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Traumatic Event Exposure and Behavioral Health Disorders among Incarcerated Females Self-Referred to Treatment

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Abstract At least half of the women inside prison have mental health problems, have experienced physical, sexual, or emotional abuse during their formative years and often in adulthood, and have addiction problems. Only a minority of these women receive treatment for their behavioral health problems associated with trauma while incarcerated, even though these problems are risk factors for returning to prison after release. This study focuses on the traumatic experiences and behavioral health problems of a group of female inmates who volunteered in August 2009, to be screened for admission into an integrated trauma-reentry program implemented at an adult female correctional facility. Of the 278 women who self-referred for screening, 196 preliminarily met the time eligibility criterion of residing at the prison for eight to 24 more months. Half of these women (n=97) were actually time-eligible for screening and agreed to be screened. Of this sample of treatment-seeking soon-to-be-released female prisoners, the vast majority (93%) reported significant and complex histories of traumatic event exposure and high rates of either posttraumatic stress disorder (PTSD) or sub-threshold PTSD, past alcohol and other substance abuse or dependence, other axis I psychiatric disorders, and subjective distress. Identifying trauma exposure histories and associated behavioral health problems within this population and providing effective interventions holds potential promise for preparing incarcerated women to manage their post-release lives in ways that will keep them safe, healthy, and in the community.

Keywords Traumatic event exposure · Axis I mental disorder · Behavioral health disorders · Incarcerated females · PTSD · Abuse · Addiction

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Introduction

The majority of women inside prison have mental health problems (Covington 2003; Hartwell 2001; James and Glaze, 2006; Wolff 2008); have experienced physical, sexual, or emotional abuse (referred to as interpersonal trauma) during their formative years and often in adulthood (Brown et al. 1999; Girshick 2003; Wolff and Shi 2009; Wolff et al. 2009); and have some type of addiction problem, particularly to substances (Bloom et al. 2003; GAINS 2002; Greenfeld and Snell 1999). While we know that incarcerated women have elevated rates of interpersonal trauma compared with their non-incarcerated counterparts, little is known about the cluster of behavioral health disorders associated with the interpersonal trauma experienced by women who are incarcerated. Such information is clinically and socially relevant in part because there are effective integrated treatments for trauma and addiction disorders and in part because symptoms associated with untreated trauma symptoms may trigger behaviors, such as substance abuse, sexual promiscuity, and gambling, that lead women back to prison. Currently, only a minority of incarcerated women receive treatment for their substance use or mental health problems associated with trauma while

incarcerated (Blitz et al. 2005; New Jersey Reentry Roundtable 2003; Peters and Matthews 2003; President's New Freedom Commission on Mental Health 2003), even though these problems are risk factors for returning back to prison after release.

To formulate a rational and targeted therapeutic response to trauma symptoms, information is needed on whether the trauma experiences of incarcerated women result in symptoms that meet diagnostic criteria for posttraumatic stress disorder (PTSD) and if such symptoms co-occur with other behavioral health disorders. This information is critical for designing and funding effective treatment interventions inside correctional settings. Responding accordingly, this paper describes the behavioral health profiles of a self-referred group of incarcerated women who reported histories of interpersonal trauma. We examine to what extent the symptoms reported by these women meet criteria for full or sub-threshold PTSD, substance abuse problems, and other axis I disorders. In addition, details are provided on the nature, frequency, and distress consequences of their trauma experiences, emphasizing the need to protect these women from further emotional, physical, and sexual victimization during their incarceration.

Interpersonal Trauma and Incarcerated Women

Interpersonal trauma is a harmful experience for people. It occurs when one or more individuals (abusers) harm another (victim/survivor; Krug et al. 2002). The term "harm" is broadly interpreted. It may include abuse, neglect, or maltreatment that manifests itself physically, sexually, psychologically, or emotionally (see for example, Child Abuse Prevention and Treatment Act of 1974, PL 93-237). While harm can be experienced directly or indirectly (i.e., witnessed), it is often motivated by the intent of the abuser to humiliate, shame, terrorize, or in some other way harm the victim's sense of safety, self-efficacy, and, ultimately, well-being. Typically, the more frightened or helpless victims feel as a result of the harm, the more traumatized they are likely to feel by the harmful experience.

