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## Child Maltreatment Histories Among Female Inmate Reporting Inmate on Inmate Sexual Victimization in Prison: The Mediating Role of Emotion Dysregulation

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### Abstract

Despite data indicating that child maltreatment (CM) in various forms is associated with adult sexual victimization among community women, few studies have explicitly explored how types of CM might relate to prison sexual victimization. Because little is known about *how* CM might give rise to prison sexual victimization, the present study also examined emotion dysregulation emanating from early abuse experiences as a potential mediator in the link between early CM and inmate-on-inmate prison sexual victimization. Approximately 168 incarcerated women completed self-report inventories assessing various types of childhood maltreatment, emotion dysregulation, and coerced or forced sexual experiences in prison. Nearly 77% of the sample endorsed experiencing at least one form of CM, with 64% of inmates reporting that they experienced two or more forms of CM. Approximately 9% of inmates reported sexual coercion and 22% reported a forced sexual experience in prison. Each form of CM was associated with prison sexual coercion; however, fewer associations emerged between CM and forced prison sexual experiences. Emotion dysregulation was found to mediate links between CM, particularly co-occurring CM, and sexual coercion in prison, but it was unrelated to forced prison sexual experiences. Implications are discussed.

### Keywords

prison rape; childhood maltreatment; sexual coercion; emotion dysregulation

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Prison sexual victimization, defined here as unwanted sexual contact experienced while incarcerated, has been linked to myriad negative sequelae including depression, posttraumatic stress disorder, substance abuse, suicidal ideation and attempts, and sexually transmitted diseases (Daniel & Fleming, 2005; Struckman-Johnson & Struckman-Johnson, 2006). Heightened concern regarding these consequences led to the implementation of the Prison Rape Elimination Act (PREA) of 2003 to facilitate the identification and prevention of sexual assault in prisons and jails. Although approximately 6,500 allegations of prison

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sexual violence were reported by correctional authorities in 2006 (Beck, Harrison, & Adams, 2007), prevention efforts have been stymied by the dearth of knowledge regarding correlates of sexual victimization in prison. Moreover, despite statistics suggesting that women comprise nearly 18% of the victims in substantiated prison sexual violence cases (Beck et al., 2007), most peer-reviewed studies on prison rape have focused on male inmates. The few studies that have examined this topic among women have utilized small samples and focus mostly on sexual victimization prevalence rates without exploring inmate characteristics associated with prison sexual victimization (Hensley, Castle, & Tewksbury, 2003; Struckman-Johnson & Struckman-Johnson, 2002, 2006; Struckman-Johnson, Struckman-Johnson, Rucker, Bumby, & Donaldson, 1996).

Studies that have focused on sexual victimization among female inmates reveal that rates of unwanted prison sexual experiences range from 4% to 27% with genital touching comprising the most commonly reported form of unwanted sexual contact (Hensley et al., 2003; Struckman-Johnson & Struckman-Johnson, 2002). Approximately 30% of unwanted prison sexual experiences reported by female inmates can be classified as rape, and inmates comprise 47% of the perpetrators in these incidents while staff comprise 41% of perpetrators (Struckman-Johnson & Struckman-Johnson, 2006). A recent report on prison victimization experiences suggests that female inmates (4.1%) are twice as likely as male inmates (1.9%) to report experiencing inmate-on-inmate sexual victimization (Beck, Harrison, Berzofsky, Caspar, & Krebs, 2010). Furthermore, the majority of sexual assaults among female inmates tend to be coercive (e.g., verbal pleading or threatening) versus forced (e.g., held down) in nature (Hensley et al., 2003). Despite indications that a number of female inmates may experience prison sexual assault and its harmful consequences, few studies focus on risk factors for prison victimization among women. This gap in the literature represents an oversight that may hinder the development of prevention and intervention programs for female inmates needing psychological services. Thus, elucidating predictors of prison sexual assault may improve awareness of potential intervention targets.

