Current Trauma Reports (2022) 8:172–178
https://doi.org/10.1007/s40719-022-00234-4

INTENTIONAL VIOLENCE (S BONNE AND M CRANDALL, SECTION EDITORS)

Violence in Incarcerated Populations: a Review of the Literature

Ayana Worthey[1] · Arielle Thomas[2,3] · Caitlin Jones[1] · Adil Abuzeid[1] · Cassandra Q. White[4]

Accepted: 3 June 2022 / Published online: 27 July 2022

Abstract

Purpose of Review To provide an overview of the current research surrounding violence in prison populations.

Recent Findings It has been a long-held misconception that race plays a factor in the propensity to commit violence leading to the higher rates of incarceration. On review of recent data, exposure to violence and socioeconomic status play a big part in not only how a person's path leads to incarceration, but also to the continuation of the cycle of violence. The lack of effective interventions in the prison and jail environments also contributes to the incidence of violence in this patient population. Furthermore, this lack of intervention leads to the development, or worsening in some cases, of medical and psychiatric problems in this group.

Summary Incarcerated populations are at high risk for physical and sexual assault from other inmates as well as from staff. The consequence of this environment exacerbates pre-existing physical and mental conditions. Further research must be done into evidence-based interventions that address these overwhelming disparities.

Keywords Violence · Incarcerated populations · Prisoners · Prison · Penal institutions

Introduction

There are almost 2 million individuals who are incarcerated in the USA in state and federal prisons or jails [1]. Violence in prisons is pervasive and has been estimated to affect a third of men and a fourth of women behind bars. Beyond the long-term physical implications of this problem, there is substantial evidence that incarcerated persons suffer from higher rates of psychiatric conditions than the general population, increased risk of mortality on release, and increased risk of recidivism associated with poor health [2–4]. Furthermore, special populations such as LGBTQ + , juvenile populations, and females are at increased risk of experiencing violence, physical or sexual, while incarcerated [5, 6]. Though the USA releases regular reports on mortality and sexual victimization in prisons and jails, there has not been a recent full review of violence in prison populations.

To better examine the trauma experienced by incarcerated persons within the USA, the authors consider the following four specific categories: homicide, suicide, physical assault, and sexual assault. While these categories are not conclusive, they provide a broad framework for discussion. The existing data on trauma experienced by incarcerated persons is often sparse or outdated with cited sources frequently being government-issued reports. Finally, special populations such as juvenile and LGBTQ populations are at increased risk of experiencing violence due to their vulnerable status.

This article is part of the Topical collection on *Intentional Violence*

✉ Cassandra Q. White
cassandra.white@jax.ufl.edu

Ayana Worthey
aworthey@augusta.edu

Arielle Thomas
athomas@facs.org

Caitlin Jones
caijones@augusta.edu

Adil Abuzeid
aabuzeid@augusta.edu

[1] Medical College of Georgia, Augusta University, Augusta, GA, USA

[2] Feinberg School of Medicine, Northwestern University, Chicago, IL, USA

[3] American College of Surgeons, Chicago, IL, USA

[4] University of Florida College of Medicine – Jacksonville, 655 West 8th Street, Jacksonville, FL 32211, USA

Homicide

According to *Mortality in State and Federal Prisons, 2001–2018—Statistical Tables*, homicides accounted for approximately 2% of state and 3% of federal inmate deaths during this time period at a rate of 10 per 100,000 state prisoners and 8 per 100,000 federal prisoners by 2018 [7]. These rates more than double the US homicide rate of 4 per 100,000 residents after adjustment for age, sex, and race/ethnicity. Homicides include the following: homicides committed by other inmates, incidental to the staff use of force, and resulting from assaults sustained prior to incarceration [7]. Of note, these statistics exclude deaths that occurred in privately owned federal facilities as the Bureau of Prisons (BOP) submitted limited aggregated data to the Bureau of Justice (BJS) [7]. Males are overrepresented as homicide victims in state prisons with an average annual rate of 6 per 100,000 male prisoners vs. < 1 per 100,000 female prisoners. When evaluated by race, White inmates constitute approximately 44.6% of homicide deaths while Black and Latino inmates constitute 35.5% and 16.9% of state inmate homicide victims respectively. Interestingly, Blacks and Latinos comprise a higher percentage of total inmates at the state level compared to Whites per the bulletin *Prisoners in 2015* [8]. Finally, state inmates were most likely to die due to homicide if they were between 25 and 34 years of age, and least likely to be a homicide victim if less than 18 years of age. Death by homicide continues to decline in the later decades of life and is superseded by death due to illness.

