Risk Factors of Sexual Assault and Victimization Among Youth in Custody

Eileen M. Ahlin, PhD

Abstract
Research suggests that youth are at higher risk of sexual assault and victimization while in custody than adult inmates. However, compared with adult inmates, very little is known about the risk factors associated with such violence among youth in custody. Without sufficient research on risk factors associated with sexual assault and victimization among youth in custody, practitioners and policy makers may be reliant on the adult literature when making decisions about how to address and prevent such violence among juveniles. This article seeks to determine if extrapolating data from the substantial prison literature is appropriate by assessing the parallels between risk factors of sexual assault and victimization among youth in custody and those identified for adult inmates. This study uses data of 8,659 youth from the second administration of the National Survey of Youth in Custody (NSYC-2) to assess correlates of sexual assault and victimization during periods of detention. Study findings show that experiences with assault and victimization prior to the present period of detention were stronger indicators of sexual assault and victimization while in custody than youth characteristics and demographics and other experiences with assault and victimization. Further, there are differences in risk factors associated with sexual assault and victimization among youth in custody compared to adult inmates, which emphasizes the risk of prior sexual assault and victimization in the community and prior custodial settings.

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In 2003, the U.S. Congress passed the Prison Rape Elimination Act (PREA) to focus on the public health problem of forced or coerced sexual assault and victimization in detention centers, jails, and prisons. Rape and sexual assault are not new phenomena in custody settings (Fishman, 1934; Kinsey, Pomeroy, & Martin, 1948), though there is renewed interest in enumerating and addressing the issue. Under PREA, the Bureau of Justice Statistics (BJS) is mandated to collect data on sexual assault from juvenile detainees and adult inmates. Their recent estimates show that 9.5% of youth detained in juvenile facilities and 1.8% housed in adult facilities experienced sexual assault or victimization while in custody (Beck, 2014). Such violence is lower among adults with the BJS data revealing that 4% of adults serving time in state and federal prisons and 3.2% in jails endured sexual assault or victimization in the prior 12 months while incarcerated (Beck, 2014). The occurrence and threat of rape or, more generally, sexual assault and victimization, which can be perpetrated by other detainees/inmates or staff create a dangerous and volatile custodial environment. The resulting effects of attempted or completed attacks on detainees and inmates include psychological trauma, physical ailments, and a sense of shame (Smith & Yarussi, 2012; Struckman-Johnson, Struckman-Johnson, Rucker, Bumby, & Donaldson, 1996).

PREA not only aims to quantify the problem but also seeks to address prevention and treatment needs. Despite the PREA mandate to collect data and make prison rape prevention a priority in institutional corrections, scholarly research has yet to focus sufficient attention on sexual assault and victimization among youth in custody to determine if risk factors identified for adult inmates are applicable to youth. The National Prison Rape Elimination Commission (NPREC; 2009) standards offer broad recommendations to correctional facilities primarily aimed at prison management strategies and provisions for postvictimization care. However, NPREC also highlights the need to appropriately assess juvenile risk to ensure suitable residential placement while recognizing there is insufficient research on youth in custody to offer guidance to facilities when making risk determinations.

The present study proposes that risk factors for sexual assault and victimization among juveniles may differ from the characteristics that elevate an adult inmate’s chance of experiencing such violence. The literature on adult inmates’ risk of prison rape (e.g., Dumond & Dumond, 2002) offers a starting point for exploring the phenomenon among youth in custody, but it remains unknown if these risk factors are the same for juveniles. There is a
need to examine the associations between youth characteristics and victimization history as they relate to sexual assault and victimization occurring among youth in juvenile detention facilities. By acknowledging the differences in juvenile and adult developmental stages, such research may help inform interventions and preventive measures for youth in custody. Specifically, experiences with sexual assault and victimization among youth in custody may be age graded, as they are in the general population, and more broadly, risk associated with sexual assault and victimization in carceral settings may differ for youth and adults. This research addresses a critical gap in the literature by examining risk factors associated with sexual assault and victimization among juveniles during a 12-month retrospective period of residential placement.

