

UNDERSTANDING SEXUAL VICTIMIZATION INSIDE PRISONS: FACTORS THAT PREDICT RISK*

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Research Summary:

Broad consensus exists across the country and political spectrum that sexual victimization occurs inside prisons and that it should be prevented in accordance with basic human rights, especially inside institutions that are funded and operated by government. The challenging task is to confirm the speculation by measuring reliably the extent to which sexual victimization occurs inside prison and then to understand its causal structure in an effort to prevent it. This article addresses this challenge first by summarizing what is known about the prevalence of sexual victimization in the prisons of America and then by exploring attributes of the inmate or facility that elevate the likelihood of being sexually victimized while inside prison. This descriptive evidence provides the roadmap for more contextual research that is needed to explore the causal mechanism underlying sexual victimization. The predictive part of this article uses a data set on the self-reported victimization experiences of approximately 8,000 inmates residing in twelve male adult prisons, one sex offender treatment prison for males, and one female adult prison, all located in a single state.

Policy Implications:

If the goal is to reduce sexual victimization inside prisons (as suggested by the Prison Rape Elimination Act), action is required by prison officials and researchers to identify those at elevated risk, to develop effective placement strategies that minimize the proximity of inmates who have predatory tendencies to those at risk of victimization, to accurately and reliably measure the prevalence of sexual victimization, and to

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train officers and inmates on the meaning and practice of “zero tolerance.” Custodial power should be targeted to ensure zero tolerance because sexual victimization inside prison is not just a crime, but it is also a crime that takes place in a facility that is created, funded, and operated by the state and where the state bears the full responsibility for keeping the people under its aegis from harm that is predictable and preventable.

KEYWORDS: Sexual Victimization, Prison, Hierarchical Linear Modeling

Sexual victimization inside the prisons of America has the public spotlight largely because of recently passed federal legislation (particularly the Prison Rape Elimination Act of 2003) designed to measure and prevent its occurrence (Bureau of Justice Statistics, 2004b). This legislative action, prompted by a national study of prison rape by Human Rights Watch and fueled by a national media campaign and a bipartisan coalition of policy makers, researchers, advocates, and practitioners to stop the cruelty of rape inside the prisons of this nation (cf: Dumond, 2003; Mariner, 2001), was followed by several national commission inquiries that held multiple public hearings and culminated in large-scale reports (cf: Commission on Safety and Abuse, 2006; National Prison Rape Elimination Commission, 2006). Broad consensus exists across the country and political spectrum that sexual victimization exists inside prisons and that it should be prevented in accordance with basic human rights, especially inside institutions that are funded and operated by government. The challenge is to confirm the speculation by measuring reliably the extent to which sexual victimization occurs inside prison and then to understand its causal structure in an effort to prevent it. This article addresses this challenge first by summarizing what is known about the prevalence of sexual victimization in the prisons of America and then by exploring what attributes of the inmate or facility elevate the likelihood of being sexually victimized while inside prison. This descriptive evidence provides the roadmap for more contextual research that is needed to explore the causal mechanism underlying sexual victimization. The predictive part of this article uses a data set on the self-reported victimization experiences of approximately 8,000 inmates residing in 12 male adult prisons, 1 sex offender treatment prison for males, and 1 female adult prison, all located in a single state. The article ends with recommendations for future research and steps that can be taken now to prevent sexual victimization inside prison.

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PREVALENCE OF SEXUAL VICTIMIZATION
INSIDE PRISON

According to the literature, rates of sexual victimization in American prisons range from 41% to less than 1%. Based on a meta-analysis, a conservative “average” prevalence estimate of prison sexual assault was estimated at 1.9% (Gaes and Goldberg, 2004). Recent work by Wolff, Blitz, et al. (2006) estimated sexual victimization prevalence rates for male and female inmates where the perpetrators were either other inmates or staff. Rates of inmate-on-inmate rape (or nonconsensual sex acts) over a 6-month period were estimated at 3.2% for female inmates and 1.5% for male inmates. The comparable rates for staff-on-inmate rape were 1.7% and 1.9%, respectively, for female and male inmates. If abusive sexual contact (i.e., inappropriate touching of genitals, breasts, or buttocks) was included in the definition of sexual victimization, the 6-month inmate-on-inmate rates increase significantly to 21.2% for females and 4.3% for males, as well as to 7.6% for rates of staff-on-inmate sexual victimization for both female and male inmates. In another study by the same group, prevalence rates were combined for any perpetrator (inmate or staff) for male inmates by type of sexual victimization. The corresponding 6-month prevalence rates for any sexual victimization, abusive sexual contact, and nonconsensual sex acts (rape) were, respectively, 9.9%, 8.7%, and 2.7% (Wolff, Shi, et al., 2006).

The various rates summarized from the Wolff et al. studies illustrate the wide variation in rates appearing in the scholarly literature. In general, rates are higher when the definitions of perpetrator and victimization are broadly defined. Looking more generally at the literature, rates of reported sexual victimization are higher than rates of sexual assault or rape, independent of gender (Nacci and Kane, 1982; Struckman-Johnson and Struckman-Johnson, 2000, 2002; Struckman-Johnson et al., 1996; Tewksbury, 1989). Overall, unwanted and sexually suggestive touching are more common occurrences inside prison than the act of rape itself. The definition of perpetrator and victimization substantively impacts the measurement of intergender differences in sexual victimization. The literature focusing exclusively on inmate-on-inmate sexual victimization has found that male facilities, compared with female facilities, have higher rates of sexual assault (Hensley et al., 2003; Struckman-Johnson and Struckman-Johnson, 2000, 2002; Tewksbury, 1989). Female rates, however, have been found to be higher than male rates when sexual victimization, either defined as abusive sexual contact or nonconsensual sexual acts, focuses on inmates as the perpetrators. No gender differences exist between victimization rates, however, when staff members are the perpetrators (Wolff, Blitz, et al., 2006).

The literature also shows that younger inmates are at greater risk of sexual victimization (Chonco, 1989; Nacci and Kane, 1982; Struckman-Johnson et al., 1996; Tewksbury, 1989). Rates of sexual victimization, because of age variation within prison populations, may vary across facilities even for prisons operated within the same administrative system. It would be reasonable, therefore, to expect that facilities with a younger inmate population would have higher rates of sexual victimization than facilities with more mature and acculturated prison populations.

In terms of generalization, it seems that sexual assault between inmates is a relatively rare occurrence, equilibrating around 2% over a 6-month to 12-month period. Rates increase significantly, however, if staff members as perpetrators and abusive sexual contact are included in the measurement of sexual victimization. Twelve-month prevalence rates of sexual assault in the general population, although also varying by methodology, have been estimated most reliably at 0.2% to .9% by using screening questions equivalent to the prison rape methodology discussed above (Bachman, 2000; Kilpatrick and Ruggiero, 2004).