Sexual victimization prior to incarceration has been identified as a critical risk factor for prison assault (Beck et al., 2010). Similarly, the community sexual victimization literature cites a history of childhood maltreatment (CM), particularly sexual abuse, as a robust risk factor for adult sexual victimization, a phenomenon termed “revictimization” (Arata, 2002; Classen, Palesh, & Aggarwal, 2005). Meta-analyses reveal a robust effect size of .59 for revictimization and this effect size is increased when more severe forms of sexual abuse (e.g., rape) are considered (Roodman & Clum, 2001). Early sexual abuse may be associated with adult revictimization by shaping sexual beliefs and behaviors in developmentally inappropriate ways (Briere & Runtz, 1990). Approximately 50% of female inmates report child sexual abuse (CSA; McDaniels-Wilson & Belknap, 2008; Walsh, DiLillo, & Scalora, 2011), and 70% of those reporting CSA also report community revictimization prior to incarceration (Walsh et al., 2011). High prior victimization rates among incarcerated women are concerning because they have been linked to adjustment difficulties including heightened substance abuse, violence, self-injury, and suicide (Browne, Miller, & Maguin, 1999; for review see Heney & Kristiansen, 1997; Messina, Burdon, Hagopian, & Prendergast, 2006; Mullings, Hartley, & Marquart, 2004). Despite indications that early sexual abuse might also predict sexual victimization while incarcerated, relatively few studies have examined whether early sexual abuse is associated with revictimization in prison.

In addition to early sexual abuse, there is mounting evidence that other forms of CM, including physical abuse and neglect as well as emotional abuse and neglect, also are associated with sexual victimization during adulthood (Cloitre, Tardiff, Marzuk, Leon, & Portera, 1996; Messman-Moore & Brown, 2004). For example, physical abuse has been

independently linked to adult sexual victimization, among community (Desai, Arias, Thompson, & Basile, 2002) and clinical (Cloitre et al., 1996) samples. Furthermore, women reporting multiple abuse types (e.g., both childhood sexual and physical abuse) have been shown to be at greater risk for adult sexual victimization when compared to women reporting just one form of abuse (Cloitre et al., 1996; Messman-Moore & Brown, 2004). CM types often co-occur and have been shown to have a cumulative negative impact on psychological functioning (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007). Thus, it is possible that experiencing multiple forms of CM also may heighten risk for prison sexual victimization.

If CM is associated with an increased likelihood of experiencing prison sexual victimization, a next logical question might concern *how* early abuse gives rise to risk for such victimization. One possibility is that emotion dysregulation emanating from early abuse experiences might increase risk for sexual victimization. Emotion dysregulation, which is a multifaceted construct reflecting difficulties identifying, experiencing, and modulating emotional experiences (Gratz & Roemer, 2004), has emerged as a correlate of a host of clinical disorders including depression and posttraumatic stress disorder (Gross & Munoz, 1995; Tull, Barrett, McMillan, & Roemer, 2007). Early abuse has been shown to disrupt the development of adaptive emotion regulation abilities (Shields & Cicchetti, 1998; Shipman, Edwards, Brown, Swisher, & Jennings, 2005), and these difficulties are thought to extend into adulthood (Polusny & Follette, 1995). Women who have difficulty regulating unpleasant internal emotions may be so depleted in the face of negative emotions that they have few resources available to identify environmental risk cues (e.g., another inmate's attempts to isolate) and engage in assertive (e.g., saying no) or escape-focused behavior (e.g., leaving the room, requesting assistance from staff). This emotional depletion may be compounded by perceptions of few options for escape and little free will to refuse sexual advances without fear of repercussions. In prison environments, these factors may be particularly salient as potential victims have little opportunity to avoid or escape potential perpetrators due to close living quarters. Furthermore, help seeking may be informally discouraged if inmates who seek assistance from staff are identified as "snitches" who are subjected to enduring repercussions from other inmates. Beyond these explanations, poor emotion regulation may increase sexual victimization risk among female inmates by making potential targets more obvious to perpetrators. Described by Kluff (1990) as sitting duck syndrome, women with difficulties regulating emotions may be visibly distressed, confused, and disoriented and thus may appear more vulnerable to potential perpetrators.

Although these hypotheses have not been tested to date, empirical research among community samples suggests that women reporting greater alexithymia (inability to identify and label emotional experiences) tend to have higher rates of sexual revictimization (Cloitre, Scarvalone, & Difede, 1997; Zeitlin, McNally, & Cassidy, 1993). Furthermore, inmates reporting sexual revictimization in the community endorse greater difficulties with emotion regulation when compared to singly victimized and nonvictimized women (Walsh et al., 2011). Victimization may contribute to feelings of helplessness in the face of danger and prevent victims from seeking protection (Owen, Wells, Pollock, Muscat & Torres, 2008). The effects of prior abuse coupled with social messages that threats and acts of victimization are inescapable parts of prison life increase risk of additional exploitation (Owen et al., 2008). Despite indications that emotion dysregulation might play a role in prison sexual victimization, no studies to date have examined whether emotion dysregulation is a mechanism through which early abuse leads to prison sexual victimization among incarcerated women.