Reidy et al. and Reidy and Sorensen et al. describe risk factors for homicide perpetrators as males who were incarcerated for a violent crime typically serving a lengthy sentence (almost 50% of the perpetrators were serving a sentence of 30 years or more) [9, 10]. The most common location for homicides is inmates' cells (44%), followed by common areas (19%), and the prison yard (16%), and about half of the victims were stabbed to death [10]. Homicide perpetrators were more likely to commit rule violations, have a prior criminal record, and have institutional maladjustment than other inmates [10].

Suicide

Suicide is a leading non-medical cause of death for inmates with the rate increasing by 85% by the end of the study period in 2018 according to the BJS [7]. By 2018, suicide accounted for 26 per 100,000 prisoners and 19 per 100,000 prisoners at the state and federal levels respectively, the highest rate since the report's inception [7]. As of 2019, the unadjusted suicide rate for the US population is 17.97 per 100,000 residents, which is similar to the unadjusted rate in 2018 [11]. At the time of this publication, there are no updated statistics regarding the prison population.

Similar to inmate homicide, suicidality in prisons disproportionately affects males compared to females (17 per 100,000 prisoners vs. 13 per 100,000 prisoners) [7]. Furthermore, inmate death by suicide was most common among ages 25–44 (60%) [7]. The racial breakdown of inmate suicide victims mirrored that of homicide: White inmates were found to be 3 times more likely to commit suicide than Black inmates and 4 times more likely than Latino inmates [7]. Finally, the suicide rate in local jails (45 per 100,000 inmates) was over double the rate in state prisons (17 per 100,000 inmates) [12].

Risk factors for victims of suicide inside correctional facilities were male gender, prior history of substance use, history of traumatic brain injury, single-occupancy cells and/or isolation, non-suicidal self-injury, prior history of attempted suicide, violent offense as reason for incarceration, childhood adverse events, and diagnosed history of mental illness [13–16]. Longer sentences correlated with higher suicide risk [14]; however, in a 2020 study by Dixon et al., more than half of suicide victims were incarcerated less than 1 week and a quarter was incarcerated for less than 24 h [17]. More than 90% of incarcerated suicide victims were in a cell at the time of fatal injury and 1/3 of suicides occurred between noon and 6 pm with an overrepresentation of individuals who were in single-occupancy cells or in segregation [17].

Physical Assault

There is a paucity of data regarding the incidence of physical assault within prisons in the USA. Persons currently incarcerated may withhold reporting of violent offenses for a litany of reasons, such as personal safety while still incarcerated. The rate of violence-related injuries is estimated at 15,721 per 100,000 inmates with male inmates being twice as likely to be violently injured than females (16,252 per 100,000 males vs. 8397 per 100,000 females) [18]. Physical assault can be defined as inmate-on-inmate, inmate-on-staff, or staff-on-inmate depending on the aggressor [19]. A 2009 survey of 6964 male general population inmates aged 18 or older at 12 male adult prisons operated by a single state reported that nearly 32% of these inmates sustained at least one physical assault over a 6-month period [19]. Physical assault victims were more likely to be Black, aged between 30 and 40 years, and serving sentences greater than 5 years in length [19]. The most common types of inmate-on-inmate

assaults in this study were as follows: harm with a knife or "shank"; a makeshift knife often made of metal scraps that are sharpened (39.2%); being slapped, kicked, or bitten (16.9%); or hit with an object (9.2%). The most common types of staff-on-inmate physical assaults were threat of harm or harm with a knife or shank (24.6%); being slapped, kicked, or bitten (20.4%); and being "beat up" (13.9%).