Considerable effort has been made to estimate the number of women who experience events of childhood victimization and adult interpersonal violence (physical and sexual), including domestic violence (Tjaden and Thoennes 1998). Measuring the prevalence of childhood victimization is problematic as children are often intimidated into not reporting these events, and many block out the experiences over time in an effort to cope with them (London et al. 2005). That said, it is not surprising that lifetime rates for childhood victimization vary widely between 3% and 40% (Children's Bureau 2008). Prevalence estimates for domestic violence in the general population of women are less variable; 6-month prevalence rates for domestic violence are estimated at 6% to 15%, and lifetime rates at 28% to 54% (Abbott et al. 1995; Eisenstat and Bancroft 1999; Tjaden and Thoennes 1998). Finally, exposure to interpersonal violence in virtually all populations is heavily associated with a wide range of adverse health status sequelae, including poor physical health, disability, poor mental health, increased use of tobacco and alcohol, and less satisfaction with life (Crisanti et al. in press; Magruder et al. 2004; Schnurr & Green 2004).

The majority of incarcerated women have a history of interpersonal trauma. At least three-quarters of incarcerated women have experienced at least one traumatic event in their lifetime (Brown et al. 1999; Greenfeld and Snell 1999; Wolff et al. 2009). Childhood abuse is reported by 25% to 50% of these women (Bloom et al. 2003; Fletcher et al. 1993; Wolff et al. 2009). Interpersonal trauma often continues inside prison: 6-month prevalence rates of inmate- and staff-on-inmate sexual victimization were estimated at, respectively, 21.2% and 7.6% (Wolff et al. 2006). Of the 52% of incarcerated women reporting sexual victimization in the community, 19% reported being physically victimized while incarcerated, while 17% reported sexual victimization in prison, and 11% reported both sexual and physical victimization (Wolff and Shi 2010). In the same study, two thirds of incarcerated women reported physical victimization in the community, with 24%, 20%, and 12% of these women, respectively, reporting physical victimization, sexual victimization, and both sexual and physical victimization while incarcerated (Wolff and Shi 2010). Female inmates with mental illness were found to have significantly higher rates of any sexual victimization, ranging from 1.6 times higher (African American) to 2.4 times higher (non-Hispanic, White) (Wolff et al. 2007a). Risks of victimization doubled for females who experienced childhood sexual abuse. Female inmates with mental health problems, compared with those without mental health problems, also had higher rates of physical victimization (25% versus 15%; Wolff et al. 2007b).

The effects of interpersonal trauma on victims are uniquely subjective. How it effects the victim in the short- and longer-term depends partially on the objective event itself (e.g., its setting, level of violence, and motivation), its frequency, the nature of the relationship between the abuser and victim (e.g., the level of intimacy and dependence), and partially on the individual herself (e.g., history of abuse and psychological resiliency). Behavioral responses among victims may present as dissociation, affect dysregulation, chronic characterological changes (e.g., self-blame, sense of ineffectiveness, and/or helplessness), somatization, hyperarousal, depression, and substance/alcohol abuse (Allen 1995; Chilcoat and Breslau 1998; Herman 1992; Lasiuk and Hegadoren 2006; Norris et al. 2002; Terr 2003).