Prior Research on Sexual Assault and Victimization in Carceral Settings

A substantial body of research examines risk factors among adults in prisons, and the following characteristics have been shown to increase adult inmates’ risk of sexual assault and victimization: being “green” or new to prison (Felson, Cundiff, & Painter-Davis, 2012; Hensley, Koscheski, & Tewksbury, 2005; Man & Cronan, 2001; Morash, Jeong, Northcutt-Bohmert, & Bush, 2012); younger age (Man & Cronan, 2001; Wolff, Blitz, & Shi, 2007)—particularly those who are between 18 and 25 (Jenness, Maxson, Matsuda, & Sumner, 2007); physically slight stature (Man & Cronan, 2001; Tewksbury, 1989); presenting with mental health or cognitive disabilities (Austin, Fabelo, Gunter, & McGinnis, 2006; Jenness, Maxson, Sumner, & Matsuda, 2010; Wolff et al., 2007); being female (see Beck, Berzofsky, Caspar, & Krebs, 2013; Teasdale, Daigle, Hawk, & Daquin, 2016), homosexual or having feminine mannerisms (Hensley, Koscheski, & Tewksbury, 2003; Man & Cronan, 2001; Struckman-Johnson et al., 1996), or identifying as transgender (Jenness et al., 2010); serving time for a sexual or nonviolent crime (Man & Cronan, 2001; Struckman-Johnson et al., 1996; Teasdale et al., 2016); and prior sexual victimization (Steiner, Ellison, Butler, & Cain, 2017; Wolff et al., 2007). A systematic review by Dumond and Dumond (2002) highlights many of these risk factors, and further notes that inmates without a gang affiliation, who violate the inmate code or serve as an informant, are also at greater risk of such victimization. Education level is one paradox in the extant literature. There is some evidence that greater educational attainment raises risk level (Wolff et al., 2007), while others suggest that those on the other side of the spectrum with less education or who have an intellectual impairment have a higher chance of victimization (Austin et al., 2006).
Much violence behind bars can be attributed to the prison culture and attitudes of inmates and guards, while racial animosities are also a risk factor for sexual assault and victimization (Scacco, 1982). While some scholars note that White inmates are the most prevalent victims of inmate-on-inmate assaults (Austin et al., 2006; Wolff, Shi, & Blitz, 2008), Black inmates are more likely to be victims of staff-on-inmate perpetrations (Wolff et al., 2008). Black-on-White inmate rape is more prevalent than White-on-Black rape and may be tied to historical animosity held toward Whites (Austin et al., 2006; Human Rights Watch, 2001; Knowles, 1999; Toch, 1997).

A number of these characteristics directly describe youth (e.g., younger age, lower level of education, less physically developed), and while the other factors may apply to many youth such hypotheses cannot be tested due to a lack of data. The data on risk factors for adults cannot be interpreted as evidence for youth in custody for a variety of reasons: First, youth facilities operate under a different set of parameters and dynamics—namely, adult authority over minors further complicates the coercive nature of institutional control over those in custody. Although any carceral setting is by nature coercive (Colvin, 2007; Marquart, 1986), such a difference may potentially result in a more intimidating environment for youth compared with adults. Second, some youth facilities are of mixed gender adding another layer of inmate perpetrator–victim relationship possibilities (e.g., male–female, female–male) that does not exist in most adult prisons. Third, the age range of detainees in juvenile facilities is much tighter than inmates in adult facilities, suggesting that while adult victims are about 3 years younger than their perpetrators (see Austin et al., 2006) this may not apply to juveniles. Within the literature on juveniles, some scholars suggest that youth in general are more prone to sexual assault and victimization because of increased opportunity (Kimmel, 2003; Travis, 2003) or exposure to motivated offenders (Felson & Cundiff, 2014). Others highlight youth’s vulnerabilities such as being less likely to resist attacks (Siegel, Sorenson, Golding, Burnam, & Stein, 1987) and lacking the physical prowess to fight back (Palmer, 1988). These scenarios may also apply among youth in custody though appropriate testing of these hypotheses in correctional settings is presently absent. This study is a first step to understanding general risk factors of sexual assault and victimization among youth in custody, and this research will serve as a base for future studies that explore whether such nuances in juvenile custody settings matter.

**Youth Experiences With Sexual Assault and Victimization**

Although there is scant research on sexual assault and victimization among youth in custody, we can draw on the scholarly literature that examines such
violence among juveniles in the general population. This body of work sug-
gests that compared with adults, youth are at higher risk of sexual assault and
victimization, a risk that declines with age (Elliott, Mok, & Briere, 2004;
Hashima & Finkelhor, 1999; Planty, Langton, Krebs, Berzofsky, & Smiley-
McDonald, 2013). According to the National Incident-Based Reporting
System (NIBRS), the modal age of sexual assault and victimization is 15
(Felson & Cundiff, 2014) which reinforces the need to address whether this
level of risk is also elevated during periods of custody for youth and, perhaps
more importantly, what factors contribute to such violence.