Greater than 40% of victims of inmate-on-inmate assaults knew their attacker; greater than 65% of assault perpetrators were known or self-purported gang members [19]. Notably, more than three-quarters of inmate-on-inmate assaults were witnessed by other inmates, but not by prison staff. This illuminates a likely contributing factor to the lack of reporting and investigation of inmate-on-inmate assaults due to absence of staff corroboration during the investigation and lack of accountability for guilty parties [19]. Other risk factors for perpetrating violent injury include a personal history of hostility and aggressiveness, physical impairment, prior history of violent offense, history of violent victimization prior to or during incarceration, recent history of mental health treatment, overcrowding, incarceration in a maximum security prison, and history of delusions or hallucination in the last year [18, 20].

Pre-incarceration factors appear to contribute to an inmate's propensity to either commit a violent act against another or be a victim [21]. Prisoners with a higher socioeconomic status, more education, or a history of non-criminal employment prior to incarceration were less likely to commit offenses against other inmates. While female prisoners have the same pre-incarceration risk factors, it has been shown that females are less likely to offend if they have children, while family status does not appear to have this same effect on males [21].

Lastly, aggressors committing infractions (violent and non-violent) within the prison system also have a higher rate of prior violence exposure compared to the general population [22]. In a study performed by Steiner and Meade, it was noted that 71% of the state inmate sample were exposed to violence [21]. Of those exposed to violence, 39% were abused as children, while close to 50% were abused as adults. Additionally, 70% were physically abused while 10% were sexually assaulted [22]. While bivariate analysis noted that almost all measures of violence exposure led to performing some type of infraction, multivariate analysis showed that those who were abused as children were more likely to commit assaults and other infractions [21].

Sexual Assault

Much of our knowledge regarding sexual assault within prisons stems from the Prison Rape Elimination Act (PREA). Passed in 2003, PREA developed standards for reporting, addressing, and preventing sexual violence in jails and prisons, as well as redefining rape in a more gender-inclusive way [23]. Once an allegation has been made, PREA requires prison authorities to perform an investigation, after which the claim is either found to be a "substantiated allegation," meaning the event was determined to have occurred based on available evidence; an "unfounded allegation," meaning the event did not occur; or an "unsubstantiated allegation," meaning there was insufficient evidence to determine if an act of sexual victimization had occurred [24].

The BJS considers sexual violence in two broad categories of sexual victimization: inmate-on-inmate and staff-on-inmate. This can then be broken down into consensual, nonconsensual, bartering, and coercion [25]. The BJS Special Report entitled *Sexual Victimization Reported by Adult Correctional Authorities, 2012–15* revealed that investigations were performed for 28,507 of the 30,590 inmate-on-inmate allegations (93%), and 32,809 of the 36,578 staff-on-inmate allegations (90%) during the 4-year period. Only 8%, or 5187, of these completed investigations were found to be "substantiated" [24] Between 2011 and 2015, a 180% increase in reporting was seen in federal and state prisons and jails with similar trends of increased reporting seen in military-run facilities and immigration detention centers [24]. Notably, up to 58% of all reported incidents of sexual victimization were perpetrated by prison and jail staff [24].

Though there are few recent studies that examine the risk factors for perpetrating sexual misconduct, main predictors in the literature for inmate-on-inmate infractions are increased number of previous incarcerations, longer length of time served, history of committing a violent offense, previous sexual victimization, presence in a closed security facility, and younger age [25, 26]. Individuals at higher risk for being sexual assault victims are female, members of the LGBTQ + community, have a history of mental illness, have a college degree, or have a history of childhood sexual abuse [5, 27, 28]. Physical assault and sexual assault are intricately linked with 44% of victims of inmate-on-inmate sexual victimization and were accompanied by physical assault or threat of force [29]. Furthermore, 12% of inmates experienced coercion of some kind, and 5% of incidents occurred in exchange for bribes of drugs or contraband, or by blackmail [29]. Finally, the consequences of sexual misconduct are significant with about 18% of all inmate-on-inmate sexual victimization and 28% of nonconsensual victimization resulting in injury.