The cluster of behavioral responses to harmful life events was classified as a type of anxiety disorder and defined diagnostically as PTSD in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-III*; American Psychiatric Association 1980). According to the *DSM-III*, PTSD is a set of symptoms resulting from the "exposure to an extreme traumatic stressor involving direct personal experience...or witnessing an event that involves death, injury, or a threat to the physical integrity of another person" (American Psychiatric Association 2000). Symptoms of PTSD include intrusive thoughts associated with the trauma experience, such as nightmares or flashbacks, avoidant behaviors, such as numbing or detaching feelings associated with the trauma, hyperarousal, and lower functioning in major areas of life. Diagnostically, full PTSD is defined as having a significant traumatic event, one re-experiencing symptom, three avoidance symptoms, and two arousal symptoms during a time period. Sub-threshold PTSD, while definitions vary, requires one re-experiencing symptom and either three avoidance or two arousal symptoms with the presence of co-occurring significant distress and impairment (Grubaugh et al. 2005).

Some individuals respond to traumatic experiences in ways that meet the criteria for PTSD (full or sub-threshold). Overall, roughly 15% to 24% of individuals who experience a traumatic event will develop PTSD (Breslau 2002). Although men are more likely to experience a traumatic event during their lifetimes, women are more likely to develop PTSD (Breslau 2002; Breslau et al. 1998; Bromet et al. 1998; Davidson et al. 1991; Helzer et al. 1987; Kessler et al. 1995). As would be expected, rates of PTSD are significantly higher among the incarcerated population than in community samples of women and, next to substance use, is the most common disorder found among detained females in jails (Teplin et al. 1996).

The extant research evidence indicates that incarcerated women are very likely to have interpersonal trauma experiences, mental disorders, and co-occurring substance use problems. Less clear from this evidence is the specific details about the behavioral health needs of incarcerated women who have experienced interpersonal trauma. The goal of this paper is to profile the behavioral health disorders, based on face-to-face diagnostic interviews, among a sample of incarcerated women who self-referred for inclusion in an integrated program designed to address maladaptive posttraumatic reactions, including substance abuse. For this group of self-referred incarcerated women, we examine the characteristics of their interpersonal trauma during their lifetimes and whether they experience symptoms that meet the criteria for full or sub-threshold PTSD, as well as co-occurring axis I mental disorders and substance use problems. Knowing this information will allow us to more accurately identify the complex of behavioral health disorders among women with trauma histories and shed some light on the need for integrated trauma and substance abuse treatment, as well as trauma-informed mental health services in correctional settings.

Methods

Soon-to-be-released incarcerated women with trauma histories who resided at an adult women's correctional facility (population ~900) located in a northeastern state were candidates for screening and possible inclusion in an integrated trauma-reentry research study. "Soon-to-be-released" was operationalized as to be released to the community within 8 to 24 months from August 1, 2009, and expected to serve at least 30 weeks of their remaining time at the adult prison (not a halfway house). To be eligible for screening, the soon-to-be-released woman must be 18 years or older, English-speaking, and time-eligible for the intervention. Women meeting the screening eligibility criteria were invited to be screened and, upon giving informed consent, were screened. The Rutgers University's Institutional Review Board and the appropriate agency research review committee approved the recruitment protocol, consent procedures, and consent form.

Potential subjects were informed about the trauma-reentry study through the monthly inmate newsletter, sign-up sheets posted in the housing units, and direct invitation through group presentations given by researchers on the housing units and during a reentry readiness survey conducted in June 2009, at the facility. Through these various venues, the potential subjects were told that (1) the research team was launching a new 30-week program that focused on healing from trauma and planning for community reentry and (2) eligibility required having experienced emotional, physical, or sexual trauma at any time during their lives and having eight to 24 months remaining in residence at the prison. Overall, 278 women self-referred for screening; 196 of these subjects satisfied the release date condition (8 to 24 months to release or parole eligibility date) to be screened.

Of the 196 time-eligible subjects, 53 (27%) did not meet with a screener. Reasons for not meeting with the screener varied; approximately 79% (n=42) were within 18 months of their release dates and opted to complete their sentences at a halfway house, making them ineligible for the study; 11% (n=6) were moved from the maximum security to the grounds unit; and the remaining 10% (n=5) were either in the medical hospital/infirmary or mental health unit, already released prior to being scheduled, or in administrative segregation on a serious disciplinary charge.

