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Victimization Within and Beyond the Prison Walls: A Latent Profile Analysis of Transgender and Gender Diverse Adults

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Abstract

Background: Transgender and gender diverse (TGD) people are disproportionately incarcerated in the United States relative to the general population. A dearth of quantitative research has explored victimization as a risk factor for incarceration as well as the victimization experiences of formerly incarcerated TGD populations.

Methods: In 2019, 574 TGD adults completed an online survey assessing sociodemographics, victimization across settings, and incarceration history. Latent class analysis was used to identify two sets of latent subgroups based on respondent's victimization experiences: 1) lifetime victimization (low; moderate; and high) and 2) classes of victimization while incarcerated (low; moderate; and high). Bivariate and multivariable logistic regression analyses examined sociodemographic, mental health, and lifetime victimization experiences associated with lifetime incarceration (Outcome 1). Among those with incarceration histories, bivariate hierarchical logistic regression analyses also explored the association between gender identity, race/ethnicity, HIV status, visual gender non-conformity, and class of victimization during incarceration (Outcome 2).

Results: Participants' mean age was 31.4 ($SD = 11.2$), 43.4% had a non-binary gender identity, 81.5% were White, non-Hispanic, 2.1% were living with HIV, and 13.2% had been incarcerated. In the multivariable model for Outcome 1, high levels of victimization, age, being a racial/ethnic minority, being a trans woman, living with HIV, and past-12-month polysubstance use were all associated with increased odds of lifetime incarceration (p-values < 0.05). In the bivariate hierarchical logistic regression analyses for Outcome 2, living with HIV and having a visually gender non-conforming expression were significantly associated with elevated odds of experiencing high levels of victimization while incarcerated (p-values < 0.05).

Conclusion: Findings document the relationships between victimization and incarceration among TGD people as well as identify the subpopulations at greater risk for incarceration and experiencing victimization while incarcerated. Efforts are needed to prevent victimization across the life course, including while incarcerated and support TGD individuals in coping with the negative sequelae of victimization and incarceration experiences.

Keywords

bullying; child abuse; community violence; discrimination; incarceration; sexual assault

Introduction

Transgender and gender diverse (TGD) people are disproportionately incarcerated in the United States (U.S.) relative to the general population (Glezer et al., 2013). Some reports suggest that 16% of the estimated 1.4 million TGD adults in the U.S. (Flores et al., 2016) have been incarcerated in their lifetime (Grant et al., 2011), compared with 3% of the general population (Glaze & Kaeble, 2014). Both transfeminine people (those assigned a male sex at birth who identify as women, trans women, or another gender identity along the male-to-female gender spectrum) and transmasculine individuals (those assigned a

female sex at birth who identify as men, trans men, or another gender identity along the female-to-male gender spectrum) are disproportionately at-risk for incarceration. However, the prevalence of incarceration rate is particularly elevated among transfeminine people, with lifetime estimates of incarceration ranging from 19% to 65% across studies (Clements et al., 1999; Garofalo et al., 2006; Grant et al., 2011; Reisner, Bailey, et al., 2014a).

According to the TGD Oppression-to-Incarceration framework (Clark et al., in press), the high burden of incarceration among TGD people is theorized to be driven by discrimination, violence, and other forms of victimization. Indeed, due to the stigma of having a gender identity or expression that does not align with socially constructed gender norms, TGD people are known to experience victimization throughout their lives including, bullying in adolescence, abuse (physical, sexual) in childhood and adulthood, and everyday discrimination and mistreatment across their lifespan (White Hughto et al., 2015; Ybarra et al., 2014). As illustrated by the TGD Oppression-to-Incarceration framework (Clark et al., in press), discrimination can restrict access to material and financial resources for TGD people, including employment and housing, leading some TGD individuals to turn to street economies, such as sex work for economic survival (Brömdal, Clark et al., 2019; Garofalo et al., 2006; Grant et al., 2011; Mizock & Mueser, 2014; Nemoto et al., 2011; Halliwell et al., in press). In fact, several studies have found sex work to be a primary predictor of lifetime incarceration in transgender women (Hughto et al., 2019). Experiencing victimization has also been shown to be associated with depression, anxiety, and post-traumatic stress symptoms among TGD populations (White Hughto et al., 2015). Moreover, many TGD people report using illicit substances to cope with mistreatment and the psychological sequelae of those experiences (Garofalo et al., 2006; Grant et al., 2011; Mizock & Mueser, 2014; Nemoto et al., 2011; Reisner, Pardo, et al., 2015b), as described by the Oppression-to-Incarceration framework (Clark et al., in press), can place these TGD people at higher risk for arrest and incarceration. Despite these theorized pathways to incarceration, to our knowledge, no quantitative study to date has simultaneously explored multiple sources of victimization together with substance use and poor mental health as independent risk factors for incarceration among TGD individuals.

