

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Faculty Publications, Department of Psychology

Psychology, Department of

8-2011

The Cumulative Impact of Sexual Revictimization on Emotion Regulation Difficulties: An Examination of Female Inmates

Kate Walsh

University of Nebraska-Lincoln, katelynwalsh@hotmail.com

David K. DiLillo

University of Nebraska-Lincoln, ddilillo@unl.edu

Mario J. Scalora

University of Nebraska-Lincoln, mscalora1@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/psychfacpub>



Part of the [Psychiatry and Psychology Commons](#)

Walsh, Kate; DiLillo, David K.; and Scalora, Mario J., "The Cumulative Impact of Sexual Revictimization on Emotion Regulation Difficulties: An Examination of Female Inmates" (2011). *Faculty Publications, Department of Psychology*. 555.

<https://digitalcommons.unl.edu/psychfacpub/555>

This Article is brought to you for free and open access by the Psychology, Department of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications, Department of Psychology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



Published in final edited form as:

Violence Against Women. 2011 August ; 17(8): 1103–1118. doi:10.1177/1077801211414165.

The Cumulative Impact of Sexual Revictimization on Emotion Regulation Difficulties: An Examination of Female Inmates

Kate Walsh, David DiLillo, and Mario J. Scalora

University of Nebraska–Lincoln

Abstract

The present study examined associations between child sexual abuse (CSA), adult sexual victimization, and emotion regulation difficulties in a sample of 168 incarcerated women. Approximately 50 % of the sample reported CSA, 54% reported adult sexual victimization, and 38% reported sexual revictimization (i.e., CSA and adult victimization). Revictimized women reported significantly greater difficulties with several facets of emotion regulation when compared to singly victimized and non-victimized women. Interestingly, singly victimized women did not demonstrate greater emotion regulation deficits when compared to non-victims. Findings suggest that the negative impact of victimization experiences on adult emotion regulation abilities may be cumulative. Further, they highlight the potential importance of assessing and targeting emotion regulation difficulties among child abuse and adult sexual victimization survivors.

Keywords

emotion dysregulation; sexual revictimization; child sexual abuse; female inmates

Child sexual abuse has been associated with a host of immediate and long-term negative sequelae, including depression and posttraumatic stress disorder (PTSD; Runyon & Kenny, 2002; Saunders, Kilpatrick, Hanson, Resnick, & Walker, 1999). One outcome that has received recent attention from both researchers and clinicians is emotion regulation, which is conceptualized as a multifaceted construct (Cole, Michel, & Teti, 1994; Gratz & Roemer, 2004; Gross, 1998) involving the clear identification, labeling, and expression of one's emotional experiences (Feldman Barrett, Gross, Connor, & Benvenuto, 2001; Eisenberg, Cumberland, & Spinrad, 1998), the ability to attend to environmental cues and pursue goal directed behaviors in the face of emotional distress (Gross, 1998, 2007; Linehan, 1993), acceptance of one's own emotional responses (Cole et al.; Gratz & Roemer, 2004), and utilization of adaptive regulatory strategies for a given situation (Cole et al.; Gross & Thompson, 2007).

Considered a key task of childhood (Cole et al., 1994), the development of emotion regulation abilities can be influenced by multiple factors, including exposure to child maltreatment. In fact, prominent developmental theorists have suggested that the experience of child sexual abuse (CSA) specifically may significantly disrupt the development of adaptive emotion regulation skills (Cicchetti, Ganiban, & Barnett, 1991). Evidence of this comes from studies showing that sexually abused children have less understanding of emotion and more inhibition of negative emotions, use fewer emotion words when describing negative experiences, and display greater affective lability than do non-abused

children (Shields & Cicchetti, 1998; Shipman, Edwards, Brown, Swisher, & Jennings, 2005). Sexual victimization may engender emotion regulation difficulties through a number of pathways. For instance, parental socialization of emotion regulation is likely to be severely disrupted in maltreating families (Morris, Silk, Steinberg, Myers, & Robinson, 2007; Shipman et al., 2007; Thompson & Meyer, 2007). Specifically, maltreating mothers have been shown to be less validating and more invalidating in response to their children's emotions (Shipman et al., 2007), potentially teaching children that expression of emotion is wrong and minimizing opportunities to model effective emotion regulation strategies. Emotion regulation deficits may also arise from survivors' attempts to manage the chronic high levels of negative affect stemming from the abusive experiences (see Marx, Heidt, & Gold, 2005 for review). Whereas avoidance of these strong emotions may initially be adaptive for young victims, over the long-term, such strategies appear to heighten distress by contributing to psychopathology such as PTSD and dissociation (Litz & Gray, 2002).

In addition to difficulties manifesting during childhood, there are indications that adult survivors may experience long-term difficulties with emotion regulation. For instance, compared to non-abused women, treatment seeking women with a history of child sexual abuse have more difficulty identifying and regulating emotional states (e.g., Cloitre, Miranda, Stovall-McClough, & Han, 2005; Gratz, Bornova, Delaney-Brumsey, Nick, & Lejuez, 2007). Literature also suggests that adult survivors have difficulties accepting their emotions, report increased experiential avoidance (i.e., chronic attempts to avoid unpleasant internal states), and more often engage in emotionally avoidant coping behaviors including dissociation, substance abuse, sexual promiscuity, and self-injury to reduce negative affect (e.g., Batten, Follette, & Aban, 2001; Cloitre et al., 2005; Rosenthal, Hall, Palm, Batten, & Follette, 2005; Tull, Barrett, McMillan, & Roemer, 2007; Tull, Jakupcak, McFadden, & Roemer, 2007).