Of the 143 who met with a screener, 46 (32%) either declined to be screened or were determined ineligible at pre-screening because they did not have enough time to complete the study, had work conflicts, were not English-speaking, or

had no trauma history (n=2). The remaining 97 were screened for eligibility.

Candidates for inclusion were assessed for eligibility using the Clinician-Administered PTSD Scale to diagnose lifetime and current full or sub-threshold PTSD; the Structured Clinical Interview for *DSM-IV*-Non-Patient Version to assess other axis I disorders, including alcohol and substance abuse or dependence disorder; and the Trauma History Questionnaire and the Life Stressor Checklist-Revised to assess trauma history. The screening interview was administered by masters-level, clinically trained social workers or psychologists and took approximately two hours to administer. The screeners were trained and supervised by Ph.D.-level researchers with experience administering these instruments.

Findings

On average, the sample of women screened for study inclusion were in their mid-30s, non-White, had completed 12 years of education, had minor children, and were incarcerated on a violent offense (see Table 1). Approximately 93% of the total sample (N=97) met criteria for either full or sub-threshold PTSD. No significant age, race, or education differences were found between those with full and sub-threshold PTSD. The sample with full PTSD compared with the sample with sub-threshold PTSD were more likely to be incarcerated on a violent crime (64.5% vs. 28.6%).

Table 2 shows the reported trauma histories of the screened subjects. Trauma history was defined as any endorsement of a trauma experience, regardless of whether it met the clinical criteria for threshold or sub-threshold PTSD. Physical and sexual abuse were equally likely among the PTSD sample, while physical abuse was more likely than sexual abuse among the sub-threshold PTSD sample. The level of subjective distress was higher for the PTSD sample compared with the sub-threshold sample (2.5 vs. 2.0, p=.07), with over half (52.7%) of the PTSD sample reporting severe or extreme subjective distress compared with roughly a quarter (28.6%) of the sub-threshold group. These differences are substantial but not significant due to the small sample sizes.

The majority of women in both PTSD samples had only one stressful event that led to PTSD and was considered life-threatening or a threat to physical integrity. Women in the full PTSD sample were significantly more likely to report serious injury as a consequence of their victimization than the women in the sub-threshold PTSD group (88.2% vs. 35.7%). The mean age of onset for PTSD symptoms for the PTSD sample was slightly younger (M=18.2 years, SD=8.4 years) compared with the sub-threshold PTSD sample (M=20.9, SD=8.6).

Of the full sample (N=97), nearly seven of every ten women (71.1%) reported some type of childhood (i.e., under age 18 years) abuse/violence and eight of every ten (81.4%) reported some kind of adulthood (i.e., over age 18 years) abuse/violence. One third of the 97 women reported physical abuse and well over half (57.7%) reported sexual abuse. In terms of adulthood abuse/violence, over two thirds (68.0%) reported physical abuse and one third (34.0%) reported sexual abuse.

Most of the women reporting childhood or adult victimization knew their perpetrator. The most frequently reported perpetrators of victimization were relatives (48.5%), followed by romantic partner (e.g., spouse, boyfriend, girlfriend; 40.2%), acquaintances (e.g., brother's friend, mother's boyfriend; 30.9%), and strangers (28.9%). About half (52.5%) of the sample reported multiple types of relationships to the perpetrators of their abuse.