PREDICTING SEXUAL VICTIMIZATION INSIDE PRISON

Studies of the causes of sexual assault inside prison, as well as in the community, have focused primarily on documenting the characteristics of the victims and perpetrators (their traits) and their situational motivation and location (environment). Lockwood (1980), studying sexual violence inside prison, found that "targets" of sexual assault were more likely to be new to the facility (i.e., "fish"), have "weak public images" (Lockwood, 1980; 26), and be considered "attractive." Other scholars have focused on racial (Carroll, 1974; Scacco, 1975) and age (Chonco, 1989) characteristics of inmates as marks for targeted aggression (Bowker, 1980; Carroll, 1974; Scacco, 1975). These researchers found that white inmates and young inmates were targets of sexual assault. Similarly, individuals, particularly those with these target characteristics, were found to be at greatest risk of sexual assault when in their cells as well as when in other areas where less direct and routine officer supervision exists (such as in showers and in gymnasiums) (Chonco, 1989). Many of these personal attributes characterize victims of rape in the community (Kilpatrick et al., 1992).

In explaining sexual victimization inside prison, researchers have drawn on the victimology literature, which offers a variety of victim typologies (cf: Schafer, 1968; Sparks, 1982) and corresponding theories of victimization (Fattah, 2000). The most integrative of the typologies relevant to prison victimization was developed by Sparks (1982) and identifies six explanatory factors for victimization, including facilitation, precipitation,

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vulnerability, impunity, attractiveness, and opportunity. These six factors incorporate the various typologies developed earlier by Mendelsohn (1937) and von Hentig (1948) that focused in varying degrees on the culpability and innocence of the “victim” in the victimization incident. The integrated framework developed by Sparks was used by Edgar and O’Donnell (1998) in a qualitative study of assault in prison.

The advantage of using this framework to explore victimization inside prison is that it focuses on the target characteristics of the victim, which is information that can be used to identify inmates at greatest risk. In general, the vulnerability factor (tested as the heterogeneity hypothesis) refers to identifiable characteristics of people that make them “suitable” for attack. Sexual orientation, race, and physical appearance have been identified as characteristics that make an inmate vulnerable to sexual assault (Bowker, 1980; Carroll, 1974; Lockwood, 1980). In a recent quality-of-life survey completed by over 6000 inmates, respondents were asked what attributes make an inmate a target of sexual assault. A plurality of inmates reported the following characteristics: being homosexual, weak, or small; being a pretty boy; and having an offense against a child or one that involves domestic violence (Wolff, Shi, et al., 2006). These characteristics are consistent with a general class of victims, which was identified by von Hentig (1948). Attributes that elevate the likelihood of a person being a victim of crime, more generally, are as follows: being young; being weakened by disability, impairment, or size; being affiliated with a particular race, ethnicity, sexuality, or gang that conjures up hate; or having a pariah label such as sex offender or child abuser. These “marks” are tantamount to wearing a bull’s eye on your back whether residing in the community or inside prison.

Similarly, prior sexual victimization has been found to be an important risk factor for subsequent victimization (Arata, 2002; Crowell and Burgess, 1998; Messman and Long, 1996; Neumann et al., 1996; Siegel and Williams, 2003), and prior victimization more generally is a consistent (although not perfect) marker for future victimization (Arata, 2002; Gottfredson, 1984; Hindelang et al., 1978; Sparks, 1981). Sparks (1981), as well as other researchers, explains this correlation either as a transformative effect in which the consequence of the prior victimization fundamentally alters the identity of the individual, making him or her more identifiable as vulnerable, or as an omitted variable problem in which a confound resulting from an unmeasured trait or behavior of the individual exists. Others have posited that victims of sexual abuse, for a variety of reasons, may engage in behaviors that put them in situations of heightened risk (Ferguson et al., 1997; Finkelhor and Browne, 1985; Koss and Dinero, 1989). Regardless of the precise pathway, research suggests that preventing future victimization requires information about past victimization as a risk

marker, much like genetic markers are used in the management of patient health. In combination or in isolation, these vulnerability markers elicit the attention of potential aggressors by either signaling weakness; by appearing anxious, insecure, or passive; by suggesting an inability to defend oneself (Olweus, 1978); or by triggering intense hatred, which motivates retributive aggression.

Much research on risk factors for victimization has been conducted outside the context of prison. When examining victimization risk inside prisons, however, there is reason to believe that risk levels will vary across facility types. Thus, in predicting victimization inside prison, several attributes of both the prison and the person will be explored. They include *type of facility* (male, general population; female, general population; male, sex offender treatment prison); *mean age of inmate population* (when the type of facility is represented by multiple facilities); and age, race, ethnicity, education, mental health status, criminal history, impressions of gang presence, and prior victimization status of the inmate.

METHODS

SAMPLING

We drew a sample of 7,785 people from the population of inmates housed at 12 male adult prisons, 1 male sex offender treatment prison, and 1 female adult prison operated by a single state ($N = 22,898$). Excluded from the sample were inmates younger than 18 years, in administrative (prehearing) custody, in detention, on death row, or otherwise too sick to participate in the survey. Also excluded were inmates residing in halfway houses or off site at the time of the survey. In all, 20,447 adult inmates (89.3% of the entire population) were eligible for inclusion. Subjects were recruited and data were collected from June 1, 2005 through August 31, 2005.

Enough time inside the facility was requested to collect a 40% sample from the general population ($N = 19,615$), which typically required 2 to 5 days. A 66% random sample of inmates was selected in advance with the expectation of a 60% response rate, yielding the expected 40% target participation rate within the allotted time at the facility. Participation rates across facilities ranged from 26% to 53% (female facility was oversampled) with a mean participation rate of 39% (S.D. = 0.068). Data collection at the facility with a 26% participation rate was prematurely terminated because of a lockdown situation at the facility, which was not related to the research. Nonrespondents at six of the male ($N = 848$) facilities were surveyed on their reasons for not participating in the study. The three most common reasons for declining participation were as follows: "I believe nothing will ever change here"; "I am leaving here soon"; and

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“This is prison. Our quality of life doesn’t matter.” Four facilities had specialized segregation units (for inmates with behavioral infractions). These units housed 832 inmates; a 10% random sample completed the survey through direct interviews (these individuals have limited movement and were denied access to areas where the computers were located).