Although the groundwork for emotion regulation is laid in childhood, emotion regulatory abilities are likely to fluctuate over time. Indeed, as Diamond and Aspinwall (2003) note, "Optimal emotion regulation is not a developmental task to be mastered at a certain age... but rather a 'moving target' that is continually sensitive to changing goals and contexts" (p. 149). One factor that may alter the trajectory of emotion regulatory abilities is adult trauma exposure. For example, combat veterans evidence difficulties with emotion regulation and affective control (Price, Monson, Callahan, & Rodriguez, 2006). Similarly, the trauma of adult rape and sexual assault may impinge on one's ability to regulate emotions effectively. The few studies that have been conducted with this population suggests that these individuals experience emotion-related difficulties such as heightened experiential avoidance (Boesch, Koss, Figueredo, & Aurelio, 2001) and alexithymia (i.e., the inability to identify and label emotional states; Zeitlin, McNally, & Cassidy, 1993). Despite these findings, few studies have explored whether rape is associated with other aspects of emotion regulation.

The literature reviewed thus far focuses on associations between single victimization types—either CSA or adult assault—and emotion regulation deficits; however, numerous studies have shown that early CSA places women at increased risk for subsequent sexual assault during adolescence or adulthood (for reviews see Classen, Paesh, & Aggarwal, 2005; Messman-Moore & Long, 2003; Roodman & Clum, 2001). It is plausible that these revictimized women experience even greater problems with emotion regulation due to a cumulative impact of multiple abuse experiences. This possibility is supported by findings of negative outcomes such as trauma symptoms and substance abuse among revictimized women compared to those who have experiences single victimizations (Filipas & Ullman, 2006; Follette, Polusny, Bechtle, & Naugle, 2006; Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997). Additionally, in the realm of emotional functioning, revictimized women

seeking treatment appear to have more difficulties with alexithymia (Cloitre et al., 1997). This is important because the ability to differentiate between emotional states is considered a crucial precursor to effective emotion regulation (Feldman Barrett, Gross, Christensen, & Benvenuto, 2001).

Collectively, these findings suggest that sexually victimized women may experience difficulties with select aspects of emotion regulation. Further, there are indications that revictimization may exert a cumulative impact on certain emotion regulation abilities. However, most studies to date have focused exclusively on single victimization experiences (i.e., CSA or adult assault) and a lone aspect of emotion dysregulation (e.g., alexithymia) without considering associations between multiple victimization experiences and other important facets of emotion regulation facets, such as emotional acceptance, access to adaptive emotion regulation strategies, distress tolerance, and behavioral impulsivity.

The present study addresses these gaps in the literature in a high-risk sample of incarcerated women. Incarcerated women are an important group to study because of the high rates of child sexual abuse and rape found in this population (Browne, Miller, & Maguin, 1999; DeHart, 2008; Green, Miranda, Daroowalla, & Siddique, 2005; Messina, Burdon, Hagopian, & Pendergast, 2006). There is also a high need for services designed to target rape-related trauma symptoms among female inmates (Browne et al., 1999; Green et al., 2005; Messina et al., 2006), and failure to address these symptoms may result in adjustment difficulties both in prison and after release (Messina et al., 2006). Thus, knowledge of specific emotion regulatory difficulties may shed light on important avenues for intervention in this population.

The primary hypotheses for the present study are as follows:

1. Consistent with the revictimization literature (e.g., Classen et al., 2005), we expected that self-reported sexual abuse during childhood would be positively related to later adolescent or adult victimization in the present sample of incarcerated women.
2. We also expected that women with a history of sexual victimization (either during childhood or adolescence/adulthood) would report increased emotion regulation difficulties across a variety of domains, and that when compared to child sexual abuse victims, those reporting adolescent/adult rape would report greater problems with emotion regulation due to the recency of the assault.
3. Finally, consistent with a cumulative impact model, we predicted that, compared to non-abused and singly victimized women, those reporting revictimization (CSA and either adolescent or adult victimization) would report greater difficulties with a range of emotion regulatory processes, including difficulties with emotional awareness and emotional clarity, nonacceptance of emotions, difficulties engaging in goal-directed behavior when distressed, impulse control problems, and limited access to emotion regulation strategies

Method

Participants

Participants were 160 female prisoners recruited from a correctional facility in a Midwestern state. The present study used a non-random self-selected sample, comprising approximately 58% of the total inmate population ($N = 275$) housed at the facility. Mean age of participants was 35.4 ($SD = 9.3$) years old and mean length of incarceration was 2.2 ($SD = 3.56$) years. The sample was predominantly European-American (69%), although a substantial

proportion reported their ethnicity as African-American/black (13.2%) and Native American (8.2%). Most participants were single (42.5%) or divorced (32.5%), and more than 78% had completed high school or beyond (see Table 1 for demographics).