One objective of the present study was to examine associations between childhood maltreatment experiences and inmate-perpetrated prison sexual victimization. Because

research has shown that the risk factors for and consequences of verbally coerced (e.g., using verbal pleas or threats to engage in sexual behavior) and physically forced (e.g., holding down to engage in sexual behavior; threats of physical violence) forms of victimization may differ (Brown, Testa, & Messman-Moore, 2009), both coerced and forced experiences were examined here. Distinguishing between the tactics used to engage in unwanted sexual behavior may be particularly important in guiding prevention strategies for inmate-perpetrated victimization in prisons. Based on past literature (e.g., Cloitre et al., 1996), it was expected that sexual, physical, and emotional abuse would be independently associated with prison sexual victimization in the form of coerced and forced experiences. Meta-analyses demonstrating that effect sizes for revictimization are increased when more severe forms of victimization are considered (Roodman & Clum, 2001) suggest that we may observe stronger links between various forms of CM and forced rape rather than coerced assault in prison. Because there are no data from which to formulate hypotheses, associations between physical and emotional neglect and both forms of prison victimization were explored in the present study. Studies revealing links between the cumulative impact of multiple types of maltreatment on adult trauma symptoms (Clemmons et al., 2007) lend support for the hypothesis that cumulative CM also may predict increased prison sexual victimization. Thus, it also was hypothesized that experiencing multiple types of CM would be associated with increased likelihood of prison sexual coercion and force. A second objective of the present study was to examine emotion dysregulation as a possible mechanism linking CM to prison sexual victimization. Greater emotion dysregulation was expected to mediate links between each CM type as well as cumulative CM and prison sexual pressure and force.

## Method

### Participants

Participants were 168 female prisoners recruited from a correctional facility in a Midwestern state. Nearly 50% of inmates housed at the facility volunteered for the study. Mean age of participants was 35.4 ( $SD = 9.3$ ) years and mean length of incarceration was 2.2 ( $SD = 3.56$ ) years. The sample was predominantly European American (68.5%), single (42.9%), and nearly 78% had completed high school or beyond.

### Measures

**Childhood Trauma Questionnaire (CTQ)**—The CTQ is a 28-item questionnaire assessing retrospective reports of five types (sexual, emotional, and physical abuse, and physical and emotional neglect) of childhood maltreatment (including sexual abuse) on a scale from 1 (*never true*) to 5 (*very often true*; Bernstein & Fink, 1998). Responses to the CTQ are summed, with higher scores indicating greater levels of maltreatment. Sexual victimization prior to incarceration has been identified as a critical risk factor for prison assault (Beck et al., 2010). Similarly, the mild to moderate cutoffs for each subscale, which are 6 or higher for sexual abuse, 8 or higher for physical abuse, 9 or higher for emotional abuse, 10 or higher for emotional neglect, and 8 or higher for physical neglect, were used here. Several investigations attest to the reliability and validity of this measure (Bernstein et al., 2003). In the current study, internal consistency coefficients were .97 for sexual abuse, .90 for physical abuse, .90 for emotional abuse, .82 for physical neglect, and .92 for emotional neglect. Using the dichotomous victim status variables (scored 0 for absent or 1 for present), a cumulative victimization variable (CTQc) was created by summing each type of abuse to yield a possible score that ranged from 0 to 5 to reflect the number of different abuse types each participant reported experiencing.

**Institutional Victimization Questionnaire**—A behaviorally specific survey of unwanted institutional sexual experiences was created based on the Sexual Experiences Survey (SES-R; Koss et al., 2007). Participants indicated whether they experienced a particular form of sexual contact (including kissing, fondling, oral sex, and penetration) against their will, and if so, tactics used (verbal coercion, threats of physical force, physical force), the number of times it happened (ranging from 0 to 4 or more), the number of different inmate perpetrators involved, where it occurred, and whether it was reported to staff. Inmates were considered to have experienced coerced sexual assault in prison if they reported being verbally pressured (e.g., threats of getting into trouble) into engaging in sexual touching or oral, vaginal, or anal sex. Inmates were considered victims of forced sexual assault if they reported that violence or threats of physical violence were used to facilitate engagement in sexual touching or oral, vaginal, or anal sex. This measure yielded two dichotomous variables (scored 0 for no and 1 for yes) reflecting whether an inmate reported coerced or forced sexual victimization in prison. These scores were used as dependent variables.

