIMES	FREQUENTLY	ALWAYS

____ 35. Said he/she knew how you felt when he/she really did not

____ 36. Has been so upset that he/she needed reassurance from you

____ 37. Tried to discourage you from talking about the experience

____ 38. Shared his/her own experience with you

____ 39. Was able to really accept your account of your experience

____ 40. Spent time with you

____ 41. Told you that you did not do anything wrong

____ 42. Made a joke or sarcastic comment about this type of experience

____ 43. Made you feel like you didn't know how to take care of yourself

____ 44. Said he/she felt you're tainted by this experience

____ 45. Encouraged you to keep the experience a secret

____ 46. Seemed to understand how you were feeling

____ 47. Believed your account of what happened

____ 48. Provided information and discussed options

APPENDIX L: BECK DEPRESSION INVENTORY

BDI-II Sample Question

Irritability

0 = I am no more irritable than usual
1 = I am more irritable than usual
2 = I am much more irritable than usual
3 = I am irritable all the time

APPENDIX M: TRAUMA SYMPTOMS

TSC-40

How often have you experienced each of the following in the last two months?

0 = Never 3 = Often

1. Headaches	0	1	2	3
2. Insomnia (trouble getting to sleep)	0	1	2	3
3. Weight loss (without dieting)	0	1	2	3
4. Stomach problems	0	1	2	3
5. Sexual problems	0	1	2	3
6. Feeling isolated from others	0	1	2	3
7. "Flashbacks" (sudden, vivid, distracting memories)	0	1	2	3
8. Restless sleep	0	1	2	3
9. Low sex drive	0	1	2	3
10. Anxiety attacks	0	1	2	3
11. Sexual overactivity	0	1	2	3
12. Loneliness	0	1	2	3
13. Nightmares	0	1	2	3
14. "Spacing out" (going away in your mind)	0	1	2	3
15. Sadness	0	1	2	3
16. Dizziness	0	1	2	3
17. Not feeling satisfied with your sex life	0	1	2	3
18. Trouble controlling your temper	0	1	2	3
19. Waking up early in the morning and can't get back to sleep	0	1	2	3
20. Uncontrollable crying	0	1	2	3
21. Fear of men	0	1	2	3
22. Not feeling rested in the morning	0	1	2	3
23. Having sex that you didn't enjoy	0	1	2	3
24. Trouble getting along with others	0	1	2	3
25. Memory problems	0	1	2	3
26. Desire to physically hurt yourself	0	1	2	3
27. Fear of women	0	1	2	3
28. Waking up in the middle of the night	0	1	2	3

29. Bad thoughts or feelings during sex	0	1	2	3
30. Passing out	0	1	2	3
31. Feeling that things are "unreal"	0	1	2	3
32. Unnecessary or over-frequent washing	0	1	2	3
33. Feelings of inferiority	0	1	2	3
34. Feeling tense all the time	0	1	2	3
35. Being confused about your sexual feelings	0	1	2	3
36. Desire to physically hurt others	0	1	2	3
37. Feelings of guilt	0	1	2	3
38. Feelings that you are not always in your body	0	1	2	3
39. Having trouble breathing	0	1	2	3
40. Sexual feelings when you shouldn't have them	0	1	2	3

APPENDIX N: SUBSTANCE USE

InDUC-R6

INSTRUCTIONS: Here are a number of events that people sometimes experience in relation to their use of alcohol and other drugs. Read each one carefully, and circle the number that indicates how often this has happened to you in the past 6 months by circling
0 = never, 1 = once or a few times, 2 = once or twice per week, 3 = daily or almost daily.
If an item does not apply to you, please circle '0'.