The prevailing findings of research comparing males and females indicate
that girls experience more sexual assault and victimization than boys, though
the victimization gap has decreased over time with renewed attention to the
topic and increased reporting by young males (see Breiding, Smith, Basile,
Walters, Chen, & Merrick, 2014). In a large-scale national study of youth in
the community, Finkelhor, Turner, Shattuck, and Hamby (2013) examined
youth’s experiences with various types of violence, and 2% reported having
experienced sexual assault or abuse in the last year; the highest rate was
10.7% for girls aged 14 to 17 (Finkelhor et al., 2013). Lifetime rates of any
sexual victimization (a broader offense category that also includes sexual
harassment, attempted rape, and Internet-based assaults) were 10.3% for the
past year and 20.2% lifetime among males aged 14 to 17, and 22.8% in the
past 12 months and 34.9% lifetime among females of the same age range
(Finkelhor et al., 2013). To further unpack youth sexual assault and victim-
ization, Finkelhor, Shattuck, Turner, and Hamby (2014) examined rates of
sexual abuse and assault where an adult was the perpetrator; an important
consideration for youth in custody given the oversight of youth by adult staff
members. Among 17-year-olds and independent of perpetrator type, overall
lifetime experience of sexual assault and victimization was higher among
females, peaking at 26.6%, compared with males, and remained pronounced
for females when considering only adult perpetrators (11.2% for females vs.
1.9% for males).

**Sexual Assault and Victimization Among Youth in Residential Care**

Experiencing sexual abuse as a child is correlated with placement in foster
care and residential facilities such as child protective services and treatment
centers (see Allroggen, Rau, Ohlert, & Fegert, 2017; Collin-Vézina, Coleman,
Milne, Sell, & Daigleault, 2011). Prevalence rates of child sexual abuse
among youth housed in residential care settings are alarmingly high com-
pared with general population estimates. Baker, Curtis, and Papa-Lentini
(2006) found that approximately one third of youth in residential treatment centers previously experienced some form of sexual abuse prior to placement, while at 67% lifetime prevalence of such abuse is much higher among girls placed in foster care (Mendle, Leve, Van Ryzin, Natsuaki, & Ge, 2011).

Out-of-home placements may increase youth’s risk of revictimization (see Finkelhor, Ormrod, & Turner, 2007) by increasing exposure to environments conducive to sexual abuse (e.g., association with high-risk youth, large child-to-caregiver ratio). The culture of such institutional settings, including staff intimidation over youth and adherence to a code of silence, may also contribute to victimization and inhibit youth reports of sexual abuse (see Timmerman & Schreuder, 2014). Although there is little research on sexual abuse occurring during periods of out-of-home placement, there is an emerging literature to suggest substantially higher rates of sexual abuse among youth in residential care compared with their peers in the general population (Euser, Alink, Tharner, van IJzendoorn, & Bakermans-Kranenburg, 2013). Scholars have noted that the risk of sexual abuse in residential care is higher among those who experienced sexual abuse before placement (see Timmerman & Schreuder, 2014), while male youth victimizers in residential care settings often have a history of victimization themselves (Green & Masson, 2002) perpetuating the cycle of violence (Widom & Ames, 1994). Interestingly, gender and race/ethnicity do not substantially increase sexual assault and victimization in residential care (Timmerman & Schreuder, 2014), suggesting that risk factors of sexual abuse among this population are not wholly analogous to those found among adults in institutional settings. However, there is one notable similarity. As with prisons, sexual abuse and victimization in residential care are not only perpetrated by staff but also by fellow peers in the institution (see Timmerman & Schreuder, 2014).

**Consequences of Sexual Assault and Victimization**

Any survivor of sexual assault and victimization is at risk of various detrimental outcomes tied to the event regardless of age. However, negative effects resulting from the experience(s) may be intensified among youth. Childhood physical sexual abuse can lead to higher functional somatic symptoms of mental health issues (Bonvanie, van Gils, Janssens, & Rosmalen, 2015), and younger age at time of assault is associated with the endorsement of more items on trauma symptom inventories (Elliott et al., 2004). Early sexual abuse (before age 15) at the hands of an adult contributes to increased dissociation, somatization, and internalizing disorders such as anxiety and depression, and substance use and abuse (Boroughs et al., 2015; Kilpatrick et al., 2000). There is also a strong link between childhood sexual assault and
revictimization in adulthood (Arata, 2000; Grubb & Bouffard, 2015; Neumann, Houskamp, Pollock, & Briere, 1996). The cycle of violence is also apparent, and childhood sexual abuse has been said to increase the likelihood of sexual offending by 467% (DeLisi, Kosloski, Vaughn, Caudill, & Trulson, 2014). Boys who are sexually assaulted or victimized have a greater risk of becoming perpetrators of sexual assault, particularly if their victimization was forceful, included multiple assaults, and the victimizer was male (Burton, Miller, & Shill, 2002). Furthermore, a number of scholars have identified sexual assault as an antecedent to involvement in delinquency and youth incarceration (Asscher, Van der Put, & Stams, 2015; Evans, Albers, Macari, & Mason, 1996; Siegel & Williams, 2003; Wood, Foy, Goguen, Pynoos, & James, 2002) as well as adult criminality—though the links between childhood sexual abuse and these outcomes are not direct (Widom & Ames, 1994).