Staff-on-inmate sexual victimization includes a range of acts that range from sexual harassment, privacy violations, to inappropriate touching and invasive prisoner pat-downs. The majority of reported cases are committed by correctional officers [5, 28]. A hallmark of staff sexual misconduct is coercion, which has been found to include exchange of sexual acts for resources, protection from inmate-on-inmate

violence, and fear of physical force [28]. Physical force and pressure or abuse of power were identified in 20% of incidents involving male staff, compared to 1% of incidents involving female staff [29]. However, 54% of staff-on-inmate sexual misconduct and 26% of sexual harassment in prisons were committed by females while 80% of staff perpetrators were male in local jails [29].

Finally, African American males have long been considered to be more likely to perpetrate inmate-on-inmate sexual assault based on outdated studies looking at sexual misconduct [30, 31] and misconduct as a whole [32–34]. More recent studies have not found this to be true, either finding other races and ethnicities to be more likely to perpetrate violence, or finding no association between race and misconduct at all [34–36]. The differing impact of race on misconduct (sexual or physical) implies that it may not be race but another mediating variable such as socioeconomic status, regional characteristics of the facility, or personal background that may be influencing results.

Mental and Physical Consequences of Incarceration

The unique environment of prison contributes significantly to development, or exacerbation, of physical and mental health diagnoses in prisoners. Incarcerated individuals are more likely to have worse physical conditions such as infectious diseases, obesity, cardiovascular disease, hypertension, and cancer [37–40]. Incarceration is associated with an increased risk of premature mortality with a greater risk for women [4].

The prevalence of severe mental disorders (defined as mental disorders that interfere with an area of social functioning such as depression, panic disorder, bipolar disorder, and more) among prisoners is about 2–4 times more than the general population [41]. Deinstitutionalization of the psychiatric healthcare system has resulted in 10 times more individuals with serious mental illness who are incarcerated rather than in a mental health facility [42]. Screening for mental disorders is not consistent on intake at correctional facilities, and it is difficult to assess how many of those incarcerated had mental disease before incarceration versus developing it secondary to the social climate of the prison system [43]. Disorders are frequently not identified, and when diagnosed are typically under-treated. Prevalence of psychotic illness in both men and women is estimated at 4%, major depression 10% among men and 14% among women, and substance abuse 10–48% among men and 30–60% among women [44]. Inmates arriving to correctional facilities with pre-existing mental disorders typically have a difficult time adapting to their new environment and the existing prison subcultures. As a result, they can engage with negative methods of coping such as threats, verbal challenges, invasion of personal space, and more [45].

Behavioral maladjustments from inmates who suffer from mental illness are seen as weak and easy targets by aggressive inmates, and thus have a higher risk of suffering from property victimization [20]. Those inmates suffering from mental illnesses associated with paranoia, or hallucinations of violence within their facility, may perpetrate violence. Mental illness is also associated with suicidal behavior and non-suicidal self-harm during and after incarceration [13, 14, 46]. Substance abuse compounds these effects and can worsen the prognosis of an inmate mental health disorder [44]. Those who are mentally ill are also more likely than their fellow inmates to be punished by solitary confinement [41]. This exacerbates the incarcerated individual's inability to adapt to their environment, creating the potential for a vicious cycle. The consequences of poor physical and mental health during incarceration lead to an increased risk in reoffending and recidivism [47].

Special Populations

Juveniles

Rates of sexual victimization are higher among incarcerated juveniles than incarcerated adults, though rates among juveniles have decreased since the initiation of the National Survey of Youth in Custody in 2009 [48]. Historically, female youth experience increased rates of sexual assault and victimization [6, 49]; however, this gap has decreased due to increased reporting by the male youth [49]. In one study by Ahlin et al., 8659 detained youth from 326 state and privately owned facilities in the USA were randomly selected to participate in a survey to assess the relationship between individual characteristics and experiences with sexual assault during periods of detention [49]. Juveniles who were new to the facility, who identified as LGBTQ+, had experienced previous assault, or were part of a gang were more likely to be sexually assaulted or victimized while incarcerated [49]. Facilities with a higher prevalence of gang fights and limited staff to monitor activities have a higher incidence of sexual assault [50]. Rates are higher in facilities where inmates do not report sexual activity for various reasons: fear of the youth involved, fear of being punished by staff or not believed, shame, or the belief that staff would not investigate or the perpetrating inmate punished [51].