Once incarcerated, TGD people are typically housed in sex-segregated facilities according to their genitalia. Thus, TGD individuals who have not had gender-affirming "lower" surgery are typically placed in facilities that do not match their gender identity or expression; for example, transgender women are typically incarcerated in men's prisons (Brömdal, Mullens et al., 2019; Brömdal et al., in press; Phillips et al., 2020). Once incarcerated, TGD people are at high risk for experiencing verbal, physical, and sexual assault at the hands of other incarcerated people and/or jail and prison staff (Grant et al., 2011; James et al., 2016; Lydon et al., 2015; Reisner, White Hughto, et al., 2015a). Many qualitative studies have documented elevated risks for victimization for transgender women incarcerated in men's facilities, where femininity is not only devalued but also routinely punished (Jenness et al., 2019; Rosenblum, 1999; White Hughto et al., 2018). For example, several participants in one qualitative study of 20 recently incarcerated transgender women in New England described how correctional officers, other incarcerated people, and in some cases, correctional healthcare providers, called them names and mocked them for displaying visible signs of femininity while incarcerated in men's jails and prisons (White

Hughto et al., 2018). In another qualitative study of 315 transgender women incarcerated across 27 men's correctional facilities in California, researchers found that incarcerated transgender women experience a steady barrage of victimization from other incarcerated people, including verbal harassment, physical assault (grouping, pushing) and sexual assault ranging from forced oral sex to anal penetration (Jenness et al., 2019). Notably, while being incarcerated in a facility that aligns with one's gender identity may reduce more violent forms of victimization, particularly for transgender women who are able to be housed in women's facilities, transgender women in women's facilities may still be subject to verbal harassment and physical assault, whereas transgender men are likely to be at particularly higher risk of all forms of victimization in a men's facility relative to a women's facility (Jenness & Sexton, 2021). However, little is known about the victimization experiences of transgender men or individuals with a non-binary gender identity (e.g., genderfluid and genderqueer) or the experience of transgender women in women's facilities.

Also vastly understudied is the extent to which key demographic factors such as age, race/ethnicity, and HIV status are associated with victimization risks in TGD people while incarcerated. In light of the fact that experiencing victimization in correctional facilities has been shown to contribute to poor physical and mental health among TGD people (Neal & Clements, 2010; Reisner, White Hughto et al., 2015a; Reisner, White Hughto, et al., 2016b; White Hughto et al., 2015, 2017), understanding which TGD subgroups may be at greatest risk for victimization while incarcerated could help correctional institutions to implement policies aimed at protecting the most vulnerable TGD people. It also provides law-enforcement professionals with a better understanding of how victimization and related risk behaviors may place TGD individuals at-risk for incarceration and resultant negative health sequelae.

In order to fill the aforementioned research gaps, the present study aimed to examine [1] the lifetime incarceration experiences of TGD people; [2] identify classes of victimization experienced throughout the life course (and specifically during incarceration); [3] examine the association of demographic and mental health factors and lifetime victimization; and [4] identify subgroups at elevated risk for victimization during incarceration. Findings from this study can inform future interventions to prevent or disrupt the cycle of incarceration among TGD people and experiences of victimization while incarcerated.