While these harmful consequences are informative they are not specific to youth in custody, though a recent study emphasizes that outcomes associated with sexual assault and victimization may be amplified among youth in the juvenile justice system. In their study of justice-involved youth, Chaplo, Kerg, Bennett, and Modrowski (2015) found that survivors of sexual assault and victimization experienced higher rates of posttraumatic stress and self-injurious behavior, suggesting that sexual assault and victimization while in custody may be experienced differently than incidents in noncarceral settings. Building on the gender differences evident in the general population, examining such disparities in juvenile facilities is also necessary as delinquent females who experience sexual assault are significantly more likely than males to experience posttraumatic stress disorder (Wood et al., 2002; but see Abram et al., 2004). Furthermore, girls in the juvenile justice system who experience sexual assault also present with suicidal behaviors more frequently than boys (Rabinovitch, Kerr, Leve, & Chamberlain, 2015).

Despite evidence that youth are at substantial risk of experiencing sexual assault or victimization in the general population and residential placement settings, as well as research that suggests that the longer term psychological impacts that can result from such violence are amplified for youth compared with adults (see Smith & Yarussi, 2012), there is scant research asking youth about such victimizations during periods of detention in correctional facilities. Furthermore, it is not clear if the detrimental outcomes experienced by young people who are sexually assaulted or victimized in noncarceral settings apply to youth in custody. In the next section, the discussion turns to the magnitude of the problem in juvenile facilities by examining the prevalence of sexual assault and victimization, and comparing rates in adult and juvenile correctional facilities to further elucidate the need to delve deeper into this phenomenon among youth in custody.
Scope of Sexual Assault and Victimization in Correctional Facilities

The most comprehensive and methodologically sophisticated data collections on the prevalence of sexual assault and victimization in adult and juvenile correctional facilities are conducted by the BJS, and incorporate representative random samples of correctional facilities. Two series of nationally representative inmate/detainee surveys were funded in response to PREA: the National Survey of Youth in Custody (NSYC) for juvenile populations and the National Inmate Survey (NIS) for adults. According to the most recent waves of data from these BJS surveys, 9.5% of youth detained in juvenile facilities and 1.8% housed in adult facilities experienced sexual victimization while in custody, whereas 4% of adults in state and federal prisons and 3.2% of adults in jails experienced sexual victimization during their incarceration (Beck, 2014; see also Heaton et al., 2016). These estimates have remained relatively steady over the course of the data collection efforts (Beck, 2013). By quantifying the extent of the problem, the BJS survey results are an essential first step in addressing sexual assault and victimization in correctional facilities, and these data suggest that such violence is more prevalent among youth in custody than among adults in jails and prisons.

Although quantification of the extent of the problem is important, there remain sparse data available on factors associated with sexual assault and victimization among youth in custody. This is particularly true in terms of the relative salience of such characteristics in predicting sexual assault and victimization, important components to assessing risk and aiding prevention efforts. While such data would likely serve the purposes of PREA, to reduce sexual assault and victimization among these vulnerable populations, at present, such information on youth in custody is lacking. Relying on the scholarly literature, which encompasses theory development and hypothesis testing inherent to the scientific method, is the preferred mechanism for understanding relationships between variables and establishing evidence-based policy. There is a substantial and deep body of scholarly literature examining and testing theoretical elements of adult prison rape, and there are a host of factors believed to predict victimization based on data ranging from small qualitative studies to nonnationally representative multistate quantitative surveys (see Dumond & Dumond, 2002; Struckman-Johnson & Struckman-Johnson, 2006). Unfortunately, there is no such repository of academic work for juveniles in custody and without such scholarly investigations, practitioners and policy makers may be reliant on the adult literature when making decisions about how to address and prevent sexual assault and victimization in juvenile facilities.
**The Present Study**

The present study explores the correlates of sexual assault and victimization among youth in custody. As noted above, studies have demonstrated that youth experience more sexual assault during periods of detention than adults (Beck, 2014), and the current study wishes to extend this work by examining the relationship between individual characteristics, experiences, and sexual assault and victimization during periods of detention to assess the relevance of adult risk factors in juvenile settings. It is hypothesized that risk factors for sexual assault and victimization among youth in custody will lack complete concordance to those identified among adult inmates. This study is a secondary analysis of data from the NSYC-2, a cross-sectional, nationally representative study (see Beck, Cantor, et al., 2013). The NSYC-2 and other data collections mandated under PREA are housed at the data enclave facility of the Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan to ensure suitable research protection of the sensitive data. Researcher access to the data was approved by the Department of Justice and limited to on-site analysis conducted at the data enclave. The study was authorized by the Pennsylvania State University’s Institutional Review Board (IRB).