PROCEDURES

The recruitment protocol, consent procedures, and consent form were approved by the appropriate university and correctional agency research review boards and committees. Subjects were informed about the survey through their inmate liaison representatives and an informational video about the survey (played on the inmate television channel). All interested inmates, by unit, were brought to the survey area to hear a 10-minute presentation about the survey. Subjects were not compensated for their participation in order to reduce any overt coercion. Also, subjects were offered a follow-up mental health visit if distressed by questions elicited by the survey. At the end of the presentation, individuals chose whether to participate. Approximately 13,000 inmates attended the introductory sessions (not all consented participants could complete the survey in the time period the researchers had inside the facility).

The survey was administered using an audio-computer-administered survey instrument (CASI) available in English and Spanish. Respondents sat at a laptop computer in a private location, were read the questions via headset, and responded via mouse. Thirty computer stations were available, and researchers were on site to assist participants as needed. Completing the English version of the instrument by audio-CASI took approximately 60 minutes; completing the Spanish version took approximately 90 minutes [68 respondents (0.9%) completed the Spanish version]. Of those participating in the survey, 112 men (1.6%) and 18 (3.2%) women were interviewed directly. Most of these respondents, 85 (65%), were housed in administrative segregation. The other face-to-face interviews, 45 (35%), were conducted because participants were intimidated by the computer or were in the infirmary or specialized mental health unit. Five interviewers conducted the interviews, with the majority (61%) conducted by two interviewers. All interviewers were trained and followed a scripted protocol. Face-to-face interviews, conducted only in English, were completed in roughly 45 minutes.

PARTICIPANTS

Of the 20,447 eligible to participate, a total of 6,964 men ($\bar{X}$ age = 34.0, S.D. = 7.9) from male general population prisons, 257 men ($\bar{X}$ age = 43.4, S.D. = 9.4) from a male sex offender treatment prison, and 564 women ($\bar{X}$

age = 35.5, S.D. = 6.8) aged 18 years or older were recruited and completed the survey. The management information system at the prison does not distinguish between race and ethnicity. Consequently, we tested for sample bias using the race/ethnicity classification of the prison system. According to the race/ethnicity classification of the prison, 80.5% of the male general population participants were classified as nonwhite (with a mean age of 33.3 years), which is roughly equivalent to the general prison population (80.1% of males are nonwhite, with a mean age of 33.4 years). Nonwhites were somewhat overrepresented in the male sex offender treatment prison sample compared with the sex offender treatment population (48% vs. 41.2%), although their ages were nearly comparable (41.4 vs. 42.0). Among female inmates, 67.4% were nonwhite (with mean age of 35.5 years), which is also equivalent to the population data (67.3% of females are nonwhite, with a mean age of 35.4 years). The percentage of the survey sample that was Hispanic (inclusive of white and nonwhite) was similar to the prison population as a whole (male non-sex offenders: 15.7% vs. 14.9%; male sex offenders: 17.3% vs. 13.8%; females: 9.1% vs. 10.1%) and the ages of that portion of the sample were comparable as well (male non-sex offenders: 32.0 vs. 32.5, male sex offenders: 40.1 vs. 42.8, females: 35.0 vs. 33.7).

INSTRUMENTS

The questions regarding sexual victimization were adapted from the National Violence Against Women and Men Survey (Tjaden and Thoennes, 2000). Sexual victimization was measured using one general question for each of two types of perpetrator (inmate or staff member): “*Have you been sexually assaulted by (an inmate or staff member) within the past 6 months?*” Ten additional questions about specific types of sexual victimization were used [e.g., during the past 6 months, has (another inmate or staff member) ever . . . touched you, felt you, or grabbed you in a way that you felt was sexually threatening or made you have sex by using force or threatening to harm you or someone close to you?].

The specific sexual victimization questions were clustered to reflect definitions of sexual victimization developed by the National Center for Injury Prevention and Control. Sexual victimization was defined as *nonconsensual sexual acts*, which consisted of forced sex acts, including oral and anal sex (referred to as sexual assault), and *abusive sexual contacts*, which included intentional touching of specified areas of the body (Basile and Saltzman, 2002). Seven of the specific questions involving penetration or sexual acts were included in the category for nonconsensual sexual acts [e.g., has (another inmate or staff member) ever . . . made you have oral sex by using force. . .?]. Three questions were used to construct abusive sexual contacts [e.g., has (another inmate or staff member) ever touched you, felt

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you, or grabbed you in a way that felt sexually threatening?]. Inmates who responded affirmatively to any one of the ten questions were considered sexual victims.

STATISTICAL ANALYSIS

WEIGHTING

All male facilities (including one sex offender treatment facility) and one female adult facility located in a single state were included in the sampling design. Individual weights were constructed using a two-step weighting strategy (Lee and Forthofer, 2006). The first step (base weight) adjusted for the sampling design (i.e., the exclusion of some units within a facility; the variation in the probability of selection; and the proportional representation by facility). The second step (poststratification weight) adjusted the data on the basis of time at facility, race/ethnicity, and age. The final weight for each stratum is the base weight multiplied by the poststratification weight. Both weighted and unweighted analyses were conducted. As results were similar, only weighted results are presented. Point estimates of mean or proportions describing the sample, along with 95% confidence intervals, are presented. The 95% confidence intervals in each table are equivalent to the two-sided *t* test for means or proportions based on a Taylor expansion. The overlap of the confidence intervals between comparison groups suggests that the null hypothesis that the means or proportions are the same between comparison groups at significance level of 0.05 cannot be rejected. All regression analyses are based on weighted data.

MISSING DATA IMPUTATION

The loss of information from missing data was minimal in our survey; each variable used in the analysis had a relatively small number of missing data (range: 0.1% to 8%, with mean 1.7% and S.D. 0.02). Because all regression models involve listwise deletion, not imputing for missing values would have resulted in the loss of approximately 13% of the total observations in the general population adult male models and roughly 9% in sex offender adult male models and female models. Instead of replacing with the mean value for each missing value, which is likely to underestimate the variance and bias the estimates, we used multiple imputation (Rubin, 1987, 1996). The multiple imputation procedure involves replacing each missing value with a set of plausible values that account for the uncertainty of missing values. Because the missing data had an arbitrary pattern, we used Markov Chain Monte Carlo (MCMC) method with a single chain (SAS proc MI) (SAS OnlineDoc, 2003) to create five imputed

data sets. The MCMC method assumes that the model is multivariate normal, requiring the log transformation of the continuous variables (Age, Time at facility, Time in prison since 18 years old, Age at first arrest) with highly skewed right tails. After imputation, the variables were transformed back to their original scales. Binary variables were also transformed back to their 0 to 1 scales with cut-point 0.5. After imputation, we used HLM 6.02 software to perform weighted hierarchical generalized linear model analysis for general population adult male prisons. Given the small portion of missing data for each variable, with as few as five imputations, we could achieve a relative efficiency of 99% compared with using an infinite number of imputations (Rubin, 1987). For the male sex offender facility and female facility, we used SAS procedure (proc MIanalyze) to combine inferences from five imputations and form overall estimates for our sample. Our results are robust compared with complete cases analysis and single value imputation. We only present the multiple imputation results here (results from other models are available from the authors upon request).