The distribution of substance abuse disorders among the women with and without (full or sub-threshold) PTSD is shown in Table 3. Nearly 90% of the 90 women who met some PTSD criteria also met criteria for a substance use

Table 1 Demographic and conviction characteristics of a self-referred sample of eligible women screened for inclusion in the trauma study

Characteristics	Total sample (n=97)	PTSD sample (n=76)	Sub-threshold PTSD sample (n=14)	No-PTSD sample (n=7)
Age mean (SD)	33.4 (8.7)	33.5 (9.0)	33.9 (8.4)	30.7 (4.9)
Race/ethnicity (%)				
White	28.9	31.6	28.6	0
African American	53.6	50.0	57.1	85.7
Hispanic	13.4	14.5	14.3	0
Other	4.1	3.9	0	14.3
Education (mean) in years (SD)	11.8 (1.5)	11.8 (1.4)	11.6 (1.8)	12.1 (2.0)
Parent of minor children (%)	62.5	62.7	50.0	85.7
Violent crime (%)	57.7	64.5[a]	28.6	42.9

[a] Statistically significant results comparing full PTSD sample and sub-threshold PTSD sample, chi-square test p<0.05

Table 2 Trauma characteristics reported by a self-referred sample of eligible women screened for inclusion in the trauma study

Trauma characteristics	Total sample (n=97)	Full PTSD sample (n=76)	Sub-threshold PTSD sample (n=14)	No-PTSD sample (n=7)
Age of onset (mean) N=90	18.6 (8.4)	18.2 (8.4)	20.9 (8.6)	–[c]
Event type[b], % N=90				
Physical	63.9	65.8	85.7	–[c]
Sexual	57.7	69.7[a]	21.4	
Both physical and sexual	29.9	36.8	7.1	
Frequency, % N=90				
Physical multiple	14.4	14.5	21.4	–[c]
Sexual multiple	13.4	17.1	0	
Level of harm N=90				
Life-threatening	66.0	72.4	64.3	
Serious injury	74.2	88.2[a]	35.7	–[c]
Threat to physical integrity	77.3	85.5	71.4	
Level of subjective distress N=90				
None	0	0	0	–[c]
Mild	18.9	14.5	42.9	
Moderate	32.2	32.9	28.6	
Severe	35.6	39.5	14.3	
Extreme	13.3	13.2	14.3	
Childhood trauma/violence	71.1	77.6[a]	50.0	42.9
Physical	32.0	32.9	35.7	14.3
Sexual	57.7	65.8[a]	28.6	28.6
Adulthood trauma/violence	81.4	86.8[a]	64.3	57.1
Physical	68.0	72.4	57.1	42.9
Sexual	34.0	40.8[a]	7.1	14.3
Perpetrator relationship[b]				
No perpetrator	8.3	2.6	21.4	42.9
Partner	40.2	39.5	42.9	42.9
Relative	48.5	55.3	28.6	14.3
Acquaintance	30.9	32.9	28.6	14.3
Stranger	28.9	32.9	21.4	0
Multiple	52.5	57.9	42.9	14.3

[a] Statistically significant results comparing full PTSD sample and sub-threshold PTSD sample, chi-square test, $p<0.05$

[b] These categories are not mutually exclusive. Subjects can appear in one or more of the categories

[c] These fields apply only to PTSD-related events. Since the subjects in this group did not have PTSD, data were not collected on them

disorder. The most common substance abuse problem among these women was dependence for either alcohol or substances. The mean age of onset for alcohol and substance use is slightly lower for full PTSD group compared with sub-threshold PTSD group, but the results are not statistically significant. Three of the seven subjects in the no-PTSD group did not report a traumatic experience. Of those that reported trauma histories but did not meet criteria for PTSD (n=4), two met the criteria for a substance dependence.