**Method**

**Participants**

NSYC-2 was completed by 8,659 youth housed in 273 state-owned or operated detention centers, and 53 locally owned or privately operated facilities (Beck, Cantor, et al., 2013). At least one facility was randomly sampled from each state and the District of Columbia. Respondents were then randomly selected among residents of the facilities sampled for the study and asked to participate in the survey. All respondents provided assent, and various methods of parental consent (e.g., *in loco parentis*) were employed depending on the requirements of the detention facility and jurisdiction. Data were collected using audio computer-assisted self-interviewing (ACASI) to facilitate confidential reporting of victimization, and aid respondents who had low literacy and language skills (Beck, Cantor, et al., 2013). Survey participants were asked to self-report their experiences while in custody on a variety of topics, including sexual assault.

**Measures**

*Sexual assault and victimization.* The outcome of interest is forced sexual assault perpetrated by a staff member or other youth resident. Respondents
were asked whether they experienced any forced sexual assault while in custody during the past 12 months, or since arriving at the detention facility if the youth began their period of detention less than a year before the survey was administered. The dependent variable was coded as any forced sex, 0 = no/1 = yes, and captured data on any nonconsensual sexually related activity where the respondent was the victim and the act was perpetrated by another youth or staff member.

**Youth characteristics and demographics.** Predictor variables were grouped as youth characteristics and demographics, and prior experiences with assault and victimization. Youth traits included a series of binary (0 = no/1 = yes) variables: male, age (<16 years old), African American, Hispanic ethnicity, self-identifying as nonheterosexual (0 = totally straight/1 = other), and gang membership. Three categorical variables were also examined: height (1: ≤65 inches; 2 = 66-70 inches; 3: ≥71 inches), weight (1 = 140 lbs or less; 2 = 141-160 lbs; 3: >160 lbs), and time in current juvenile detention facility (1: <1 month; 2 = at least 1 month but less than 6 months; 3 = at least 6 months but less than 12 months; 4 = 12 months or more).

**Prior experiences with assault and victimization.** A second set of predictor variables captured respondents’ past experiences with assault and victimization. These include the following binary (0 = no/1 = yes) variables: forced sexual contact prior to present detention, forced sexual contact in a previous detention facility, staff member purposefully hurt respondent, another youth purposefully hurt respondent, respondent was written up or charged for fighting with or threatening a staff member, and youth filed a written complaint about a staff member.

**Analysis**

Descriptive statistics were generated to determine characteristics of the sample. To assess correlates of sexual assault and victimization, a series of logistic regression models using a logit function were employed, and the analysis proceeded in two stages: First, youth characteristics and demographic variables (Model 1) were explored as predictors of sexual assault and victimization, and next, experiences with assault and victimization (Model 2) were regressed on the outcome variable. Second, in a mediation model (Baron & Kenny, 1986), youth characteristics and demographic variables were regressed on the outcome variable while controlling for experiences with various types of assaults and victimization (Model 3). The mediation model (see Figure 1) tests if such experiences explain any relationship between
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individual characteristics and sexual assault and victimization among youth in custody. All analyses were conducted using Stata Version 13 (StataCorp LP, College Station, TX). The outcome was collected as a binary variable, and results are presented as \( \exp(\beta_m) \) to exhibit the odds ratio of a 1-unit increase in \( X_m \).

**Results**

Descriptive statistics of the respondent’s demographic characteristics and expected predictors of sexual assault and victimization are reported in Table 1. A total of 7,794 respondents (90%) were male, and 3,412 (almost 40%) were African American while 1,309 (15%) identified as Hispanic. Approximately two thirds (\( n = 5,582; 64.5\% \)) were younger than 16 at the time of the survey, and 13\% (\( n = 1,128 \)) identified as nonheterosexual. About 6\% (\( n = 527 \)) reported having experienced any forced sexual assault or victimization in the past 12 months of detention.