HIERARCHICAL GENERALIZED LINEAR MODEL

Inmates in the general population adult male prisons sample are nested within the facility, which requires that we account for the dependence among inmates within the same facility. Not adjusting for the dependence among observations would underestimate the standard error, which would inflate the significance of the estimators. Hierarchical generalized linear model adjusts for the clustering within the sample by treating the facility effect as random. The dependent variables are inmate-on-inmate, staff-on-inmate, or combined nonconsensual, abusive, or any sexual victimization. All of these variables are binary, with one indicating at least one event of sexual victimization in the past 6 months. The appropriate model is a hierarchical generalized linear model with a logit link function. In our preliminary analysis, the level-1 predictors tended to have similar impacts on the outcome variables across facilities. When the level-1 *slopes* are treated as random, the reliability of the estimated parameter is small (<0.05 in most cases), which suggests that the slopes for level-1 predictors have less variability. Hence, the intercept (β_{0j}) is the only level-1 coefficient treated as random and modeled at level 2. Because only 12 male prisons exist, only one level-2 predictor was possible (Raudenbush and Bryk, 2002); it was specified as the mean age of inmates (W) for each facility. Interaction terms between level-1 and level-2 predictors were not examined for the same reason. Level-1 coefficients, reflecting the literature reviewed earlier, were entered to control for age, race, ethnicity, mental health condition, time at facility, time in prison since age 18 years old, committed sex

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crime, committed violent crime, had young victim, age at first arrest, sexual victim prior to age 18 years, thought gang activity is high, and education. See Appendices A–C for detailed variable information. All continuous level-1 variables enter the model group-centered (centered on their respective facility mean). For example, the level-1 “individual age” will only explain the effect of age within facility, whereas the level-2 “mean age of inmates” will explain the between-facility difference. The between-facility difference represents both the aggregated individual effect and the compositional effect of the facility. Dichotomous predictors are entered in the original format (e.g., white). Centering produces meaningful values for the intercept and facilitates the interpretation of intercept estimates when comparing across facilities. The mathematical formula for the hierarchical generalized linear model follows:

$$\text{Level 1: } \log \left[\frac{P(Y_{ij}=1)}{1-P(Y_{ij}=1)} \right] = \beta_{0j} + \sum \beta_i X_{ij}$$

$$\text{Level 2: } \beta_{0j} = \gamma_{00} + \gamma_{01}W + u_{0j}, \text{ where } u_{0j} \sim N(0, \tau_{00})$$

where $P(Y_{ij} = 1)$ represents the probability that inmate i in facility j experienced sexual victimization; the β 's represent the level-1 coefficients, in which β_{0j} is the intercept of the level-1 equation; X_{ij} are fixed-effect predictors (e.g., age), β_{0j} is the only coefficient modeled in level 2 with intercept γ_{00} and predictor W ; and u_{0j} is the level-2 error term, which is assumed to be normally distributed with mean 0 and variance τ_{00} .

LOGISTIC REGRESSION MODEL

The male sex offender facility and female adult facility were modeled separately using logistic regression. Logistic regression expands the scope of linear regression with logit link function to model the relationship between binary dependent variable and continuous or categorical predictive variables. The mathematical formula for logistic regression model follows:

$$\text{logit}(p) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_{1i} + \dots + \beta_p x_{pi}, \quad i = 1..n, \text{ where } p = P(Y_i = 1)$$

where $P(Y_i = 1)$ represents the probability that inmate i experienced sexual victimization, β 's represent the coefficients, β_0 the intercept of the equation, and x_i the predictors (e.g., age).

RESULTS

The characteristics of the samples, as shown in Table 1, are significantly different. Male inmates housed in the sex offender treatment facility, compared with their male counterparts in general population male facilities, were more likely to be in their early 40s, white, older at the time of first arrest, diagnosed with a mental disorder, serving time for a sex offense involving a young victim, and victim of physical and sexual abuse prior to age 18 years. Although male and female inmates in general facilities were similar in their time in the facility and their physical victimization experiences prior to age 18 years, female inmates were more likely to be slightly older, white, diagnosed with a mental disorder, substance abuse, a chronic physical condition, and a victim of sexual abuse prior to age 18 years, compared with male inmates in general population. The criminal histories of male and female inmates also differed; males in general population prisons were first arrested at younger ages, spent more time in prison since age 18 years old, and were more likely to be convicted of violent crimes and to be serving life sentences. The variation in characteristics between the samples in different prison facilities justifies treating them separately in the statistical analysis.

Table 2 shows the odds ratios for sexual victimization for inmates in male general population prisons. It is important to note that the rates of sexual assault (nonconsensual sexual acts) suggest that sexual assaults are rare events (less than 5% of the population). When predicting low base rates, it is difficult to numerically improve predictions (over chance), as reflected in the small number of statistically significant predictors of sexual assault. This complicates statistical efforts to improve the ability to accurately predict which inmates will report sexual victimization. Nonetheless, some consistent predictors of risk exist, and the predictors differ by facility and type of perpetrator and sexual victimization.

First, looking at sexual victimization between inmates, rates of sexual victimization did not vary across facilities with populations with different mean ages (level-2 predictor). Because little variation existed among facilities for models of staff nonconsensual abuse, inmate abusive sexual contact, and any inmate sexual victimization, the HLM models failed to converge, which resulted in the substitution of logit specifications.

Also, several characteristics of inmates exist that elevate their chances for inmate-on-inmate sexual victimization (columns 1, 3, and 5). A mental disorder increases the likelihood of reporting a sexual assault or abusive sexual contacts. Compared with inmates without mental disorders, reporting prior treatment for depression, anxiety, and posttraumatic stress disorder increases the likelihood of sexual victimization by 2.6 to 1.8 within a 6-month time period. Inmates with prior treatment for schizophrenia or

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bipolar disorder were 50% more likely to report an abusive sexual contact within a 6-month time period compared with inmates without prior treatment for mental disorders. Higher level of education was a risk factor for both sexual assault and abusive sexual contact. Only risks of abusive sexual contact were elevated for African-American inmates and for inmates who thought gang activity was high. Most significant, however, was the effect of prior sexual victimization. Inmates who experienced sexual victimization prior to age 18 years were approximately three to five times more likely to report sexual victimization inside prison during a 6-month time period than their counterparts who had no sexual victimization prior to age 18 years.