**Difficulties in Emotion Regulation Scale (DERS)**—The DERS is a 36-item self-report instrument that assesses overall emotion dysregulation as well as six factor-analytically derived facets of emotion regulation: nonacceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity (Gratz & Roemer, 2004). Because we had no hypotheses about specific facets of emotion dysregulation that might be linked to prison sexual victimization, only the total score was used here. Participants respond to items on a 5-point scale anchored from 1 (*almost never*) to 5 (*almost always*), with higher scores reflecting greater difficulties with emotion regulation. The DERS has good internal consistency ( $\alpha = .93$ ) and a test-retest coefficient of .88 (Gratz & Roemer). In the current sample, the internal consistency coefficient was .96.

## Procedures

Data for the present study were part of a larger investigation of sexually coercive experiences within the prison environment. After obtaining approval from the university Institutional Review Board and the Department of Corrections research review board, 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 15 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, US\$5 was credited to each participant’s inmate account. University researchers, unaffiliated with the prison, supervised all data collection sessions and handled the raw data. Inmates were instructed to covertly request a mental health appointment after completing the study questionnaires if they wished to discuss their experiences or feelings.



## Results

### Descriptive Information

**Childhood maltreatment**—Victim status was determined using the moderate cutoffs described in the CTQ manual. Approximately 50% ( $n = 84$ ) women reported a history of childhood sexual abuse, 48.2% ( $n = 81$ ) reported a history of child physical abuse, 54.2% ( $n = 91$ ) reported a history of emotional abuse, 38.7% ( $n = 65$ ) reported a history of physical neglect, and 47.6% ( $n = 80$ ) reported a history of emotional neglect. The mean maltreatment scores for victims of each type of maltreatment were 16.99 ( $SD = 6.6$ ) for sexual abuse, 14.67 ( $SD = 5.19$ ) for physical abuse, 15.63 ( $SD = 4.63$ ) for emotional abuse, 12.66 ( $SD = 3.84$ ) for physical neglect, and 16.04 ( $SD = 4.11$ ) for emotional neglect. Across each subscale, the mean scores fall within the moderate to severe range of maltreatment according to the CTQ authors (Bernstein & Fink, 1998). For cumulative victimization, 13.1% of the sample ( $n = 22$ ) reported experiencing only one form of CM, 17.9% ( $n = 30$ ) experienced two types of CM, 12.5% ( $n = 21$ ) experienced three types of CM, 14.3% ( $n = 24$ ) experienced four types of CM, and 19% ( $n = 32$ ) experienced all five types of CM. Approximately 23% ( $n = 39$ ) did not report experiencing any CM.

Approximately 64% ( $n = 107$ ) of the total sample had experienced two or more types of CM. The most frequently reported combination of abuse types included all five types (19% of the total sample,  $n = 32$ ) followed by all abuse types except physical neglect (5.4% of the total sample,  $n = 9$ ) and all abuse types except sexual abuse (4.8% of the total sample,  $n = 8$ ). Of the more than two dozen other possible combinations of abuse types, approximately 3% or less of the sample reported each combination.

**Prison sexual victimization**—Approximately 9.5% ( $n = 16$ ) reported being coerced to engage in sexual behavior with another inmate. Of those 16 inmates, 12.5% ( $n = 2$ ) reported engaging in unwanted sexual contact to obtain protection in the prison environment. Approximately 69% ( $n = 11$ ) of the coerced sexual assault victims reported that their breasts or genitals were touched, 25% ( $n = 4$ ) reported receiving oral sex, 12.5% ( $n = 2$ ) reported giving oral sex, and 19% ( $n = 3$ ) reported penetration of her vagina or anus. Approximately 24.2% ( $n = 40$ ) reported a forced sexual experience during the current incarceration. Of those reporting forced sexual experiences, approximately 95% ( $n = 35$ ) indicated that their breasts or genitals were touched against their will, 51.4% ( $n = 19$ ) reported being forced to receive oral sex, 5.4% ( $n = 2$ ) reported being forced to perform oral sex, and 32.4% ( $n = 12$ ) reported forced penetration of their vagina or anus (including the use of objects). Approximately 35% ( $n = 13$ ) of the forced assault victims also reported prison sexual coercion.

**Emotion dysregulation**—The DERS total score was 74.0 ( $SD = 26.13$ ), which is comparable to mean scores observed in undergraduate samples (Gratz & Roemer, 2004).