1. I have had a hangover or felt bad after drinking or using drugs.	0	1	2	3
2. I have felt bad about myself because of my drinking or drug use.	0	1	2	3
3. I have missed days of work or school because of my drinking or drug use.	0	1	2	3
4. My family or friends have worried or complained about my drinking or drug use.	0	1	2	3
5. I have enjoyed drinking or using drugs	0	1	2	3
6. The quality of my work has suffered because of my drinking or drug use.	0	1	2	3
7. My ability to be a good parent has been harmed by my drinking or drug use.	0	1	2	3
8. After drinking or using drugs, I have had trouble with sleeping, staying asleep, or nightmares.	0	1	2	3
9. I have driven a motor vehicle while under the influence of alcohol or other drugs.	0	1	2	3
10. Drinking or using one drug has caused me to use other drugs more.	0	1	2	3
11. I have been sick and vomited after drinking or using drugs.	0	1	2	3
12. I have been unhappy because of my drinking or drug use.	0	1	2	3
13. Because of my drinking or drug use, I have lost weight or not eaten properly.	0	1	2	3
14. I have failed to do what is expected of me because of my drinking or drug use.	0	1	2	3
15. Drinking or using drugs has helped me to relax.	0	1	2	3
16. I have felt guilty or ashamed because of my drinking or drug use.	0	1	2	3
17. While drinking or using drugs I have said or done embarrassing things.	0	1	2	3
18. While drinking or using drugs my personality has changed for the worse.	0	1	2	3
19. I have taken foolish risks when I have been drinking or using drugs.	0	1	2	3

20. I have gotten into trouble because of drinking or drug use.	0	1	2	3
21. While drinking or using drugs, I have said harsh or cruel things to someone.	0	1	2	3
22. When drinking or using drugs, I have done impulsive things that I regretted later.	0	1	2	3
23. I have gotten into a physical fight while drinking or using drugs.	0	1	2	3
24. My physical health has been harmed by my drinking or drug use.	0	1	2	3
25. Drinking or using drugs has helped me to have a more positive outlook on life.	0	1	2	3
26. I have had money problems because of my drinking or drug use.	0	1	2	3
27. My marriage or love relationship has been harmed by my drinking or drug use.	0	1	2	3
28. I have smoked tobacco more when I am drinking or using drugs.	0	1	2	3
29. My physical appearance has been harmed by my drinking or drug use.	0	1	2	3
30. My family has been hurt by my drinking or drug use.	0	1	2	3
31. A friendship or close relationship has been damaged by my drinking or drug use.	0	1	2	3
32. I have spent time in jail or prison because of my drinking or drug use.	0	1	2	3
33. My sex life has suffered because of my drinking or drug use.	0	1	2	3
34. I have lost interest in activities and hobbies because of my drinking or drug use.	0	1	2	3
35. When drinking or using drugs, my social life has been more enjoyable.	0	1	2	3
36. My spiritual or moral life has been harmed by my drinking or drug use.	0	1	2	3
37. Because of my drinking or drug use, I have not had the kind of life that I want.	0	1	2	3
38. My drinking or drug use has gotten in the way of my growth as a person.	0	1	2	3
39. My drinking or drug use has damaged my social life, popularity, or reputation.	0	1	2	3
40. I have spent too much or lost a lot of money because of my drinking or drug use.	0	1	2	3

41. I have been arrested for driving under the influence of alcohol or drugs.	0	1	2	3
42. I have been arrested for other offenses (besides driving under the influence) related to my drinking or other drug use (for example prostitution, “pan handling”).	0	1	2	3
43. I have lost a marriage or a close love relationship because of my drinking or drug use.	0	1	2	3
44. I have been suspended/fired from or left a job or school because of my drinking or drug use.	0	1	2	3
45. I have used drugs moderately, without having problems.	0	1	2	3
46. I have lost a friend because of my drinking or drug use.	0	1	2	3
47. I have had an accident while using or under the influence of alcohol or drugs.	0	1	2	3
48. While using or under the influence of alcohol or drugs, I have been physically hurt, injured, or burned.	0	1	2	3
49. While using or under the influence of alcohol or drugs, I have injured someone else.	0	1	2	3
50. I have broken things or damaged property while using or under the influence of alcohol or drugs.	0	1	2	3

APPENDIX O: DEBRIEFING FORM

DEBRIEFING FORM

PROJECT: Female Resiliency, Experiences, and Environment: Inmates (Project FREE)
INVESTIGATORS: Kia Asberg & Kimberly Renk