Second, looking at staff-on-inmate victimization (columns 2, 4, and 6), nonconsensual sexual abuse perpetrated by staff was more likely to be reported by young African-American inmates who had experienced sexual abuse prior to age 18 years. Additionally, risks of abusive sexual contact increased for inmates with less serious mental disorders who were convicted of violent crimes, thought gang activity was high, and had more education. More specifically, inmates with prior treatment for depression, anxiety, or posttraumatic stress disorder; with a violent crime conviction; who thought gang activity was high; and were sexually victimized before age 18 years were three to four times more likely to report at least one experience of sexually abusive contact by staff during a 6-month period than were inmates without these characteristics.

For the male sex offender treatment facility, base rates were very low and complete separation occurred for many of the predictive variables. As a consequence, reliable models could not be estimated because of the combined effects of small event number and sample size. For those models that could be estimated, predictors that elevated the risks of sexual victimization of male inmates in the sex offender treatment facility were as follows: younger age; treatment for depression, anxiety, or posttraumatic stress disorder in the past; and thinking gang activity was high in the facility (see Table 3).

Although the models for the female facility are reliable, very few characteristics of female inmates predicted the likelihood of sexual victimization. Most generally, the risk of abusive sexual contact between inmates (which was reported by over 20% of the sample) was significantly elevated for female inmates who experienced sexual abuse prior to age 18 years and who reported that they thought gang activity was high at the facility. Specifically, female inmates were four times more likely to report at least one event of inmate-on-inmate abusive sexual contact during a 6-month period if they had been sexually abused prior to age 18 years and thought gang activity was high at the facility, compared with female inmates without these attributes (see Table 4).

TABLE 1. CHARACTERISTICS OF INMATE SAMPLE BY GENDER AND TYPE OF FACILITY, SUMMARY STATISTIC, AND 95% CONFIDENCE INTERVAL

Survey Respondent Characteristics	Male, General Population, 12 Facilities (<i>n</i> = 6,964)	Male, Sex Offender, Single Facility (<i>n</i> = 257)	Female, Full Population, Single Facility (<i>n</i> = 564)
Age, mean	34.0 (33.7–34.3)	43.4 (41.9–44.9)	35.5 (34.7–36.3)
Race/Ethnicity			
White, %	19.5 (18.4–20.6)	52.0 (45.3–58.6)	32.6 (28.5–36.7)
African American, %	63.7 (62.4–64.9)	23.4 (18.0–28.8)	56.5 (52.3–60.8)
Hispanic, %	15.7 (14.8–16.6)	17.3 (11.2–23.5)	9.1 (7.1–11.1)
Incarceration Characteristics			
Time at facility, mean years	2.5 (2.3–2.6)	4.3 (3.7–4.9)	2.3 (1.9–2.7)
Life sentence, %	7.8 (7.1–8.6)	1.4 (0–2.8)	4.1 (2.5–5.6)
Time left on sentence, mean years	4.0 (3.8–4.2)	4.1 (3.6–4.6)	2.8 (2.2–3.5)
Time incarcerated 18+, mean years	8.1 (7.9–8.3)	7.5 (6.5–8.6)	4.2 (3.8–4.7)
Committed sex crime, %	3.7 (3.2–4.1)	93.9 (90.8–97.0)	1.2 (0.4–2.1)
Committed violent crime, %	37.1 (35.9–38.4)	2.2 (0.1–4.2)	29.3 (25.4–33.2)
Had young victim, %	4.4 (3.8–5.0)	57.0 (50.3–63.6)	4.1 (2.5–5.7)
Age at first arrest, mean	17.0 (16.8–17.2)	27.0 (25.0–29.1)	22.6 (21.7–23.4)
Clinical Characteristics, %			
Mental health diagnosis	22.8 (21.7–24.0)	43.9 (37.4–50.5)	57.6 (53.3–61.9)
Substance/alcohol abuse	27.1 (26.0–28.3)	17.3 (12.5–22.1)	43.3 (38.9–47.6)
Head trauma	7.5 (6.7–8.2)	11.0 (6.7–15.3)	6.6 (4.5–8.7)
Chronic physical condition	30.8 (29.7–32.0)	50.1 (43.5–56.7)	58.1 (53.8–62.3)
Prior Victimization Characteristics, %			
Prior physical, <18	56.6 (55.3–57.9)	70.7 (64.9–76.6)	52.9 (48.5–57.3)
Prior sexual, <18	9.8 (9.0–10.6)	54.1 (47.5–60.7)	46.2 (41.8–50.6)

NOTE: All estimates are based on weighted valid numbers. Time left on current sentence excludes those with a life sentence.

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TABLE 2. ODDS RATIOS FOR SEXUAL VICTIMIZATION BY TYPE OF VICTIMIZATION AND PERPETRATOR, GENERAL POPULATION ADULT MALE PRISONS

Characteristic	All State Prison 6-Month Prevalence All Male Facilities (<i>n</i> = 6,964)						
	Nonconsensual		Abusive		Any Sexual Victimization		Combined ^a
	Inmate ^a	Staff ^b	Inmate ^b	Staff ^a	Inmate ^b	Staff ^a	
# Assault	107	143	252	477	306	541	734
(%)	1.5	2.1	3.6	6.9	4.4	7.8	10.6
Reliability	0.502	NA	NA	0.723	NA	0.702	0.696
Level 2 Predictor							
Mean age of inmates	0.94	NA	NA	0.99	NA	0.98	0.99
Level 1 Predictors							
Age	1.00	0.95**	1.00	0.98*	1.00	0.97**	0.99
White	1.03	0.34**	0.62**	0.50**	0.73	0.53**	0.64**
Latino	1.00	1.01	1.01	0.94	1.14	0.90	1.00
Schizophrenia and bipolar	1.46	0.96	1.51*	0.94	1.45	1.09	1.28
Other mental health problems	1.84*	1.54	2.58**	1.34*	2.15**	1.37**	1.62**
Time at facility	1.03	1.01	1.00	1.01	1.01	1.00	1.00
Time in prison since 18 years old	0.96	1.02	1.01	1.01	1.00	1.01	1.01
Committed sex crime	1.04	0.82	1.38	0.89	1.34	0.82	1.12
Committed violent crime	0.89	1.14	1.09	1.43**	1.04	1.30**	1.22*
Had young victim	0.60	0.73	0.97	0.89	1.04	0.88	0.90
Age at first arrest	0.99	0.99	1.02	0.98	1.00	0.99	0.99
Sexual victim prior to age 18 years	4.13**	2.68**	3.29**	1.95**	2.87**	1.79**	1.95**
Thought gang activity is high	1.19	1.18	1.48*	1.24**	1.42*	1.15	1.23*
Education	1.17*	1.09	1.14**	1.08*	1.16**	1.08*	1.10**
Test statistics for random intercept or likelihood ratio test for logistic regression							
Chi-square	24.6	55.8	163.1	39.0	145.4	36.9	35.0
d.f.	10	14	14	10	14	10	10
<i>p</i> -value	0.006	<0.0001	<0.0001	0	<0.0001	0	0

^a Models were estimated using HLM and logistic specifications. No differences were found in the sign of the Level 1 variables with model specification nor were meaningful differences found in the size of these coefficients.