Other axis I mental disorders in addition to PTSD were common among the sample of women self-referred to screening. With the notable exception of three women, virtually all women with trauma histories (n=94) met conditions for an axis I disorder other than PTSD and substance use (Table 4). In fact, the majority of the women (54.6%) met criteria for more than one axis I disorder. The most frequent combination of disorders among the subjects was a mood disorder combined with a panic (non-PTSD) or phobic disorder (not shown in the table). Most of the women in the full or sub-threshold PTSD samples met criteria for a mood disorder, most commonly major depression. Roughly 60% the PSTD groups met criteria for an anxiety disorder (not including PTSD). The majority

Table 3 Past substance abuse disorders among the self-referred sample of eligible women screened for inclusion in the trauma study

Addictive disorders/behaviors	Total sample (n=97)	Full PTSD sample (n=76)	Sub-threshold PTSD sample (n=14)	No-PTSD sample (n=7)
Substance use disorder, %	87.6	92.1	85.7	42.9
Alcohol abuse, %	15.5	18.4	7.1	0
Alcohol dependence, %	39.2	42.1	35.7	14.3
Alcohol problem onset age, mean[a] (SD)	20.1	19.6	22.3	26
	(7.3)	(7.2)	(8.5)	
	N=45	N=38	N=6	N=1
Substance abuse, %	12.4	14.5	7.1	0
Substance dependence, %	43.3	40.8	57.1	42.9
Polysubstance, %	24.7	29.0	14.3	0
Substance problem onset age, mean[a] (SD)	20.5	20.2	21.9	20.7
	(7.5)	(7.9)	(7.7)	(1.2)
	N=51	N=39	N=9	N=3

[a] Mean excludes those who do not have alcohol (substance) problems

of the non-PTSD sample also met criteria for mood or anxiety disorders.

As shown in Table 5, sexual victimization, whether in childhood or adulthood, is associated with subjective distress and behavioral health disorders. In general, subjective distress levels were higher for women reporting any sexual victimization compared with those with no sexual victimization (i.e., physical victimization only), and levels of distress were highest for women reporting both childhood and adulthood sexual victimization. Women in the sexual victimization groups, compared with women reporting physical victimization only, were also more likely to met criteria for full PTSD, major depression, and alcohol abuse/dependence.

Discussion

Descriptive clinical data from this relatively large and ethno-racially diverse sample of treatment-seeking, soon-to-be-released female prisoners revealed (a) significant and complex histories of traumatic event exposure, including a large percentage with childhood sexual victimization (56%); (b) high rates of either PTSD or sub-threshold PTSD (93%); (c) high rates of past alcohol and other substance abuse or dependence (88% total with at least one); and (d) high rates of other axis I psychiatric disorders (93% total with at least one). Our data also provide information about perpetrator relationships and comparisons of overall psychiatric diagnoses for those with and without childhood sexual victimization. Taken together, these findings clearly indicate vast behavioral health care needs among female prison inmates.

More specifically, the lifetime interpersonal traumatic event histories of our self-referred sample are characterized by multiple, complex, and severe episodes of interpersonal physical and sexual violence. Most of the sample (93%) reported at least one significant lifetime traumatic event, of which two thirds reported experiencing a traumatic event

Table 4 Axis I mental disorders among the self-referred sample of eligible women screened for inclusion in the trauma study

Axis I disorders	Total sample (n=97)	Full PTSD sample (n=76)	Sub-threshold PTSD sample (n=14)	No-PTSD sample (n=7)
Axis I with substance use disorders, %	84.5	90.8	78.6	28.6
Axis I disorders	92.8	97.4	85.7	57.1
Mood, bipolar	21.7	23.7	14.3	14.3
Mood, major depression	52.6	55.3	50.0	28.6
Mood, depression	7.2	9.2	0	0
Anxiety disorder (not PTSD)	57.7	59.2	64.3	28.6
Other	8.3	9.2	0	14.3

Note: The majority of the sample has overlapping axis I disorders. Four subjects met criteria for a psychotic disorder and were placed in the "Other" category

Table 5 Trauma, mental disorder, and substance use problems among the self-referred sample of eligible women screened for inclusion in the trauma study by type of trauma