Measures

Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998)—The CTQ is a 28-item self-report questionnaire that assesses five types of childhood maltreatment retrospectively from adults: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Respondents indicate if they had experienced each type of maltreatment during their childhood on a scale from 1 (*never true*) to 5 (*very often true*). Responses to the CTQ are summed, with higher scores indicating greater levels of each type of maltreatment. To provide a measure of maltreatment occurring only during childhood, the instructions in the present study were revised to assess only those experiences that had occurred prior to the age of 14. Child maltreatment victim status was determined using cutoffs provided by the authors (Bernstein & Fink, 1998). Numerous investigations attest to the reliability and validity of this measure (Bernstein et al., 1994; Bernstein et al., 2003; Scher, Stein, Asmundson, McCreary, & Forde, 2001). In the current study, the internal consistency reliability coefficients for the CTQ subscales ranged from .82 to .97. Although the CTQ yields subscales for five types of maltreatment, only the sexual abuse subscale were used in the present investigation as those are the forms of maltreatment that have been empirically linked to adult sexual assault (Cloitre et al., 1996; Desai et al., 2002; Messman-Moore & Brown, 2004).

Sexual Experiences Survey – Revised (SES-R; Koss et al., 2007)—The SES-R is a self-report questionnaire that assesses unwanted sexual experiences since the age of 14. Respondents indicate the number of times a specific sexual act occurred (ranging from 0 to 3 or more) due to force (holding down, use of a weapon, threats of harm to self or loved ones), coercion (verbal pressuring, criticism, anger), and incapacitation due to substances. As suggested by Koss et al. (2007), rape was defined as unwanted sexual activities that occurred due to the use of force (holding down, use of a weapon) or incapacitation due to substances since the age of 14.

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)—The DERS is a 36-item self-report instrument that assesses six factor-analytically-derived facets of emotion regulation: nonacceptance of emotional responses (6 items), difficulties engaging in goal-directed behavior (5 items), impulse control difficulties (6 items), lack of emotional awareness (6 items), limited access to emotion regulation strategies (8 items), and lack of emotional clarity (5 items). Nonacceptance of emotional responses refers to the tendency to have negative secondary reactions to negative emotions (e.g., feeling angry about being sad). Difficulties engaging in goal-directed behavior refers to problems concentrating and completing tasks when experiencing distress. Impulse control problems refer to difficulties remaining in control of behavior when upset. Lack of emotional awareness refers to problems attending to and acknowledging emotions. Limited access to emotion regulation strategies refers to the belief that little can be done to effectively change emotions once upset. Finally, lack of emotional clarity refers to the ability to clearly identify the emotions one is experiencing.

Participants respond to items on a 5-point scale anchored from 1 = *almost never* to 5 = *almost always*. The possible scores for each subscale range from 5–25 for the difficulties engaging in goal-directed behavior and lack of emotional clarity subscales to 6–30 for the nonacceptance of emotional responses, impulse control difficulties, and lack of emotional awareness subscales to 8–40 for the limited access to emotion regulation strategies subscale.

Higher scores reflect greater emotion regulation difficulties. The DERS has good internal consistency ($\alpha = .93$) and an overall test-retest coefficient of .88 with coefficients ranging from .57 to .89 for the subscales (Gratz & Roemer). In the current sample, alpha was .96 for the DERS total, with coefficients ranging from .83 to .90 for the subscales. In terms of construct validity, DERS responses are positively associated with measures of experiential avoidance, and negatively correlated with measures of emotional expressivity (Gratz & Roemer). Furthermore, the DERS has been used in research with populations known to have difficulties with emotion dysregulation (e.g., alcohol patients; Fox, Hong, & Sinha, 2007).

Procedures

Data for the present study were part of a larger investigation of sexually coercive experiences within the prison environment. After obtaining Institutional Review Board approval from the University of Nebraska-Lincoln and the prison, posters were placed throughout the correctional facility advertising a study that involved “completing questionnaires about personal experiences in prison, emotions and attitudes, and prior life events.” The advertisement instructed interested women to contact mental health staff to request a study appointment. Data collection took place in a large room containing several tables and chairs to allow ample space between participants. Approximately fifteen women completed the study during each data collection session. After providing written informed consent, participants completed packets of questionnaires, which they sealed and returned to researchers. To minimize the risk of a breach of confidentiality and further protect inmate privacy when reporting such personal experiences, prison staff were not present during questionnaire completion. As compensation for completing the study questionnaires, \$5 was credited to each participant’s inmate account.

Results

According to the cut scores provided by the CTQ authors (Bernstein & Fink, 1998), approximately half of the sample ($n = 84$) reported sexual abuse. The mean CSA score for victims of CSA was 16.99 ($SD = 6.56$), which is considered moderate/severe by the authors (Bernstein & Fink). Using Koss et al.’s (2007) scoring recommendations for the SES, 56% ($n = 90$) of participants reported at least one rape since the age of 14. Of those who met Koss’s definition of rape since age 14, 57% ($n = 51$) reported at least one instance of oral sex while too intoxicated to stop what was happening, 36% ($n = 32$) reported at least one instance of oral sex due to threats of physical violence, and 49% ($n = 44$) reported at least one instance of oral sex due to physical force, including the use of a weapon. Additionally, 72% ($n = 65$) reported vaginal penetration while too intoxicated to stop what was happening, 47% ($n = 42$) reported at least one instance of vaginal penetration due to threats of physical violence, and 67% ($n = 60$) reported at least one instance of vaginal penetration due to physical force. Finally, 32% ($n = 29$) reported anal penetration while too intoxicated to stop what was happening, 18% ($n = 16$) reported at least one instance of anal penetration due to threats of physical violence, and 28.7% ($n = 25$) reported at least one instance of anal penetration due to physical force.