Juveniles that are incarcerated suffer severe socioeconomic and psychosocial ramifications. They experience a disruption in their education (40% additionally have a learning disability) with a decreased chance that they will return to school or remain in the workforce, increasing the risk of

having lower earnings in the future. Rather than allowing for "aging" out of delinquency, as the authors Holman et al. suggest, the incarceration environment reinforces delinquent behavior and negative influences [52]. Among this population, there is increased risk of poor parental relationships moving forward, membership in a gang, and carrying a weapon. Juveniles that are incarcerated rather than serving in the community for delinquent behavior have increased likelihood of recidivism and incarceration as adults [52].

Suicide is the second leading cause of death in youth aged 10 to 24 years old, accounting for almost 20% of deaths. For incarcerated youth, the suicide rate is 2 to 3 times higher compared to the general population [53]. Risk factors for youth suicide include being incarcerated, being incarcerated in adult facilities, previous victimization, mental illness, and facility characteristics such as separation from family/friends, extended periods of isolation, or crowded living spaces [53, 54].

Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ+)

The LGBTQ+ population are disproportionally represented in the number of incarcerated people in the USA [55, 56]. According to data reported in the National Inmate Survey (NIS), people who identified as being part of the LGBTQ+ community were three times more likely to be incarcerated compared to the general population despite only making up between 2 and 6% of the population [55, 57]. Discrimination faced by this group increases their risk of food and housing instability leading to a higher rate of behaviors (drug trafficking and sex work) that result in incarceration [56]. When incarcerated, the LGBTQ+ population is six times more likely to be sexually assaulted with higher rates of victimization from staff and other inmates [55, 57, 58]. In a survey of LGBTQ+ identifying prisoners performed by the Black and Pink organization in 2015, 100% reported experiencing strip searches on a regular basis and 77% experienced discrimination based on sexual orientation, 83% verbal harassment, 52% unwanted touching, 31% sexual assault or rape, and 64% physical assault [58]. Seventy-six percent reported being intentionally placed in situations at high risk for physical or sexual assault by staff. Of the 68% of inmates endorsing a romantic relationship while incarcerated, 47% report intimate partner abuse prior to incarceration [58].

The increased risk of victimization in this sexual and gender minority has led them to feel that they have limited options for help [58]. This is particularly true in the gender minority, who are placed in prisons corresponding to their gender at the time of birth [55, 56]. Stigma placed on these inmates by heterosexual inmates leads to increased rates of harassment, physical violence, and sexual violence [59]. Avenues of escape often include sexual favors, self-harm, housing relocation, and voluntary solitary confinement [58]. Solitary confinement is the most frequently used as it is a means of protection from harassment related to their sexuality, sexual abuse by staff, protection from gangs, and protection from other prisoners forcing them to sell their bodies. Eighty-five percent reported time in solitary confinement on the Black and Pink survey with 50% spending two or more years in this setting [58]. Extended time in solitary further compounds the disproportionate mental health problems this population already experiences, exacerbating adverse outcomes related to mental health [57].

Immigrants

Immigrants, for the purposes of this discussion, refer to refugees and asylum seekers. While there is data regarding their experiences in their respective countries and travel, there is not much regarding their experiences in the immigration detention centers.

Conclusion

Violence in prison is a substantial problem that is underresearched compared to the percent of the proportion of the US population that is incarcerated. Pre-incarceration exposure to any form of violence and lower socioeconomic status factor heavily on whether or not a person experiences violence when incarcerated. This is potentiated by the fact that over half of inmate violence is perpetrated by the staff within the prison system. Presently, there is no data to show prevention efforts after incarceration to decrease the likelihood of these events. Having PREA in place is a good start; however, it appears that little has been done with this data. Given the substantial mental and physical consequences that exposure to this type of violence causes, a focus on evidence-based interventions (before, during, and after incarceration) is imperative in an attempt to break the cycle of violence.