Methods

Study Procedures

Between March and August 2019, we conducted a stress and health needs assessment of 600 TGD adults in Massachusetts and Rhode Island (USA). The study utilized a participatory population-perspective (Leung et al., 2004; Reisner, Keatley, et al., 2016a) in which we engaged members of the TGD community as research partners in order to understand whether and how structural and interpersonal stressors influence the health of TGD communities. Participants were recruited via TGD-specific online and in-person venues. The majority (95%) were sampled online (via electronic listservs, community-based websites, social networking sites); and 5% were sampled in-person (onsite at TGD community events, community organizations, and healthcare clinics). Additionally, 80.5% of the sample had

lived in Massachusetts in the past 12 months; 17.1% had lived in Rhode Island, and 2.4% has lived in both states in the past 12 months. Eligible participants were aged 18 years or older, self-identified as transgender or gender diverse (inclusive of binary and non-binary people), resided in Rhode Island or Massachusetts for at least three months in the last year, and had the ability to read/write in English or Spanish.

Participants completed a one-time survey assessing sociodemographics, victimization, mental health, substance use, and incarceration history and experiences. The measures included in the survey were drawn from prior research or developed for this study. All newly developed measures were collaboratively developed by our team of cisgender and transgender researchers. Newly developed measures were cognitively tested by 12 transgender individuals, who were diverse in terms of age, race, gender, socio-economic status, and HIV status. The measures were further refined based on feedback from the cognitive interviews. Participants who reached the end of the survey could opt to be entered into a community raffle for one of 54 gift cards ranging in value from $10 to $250. Electronic written informed consent was obtained for all enrolled participants. All study activities were IRB approved by The Fenway Institute and Brown University.

Measures

The measures that include citations below were drawn from prior research. The below measures without citations were developed for this study using the cognitive interview process described above.

Outcomes.

Lifetime Incarceration: Participants were asked if they had ever been incarcerated in a jail, prison, or juvenile detention facility in their lifetime (yes/no).

Victimization Experiences during Incarceration: These items were developed by the researchers and participants who reported having been incarcerated in their lifetime were asked whether they had been sexually assaulted (or forced to have sex or sexual contact), physically assaulted (or attacked), and/or verbally harassed (yes/no). Those that reported yes to one or more forms of victimization were asked to indicate the perpetrator(s): correctional officer (CO) or another staff person, correctional healthcare provider, or inmate. Following latent class analysis (described below; illustrated in Figure 1(b)): three victimization classes were created constituting no victimization; moderate victimization; and high victimization while incarcerated.

Primary Independent Variable.

Victimization throughout the Life Course: Childhood physical and sexual abuse items were drawn from the Adverse Childhood Experience module of the national Behavioral Risk Behavioral Risk Factor Surveillance System survey (CDC-BRFFS, 2010). The items have since been utilized in samples of TGD people (no adaptations were required) (Meyer, Bockting et al., 2016; Meyer, Frost et al., 2016). Specifically, childhood sexual abuse (before age 18) was assessed using the following three items: How often did anyone at least 5 years older than you, or an adult, ever: 1) touch you sexually; 2) try to make you touch