### Bivariate Associations Between Childhood Maltreatment Types, Emotion Dysregulation, and Prison Sexual Force and Coercion

Table 1 depicts the correlations between the continuous subscale scores of the CTQ, the additive CTQc score reflecting the number of abuse types the individual reported, and the dichotomous force and coercion variables (scored 0 if they did not endorse coercion or forced assault in prison and scored 1 if they did endorse coercion or forced assault in prison). The CTQ subscales and CTQc were highly correlated, which is expected given that subscales and total scores are often highly correlated. Contrary to expectations, low-level associations emerged between the CTQ subscales, CTQc, and both coerced and forced

prison sexual victimization. Moderate associations also emerged between the CTQ subscales, CTQc, and emotion regulation, while lower level associations emerged between the CTQ subscales, CTQc, emotion dysregulation, and prison coercion. Interestingly, few associations emerged between the CTQ subscale scores, CTQc, emotion dysregulation, and forced assault in prison.

## Emotion Dysregulation as a Mediator Between Childhood Maltreatment Types and Prison Sexual Coercion and Force

A series of logistic regression analyses were conducted in Mplus version 5.0 (Muthen & Muthen, 2008) to examine whether emotion dysregulation mediates links between various types of childhood maltreatment and prison sexual coercion and force (Table 2). Separate models were examined to explore the relationship between each form of CM as well as the cumulative CTQc variable and both forms of prison sexual victimization (coercion and force). Consistent with MacKinnon, Lockwood, and Hoffman's (1998) product of coefficients framework, analyses were conducted in two steps: (a) direct models, indicated by  $\tau$ , were analyzed to assess the relationship between each form of CM and coercion or force, and (b) indirect models, indicated by  $\alpha$ ,  $\beta$ , and  $\tau'$ , were analyzed to assess the relationship between CM and coercion or force in the presence of the DERS total. Mediation was established if the indirect effect (i.e., the product of coefficients  $\alpha$  and  $\beta$ ) estimated in Mplus was significant. To further distinguish between full and partial mediation, full mediation was established if the paths  $\alpha$  and  $\beta$  were significant (noted by asterisks in the table) and  $\tau'$  was reduced to nonsignificance when the mediator was included. Partial mediation was established if  $\tau'$  was reduced but remained significant in the presence of the mediator. If a significant direct relationship,  $\tau$ , was not established, the second step of the mediational analyses was not evaluated.

Testing the first hypothesis that CM would be significantly associated with force and coercion in prison, significant direct associations were established between every form of childhood maltreatment as well as the cumulative CTQ variable and prison sexual coercion. Furthermore, emotion dysregulation fully mediated each of these relationships as indicated by a significant indirect effect (product of coefficients term) and a nonsignificant  $\tau'$  with significant paths  $\alpha$  and  $\beta$ . Only two forms of CM, emotional abuse and physical neglect, were associated with forced sexual experiences in prison. Furthermore, emotion dysregulation was not associated with forced sexual experiences in prison (i.e., path  $\beta$  was nonsignificant) and thus did not mediate links between CM and forced sexual experiences in prison.

## Discussion

The purpose of this study was to examine child maltreatment (CM) history and emotion dysregulation as predictors of coerced and forced prison sexual victimization among female inmates. Approximately 77% of the sample had experienced some form of CM, and for individual forms of CM, rates of each type of abuse centered around 50%. Approximately 64% of inmates had experienced two or more types of CM and the most frequently reported combination of abuse types included all five types (19%,  $n = 32$ ). These high rates of CM, particularly co-occurring CM, corroborate past research highlighting significant overlap between abuse types (Clemmons et al., 2007) and suggest that the co-occurrence of abuse types should be an important focus of future research with this population.

Approximately 9% of inmates reported prison sexual coercion and 22% reported a forced sexual assault in prison, which is comparable to rates reported in past research with female inmates (Struckman-Johnson & Struckman-Johnson, 2002). Furthermore, 35% of the forced



assault victims also reported prison sexual coercion, suggesting significant overlap in prison victimization experiences. An analysis of relevant demographic characteristics (e.g., age and length of incarceration) revealed no significant differences between the two types of victims; however, both forced and coerced victims were likely to be younger (~31 years of age) than nonvictims (~36 years of age), and both types of victims were likely to have been incarcerated longer (~3.5 years) when compared to nonvictims (~2 years).