Results from the three logistic regression models examining predictors of forced sexual assault and victimization are presented in Table 2. Model 1 demonstrates a significant increase in the risk of forced sexual assault or victimization for youth who identified as nonheterosexual, \( \exp(\beta) = 3.66, p = .000 \). Compared with heterosexual youth, those who self-identified as nonheterosexual had a 266\% greater chance of experiencing forced sexual assault or victimization while in custody. Youth in gangs had a significant and increased risk of such victimization compared with nongang members where risk of expected forced sexual assault or victimization was 117\% greater for gang members, \( \exp(\beta) = 2.17, p = .000 \). Forced sexual assault and victimization was less likely to occur among youth who were newer to the facility. Youth who had been in the facility longer had a greater chance of being sexually assaulted or victimized compared with residents who spent less time in custody. With every unit increase in time in custody, a detainee was 21\% more likely to be sexually assaulted or victimized, \( \exp(\beta) = 1.21, p = .000 \). There were no significant differences in risk for the other demographic characteristics.
From the data for Model 2, it is apparent that past experiences with assault and victimization increased risk of forced sexual assault and victimization during custody. The risk of experiencing forced sexual assault or victimization in the past 12 months (or since detention in the current facility) was 52% greater among youth who had forced sexual contact before their present detainment, \( \text{Exp}(B) = 1.52, p = .003 \), and 697% higher for those who had any prior sexual contact (forced, coerced, or consensual) while detained in another facility, \( \text{Exp}(B) = 7.98, p = .000 \). Youth who experienced other types of violence at the hands of staff or other detainees were more likely to report sexual assault or victimization. Risk of forced sexual assault or victimization increased by 155% for youth hurt by staff, \( \text{Exp}(B) = 2.55, p = .000 \), and 179% for youth hurt by another juvenile, \( \text{Exp}(B) = 2.79, p = .000 \). There was no evidence that being written up or charged for fighting or threatening facility staff influenced forced sexual assault or victimization.
Table 2. Multinomial Logistic Regression to Predict Sexual Assault and Victimization Among Youth in Custody.

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
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<th>Model 2</th>
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<th>Model 3</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
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<td>0.198</td>
<td>1.359</td>
<td>0.623</td>
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<td>Less than 16 years old</td>
<td>0.121</td>
<td>0.122</td>
<td>1.129</td>
<td>0.623</td>
<td>0.321</td>
<td>1.865</td>
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<td>African American</td>
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<td>Sexual orientation</td>
<td>1.297***</td>
<td>0.145</td>
<td>3.658</td>
<td>0.679**</td>
<td>0.255</td>
<td>1.972</td>
<td>0.679**</td>
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<td>Gang member</td>
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<td>0.117</td>
<td>2.166</td>
<td>0.624*</td>
<td>0.278</td>
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<td>Height</td>
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<td>Weight</td>
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<tr>
<td>Time in facility</td>
<td>0.193**</td>
<td>0.064</td>
<td>1.213</td>
<td>0.005</td>
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<td>Forced sexual contacts before entrance to facility</td>
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<td>0.198</td>
<td>1.523</td>
<td>0.149</td>
<td>0.244</td>
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<td>0.149</td>
<td>0.244</td>
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<td>Prior forced sexual contact in other facility</td>
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<td>0.219</td>
<td>7.973</td>
<td>1.789***</td>
<td>0.275</td>
<td>5.983</td>
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<td>0.232</td>
<td>2.550</td>
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<td>0.304</td>
<td>2.309</td>
<td>0.837**</td>
<td>0.304</td>
<td>2.309</td>
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<td>0.214</td>
<td>2.787</td>
<td>1.241***</td>
<td>0.264</td>
<td>3.459</td>
<td>1.241***</td>
<td>0.264</td>
<td>3.459</td>
</tr>
<tr>
<td>Written up/charged with physically fighting with staff</td>
<td>-0.027</td>
<td>0.290</td>
<td>0.973</td>
<td>-0.283</td>
<td>0.391</td>
<td>0.754</td>
<td>-0.283</td>
<td>0.391</td>
<td>0.754</td>
</tr>
<tr>
<td>Written up/charged with threatening facility staff</td>
<td>0.425</td>
<td>0.230</td>
<td>1.530</td>
<td>-0.023</td>
<td>0.305</td>
<td>0.977</td>
<td>-0.023</td>
<td>0.305</td>
<td>0.977</td>
</tr>
<tr>
<td>Filed written statement complaining about staff</td>
<td>0.466*</td>
<td>0.211</td>
<td>1.594</td>
<td>0.485</td>
<td>0.257</td>
<td>1.624</td>
<td>0.485</td>
<td>0.257</td>
<td>1.624</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
Model 3 tested the mediating effects of past experiences with assault and victimization (sexual or nonsexual in nature) on the relationship between juvenile demographic characteristics and forced sexual assault and victimization while in custody during the previous 12 months. Past experiences with assault and victimization (variables from Model 2) are considered to mediate the relationship between juvenile demographic characteristics (variables from Model 1) and the outcome variable if the indicators of past experiences with assault and victimization are statistically significant predictors of forced sexual assault and victimization when controlling for juvenile demographic characteristics (Model 3).

As shown in Model 3, adding past assault and victimization experiences to the model resulted in complete mediation between length of time in the facility and forced sexual assault or victimization where the effect of the predictor variable became null. Youth sexual orientation and gang membership remained significant predictors of the outcome variable, though their magnitudes were reduced in the full model suggesting partial mediation. The mediation of Model 1 variables in Model 3 indicate that at least some juvenile demographic characteristics influence forced sexual assault and victimization through past experiences with victimization and assault. Furthermore, gender remained nonpredictive of sexual assault and victimization.