them sexually; and 3) force you to have sex. Participants who indicated yes to any of the sexual abuse questions were coded as having experienced childhood sexual abuse (yes/no). Physical abuse as a child was assessed by asking participants if, "before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? (Do not include spanking)"; responses were coded as yes (once or more) or no (never). Using a measure developed for TGD people in the U.S. Transgender Survey (James et al., 2016), sexual abuse in adulthood was assessed by asking participants if they, "experienced unwanted sexual contact (such as oral, genital, or anal contact or penetration, forced fondling, and rape)" since turning 18 (yes/no). Participants who responded affirmatively were asked to indicate who did it to them; responses were coded as partner (e.g., a partner/ex-partner) or non-partner sexual abuse (e.g., coworker, friend, and stranger) (yes/ no). Physical abuse in adulthood was assessed using a measure developed for and tested with TGD samples (Reisner, White Hughto et al., 2015a). Specifically, participants were asked if since turning 18, they had been, "slapped, punched, kicked, beaten up, or otherwise physically hurt by your spouse (or former spouse), a boyfriend/girlfriend, or some other intimate partner (without your consent)" (yes/no). Bullying was assessed using a single measure previously developed for and tested in lesbian, gay, bisexual and TGD samples (Meyer, Bockting et al., 2016). Specifically, participants were asked: "how often were you bullied before age 18?" (yes/no). Discrimination in everyday settings was assessed using five items from a measure developed for the general population (Kessler et al., 1999), that was utilized in research with TGD samples without further adaptation (Fredriksen-Goldsen et al., 2014; Reisner, White Hughto et al., 2015a; White Hughto et al., 2017; White Hughto & Reisner, 2016). Specifically, participants were asked how frequently they have been: provided inferior service at a store; hassled by the police; denied medical care; fired from a job; and discouraged by a teacher or advisor from seeking higher education. For each item, participants who reported experiencing the event at least one time were coded as yes, otherwise no. Following latent class analysis incorporating all 10 victimization items (described below; illustrated in Figure 1(a)), three classes emerged constituting: no victimization; moderate victimization; and high victimization throughout the life course.

Covariates.

Sociodemographics: Age was assessed in years. Race/ethnicity was categorized as White (non-Hispanic) versus People of Color (POC), which included Hispanic/Latinx and non-Hispanic Asian/Pacific Islander, Black, another race, and multiple races/ethnicities. Gender identity was assessed using a two-step method with two items: (1) assigned sex at birth (female, male) and (2) current gender identity (e.g., man, trans man, woman, trans woman, genderqueer, and non-binary) (Reisner, Biello, et al., 2014b). The two items were cross-tabulated to categorize participants as a trans man, trans woman, or non-binary person.

Educational attainment was assessed using a measure from a prior survey with TGD individuals (Reisner, White Hughto et al., 2015a). Participant responses were categorized as college graduate or more versus some college or less. Past 12-month unstable housing was coded as yes (living with friends or family temporarily; on the street, in a car, in an abandoned building, in a park; in a shelter) versus no (living in an apartment or house, group home or nursing facility, campus/university housing, military barracks). Financial insecurity

was assessed using an item from the Federal Consumer Financial Protection Bureau"s Financial Well-Being Scale (Consumer Financial Protection Bureau, 2015). Participants were asked to indicate the extent to which they experience the following: "I have money left over at the end of the month." Participants who responded "always" or "often" were coded as no, not financially insecure; those who responded "sometimes," "rarely," or "never" were coded as yes, financially insecure. Participants who did not report being employed full- or part-time were considered unemployed (yes/no). Sex work was assessed by asking participants if they had ever traded sexual activity or favors for food, money, a place to sleep, drugs, or other material goods (yes/no). Participants were also asked about their HIV status; those who reported a positive HIV status were coded as living with HIV (yes) and HIV negative and unknown individuals were coded as no.

Using an item developed for the National Transgender Discrimination Survey (Grant et al., 2011), visual gender non-conformity was assessed by asking participants to indicate (on a scale from 1 = always to 5 = never) whether people could tell they are transgender even if they did not tell them. Those who reported "always" were coded as being visually gender non-conforming (yes), otherwise no. Lifetime medical gender affirmation was assessed by asking participants if they had ever accessed medical interventions such as hormones or surgery to affirm their gender (yes/no).

Substance Use & Mental Health: Using a measure developed for and tested in prior TGD samples (Reisner, White Hughto et al., 2015a), participants were asked how frequently they had used the following nine types of drugs to "get high" in the past 12 months: marijuana, cocaine, crack, club drugs (e.g., ecstasy, GHB, and ketamine), heroin, methamphetamine, hallucinogens (e.g., LSD and mushrooms), benzodiazepines (e.g., Valium, Ativan, and Xanax), and opioid pain medications (e.g., OxyContin, Vicodin, and Percocet). For each drug type, participants who reported any use of two or more substances (other than marijuana) were coded as having engaged in polysubstance use in the past 12 months (yes/no).