Consistent with the first hypothesis, CSA victims were significantly more likely to experience adolescent and adult rape, $\chi^2(1) = 20.52, p < .001$, when compared to non-victims. Moreover, nearly 37% ($n = 59$) of women met criteria for revictimization (both CSA and rape since the age of 14). For the remaining analyses, 49 (30.6%) women were considered non-victims, 22 (13.7%) were considered child-only victims, 30 (18.8%) were considered adolescent/adult rape victims, and 59 (36.9%) were considered re-victimized (i.e., they experienced both child and adolescent/adult victimization). When these groups were compared on demographic variables, there were no differences in age, $F(1, 159) = 1.2$,

$p = .31$, $MS_{Error} = 87.4$, marital status, $\chi^2(12) = 16.38$, $p = .18$, or highest education completed, $\chi^2(12) = 13.78$, $p = .32$. However, CSA ($n = 12$), adolescent/adult assault ($n = 26$), and revictimized women ($n = 46$) were more likely to report their race/ethnicity as white, $\chi^2(15) = 30.89$, $p < .01$.

To evaluate the hypotheses that CSA and adolescent/adult assault victims would report greater emotion regulation problems compared to non-victims, and revictimized women (i.e., those reporting CSA as well as adolescent/adult assault) would demonstrate greater emotion regulation difficulties than CSA, adolescent/adult assault victims, or non-victimized women, analysis of variance (ANOVA) was used to compare mean DERS scores between these groups. Results revealed significant differences between non-victimized, CSA, adolescent/adult assault, and revictimized (CSA and ASA) women on the DERS total, $F(3,156) = 4.0$, $p < .05$, $MS_{Error} = 2403.4$, as well as on the nonacceptance, $F(3,156) = 4.71$, $p < .01$, $MS_{Error} = 136.7$, impulse control difficulties, $F(3,156) = 2.6$, $p < .05$, $MS_{Error} = 65.8$, emotional awareness, $F(3,156) = 2.8$, $p < .05$, $MS_{Error} = 73.7$, and clarity, $F(3,156) = 3.7$, $p < .05$, $MS_{Error} = 56.9$, subscales (see Table 2). Follow-up analyses using Fisher's LSD are also reported in Table 2. These results revealed that revictimized women (i.e., those reporting both CSA and ASA) had higher scores than did non-victimized and singly-victimized women on overall emotion dysregulation, nonacceptance of emotions, and lack of emotional clarity. Revictimized women also had higher mean scores on emotional awareness when compared to non-victimized women and those reporting only CSA; however, scores were statistically similar for women reporting rape. Further, revictimized women had significantly higher impulse control scores when compared to women reporting rape; non-victims and child-only victims had statistically similar scores on this subscale.

Discussion

Rates of child sexual abuse and adolescent/adult sexual victimization (50% and 57%, respectively) in the present study were substantially higher than rates of sexual victimization reported by college and community samples (see Classen et al., 2005 for review). This finding is consistent with other research suggesting that incarcerated women experience more trauma exposure (Green et al., 2005), and again highlight the magnitude of the problem with this population. Child sexual abuse was also positively associated with later adult rape (38% of total sample reported revictimization), extending previous research documenting the existence of revictimization in college, clinical, and community samples. When compared to baseline DERS means for alcohol patients (Fox et al., 2007), revictimized women in the present study report slightly higher means on four of the six subscales, including emotional nonacceptance, difficulties engaging in goal-directed behavior when distressed, impulse control problems, and limited access to emotion regulation strategies. However, revictimized women report similar means on the emotional clarity subscale and slightly lower means on the emotional awareness subscale when compared to alcohol patients. This suggests that revictimization and alcohol abuse may be differentially associated with specific emotion regulation deficits although more research with emotionally dysregulated samples is necessary.

Contrary to expectations, singly victimized women did not evidence heightened problems with emotion regulation when compared to non-victimized women. However, because incarcerated women report high rates of general trauma exposure (Messina et al., 2006), it is possible that the non-victimized women experienced other traumatic life events that could impact emotion regulation abilities and obscure differences between sexual assault victims and non-victims alone. Indeed, if physical abuse and other forms of trauma had been assessed in the present study, it is possible that the vast majority of female inmates (including those considered non-victims here) would actually report some form of

victimization, particularly physical victimization by an intimate partner (e.g., Lake, 1993). In addition to these considerations, it also is possible that in many cases, single victimization experiences simply do not engender lasting emotion regulation deficits, and any spikes in emotion dysregulation occurring in the immediate aftermath of assault may dissipate by the time of the assessment.

Consistent with research suggesting a cumulative impact of sexual revictimization on psychosocial functioning (Follette et al., 2006), women reporting revictimization demonstrated increased emotion dysregulation across multiple domains, including overall emotion dysregulation, emotional nonacceptance, and lack of emotional clarity. Findings of greater emotional nonacceptance on the part of revictimized women contribute to the growing body of research suggesting that abuse survivors may be more likely to endorse negative secondary appraisals of emotions (e.g., feeling angry or ashamed about being upset; Gratz et al., 2007). Not only might it be taxing for assault survivors to acknowledge and accept consistently elevated levels of negative affect, but adverse secondary emotions also may further heighten overall affectivity. These findings also are important because emotional nonacceptance has been found to contribute to experiential avoidance (Gratz et al.), which may in turn exacerbate posttraumatic distress symptoms (Tull et al., 2007). Thus, emotional nonacceptance may serve as an important clinical target for abuse survivors with posttraumatic stress symptoms. Acceptance-based models (e.g., Hayes, 1999; Linehan, 1993), which helps individuals direct their attention broadly toward their own emotional experiences, rather than attempting to control them, may be appropriate modes of intervention with this population of assault survivors.