Behavioral health problem	Sexual victimization			No sexual victimization $N=24$
	Adult victimization $N=12$	Childhood victimization $N=34$	Childhood and adulthood victimization $N=20$	
Subjective distress, mean (SD)	2.3 (0.8)	2.5 (0.8)	2.8 (1.1)	2.1 (1.0)
Full-PTSD[a] %	100	91.2	95.0	58.3
Major depression,[a] %	41.7	67.7	65.0	33.3
Anxiety disorder, %	75.0	52.9	70.0	54.2
Alcohol abuse/dependence %[a]	83.3	52.9	75.0	37.5

Note: [a] At least one group is significant different than other groups, chi-square $p<0.05$

that was perceived as "life-threatening." Both physical and sexual interpersonal violence were common, and 30% of the sample reported experiencing both at some point in their life. Traumatic events were also distributed throughout the life-span of females screened in this study. Childhood violence was experienced by over 70% of the sample, with most reporting sexual (58%) violence. Of the over 80% reporting adulthood violence, physical violence was most typical (68%). Perpetrators of this violence were spread rather evenly across partners, relatives, acquaintances, and strangers. Over half of the sample (53%) reported experiencing interpersonal violence from more than one perpetrator.

Somewhat predictably, rates of psychiatric disorders in the sample were also extremely high. Most of the sample met criteria for either PTSD (78%) or sub-threshold PTSD (14%); past substance abuse or dependence, including alcohol dependence (43%) and other illegal drug dependence (43%); and other axis I psychiatric disorders, including major depression (53%), other anxiety disorders (58%), and bipolar disorder (22%). Furthermore, a diagnosis of PTSD was associated with even higher rates of substance use disorders and other psychiatric disorders, than sub-threshold or no-PTSD, although statistical significance was not reached due to the small sample size. It was also associated with higher rates of serious injury as a consequence of the victimization.

While these findings are consistent with extant research and anecdotal reporting, there are several study limitations that merit comment. First, all the usual methodological limitations of cross-sectional and self-report research apply. Second, the current study only includes females inmates who were self-referred for inclusion in an intervention that focused on healing from trauma and reentry preparation, were English-speaking, and who were soon-to-be-released. These findings are not intended to generalize to the female prison population as a whole but to identify the needs within a particular section of the female inmate population and to be suggestive of the general level of need within the female prison population. Third, self-reports about threatening topics (e.g., trauma, abuse, and psychopathology) by vulnerable people (prison inmates) are subject to a variety of errors and respondent biases beyond mere faulty recall. Fourth, structured clinical interviews did not include reliability checks.

Concern about these study limitations is mitigated by the study's strengths, including a large, ethno-racially diverse, sample of female prisoners, and a group whose behavioral healthcare needs have not yet been well-studied. Additionally, the use of structured clinical interviews (i.e., SCID-I) with careful training and supervision, also represents a strength of this study.

These novel findings contribute to our understanding of behavioral health care needs of female prison inmates, many of whom have extensive trauma histories and meet *DSM-IV* criteria for multiple psychiatric disorders, including PTSD, past substance abuse/dependence, and depression. Identifying trauma within this population and providing effective interventions holds potential promise in terms of preparing incarcerated women to manage their contemporary lives in ways that will keep them safe, healthy, and in the community after release from prison. Future research is needed with this population, and with male prison inmates, regarding optimal strategies for screening and treating trauma-related psychopathology, including research to address not only how to most effectively treat posttraumatic psychopathology, but when. Most evidenced-based practices for PTSD are cognitive–behavioral variants (Foa 2006) that include a trauma-specific focus (e.g., exposure therapy or cognitive therapy) that may not be appropriate for people who are living in environments that have high potential for ongoing stress or trauma. This will require careful consideration in the design and implementation of treatment efforts. Certain treatments that focus on building safe coping skills, such as Seeking Safety (Najavits 2002), may be especially well-suited for the needs of this population in that the focus is on symptom

management, emotional regulation, and social coping skills. Furthermore, different intervention strategies may be necessary for females who are soon-to-be-released than for inmates with lengthier remaining sentences. Lastly, research is needed to examine optimal ways of combining mental health care with reentry programs.

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