^b HLM models did not converge in part because of the small variation among prisons. Logistic regression results are provided instead.

p*-value < 0.05; *p*-value < 0.01.

TABLE 3. ODDS RATIOS FOR SEXUAL VICTIMIZATION BY TYPE OF VICTIMIZATION AND PERPETRATOR, SEX OFFENDER ADULT MALE FACILITY

Characteristic	All State Prison 6-Month Prevalence Male Sex Offender Facility (n = 257)						
	Nonconsensual Inmate ^a	Staff ^a	Abusive Inmate	Staff ^a	Any Sexual Victimization Inmate	Staff ^a	Combined
# Assault (%)	12 4.7	4 1.6	51 19.9	7 2.7	51 19.8	9 3.5	53 20.7
Age			0.95*		0.95*		0.94**
White			1.58		1.61		1.33
Latino			0.52		0.53		0.44
Schizophrenia and bipolar			1.81		1.84		1.54
Other mental health problems			2.16		2.18*		2.43*
Time at facility			1.00		0.99		0.96
Time in prison since 18 years old			0.95		0.95		0.98
Committed sex crime			1.05		1.05		1.01
Committed violent crime			1.16		1.18		1.01
Had young victim			1.05		1.07		0.90
Age at first arrest			0.99		0.99		1.00
Sexual victim prior to age 18 years			1.51		1.53		1.27
Thought gang activity is high			9.11*		9.15*		8.69*
Education			0.91		0.91		0.90
Likelihood Ratio							
Test Statistics							
Chi-square			36.1		39.5		42.1
d.f.			14		14		14
p-value			0.001		0.0003		0.0001

^a Reliable models could not be estimated in part because of the small event numbers and sample sizes.

*p-value < 0.05; **p-value < 0.01.

DISCUSSION

Using self-report data from roughly 8,000 inmates confined in facilities operated by a single state prison system, we found that sexual assault was an uncommon experience in all three types of facilities: male general population prisons, male sex offender treatment facility, and female facility. The factors that predicted elevated risk of sexual assault and abusive sexual contact also varied by type of facility, perpetrator, and victimization. The most significant predictors of inmate-on-inmate sexual victimization

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TABLE 4. ODDS RATIOS FOR SEXUAL VICTIMIZATION BY TYPE OF VICTIMIZATION AND PERPETRATOR, GENERAL POPULATION ADULT FEMALE FACILITY

Characteristic	All State Prison 6-Month Prevalence Female Facility (<i>n</i> = 564)						
	Nonconsensual		Abusive		Any Sexual Victimization		
	Inmate	Staff	Inmate	Staff ^a	Inmate	Staff	Combined
# Assault	21	12	121	41	129	49	148
(%)	3.7	2.1	21.5	7.3	22.9	8.6	26.3
Age	0.98	0.95	0.97	0.95*	0.98	0.95	0.98
White	0.47	0.28	0.76	0.57	0.80	0.59	0.86
Latino	1.65	0.68	1.18	0.75	1.31	1.00	1.13
Schizophrenia and bipolar	1.15	2.22	0.79	1.05	0.86	1.30	1.02
Other mental health problems	1.78	0.85	1.31	1.24	1.22	0.95	1.23
Time at facility	1.00	1.07	1.03	1.09	1.04	1.09	1.04
Time in prison since 18 years old	1.06	1.04	1.01	1.04	1.01	1.04	1.01
Committed sex crime	2.69	3.44	0.25	0.89	1.11	3.19	1.05
Committed violent crime	0.46	0.27	1.08	0.66	1.10	0.57	1.15
Had young victim	0.53	0.80	0.90	NA	0.90	0.38	0.74
Age at first arrest	0.94	1.08	0.99	1.00	0.98	1.01	0.98
Sexual victim prior to age 18 years	0.69	2.40	2.36**	1.53	2.06**	1.65	1.98**
Thought gang activity is high	2.52	3.72	2.01**	0.75	1.91*	1.22	1.97**
Education	1.00	1.16	1.04	1.27	1.04	1.30*	1.10
Likelihood Ratio Test Statistics							
Chi-square	17.8	14.6	38.8	15.1	33.4	15.7	36.6
d.f.	14	14	14	13	14	14	14
<i>p</i> -value	0.22	0.41	0.0004	0.30	0.0025	0.33	0.0006

^a Predictor "Had young victim" is not included in the Staff Abusive model because of complete separation.

p*-value < 0.05; *p*-value < 0.01.

across the male general population facilities were mental disorder, prior sexual victimization before the age of 18 years, education, and impressions of gang activity at the facility. At the sex offender treatment facility, risk of inmate-on-inmate sexual victimization increased for those inmates who were young, who thought gang activity was high, and who had received prior treatment for non-serious mental disorders (e.g., depression). For female inmates, inmate-on-inmate abusive sexual contact was elevated for inmates who had been sexually victimized prior to age 18 years and who thought gang activity was high at the facility. Inmate characteristics among the general population of male inmates that were found to predict staff-

on-inmate sexual victimization included those characteristics generally predicting inmate-on-inmate victimization but also included younger age, African American, and conviction for a violent crime. Younger age and higher education predicted staff-on-inmate sexual victimization inside female facilities.

Our findings are consistent with the broader literature indicating that the base rate of sexual assault is low, although the experience of abusive sexual contact is more common, and that characteristics of the inmate and the facility elevate the risk of experiencing sexual victimization. Protecting individuals from sexual victimization begins with identifying the characteristics that elevate the risk and with treating them as risk factors in the same way that genetic and medical history variables are used as “markers” to predict future medical problems. Markers, in this sense, simply indicate that people with the mark are above average in their risk for a particular problem and that additional steps are necessary to effectively manage the risks for those people. To ignore this information within a medical environment would be tantamount to negligence, a condition of medical malpractice.