The finding that revictimized women reported greater problems with emotional awareness and clarity also corroborates past research linking multiple victimizations to difficulties identifying and labeling emotions (Cloitre et al., 1997; Zeitlin et al., 1993). Lack of attention to emotional states and persistent confusion about one's emotional experiences could lead to frustration, ultimately heightening negative affect. Interestingly, revictimized women did not differ from women reporting rape only in levels of emotional awareness, suggesting that experiencing rape as an adult may have a substantial impact on this domain of emotional functioning even more so than CSA. It could be the recency of the trauma that makes adult rape appear more emotionally destabilizing. This finding is consistent with Diamond and Aspinwall's (2003) notion that emotion regulation fluctuates over time in response to life stressors.

Revictimized women also reported more problems accessing emotion regulation strategies, which suggests that they may feel ineffective in down-regulating chronic negative emotions. Consistent with learned helplessness theory (Alloy & Seligman, 1979), revictimized women may experience persistent and overwhelming distress reflecting a generalized sense of powerlessness resulting from repeated, uncontrollable victimization experiences. These feelings may translate into less efficacious attempts to reduce such negative emotions. Finally, revictimized women reported more impulse control difficulties than did women reporting only rape, suggesting that adult rape victims may be primed to experience increased impulsivity only if they also experienced CSA. Notably, no differences were observed in goal-directed behavior when distressed across any of the victimization groups. However, it may be difficult to assess this aspect of emotion regulation among incarcerated women as they may have limited freedom to set and attain goals. Further, laboratory-based measures have been developed to assess the pursuit of goal directed behaviors while distressed (Lejuez, Kahler, & Brown, 2003), and may be more sensitive to detecting these abilities among abuse survivors than self-report measures alone.

Overall, these findings highlight the pervasiveness and severity of emotion regulation difficulties for women reporting sexual revictimization. Furthermore, the finding that singly victimized women did not experience the magnitude of emotion regulation problems observed in revictimized women points to repeated victimization as uniquely related to emotion regulation problems. This finding not only fits with Follette and colleagues' (2006) work on detrimental outcomes associated with revictimization, but it also supports other literature such as that on polyvictimization (Finkelhor, Ormrod, & Rurner, 2007) and adverse child events (Felitti et al., 1998) documenting the cumulative effects of multiple victimizations.

Recent theoretical writings suggest that uncontrollable and unpredictable child abuse experiences may lead to difficulties managing chronically elevated negative affect such as intense fear and arousal (Marx et al., 2005). The present findings extend this theory by suggesting that experiencing repeated victimizations over the lifespan (rather than only in childhood) may also increase emotion regulation difficulties. Specifically, revictimized women appear to have heightened problems accepting negative emotions that are frequent sequelae of abuse. To avoid this pain, they may be more likely to withdraw emotionally, limiting their ability to identify emotions and effectively employ emotion regulation strategies appropriate for a particular situation.

Although the present findings are consistent with a possible additive impact of sexual revictimization on emotion regulation problems, emotion dysregulation also may be a risk factor for initial and subsequent sexual victimizations. For instance, theory suggests that victimized women may be less likely to discern risk cues in the environment due to the depletion of attentional capabilities associated with increased emotion dysregulation (Marx et al., 2005). It also is possible that victimized women with poor emotion regulation abilities engage in more risk behaviors (e.g., substance abuse, casual sex) to reduce negative affect. These emotionally avoidant responses may heighten risk of sexual victimization by increasing exposure to potential perpetrators and decreasing the ability to effectively defend oneself (Grayson & Nolen-Hoeksema, 2005; Orcutt, Cooper, & Garcia, 2005). It is also possible that emotion dysregulation and victimization are mutually influential, each operating to impact the other in reciprocal fashion. More specifically, repeated victimization experiences may increase emotion regulation problems, which then further increases risk for subsequent victimizations. Although data for the present study were collected cross-sectionally, and thus cannot address the temporal sequencing of these variables, prospective studies may better shed light on these processes.

Additional limitations of the current study should be acknowledged. Similar to many studies examining the long-term effects of child maltreatment, this study relied on retrospective self-report methodology to assess victimization; therefore, responses may have been biased by inaccurate recall or underreporting. Future studies should attempt to corroborate abuse reports or follow abuse victims prospectively from childhood through adulthood. Further, although the questionnaires used in the present study are well-validated self-report measures, additional insight may be gained by incorporating laboratory assessments of emotion regulation into future studies examining links between victimization and emotion regulation difficulties.