Results partially supported the first hypothesis in that each form of CM was independently linked to coerced sexual experiences in prison. It appears that any experience of CM, not just sexual abuse, may increase the likelihood of experiencing sexual coercion in prison. It is possible that CM victims experience greater levels of negative affect in response to unpredictable and uncontrollable abuse experiences (Marx, Heidt, & Gold, 2005). Inadequate guidance in and limited opportunities to learn about appropriate expression of negative emotions (Wenzlaff & Eisenberg, 1998) may translate into outwardly apparent signs of emotional distress similar to the “sitting duck syndrome” described by Klufft (1990). Indeed, CSA survivors demonstrate less positive facial emotions and more shame and disgust facial emotions (Bonanno et al., 2002). Perpetrators may conclude that these women are feeling overwhelmed by negative emotion and capitalize on these signs of distress by using verbal pressure to coerce them into sexual activity.

Contrary to expectations and past research (e.g., Cloitre et al., 1997; Messman-Moore & Brown, 2004), few associations emerged between CM and forced prison sexual experiences. In the prison environment, forced assault may occur when contextual factors, such as perceived opportunity or lack of supervision, align to enable a perpetrator to overpower a victim, whereas coerced assault may be more dependent on victim psychological or emotional vulnerabilities. The only exceptions that emerged were low-level associations between emotional abuse and physical neglect and forced sexual experiences in prison. Interestingly, incarcerated women with early emotional abuse and physical neglect experiences appear to have greater difficulty warding off both coerced and forced experiences in prison, suggesting that long-term outcomes of neglect may warrant further study with this population. This recommendation for further study is buttressed by findings that approximately 65% of abuse cases substantiated from Child Protective Services involved neglect (Dubowitz et al., 2005). Thus, not only is neglect highly prevalent, but this study and the work of others (e.g., Widom, White, Czaja, & Marmorstein, 2007) highlight links to long-term detrimental outcomes.

Contrary to expectations, women were more likely to report forced (vs. coerced) assaults, which may reflect the items used to assess each form of victimization. For example, in the present study, inmates were asked whether they had engaged in sexual touching, oral, vaginal, or anal sex due to sexual pressuring, threats of getting in trouble, or for promises of “protection” in the institution. These questions may need to be expanded to include other coercive tactics including continual arguments or threats to end a relationship. The communal culture and social system in female prisons tends to promote the development of “pseudo families” (Ward & Kassebaum, 2009), and the fear or actual loss of these relationships may be concerning enough to encourage women to engage in unwanted sexual behaviors to “keep the peace.” For forced assaults, in contrast, the items may have been broad enough to capture the full range of experiences by asking about threats of physical force, actually being held down or harmed in some way to engage in sexual behavior. Partially consistent with the second hypothesis, inmates reporting multiple forms of CM also report greater incidence of coerced, but not forced, sexual experiences in prison. In contrast to work with community women (Classen et al., 2005), these findings suggest that CM may be a more salient precursor to coerced (vs. forced) sexual experiences in prison.

Finally, consistent with the third hypothesis, emotion dysregulation was found to mediate links between each form of CM as well as cumulative CM and coerced sexual experiences in prison. In abusive families, children's negative emotions are often rejected, punished, or ignored by caregivers (Paivio & McCulloch, 2004). These invalidating or dismissive parental responses to emotion (e.g., punitive reactions, minimization, and distress reactions) may teach children maladaptive ways of coping with negative emotions (Jones, Eisenberg, & Fabes, 2002). Furthermore, in many cases, caregivers who are often responsible for socializing the adaptive regulation of emotions through modeling may be the individuals perpetrating the abuse, leaving victims with few opportunities to learn adaptive strategies to ameliorate negative emotions. When faced with a coercive encounter in prison, women may be so focused on managing negative emotions that they fail to respond assertively and take action to avoid the unwanted sexual experience.

Overall, results from this study suggest that individual types of CM as well as the experience of multiple co-occurring types of CM are associated with coerced, but not forced, sexual experiences in prison. Furthermore, difficulty regulating emotions mediated the relationships between every type of CM as well as cumulative CM and coerced sexual experiences in prison suggesting that inmates with maltreatment histories, particularly co-occurring maltreatment histories, may not develop adaptive emotion regulation abilities. Problems managing negative emotional states, in turn, may increase vulnerability to prison victimization, perhaps by decreasing awareness of environmental signs of impending danger or increasing outward signs of vulnerability to perpetrators. Emotion dysregulation may not be as relevant to forced assault experiences where the opportunity to overpower the victim may be a more important predictor of forced assault. Risk factors examined in the present study were largely unrelated to forced victimization, limiting our ability to shed light on risk factors for forced victimization. Therefore, it may be important for future research to consider other possible precursors to forced victimization in female prisons. Importantly, however, female-on-female sexual victimization has rarely been the focus of past research; thus, this study contributes important information to the sexual victimization literature by shedding light on correlates of an understudied phenomenon in a high-risk sample of women.