Although statistical significance is retained, reductions in magnitude were also evidenced for prior sexual contact in another facility and being hurt on purpose by a staff member; two indicators of past experiences with victimization and assault. Experiencing forced sexual contact before the current detention was no longer a significant predictor of forced sexual victimization or assault in the past 12 months after demographic characteristics were added to the model.

Discussion

PREA requires the federal government to quantify the prevalence of sexual assault in carceral and custodial settings, while also mandating that states take seriously the implications associated with such victimization. BJS coordinates these multiple PREA data collection efforts which have provided eye-opening insight into the depth and reach of this public health problem. Less understood, particularly among youth in custody, is the impetus behind forced sexual assault and victimization, and what characteristics or experiences increase the risk of enduring such an incident. This lack of knowledge is at least partly attributable to insufficient data available for analysis on youth in custody, which translates into agencies needing to rely on research conducted with adult inmates, and more recently youth in residential care, to promulgate policies to protect
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juveniles in carceral settings. A main goal of this article was to determine whether extrapolating data from the substantial prison literature is appropriate by assessing the parallels between risk factors of sexual assault and victimization among youth in custody, and those identified for adult inmates.

The analyses of the NSYC-2 data presented here establish two similarities in risk for juveniles and adults. Identifying as nonheterosexual and having a history of sexual victimization are significant risk factors for both populations. Concordance in risk factors associated with sexual assault and victimization for youth detainees and adult inmates is not discernible for the other factors examined in Models 1 to 3. There is consensus in the literature that adult inmates are at greater risk of sexual assault and victimization when they are younger (particularly between 18 and 25 years), new to prison, and physically slight in stature. Contrary to those findings, the results of the current study did not show that these factors posed any significant increase in the risk of sexual assault or victimization among youth in custody. The insignificance of age among youth in this study could be a function of the homogeneity of offender ages in juvenile facilities, and physical development between youth may not be markedly different. There is no clear explanation for why a lack of experience with detention and a youth’s physical stature are not related to sexual assault and victimization when they are established risk factors for adults. Pragmatically, it would make sense that these characteristics would place a youth at higher risk, though their lack of significance underscores the need to understand this public health problem through the lens of the juvenile data and literature rather than relying on the robust data available on adult inmate experiences.

Another notable discrepancy is the positive relationship between length of time in the juvenile facility, and risk of sexual assault and victimization in Model 1. Adults who are “green” or new to prison are at greater risk of sexual assault or victimization, whereas the youth in this study had greater chances of experiencing such violence as their time spent in custody increased. In the final analysis (Model 3), length of time in the facility was no longer significant, suggesting that other variables may mediate the relationship between time in facility, and risk of sexual assault and victimization. A more nuanced examination of risk factors controlling for time spent in custody combined with an assessment of supervisory practices would provide useful information for policy development. Increase in risk may coincide with reductions in supervision of youth after the intake period and the first few months of custody where staff monitor youth more closely to determine education, health, and treatment needs while also screening for victimization risk under PREA (Browne, Hastings, Kall, & diZerega, 2015; Schanbacher, 2015). More simply, however, the period of observation may be insufficient for identifying
victimizations among youth who were interviewed for NSYC-2 just a few months into their detention. Two of the four ordinal categories on the survey captured whether the respondent’s stay was less than 6 months. Treating current length of time in the facility as a continuous variable may provide greater distinction across time at risk and allow for more meaningful interpretations of the results.

Interestingly, gang membership increased risk of sexual assault and victimization among youth. This finding is contrary to the adult literature which has suggested that gang membership acts as a protective factor (Dumond & Dumond, 2002). Additional work is necessary to understand how association with gangs operates among youth in custody, and if there are differences across detainee subgroups. For example, there is evidence that gang membership may have a null effect on youth-on-youth sexual assault and victimization but only among males (see Ahlin, 2018). Defining gang membership, whether affiliation continued from the street or was attained during custody, would also shed some light on this issue. While institutional gang membership is more likely among youth who have spent less time in custody (see Scott, 2014), it is not clear when gang membership began among the youth in the present study and how it contributes to the risk of sexual violence.

Additional study is necessary to unpack age-appropriate concerns which are not addressed in research conducted with adult inmates. For example, there is an added element of coercion implicated in the role of detention officers in juvenile facilities. Unlike adult jails and prisons, where guards and inmates are above the age of 18, youth are poised to experience exploitation or coercion that could be cloaked behind the guise of guardianship. Juveniles are expected to adhere to requests and mandates by detention officers not only because they are under supervision of the juvenile justice system but also because society expects youth to respect and obey adult authority figures. While the present study sought to establish whether risk factors of sexual assault and victimization for youth were different than those among adult populations, it would also be interesting to assess if these risk factors differ across types of perpetrators. Further work is required to establish the viability of these findings by comparing sexual assault and victimization committed by staff with those acts committed by other youth.