Data availability Upon request.

Code Availability n/a.

Declarations

Conflict of Interest All of the authors declare that they have no conflicts of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

References

1. Kang-Brown J, Montagnet C, Heiss J. People in Jail and Prison in 20202021. Available from: https://www.vera.org/downloads/publications/people-in-jail-and-prison-in-2020.pdf. Accessed 5 Aug 2021.
2. Fazel S, Baillargeon J. The health of prisoners. The Lancet. 2011;377(9769):956–65.
3. Chang Z, Lichtenstein P, Larsson H, Fazel S. Substance use disorders, psychiatric disorders, and mortality after release from prison: a nationwide longitudinal cohort study. Lancet Psychiatry. 2015;2(5):422–30.
4. Massoglia M, Pare PP, Schnittker J, Gagnon A. The relationship between incarceration and premature adult mortality: gender specific evidence. Soc Sci Res. 2014;46:142–54.
5. Beck A, Berzofsky M, Caspar R, Krebs C, Young M, Thomas J, et al. Sexual Victimization in Prisons and Jails Reported by Inmates, 2011–12. Department of Justice: Bureau of Justice Statistics 2013.
6. Smith E, Stroop J, Beck A, Cantor D, Hartge J, Heaton L, et al. Sexual Victimization Reported by Youth in Juvenile Facilities, 2018. Washington, DC: US Department of Justice: Bureau of Justice Statistics 2019.
7. Carson EA, Mueller S, Zeng Z, Su E, Epps-Carey C. Mortality in State and Federal Prisons, 2001–2018 Statistical Tables. U.S. Department of Justice: Office of Justice Programs Bureau of Justice Statistics 2021.
8. E. Ann Carson PD, Anderson E, Markman J, Kaeble D, Maruschak L, Alper M, et al. Prisoners in 2015. Department of Justice: Bureau of Justice Statistics; 2016.
9. Reidy TJ, Sorensen JR. Prison Homicides: A Multidimensional Comparison of Perpetrators and Victims. J Forensic Psychol Res Pract. 2017;17(2):99–116.
10. Reidy TJ, Sorensen JR, Bonner HS. Prison Homicide: An Extension of Violent Criminal Careers? J Interpers Violence. 2020;35(23/24):5676–90.
11. Web-based Injury Statistics Query and Reporting System (WISQARS). online: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2005.
12. Carson EA, Mueller S, Zeng Z, Hendrixson E, Epps-Carey C. Mortality in Local Jails, 2000–2018 - Statistical Tables. US Department of Justice: Bureau of Justice Statistics; 2021.
13. Favril L, Stoliker B, Vander LF. What Differentiates Prisoners Who Attempt Suicide from Those Who Experience Suicidal Ideation? A Nationally Representative Study. Suicide Life-Threat Behav. 2020;50(5):975–89.
14. Fazel S, Cartwright J, Norman-Nott A, Hawton K. Suicide in prisoners: a systematic review of risk factors. J Clin Psychiatry. 2008;69(11):1721–31.
15. Hayes LM. National study of jail suicide: 20 years later. J Correct Health Care. 2012;18(3):233–45.
16. Roma P, Pompili M, Lester D, Girardi P, Ferracuti S. Incremental conditions of isolation as a predictor of suicide in prisoners. Forensic Sci Int. 2013;233(1–3):e1-2.
17. Dixon KJ, Ertl AM, Leavitt RA, Sheats KJ, Fowler KA, Jack SPD. Suicides Among Incarcerated Persons in 18 U.S. States: Findings From the National Violent Death Reporting System, 2003–2014. J Correct Health Care. 2020;26(3):279–91.
18. Sung H. Prevalence and risk factors of violence-related and accident-related injuries among state prisoners. J Correct Health Care. 2010;16(3):178–87.