These limitations notwithstanding, the present study has important clinical implications for those working with incarcerated women. Specifically, these findings suggest that female inmates report high rates of prior victimization, including child sexual abuse and adolescent and adult sexual assault. As a consequence, clinicians developing prison-based treatment and rehabilitation programs should consider assessing victimization experiences and tailoring interventions to address problems arising from prior victimization. The current

study also found strong links between various forms of sexual victimization and emotion dysregulation, suggesting the possible importance of incorporating an emotion regulation skills training component into sexual victimization treatment programs. Moreover, the finding that emotion dysregulation was particularly prominent among women with more severe sexual victimization histories (i.e., revictimization) suggests that these women may be in particular need of emotion regulation skills interventions. One existing treatment model that may inform the development of services for female inmates is the STAIR program (Cloitre, Koenen, Cohen, & Han, 2002), which was designed specifically to address interpersonal and emotion regulation problems among adult women with child sexual abuse histories.

References

- Alloy, L.A.; Seligman, M. On the cognitive component of learned helplessness in animals and man. In: Bower, G., editor. *The Psychology of Learning and Motivation*. New York: Academic Press; 1979. p. 219-276.
- Batten SV, Follette VM, Aban I. Experiential avoidance and high-risk sexual behaviors in survivors of child sexual abuse. *Journal of Child Sexual Abuse*. 2001; 10:101–120. [PubMed: 15154403]
- Bernstein, DP.; Fink, L. *Childhood Trauma Questionnaire: A retrospective self-report questionnaire and manual*. San Antonio, TX: The Psychological Corporation; 1998.
- Bernstein DP, Fink L, Handelsman L, Foote J. Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry*. 1994; 151:1132–1136. [PubMed: 8037246]
- Bernstein DP, Stein JA, Newcomb MD, Walker E, Pogge D, Ahluvalia T, et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse and Neglect*. 2003; 27:169–190. [PubMed: 12615092]
- Browne A, Miller B, Maguin E. Prevalence and severity of lifetime physical and sexual victimization among incarcerated women. *International Journal of Law and Psychiatry*. 1999; 22:301–322. [PubMed: 10457926]
- Butler EA, Egloff B, Wilhelm FH, Smith NC, Erickson EA, Gross JJ. The social consequences of expressive suppression. *Emotion*. 2003; 3:48–67. [PubMed: 12899316]
- Cicchetti, D.; Ganiban, J.; Barnett, D. Contributions from the study of high-risk populations to understanding the development of emotion regulation. In: Garber, J.; Dodge, K.A., editors. *The development of emotion regulation and dysregulation*. New York, NY: Cambridge University Press; 1991. p. 15-48.
- Classen CC, Palesh OG, Aggarwal R. Sexual revictimization: A review of the empirical literature. *Trauma, Violence, and Abuse*. 2005; 6:103–129.
- Cloitre M, Koenen K, Cohen L, Han H. Skills training plus exposure therapy may reduce post traumatic stress in women who experienced childhood sexual abuse. *Journal of Consulting and Clinical Psychology*. 2002; 70:1067–1074. [PubMed: 12362957]
- Cloitre M, Miranda R, Stovall-McClough KC, Han H. Beyond PTSD: Emotion regulation and interpersonal problems as predictors of functional impairment in survivors of childhood abuse. *Behavior Therapy*. 2005; 36:119–124.
- Cloitre M, Scarvalone P, Difede J. Posttraumatic stress disorder, self-and interpersonal dysfunction among sexually retraumatized women. *Journal of Traumatic Stress*. 1997; 10:437–452. [PubMed: 9246651]
- Cloitre M, Tardiff K, Marzuk PM, Leon AC, Portera L. Childhood abuse and subsequent sexual assault among female inpatients. *Journal of Traumatic Stress*. 1996; 9:473–482. [PubMed: 8827650]
- Cole PM, Michel MK, Teti LO. The development of emotion regulation and dysregulation: A clinical perspective. *Monographs of the Society for Research in Child Development*. 1994; 59:73–100. [PubMed: 7984169]
- DeHart DD. Impact of victimization in the lives of incarcerated women. *Violence Against Women*. 2008; 14:1362–1381. [PubMed: 19008544]