The findings from the present study serve as a foundation for additional inquiry into sexual assault and victimization among youth in custody. Research addressing the increasingly diverse populations (see Office of Juvenile Justice and Delinquency Prevention, 2015) of juvenile detention facilities is also necessary. An in-depth analysis of sexual orientation and race/ethnicity would provide insight into the generalizability of these results with traditionally marginalized groups. Further research should also address
the cycle of violence. The results from these analyses provide support for the hypothesis that prior experience with victimization increases risk of further victimization. This cycle of violent victimization is not unexpected, though it provides cause for concern among this vulnerable population. Youth who experience violent victimization, including sexual assault, are more likely to encumber negative psychological sequelae at greater magnitudes than adults (Smith & Yarussi, 2012). These findings raise intriguing questions regarding risk of sexual assault and victimization among youth in custody, while also suggesting the possibility that the harm induced from such violence in a carceral setting may be more substantial for juveniles than for adults.

**Limitations**

With each additional data collection, the BJS reports can tell us about change in sexual assault and victimization in the United States over time. However, like many other government-sponsored data collections, the BJS surveys rely on probability samples of a cross-section of institutions and detainees/inmates. As such, only general statements about increases, decreases, or stability in sexual assault and victimization can be made which prevents any analysis regarding institutional or detainee change over time. Furthermore, Listwan, Colvin, Hanley, and Flannery (2010) demonstrated the negative influence the prison environment can have on adult inmates as they cope with victimization, and it would be interesting to test whether similar facility-level variables (e.g., facility type, private/state) are related to youth’s experiences. Such multilevel facility data were collected during the NSYC-2 survey though, due to confidentiality concerns surrounding this data collection effort, these variables are not available for analysis even through the ICPSR data enclave. Because youth are nested in juvenile detention facilities, it is reasonable to expect that there may be dependencies in the data that violate the assumptions of traditional regression modeling (e.g., independence of error) leading to imprecise measurement. Additional analyses exploring within and between facility differences could provide substantive and practical information on the role, if any, facility components have in determining risk of sexual assault and victimization among youth in custody. Further research should also be undertaken to investigate whether the risk factors identified in the present study are consistent across types of perpetrators. As noted in the adult prison and youth in residential care literature, there may be different risk factors and pathways to victimization by adult staff and peers. Despite these limitations, the present study contributes to the literature on sexual assault and victimization in carceral settings while also underscoring the need for additional research.
Practical Implications

The findings of this study have a number of practical public health implications. Juvenile correctional facilities and their staff can mitigate vulnerability to sexual assault and victimization by establishing protocols to identify at-risk youth, and developing mechanisms for responding to staff and youth perpetrators to increase safety. In the shorter term, addressing sexual assault and victimization among youth in custody has the potential to reduce sexually transmitted disease, including HIV (Kang et al., 2005; Krebs & Simmons, 2002; Maruschak, 2010); a prevalent problem in closed institutions such as prisons. Substantive ramifications for longer term consequences may be felt by reducing victimization and the detrimental effects of direct exposure to violence, and the trauma associated with sexual assault and victimization. By focusing on protecting youth in custody from experiencing such violence, the correctional system may indirectly reduce perpetration of victimization by youth after they are released to their communities by interrupting the cycle of violence (see Hummer & Ahlin, in press).

Conclusion

PREA seeks to improve public health by addressing prison rape and related forms of sexual assault and victimization among adults and juveniles in custody. Using data from the NSYC-2, the current study highlights the importance of examining correlates of youth sexual assault and victimization in carceral settings, and establishing practical implications for youth independent of the literature on adult prison rape. The empirical findings of this study document a substantive difference in the risk of sexual assault and victimization among youth in custody and adult inmates, and raised important questions about the nature of policy and practice recommendations emanating from PREA, particularly whether those policies should be based on existing adult prison research. Policies and practices for youth in custody should be developed to address risk factors specific to juveniles and screen incoming residents for prior experience with a range of victimizations. Additional research is needed to explore how youth demographic characteristics and prior experiences with violence may differentially influence risk among youth in adult jails and prisons, as well as across perpetrator–victim relationship (e.g., inmate–inmate, staff–inmate).

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Notes
1. White, non-Hispanic was the referent group.
2. Respondents self-identifying as nonheterosexual could select the following sexual orientations: Mostly straight but kind of attracted to people of their own sex; bisexual—that is attracted to males and females equally; mostly gay (homosexual) but kind of attracted to people of the opposite sex; totally gay (homosexual); and not sexually attracted to either males or females. Due to low response rates for these individual categories, they were grouped for analyses.
3. Percentage is calculated using the formula: $100 \times (\exp(b \times \delta) - 1)$, where $\delta = 1$.

References


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