Despite the novel contribution of this study, some limitations should be noted. Although results from the study support the suggested temporal sequencing of the proposed variables, conclusions about causal relationships between these variables are limited because data were collected at a single time point. In addition, because victimization experiences were assessed via retrospective self-report questionnaires, responses may have been biased by inaccurate recall, overreporting, or underreporting. Longitudinal studies that follow individuals throughout their lives as well as studies incorporating additional methods of assessment may better address these concerns. Furthermore, although the current study recruited approximately 50% of the female inmates at this institution, the small number of women that comprised each of the victimization groups highlights the possibility that null findings actually may be due to power issues rather than a true nonsignificant relationship. Future studies with larger samples of female inmates are necessary to corroborate these findings. It also is a limitation that the present study did not assess staff-on-inmate victimization experiences as empirical work has shown that approximately 40% of female prison victimization experiences are perpetrated by staff. Future research should query about this important form of victimization to examine whether the risk factors uncovered here also generalize to staff-on-inmate victimization. Finally, although there are preliminary indications that emotion dysregulation is an important construct to consider among female inmates with sexual victimization histories (Walsh et al., 2011), many other variables that contribute to risk for prison victimization, particularly forced victimization, should be explored in future studies.

Despite these limitations, this study highlighted the importance of increasing detection of and intervention for negative outcomes associated with CM, particularly co-occurring CM, as it appears to be a significant risk factor for prison sexual coercion among incarcerated women. Furthermore, it would be useful to conduct a thorough assessment of emotion regulation difficulties, not only because it is related to risk for prison sexual coercion but also because it has been identified as an underlying motivation for numerous mal-adaptive tension-reduction behaviors (e.g., substance abuse/dependence, self-injury, and suicide) that have been shown to be prevalent among incarcerated women (Gratz, 2003; Heney & Kristiansen, 1997). Finally, it may be useful for female prisons to adapt an emotion-focused treatment program, perhaps similar to the STAIR program for sexual abuse survivors (Cloitre, Koenen, Cohen, & Han, 2002), to assist inmates in developing adaptive emotion regulation strategies. The development of more effective emotion regulation strategies would likely benefit inmates both pre- and postrelease by improving interpersonal functioning and decreasing reliance on maladaptive strategies (e.g., drugs and alcohol) to regulate negative mood states.

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## Biographies

**Kate Walsh** received a BA from Boston University and her MA and PhD in clinical psychology from the University of Nebraska–Lincoln. She is currently a postdoctoral fellow and research associate at the Medical University of South Carolina. Her research interests lie primarily in uncovering risk factors for adolescent and adult sexual revictimization. Recent projects, including her NIMH-funded dissertation study, have focused on laboratory

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**Valerie M. Gonsalves**, MA, MLS, PhD, received her PhD in clinical psychology from the University of Nebraska–Lincoln in August 2010. She completed her clinical internship at Mendota Mental Health Institute and is currently a postdoctoral fellow at Fulton State Hospital in Columbia, MO. Her research interests focus on forensic assessment and the impact of technology on traditional forensic concepts.

**Mario J. Scalora**, PhD, is an associate professor at the University of Nebraska–Lincoln. His research interests span targeted threat assessment, sexual offending, and myriad other forensic issues.

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**Table 1**  
Intercorrelations Among Child Maltreatment, Emotion Dysregulation, and Coercion and Forced Sexual Contact in Prison

	CSA	CPA	CEA	CPN	CEN	CTQc	DEERS	Coerce	Force
CSA	1	.57**	.54**	.47**	.40**	.68**	.33**	.17*	.10
CPA		1	.83**	.65**	.72**	.75**	.33**	.19*	.11
CEA			1	.62**	.78**	.81**	.41**	.25**	.16*
CPN				1	.70**	.70**	.26**	.19*	.16*
CEN					1	.77**	.28**	.21**	.09
CTQc						1	.29**	.20**	.12
DEERS							1	.28**	.05
Coerce								1	.35**
Force									1

Note:

\*\* $p < .01$ ;

\* $p < .05$ ;

CSA = child sexual abuse; CPA = child physical abuse; CEA = child emotional abuse; CPN = child physical neglect; CEN = child emotional neglect; CTQc = cumulative number of abuse types experienced; DEERS = Difficulties in Emotion Regulation Scale; Coerce = coerced sexual contact in prison; Force = forced sexual contact in prison.