- Desai S, Arias I, Thompson MP, Basile KC. Childhood victimization and subsequent revictimization assessed in a nationally representative sample of women and men. *Violence and Victims*. 2002; 17:639–653. [PubMed: 12680680]
- Diamond LM, Aspinwall LG. Emotion regulation across the lifespan: Commentary and directions for future research. *Motivation and Emotion*. 2003; 27:125–156.
- Eisenberg N, Cumberland A, Spinard TL. Parental socialization of emotion. *Psychological Inquiry*. 1998; 9:241–273. [PubMed: 16865170]
- Feldman Barrett L, Gross J, Christensen TC, Benvenuto M. Knowing what you're feeling and knowing what to do about it: Mapping the relation between emotion differentiation and emotion regulation. *Cognition and Emotion*. 2001; 15:713–724.
- Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine*. 1998; 14:245–258. [PubMed: 9635069]
- Filipas HH, Ullman SE. Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. *Journal of Interpersonal Violence*. 2006; 21:652–672. [PubMed: 16574638]
- Finkelhor D, Ormrod RK, Turner HA. Polyvictimization and trauma in a national longitudinal cohort. *Development and Psychopathology*. 2007; 19:149–166. [PubMed: 17241488]
- Follette VM, Polusny MA, Bechtle AE, Naugle AE. Cumulative trauma: The impact of child sexual abuse, adult sexual assault, and spouse abuse. *Journal of Traumatic Stress*. 2006; 9:25–35. [PubMed: 8750449]
- Fox HC, Hong KA, Sinha R. Difficulties in emotion regulation and impulse control in recently abstinent alcoholics compared with social drinkers. *Addictive Behaviors*. 2008; 33:388–394. [PubMed: 18023295]
- Gratz KL, Bornova MA, Delaney-Brumsey A, Nick B, Lejuez CW. A laboratory based study of the relationship between childhood abuse and experiential avoidance among inner-city substance abusers: The role of emotional nonacceptance. *Behavior Therapy*. 2007; 38:256–268. [PubMed: 17697851]
- Gratz KL, Roemer L. Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*. 2004; 26:41–54.
- Grayson CE, Nolen-Hoeksema S. Motives to drink as mediators between childhood sexual assault and alcohol problems in adult women. *Journal of Traumatic Stress*. 2005; 18:137–145. [PubMed: 16281206]
- Green BL, Miranda J, Daroowalla A, Siddique J. Trauma exposure, mental health functioning, and program needs of women in jail. *Crime and Delinquency*. 2005; 51:133–151.
- Gross JJ. Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*. 1998; 74:224–237. [PubMed: 9457784]
- Gross JJ, John OP. Individual differences in two emotion regulation processes: Implications for affect, relationships and well-being. *Journal of Personality and Social Psychology*. 2003; 85:348–362. [PubMed: 12916575]
- Gross JJ, Munoz RF. Emotion regulation and mental health. *Clinical Psychology: Science and Practice*. 1995; 2:151–164.
- Gross, JJ.; Thompson, RA. Emotion regulation: Conceptual foundations. In: Gross, JJ., editor. *Handbook of emotion regulation*. New York: Guilford Press; 2007. p. 3-24.
- Himelein MJ. Risk factors for sexual victimization in dating: A longitudinal study of college women. *Psychology of Women Quarterly*. 1995; 19:31–48.
- Koss MP, Abbey A, Campbell R, Cook S, Norris J, Testa M, Ullman S, West C, White J. Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*. 2007; 31:357–370.
- Lake ES. An exploration of the violent victim experiences of female offenders. *Violence and Victims*. 1993; 8:41–51. [PubMed: 8292564]

- Lejuez CW, Kahler CW, Brown RA. A modified computer version of the Paced Auditory Serial Addition Task (PASAT) as a laboratory-based stressor: Implications for behavioral assessment. *Behavior Therapist*. 2003; 26:290–292.
- Litz BT, Gray MJ. Emotional numbing in posttraumatic stress disorder: Current and future research directions. *Australian and New Zealand Journal of Psychiatry*. 2002; 36:198–204. [PubMed: 11982540]
- Marx BP, Heidt JM, Gold SD. Perceived uncontrollability and unpredictability, self-regulation, and sexual revictimization. *Review of General Psychology*. 2005; 9:67–90.
- Messina N, Burdon W, Hagopian G, Prendergast M. Predictors of prison-based treatment outcomes: A comparison of men and women participants. *The American Journal of Drug and Alcohol Abuse*. 2006; 32:7–28. [PubMed: 16450640]
- Messman-Moore TL, Brown AL. Child maltreatment and perceived family environment as risk factors for adult rape: Is child sexual abuse the most salient experience? *Child Abuse and Neglect*. 2004; 28:1019–1034. [PubMed: 15519433]
- Messman-Moore TL, Long PJ. The role of childhood sexual abuse sequelae in the sexual revictimization of women: An empirical review and theoretical reformulation. *Clinical Psychology Review*. 2003; 23:537–571. [PubMed: 12788109]
- Morris AS, Silk JS, Steinberg L, Myers SS, Robinson LR. The role of the family context in the development of emotion regulation. *Social Development*. 2007; 16:361–388. [PubMed: 19756175]
- Orcutt HK, Cooper ML, Garcia M. Use of sexual intercourse to reduce negative affect as a prospective mediator of sexual revictimization. *Journal of Traumatic Stress*. 2005; 18:729–739. [PubMed: 16382425]
- Polusny MA, Follette VM. Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied and Preventive Psychology*. 1995; 4:143–166.
- Price JL, Monson CM, Callahan K, Rodriguez BF. The role of emotional functioning in military-related PTSD and its treatment. *Anxiety Disorders*. 2006; 20:661–674.
- Richards JM, Butler E, Gross JJ. Emotion regulation in romantic relationships: The cognitive consequences of concealing feelings. *Journal of Personal and Social Relationships*. 2003; 20:599–620.
- Risser HJ, Hetzel-Riggin MD, Thompsen CJ, McCanne TR. PTSD as a mediator of sexual revictimization: The role of reexperiencing, avoidance, and arousal symptoms. *Journal of Traumatic Stress*. 2006; 19:687–698. [PubMed: 17075896]
- Roodman AA, Clum GA. Revictimization rates and method variance: A meta-analysis. *Clinical Psychology Review*. 2001; 21:183–204. [PubMed: 11293365]
- Rosenthal MZ, Rasmussen Hall MA, Palm KM, Batten SV, Follette VM. Chronic avoidance helps explain the relationship between severity of childhood sexual abuse and psychological distress in adulthood. *Journal of Child Sexual Abuse*. 2005; 4:25–41. [PubMed: 16354647]
- Runyon MK, Kenny MC. Relationship of attributional style, depression, and posttrauma distress among children who suffered physical or sexual abuse. *Child Maltreatment*. 2002; 7:254–264. [PubMed: 12139192]
- Saunders BE, Kilpatrick DG, Hanson RF, Resnick HS, Walker ME. Prevalence, case characteristics, and long-term psychological correlates of child rape among women: A national survey. *Child Maltreatment*. 1999; 4:187–200.
- Scher CD, Stein MB, Asmundson GJG, McCreary DR, Forde DR. The Childhood Trauma Questionnaire in a community sample: Psychometric properties and normative data. *Journal of Traumatic Stress*. 2001; 14:843–857. [PubMed: 11776429]
- Shields A, Cicchetti D. Parental maltreatment and emotion dysregulation as risk factors for bullying and victimization in middle childhood. *Journal of Consulting and Clinical Psychology*. 1998; 30:349–363.
- Shipman K, Edwards A, Brown A, Swisher L, Jennings E. Managing emotion in a maltreating context: A pilot study examining child neglect. *Child Abuse and Neglect*. 2005; 29:1015–1029. [PubMed: 16159666]