19. Wolff N, Jing S. Contextualization of physical and sexual assault in male prisons: incidents and their aftermath. J Correct Health Care. 2009;15(1):58–77; quiz 80–2.
20. Steiner B, Ellison JM, Butler HD, Cain CM. The Impact of Inmate and Prison Characteristics on Prisoner Victimization. Trauma Violence Abuse. 2017;18(1):17–36.
21. Wooldredge J. Prison Culture, Management, and In-Prison Violence. Annu Rev Criminol. 2020;3(1):165–88.
22. Steiner B, Meade B. Assessing the Relationship between Exposure to Violence and Inmate Maladjustment within and Across State Correctional Facilities. US Department of Justice: National Institute of Justice; 2013.
23. Smith HP. EVALUATING THE IMPLEMENTATION OF THE PRISON RAPE ELIMINATION ACT (PREA): A "LESSONS LEARNED" APPROACH. Eval Program Plann. 2020;83:101855.
24. Rantala R, Stroop J, Mueller S, Motivans M, Coulton B, Thomas J, et al. Sexual victimization reported by adult correctional authorities, 2012–15.: US Department of Justice: Office of Justice Programs 2018.
25. Warren J, Jackson S, Loper AB, Burnette M. Risk Markers For Sexual Predation and Victimization in Prison. National Institute of Justice; 2009. Contract No.: 230522.
26. Hilinski-Rosick CM, Freiburger TL. Sexual Violence Among Male Inmates. Journal of Interpersonal Violence. 2021;36(5/6):NP3285-NP303.
27. Ratkalkar M, Atkin-Plunk CA. Can I Ask for Help? The Relationship Among Incarcerated Males' Sexual Orientation, Sexual Abuse History, and Perceptions of Rape in Prison. J Interpers Violence. 2020;35(19/20):4117–40.
28. Fedock G, Cummings C, Kubiak S, Bybee D, Campbell R, Darcy K. Incarcerated Women's Experiences of Staff-Perpetrated Rape: Racial Disparities and Justice Gaps in Institutional Responses. Journal of Interpersonal Violence. 2019:088626051985053.
29. Beck A, Rantala R, Rexroat J. Sexual Victimization reported by adult correctional authorities, 2009–11. In: Statistics BoJ, editor.: US Department of Justice: Office of Justice Programs; 2014.
30. Davis AJ. Sexual assaults in the Philadelphia prison system and Sheriff's Vans. Society. 1968;6(2):8–17.
31. Carroll L. Humanitarian Reform and Biracial Sexual Assault in a Maximum Security Prison. Urban Life; 1977. p. 417–37.
32. Bonner HS, Rodriguez FA, Sorensen JR. Race, ethnicity, and prison disciplinary misconduct. J Ethn Crim Justice. 2017;15(1):36–51.
33. Schenk AM, Fremouw WJ. Individual characteristics related to prison violence: A critical review of the literature. Aggress Violent Beh. 2012;17(5):430–42.
34. Griffin ML, Hepburn JR. The Effect of Gang Affiliation on Violent Misconduct Among Inmates During the Early Years of Confinement. Crim Justice Behav. 2006;33(4):419–66.
35. Steiner B, Butler HD, Ellison JM. Causes and correlates of prison inmate misconduct: A systematic review of the evidence. J Crim Just. 2014;42(6):462–70.
36. Lindekugel D, Bell K. Correlates of Violence within Washington state prisons. Criminol Crim Justice, Law Soc. 2015;16(1):21–34.
37. Massoglia M, Pridemore WA. Incarceration and Health. Annu Rev Sociol. 2015;41:291–310.
38. Massoglia M. Incarceration as exposure: the prison, infectious disease, and other stress-related illnesses. J Health Soc Behav. 2008;49(1):56–71.
39. Wang EA, Pletcher M, Lin F, Vittinghoff E, Kertesz SG, Kiefe CI, et al. Incarceration, incident hypertension, and access to health