Analogous weight should be given to risk factors within a prison environment. It is not that information about factors predicting sexual victimization is without scientific support. Since the 1970s, there has been consistent evidence on factors that elevate the risk for a person of sexual victimization inside prison. These factors include race, physical appearance, sexual orientation, prior victimization, and criminal history. Recommendations for separating at-risk inmates from more predatory inmates date back to the 1970s and 1980s. What appears to be lacking here is not evidence nor recommendations but the existence of a state mandate that requires the implementation of classification schemes that incorporate risk factors for sexual victimization into placement strategies and that monitors victimization rates inside prisons using scientific methods that enhance reliable and accurate reporting. Official rates of sexual victimization chronically underreport sexual victimization inside and outside prisons (Bureau of Justice Statistics, 2004a; Koss, 1992), with rates biased toward zero in prisons. Without reliable monitoring and accountability procedures, little incentive will exist for prison systems to take the necessary steps to keep inmates safe from sexual victimization (because their “official” numbers already indicate that inmates are safe).

In keeping with the meaning of “zero tolerance” zones in American prisons, sexual victimization between inmates and between staff and inmates should not be tolerated in state-funded and operated facilities. In keeping with basic human rights, we should expect that state employees will take the necessary precautions to keep people who are under their

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authority safe from experiences that are criminal and that can be prevented with the application of effective management strategies. More research, however, is needed to better understand the historical and behavioral factors that predict risk.

The evidence further suggests that people who are vulnerable to sexual victimization are those who appear vulnerable—they appear anxious, depressed, diminutive, immature, and fearful. These characteristics signal weakness and vulnerability, which, in a prison setting, is analogous to waving a red flag in front of a bull. The challenge is to design cost-effective strategies for keeping inmates at elevated risk for victimization from becoming victims. Our evidence suggests that prior sexual victimization and mental disorder are significant markers. Yet as noted by Sparks (1981), cross-sectional analyses like those conducted herein can identify factors associated with risk but not the causes of these elevated risks. That is, we cannot determine whether those with histories of sexual victimization or mental disorder have been transformed by those experiences in ways that fundamentally altered their presentation of self (i.e., making them appear more vulnerable to others) or whether these factors are correlated with an unmeasured trait or behavior of the individual. More longitudinal and qualitative research is needed to better understand the causal and contextual processes surrounding sexual victimization inside prison.

Consequently, prior sexual victimization and mental disorder are not perfect markers; only a relatively small percentage of those with these characteristics reported an event of sexual victimization. As shown in Table 1, nearly half of the sample drawn from the female facility were sexually abused prior to the age of 18 years and had prior treatment for a mental disorder, but only a fraction, specifically 5.9% and 28.2% of these women, respectively, reported any nonconsensual and abusive sexual contact (staff or inmate as perpetrator) during a 6-month period. It would be inefficient to assume that all women who had been sexually abused in their youth (or had a mental disorder) were at equal risk of being sexually victimized inside prison. A more cost-effective strategy would require risk profiles that capture the conjoint probabilities of risk markers. These profiles could then be used to identify those individuals who are most likely to be victims of sexual victimization inside prisons. But this effort is not a straightforward exercise. Complicating this effort further is the fact that risk factors are partially endogenous to facilities within a state system and across state systems, which suggests the need to customize profiles to a state system (Camp et al., 2003; Wooldredge et al., 2001). This customizing requires a level of data that heretofore has not been available to researchers.

If the goal is to reduce sexual victimization inside prisons (as suggested by the Prison Rape Elimination Act), action is required by prison officials and researchers to reliably identify those at elevated risk, to develop reliable placement strategies that minimize the proximity of inmates who have predatory tendencies to those at risk of victimization, to accurately and reliably measure the prevalence of sexual victimization, and to train officers and inmates on the meaning and practice of “zero tolerance.” Custodial power should be targeted to ensure zero tolerance because sexual victimization inside prison is not just a crime, but it is also a crime that takes place in a facility that is created, funded, and operated by the state; the state bears the full responsibility for keeping the people under its aegis from harm that is predictable and preventable. The policy of zero tolerance toward sexual victimization inside the prisons of America will become practice when victimization is measured regularly, data are analyzed objectively and reported routinely, and the policy is monitored for compliance. Until then this policy of zero tolerance will be little more than policy rhetoric: It sounds good but, in practical terms, means nothing.

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APPENDIX A. CHARACTERISTICS AND DESCRIPTIVE STATISTICS DEPENDENT AND INDEPENDENT VARIABLES FOR MALE GENERAL POPULATION ($n = 6,964$)

Variables	Definition	Code	<i>N</i>	Range	Mean	S.D.
Dependent Variables:						
Sexual Victimization						
Any inmate	Sexual assault in past 6 months by an inmate	Binary	6,829	0,1 (Y)	0.04	0.21
Nonconsensual	Nonconsensual sexual assault in past 6 months by an inmate	Binary	6,823	0,1 (Y)	0.02	0.12
Abusive sexual activity	Abusive sexual assault in past 6 months by an inmate	Binary	6,767	0,1 (Y)	0.04	0.19
Any staff	Sexual assault in past 6 months by a staff	Binary	6,809	0,1 (Y)	0.08	0.27
Nonconsensual	Nonconsensual sexual assault in past 6 months by a staff	Binary	6,767	0,1 (Y)	0.02	0.14
Abusive sexual activity	Abusive sexual assault in past 6 months by a staff	Binary	6,769	0,1 (Y)	0.07	0.25
Any	Sexual assault in past 6 months by an inmate or staff	Binary	6,835	0,1 (Y)	0.11	0.31
Level 2 Predictor						
Mean age of inmates	Mean age of inmates at facility	Continuous	12	23.2–38.7	32.94	5.87
Level 1 Predictors						
Age	Age on day of survey	Continuous	6,909	18–83	33.83	9.58
White	White and not Hispanic	Binary	6,925	0,1 (Y)	0.17	0.38
Latino	Hispanic ethnicity	Binary	6,934	0,1 (Y)	0.20	0.40
Black (omitted)	Black and not Hispanic	Binary	6,925	0,1 (Y)	0.60	0.49
Schizophrenia and bipolar	Reported prior treatment for schizophrenia or bipolar disorder	Binary	6,863	0,1 (Y)	0.07	0.25
Other mental health problems	Reported prior treatment for depression, anxiety, or posttraumatic stress disorder	Binary	6,863	0,1 (Y)	0.20	0.40
No mental disorder (omitted)	No reported prior treatment for mental disorder	Binary	6,863	0,1 (Y)	0.79	0.41
Time at facility	Time spent in current facility	Continuous	6,878	0–82	1.97	3.47
Time in prison since 18 years old	Time in prison since turning 18 years old	Continuous	6,928	0–82	7.66	7.25
Committed sex crime	Serving time for sex crime	Binary	6,826	0,1 (Y)	0.04	0.18
Committed violent crime	Serving time for violent crime	Binary	6,826	0,1 (Y)	0.36	0.48
Had young victim	Crime involved victim younger than 18 years old	Binary	6,749	0,1 (Y)	0.04	0.20
Age at first arrest	Age when first arrested	Continuous	6,389	1–78	16.98	7.19

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Sexual victim prior to age 18 years	Experienced some form of sexual abuse before age 18 years	Binary	6,605	0,1 (Y)	0.10	0.30
Thought gang activity is high	Indicated statement that gang activity was high at current facility was definitely or mostly true	Binary	6,964	0,1 (Y)	0.65	0.48
Education	Education level	Ordinal	6,930	1–7	2.98	1.25

NOTE: Statistics are based on original data without multiple imputations and weighting.