Thank you for participating in this research project! This idea behind this project is to find out more about various experiences that women may have had. Specifically, we are trying to find out how childhood sexual abuse or the family environment that a person grew up in can influence women's mood and how they deal with situations as adults. You filled out several questionnaires asking about events you may have experienced in your life, and ways in which you may have dealt with those experiences. Some of the items asked for very specific information about sexual abuse. You also answered questions about the way you and people in your life may have reacted to stressful events such as sexual abuse. The responses to these surveys will be used to see if there is a link between sexual abuse, coping, social support, and mental health. It may be that a woman's social support and the way she has dealt with sexual abuse or family stress affect how she is feeling as an adult. It is also possible that certain experiences could affect the decisions a person makes about using drugs or alcohol. We also hope to find out if women who have been sexually abused deal with stress differently compared to women who have not been sexually abused. We are also interested in resiliency, which is the ability to bounce back from trauma or stress. Finally, we are also interested in finding out if survivors of childhood sexual abuse are more likely to use drugs and alcohol and have other negative sexual experiences as adults compared to women who were not abused as children. Information from this survey may also help us develop programs for females who are survivors of trauma, especially sexual abuse, and also inform our community about the links between sexual abuse, social support, coping, substance abuse and mental health. We want to stress that it is important to hear the views of both women who have been sexually abused and of women who have not been sexually abused, so we thank all participants.

If you would like more information about childhood experiences, sexual abuse, substance abuse, or the effect of social support and coping on mood and relationships, please refer to the following sources:

BOOKS:

- The Courage to Heal: A Guide for Women Survivors of Child Sexual Abuse by Ellen Bass & Laura Davis

FACT SHEETS: (Ask the experimenter for a copy)

- Survivor Facts and Resources: Post-Traumatic Stress Disorder
- Stress and Substance Abuse: National Clearinghouse for Alcohol and Drug Information

ONLINE RESOURCES:

- http://www.voicesofstrength.org/

Other resources:

- More information may be available from mental health specialists and counselors in the Female Detention Center.

If you are feeling upset or stressed and/or would like to discuss your participation in this study with the investigator (Ms. Asberg), please put your jail number on the sign-up sheet that she will provide. You will be scheduled for an individual session in the Female Detention Center. We also encourage you to contact the mental health sick call system at the Female Detention Center if you would like to schedule a session with an available mental health specialist at a later time. These services are free. Please know that you do not have to be a survivor or sexual abuse to sign up to speak to Ms. Asberg or to a mental health specialist. If you have any questions about this research study, please contact Kimberly Renk, Ph.D., by phone (407-823-2218) or e-mail (krenk@pegasus.cc.ucf.edu). If you have questions about therapy, psychological and/or evaluation services that are free, please contact the Community Counseling Clinic at the University of Central Florida at 407-823-2052.

DEBRIEFING FORM

PROJECT: Females: Resiliency, Experiences, and Environment
INVESTIGATORS: Kia Asberg & Kimberly Renk

Thank you for participating in this research project. This project is being conducted so that we may find out more about the relationship between childhood experiences, protective factors, and psychological outcomes. You completed several questionnaires inquiring about events you may have experienced in your life, and ways in which you may have dealt with those experiences. The responses to these questionnaires will be used to explore the relationship between childhood experiences, coping, social support, and psychological adjustment. It may be that perceptions of social support and the way in which an individual deals with childhood experiences affect how they are functioning currently.

If you would like more information about childhood experiences, or the effect of social support and coping on psychological outcomes, please refer to the following sources:

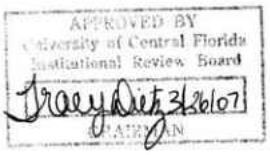
Banyard, V.L., & Williams, L.M. (1996). Characteristics of child sexual abuse as correlates of women's adjustment: A prospective study. *Journal of Marriage and the Family, 58,* 853-865.

Lam, J. N., & Grossman, F.K. (1997). Resiliency and adult adaptation in women with and without self-reported histories of childhood sexual abuse. *Journal of Traumatic Stress, 10,* 175-196.

Messman-Moore, T.L., & Long, P.J. (2003). The role of childhood sexual abuse sequelae in the sexual revictimization of women: An empirical review and theoretical reformulation. *Clinical Psychology Review, 23,* 537-571.

If you have any further questions about this research study, please contact Kimberly Renk, Ph.D., by phone (823-2218) or e-mail (krenk@pegasus.cc.ucf.edu).

If you have questions regarding psychological or evaluation services, please contact the Student Counseling Center (if you are a UCF student) or the Community Counseling Clinic (if you are not a UCF student) at the University of Central Florida at 407-823-2052.



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