Table 2

Regression Analyses Examining Emotion Dysregulation as a Mediator between Child Maltreatment and Coerced and Forced Prison Victimization

Models	$\beta$	SE	Wald Z	Product of Coefficient
Direct: CSA $\rightarrow$ Prison coercion $\tau$	.17	.08	2.16*	
Indirect: DERS total				.08**
CSA—DERS total $\alpha$	.33	.07	4.67**	
DERS total—Prison coercion $\beta$	.25	.08	3.26**	
CSA $\rightarrow$ Prison coercion $\tau'$	.09	.08	1.12	
Direct: CPA $\rightarrow$ Prison coercion $\tau$	.18	.08	2.44*	
Indirect: DERS total				.08**
CPA—DERS total $\alpha$	.33	.07	4.66**	
DERS total—Prison coercion $\beta$	.25	.08	3.09**	
CPA $\rightarrow$ Prison coercion $\tau'$	.10	.08	1.26	
Direct: CEA $\rightarrow$ Prison coercion $\tau$	.24	.07	3.29**	
Indirect: DERS total				.09**
CEA—DERS total $\alpha$	.41	.07	6.01**	
DERS total—Prison coercion $\beta$	.22	.08	2.62**	
CEA $\rightarrow$ Prison coercion $\tau'$	.15	.08	1.86	
Direct: CPN $\rightarrow$ Prison coercion $\tau$	.18	.08	2.42*	
Indirect: DERS total				.06*
CPN—DERS total $\alpha$	.26	.07	3.49**	
DERS Total—Prison coercion $\beta$	.25	.08	3.24**	
CPN $\rightarrow$ Prison coercion $\tau'$	.011	.08	1.47	
Direct: CEN $\rightarrow$ Prison coercion $\tau$	.20	.07	2.74**	
Indirect: DERS total				.07*
CEN—DERS total $\alpha$	.27	.07	3.71**	
DERS total—Prison coercion $\beta$	.24	.08	3.13**	
CEN $\rightarrow$ Prison coercion $\tau'$	.13	.08	1.71	
Direct: CTQc $\rightarrow$ Prison coercion $\tau$	.21	.07	2.77**	
Indirect: DERS total				.08**
CTQc—DERS total $\alpha$	.31	.07	4.34**	
DERS total—Prison coercion $\beta$	.24	.08	3.09**	
CTQc $\rightarrow$ Prison coercion $\tau'$	.13	.08	1.66	
Direct: CSA $\rightarrow$ Prison force $\tau$	.10	.08	1.29	
Direct: CPA $\rightarrow$ Prison force $\tau$	.11	.09	1.43	
Direct: CEA $\rightarrow$ Prison force $\tau$	.16	.08	2.09*	
Indirect: DERS total				-.01

Models	$\beta$	SE	Wald Z	Product of Coefficient
CEA—DERS total $\alpha$	.41	.07	6.11**	
DERS Total—Prison force $\beta$	-.02	.01	-0.25	
CEA $\rightarrow$ Prison force $\tau'$	.17	.09	1.99	
Direct: CPN $\rightarrow$ Prison force $\tau$	.15	.08	2.01*	
Indirect: DERS total				.003
CPN—DERS total $\alpha$	.26	.07	3.50**	
DERS Total—Prison force $\beta$	.01	.08	0.13	
CPN $\rightarrow$ Prison force $\tau'$	.15	.08	1.89	
Direct: CEN $\rightarrow$ Prison force $\tau$	.09	.08	1.13	
Direct: CTQc $\rightarrow$ Prison force $\tau$	.13	.08	1.76	

Note: CSA = child sexual abuse; CPA = child physical abuse; CEA = child emotional abuse; CPN = child physical neglect; CEN = child emotional neglect; CTQc = cumulative number of abuse types experienced; DERS = Difficulties in Emotion Regulation Scale; Force = forced sexual contact in prison; Coercion = coerced sexual contact in prison.

\*  $p < .05$ .

\*\*  $p < .01$ .