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APPENDIX B. CHARACTERISTICS AND DESCRIPTIVE STATISTICS DEPENDENT AND INDEPENDENT VARIABLES FOR MALE SEX OFFENDERS ($n = 257$)

Variables	Definition	Code	<i>N</i>	Range	Mean	S.D.
Dependent Variables:						
Sexual Victimization						
Any inmate	Sexual assault in past 6 months by an inmate	Binary	253	0,1 (Y)	0.20	0.40
Nonconsensual	Nonconsensual sexual assault in past 6 months by an inmate	Binary	252	0,1 (Y)	0.05	0.21
Abusive sexual activity	Abusive sexual assault in past 6 months by an inmate	Binary	252	0,1 (Y)	0.20	0.40
Any staff	Sexual assault in past 6 months by a staff	Binary	252	0,1 (Y)	0.04	0.19
Nonconsensual	Nonconsensual sexual assault in past 6 months by a staff	Binary	248	0,1 (Y)	0.02	0.13
Abusive sexual activity	Abusive sexual assault in past 6 months by a staff	Binary	247	0,1 (Y)	0.03	0.17
Any	Sexual assault in past 6 months by an inmate or staff	Binary	253	0,1 (Y)	0.21	0.41
Predictors						
Age	Age on day of survey	Continuous	255	19–78	43.84	11.68
White	White and not Hispanic	Binary	255	0,1 (Y)	0.64	0.48
Latino	Hispanic ethnicity	Binary	255	0,1 (Y)	0.10	0.30
Black (omitted)	Black and not Hispanic	Binary	255	0,1 (Y)	0.23	0.42
Schizophrenia and bipolar	Reported prior treatment for schizophrenia or bipolar disorder	Binary	253	0,1 (Y)	0.11	0.32
Other mental health problems	Reported prior treatment for depression, anxiety or PTSD	Binary	253	0,1 (Y)	0.44	0.50
No mental disorder (omitted)	No reported prior treatment for mental disorder	Binary	253	0,1 (Y)	0.55	0.50
Time at facility	Time spent in current facility	Continuous	256	0–29	3.93	4.75
Time in prison since 18 years old	Time in prison since turning 18 years old	Continuous	256	0–39	7.26	7.76
Committed sex crime	Serving time for sex crime	Binary	252	0,1 (Y)	0.94	0.24
Committed violent crime	Serving time for violent crime	Binary	252	0,1 (Y)	0.02	0.14
Had young victim	Crime involved victim younger than 18 years old	Binary	250	0,1 (Y)	0.59	0.49
Age at first arrest	Age when first arrested	Continuous	242	5–65	27.49	13.52

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Sexual victim prior to age 18 years	Experienced some form of sexual abuse before age 18 years	Binary	250	0,1 (Y)	0.52	0.50
Thought gang activity is high	Indicated statement that gang activity was high at current facility was definitely or mostly true	Binary	257	0,1 (Y)	0.03	0.16
Education	Education level	Ordinal	256	1–7	3.66	1.57

NOTE: Statistics are based on original data without multiple imputations and weighting.

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APPENDIX C. CHARACTERISTICS AND DESCRIPTIVE STATISTICS DEPENDENT AND INDEPENDENT VARIABLES FOR FEMALES ($n = 564$)

Variables	Definition	Code	<i>N</i>	Range	Mean	S.D.
Dependent Variables:						
Sexual Victimization						
Any inmate	Sexual assault in past 6 months by an inmate	Binary	561	0,1 (Y)	0.23	0.42
Nonconsensual	Nonconsensual sexual assault in past 6 months by an inmate	Binary	561	0,1 (Y)	0.04	0.19
Abusive sexual activity	Abusive sexual assault in past 6 months by an inmate	Binary	561	0,1 (Y)	0.22	0.41
Any staff	Sexual assault in past 6 months by a staff	Binary	560	0,1 (Y)	0.09	0.28
Nonconsensual	Nonconsensual sexual assault in past 6 months by a staff	Binary	557	0,1 (Y)	0.02	0.14
Abusive sexual activity	Abusive sexual assault in past 6 months by a staff	Binary	556	0,1 (Y)	0.07	0.26
Any	Sexual assault in past 6 months by an inmate or staff	Binary	561	0,1 (Y)	0.26	0.44
Predictors						
Age	Age on day of survey	Continuous	561	18–67	35.55	9.33
Latino	Hispanic ethnicity	Binary	560	0,1 (Y)	0.32	0.47
Schizophrenia and bipolar	Reported prior treatment for schizophrenia or bipolar disorder	Binary	560	0,1 (Y)	0.14	0.35
No mental disorder (omitted)	No reported prior treatment for mental disorder	Binary	560	0,1 (Y)	0.50	0.34
Time in prison since 18 years old	Time in prison since turning 18 years old	Binary	559	0,1 (Y)	0.21	0.41
Committed violent crime	Serving time for violent crime	Binary	559	0,1 (Y)	0.55	0.50
Age at first arrest	Age when first arrested	Binary	559	0,1 (Y)	0.42	0.50
Thought gang activity is high	Indicated statement that gang activity was high at current facility was definitely or mostly true	Continuous	561	0–23.5	2.04	3.42
Age	Age on day of survey	Continuous	562	0–34	4.31	4.93
Latino	Hispanic ethnicity	Binary	556	0,1 (Y)	0.02	0.13
Schizophrenia and bipolar	Reported prior treatment for schizophrenia or bipolar disorder	Binary	556	0,1 (Y)	0.31	0.46
No mental disorder (omitted)	No reported prior treatment for mental disorder	Binary	549	0,1 (Y)	0.05	0.22
Time in prison since 18 years old	Time in prison since turning 18 years old	Continuous	535	1–63	22.70	9.51

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Committed violent crime	Serving time for violent crime	Binary	553	0,1 (Y)	0.47	0.50
Age at first arrest	Age when first arrested	Binary	564	0,1 (Y)	0.19	0.39
Thought gang activity is high	Indicated statement that gang activity was high at current facility was definitely or mostly true	Ordinal	563	1–7	3.00	1.33

NOTE: Statistics are based on original data without multiple imputations and weighting.