- Shipman K, Schneider R, Fitzgerald M, Sims C, Swisher L, Edwards A. Maternal emotion socialization in maltreating and nonmaltreating families: Implications for children's emotion regulation. *Social Development*. 2007; 16:268–285.
- Thompson, RA.; Meyer, S. Socialization of emotion regulation in the family. In: Gross, JJ., editor. *Handbook of emotion regulation*. New York: Guilford Press; 2007. p. 249-268.
- Tull MT, Barrett HM, McMillan ES, Roemer L. A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. *Behavior Therapy*. 2007; 38:303–313. [PubMed: 17697854]
- Tull MT, Jakupcak M, McFadden ME, Roemer L. The role of negative affect intensity and the fear of emotions in posttraumatic stress symptom severity among victims of childhood interpersonal violence. *Journal of Nervous and Mental Disease*. 2007; 195:580–587. [PubMed: 17632248]
- Zeitlin SB, McNally RJ, Cassiday KL. Alexithymia in victims of sexual assault: An effect of repeated traumatization. *American Journal of Psychiatry*. 1993; 150:661–663. [PubMed: 8465889]

Table 1

Sample Demographic Characteristics

| | <i>n</i> | Percent of sample |
|----------------------------------|----------|-------------------|
| Ethnicity | | |
| European-American/white | 109 | 69.0 % |
| African-American/black | 22 | 13.9 % |
| American Indian/Alaskan Native | 13 | 8.2 % |
| Latino/Hispanic | 4 | 2.5 % |
| Native Hawaiian/Pacific Islander | 1 | 0.6 % |
| Other | 11 | 5.7 % |
| Marital Status | | |
| Single | 68 | 42.5 % |
| Married | 31 | 19.4 % |
| Divorced | 52 | 32.5 % |
| Widowed | 5 | 3.1 % |
| Separated | 4 | 2.5 % |
| Education Completed | | |
| Less than High School | 34 | 21.3% |
| High school diploma | 12 | 7.5% |
| GED | 35 | 21.9% |
| Some college | 68 | 42.5% |
| College graduate | 11 | 6.9% |

Table 2

Means (Standard Deviations) and Significance Tests for Emotion Regulation Reported by Non-victimimized, Child Maltreated, Raped, and Revictimized Women

| | Non-CSA (n = 49) | CSA (n = 22) | Rape/No CSA (n = 30) | Revictimized (n = 59) | Fisher's LSD | ANOVA F (p) |
|---------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------|-------------|
| DERS total | 69.57 (22.14) ^a | 65.81 (21.87) ^a | 70.70 (17.52) ^a | 82.61 (32.21) ^b | 11.3 | 3.70 (.013) |
| Nonacceptance | 11.55 (4.45) ^a | 10.05 (3.58) ^a | 11.33 (4.30) ^a | 14.34 (6.95) ^b | 2.4 | 4.71 (.004) |
| Goals | 11.45 (4.70) | 10.76 (4.81) | 11.93 (3.95) | 13.22 (5.94) | 2.2 | 1.75 (.159) |
| Impulse | 11.13 (4.53) | 10.29 (4.27) | 9.77 (3.50) ^a | 12.61 (6.22) ^b | 2.2 | 2.61 (.050) |
| Awareness | 12.09 (4.32) ^a | 11.81 (3.53) ^a | 13.97 (5.37) | 14.46 (6.09) ^b | 2.3 | 2.81 (.042) |
| Strategies | 14.74 (6.31) | 15.14 (7.34) | 15.01 (4.87) | 17.44 (7.64) | 3.0 | 1.85 (.140) |
| Clarity | 8.62 (3.47) ^a | 7.76 (2.83) ^a | 8.67 (2.44) ^a | 10.54 (5.09) ^b | 1.7 | 3.70 (.014) |

Note. Total N = 160. Follow-up analyses were conducted using LSD. Row means with different alphabetic superscripts are significantly different (at $p < .05$ using Fisher's LSD); conversely, means with the same superscripts are not significantly different. DERS = Difficulties in Emotion Regulation Scale; Nonacceptance = Emotional nonacceptance, Goals = Difficulties engaging in goal-directed behavior while upset, Impulse = Emotional impulsivity, Aware = Emotional awareness, Strategies = Access to emotion regulation strategies, Clarity = Emotional clarity.