care: findings from the coronary artery risk development in young adults (CARDIA) study. Arch Intern Med. 2009;169(7):687–93.
40. Houle B. The Effect of Incarceration on Adult Male BMI Trajectories, United States, 1981–2006. J Racial Ethn Health Disparities. 2014;1(1):21–8.
41. Prins SJ, Draper L. Improving outcomes for people with mental illnesses under community corrections supervision: A guide to research-informed policy and practice. New York: Council of State Governments Justice Center; 2009.
42. Fuller E, Sheriff A, Kennard M, Lamb H, Pavle J. More Mentally Ill Persons Are in Jails and Prisons Than Hospitals: A Survey of the States. Treatment Advocacy Center. 2010.
43. Martin MS, Colman I, Simpson AIF, McKenzie K. Mental health screening tools in correctional institutions: a systematic review. BMC Psychiatry. 2013;13:275-.
44. Fazel S, Hayes AJ, Bartellas K, Clerici M, Trestman R. Mental health of prisoners: prevalence, adverse outcomes, and interventions. Lancet Psychiatry. 2016;3(9):871–81.
45. Rocheleau AM. Ways of Coping and Involvement in Prison Violence. Int J Offender Ther Comp Criminol. 2013;59.
46. Newman M, Fedina L, Nam B, Devylder J, Alleyne-Green B. Associations Between Interpersonal Violence, Psychological Distress, and Suicidal Ideation Among Formerly Incarcerated Men and Women. J Interpers Violence. 2020:088626052093304.
47. Wallace D, Wang X. Does in-prison physical and mental health impact recidivism? SSM Popul Health. 2020;11: 100569.
48. Lauger A, Maruschak L, Mueller S, Field M, Su E. PREA Data-Collection Activities Washington, DC: US Department of Justice: Bureau of Justice Statistics; 2020.
49. Ahlin EM. Risk Factors of Sexual Assault and Victimization Among Youth in Custody. Journal of Interpersonal Violence. 2021;36(3/4):NP2164–87NP.
50. Field MB, Davis E. Victim, Perpetrator, and Incident Characteristics of Sexual Victimization of Youth in Juvenile Facilities, 2018 - Statistical Tables. Washington, DC: US Department of Justice: Bureau of Justice Statistics; 2020.
51. Heaton L, Cantor D, Bruce C, Ren W, Harte J. Facility-level and Individual-level correlates of Sexual Victimization in Juvenile Facilities. Washington, DC: US Department of Justice: Bureau of Justice Statistics 2016.
52. Holman B, Ziedenberg J. The Dangers of Detention: The IMpact of Incarcerating Youth in Detention and Other Secure Facilities. Washington, DC: Justice Policy Institute; 2006.
53. Ruch DA, Sheftall AH, Schlagbaum P, Fontanella CA, Campo JV, Bridge JA. Characteristics and Precipitating Circumstances of Suicide Among Incarcerated Youth. J Am Acad Child Adolesc Psychiatry. 2019;58(5):514-.
54. Houchins DE, Jimenez E, Langley N, Plescow K, Henrich CC. Predictors of Self-Determination and Mental Health Symptoms Among Youth in Juvenile Justice Facilities. Behav Disord. 2021;46(3):138–48.
55. Baćak V, Thurman K, Eyer K, Qureshi R, Bird JDP, Rivera LM, et al. Incarceration as a Health Determinant for Sexual Orientation and Gender Minority Persons. Am J Public Health. 2018;108(8):994–9.
56. Ledesma E, Ford CL. Health Implications of Housing Assignments for Incarcerated Transgender Women. Am J Public Health. 2020;110(5):650–4.
57. Meyer IH, Flores AR, Stemple L, Romero AP, Wilson BD, Herman JL. Incarceration Rates and Traits of Sexual Minorities in the United States: National Inmate Survey, 2011–2012. Am J Public Health. 2017;107(2):267–73.
58. Lydon J, Carrington K, Low H, MIller R, Yazdy M. Coming out of Concrete Closets: A Report on Black and Pink's National LGBTQ Prisoner Survey. Dorchester, MA: Black Pink; 2015.
59. Poteat TC, Malik M, Beyrer C. Epidemiology of HIV, Sexually Transmitted Infections, Viral Hepatitis, and Tuberculosis Among Incarcerated Transgender People: A Case of Limited Data. Epidemiol Rev. 2018;40(1):27–39.