Clinically significant depressive, anxiety, and somatization symptoms were assessed in the past 7 days using the 18-item Brief Symptom Inventory (BSI) (Derogatis, 2001), a validated measure that was developed for the general population and has been utilized (without adaptation) in TGD samples (Hughto et al., 2018; Peitzmeier et al., 2019). The six depression items, six anxiety items, and six somatization items were each summed and standardized using T-scores and then dichotomized based on a standard cutoff score indicative of clinically significant symptoms. PTSD was assessed using a 4-item scale designed for general population in primary care settings (Ouimette et al., 2008; Prins et al., 2003) and fielded in research with TGD populations without further adaptation (Peitzmeier et al., 2021; Reisner, White Hughto et al., 2016b). Participants responded to each item using binary (yes = 1, no = 0) responses; responses were summed and participants with a score of three or more were considered to have PTSD, otherwise no.

Additional Incarceration Experiences: Using measures designed for and testing in prior samples, participants were asked about their incarceration experiences. Specifically, participants who reported being incarcerated in their lifetime indicated the number of times

they had been incarcerated and total amount of time incarcerated (a little: less than 1 year; a moderate amount: 1 year to less than 5 years; a lot: 5 years or more; prefer not to answer) (Grant et al., 2011). They were also asked to indicate how long ago they were last incarcerated with responses including: less than a month ago; 1 month to <6 months ago; 6 months ago to <12 months ago; 12 months ago to <3 years ago; 3 years ago to <5 years ago; 5 years ago or more; and prefer not to answer (White Hughto et al., 2018). Participants were also asked to indicate the types of facilities in which they were held (check all that apply): federal prison; state prison; local jail; holding cell; or the juvenile system (White Hughto et al., 2018).

Participants who were incarcerated in the past 12 months were asked to indicate where they were housed (check all that apply): women's unit; men's unit; special unit for transgender and/or LGBT (lesbian, gay, bisexual and transgender) people; or solitary confinement/ segregated housing unit (White Hughto et al., 2018). They were also asked if they had sought medical care during their last incarceration (yes/no); were on hormones prior to being incarcerated (yes/no); and tried to acquire hormones while incarcerated (yes/no) (White Hughto et al., 2018).

Data Analysis.—After examining missing data, the sample was restricted to individuals who had complete data for the lifetime incarceration outcome ($N = 574$). Univariate descriptive statistics (mean, standard deviation (SD), frequency, and proportion) were used to summarize the distribution of variables among the full sample and among those with incarceration histories.

Latent Class Analysis: Estimating Classes of Victimization Experiences.—
Latent class analysis was utilized to categorize participants into subgroups or classes based on their probability of endorsing a series of victimization experiences (Lanza & Rhoades, 2013). Using MPlus (Muthén & Muthén, 1998), we conducted two sets of latent class models to uncover subgroups of participants based on their victimization experiences: *first*, in the whole sample, based on 10 binary indicators of victimization throughout the life course (e.g., childhood sexual abuse, adolescent victimization, and adult discrimination) and, *second*, among those who reported lifetime incarceration, based on the nine binary indicators of victimization while incarcerated (e.g., sexual assault by a corrections officer (CO), verbal assault by another inmate). For both analyses, we used maximum likelihood estimation to fit models with one to five classes. The optimal number of classes was then selected based on a combination of pre-specified criteria: the smallest values for Akaike information criterion (Akaike, 1987) and Bayesian information criterion (Hu & Bentler, 1999), bootstrapped likelihood ratio test $p < 0.01$ (Nylund et al., 2007), entropy approaching 0.80 or higher (Ramaswamy et al., 1993), and class size and interpretability (Nylund et al., 2007; Nylund-Gibson & Choi, 2018).

Logistic Regression Analyses: All regression analyses were conducted in SAS 9.4. For Outcome 1 (lifetime incarceration), bivariate logistic regression analyses examined the association between the primary independent variable (victimization class throughout the life course), covariates, and the outcome. Variables with an association of $p < 0.10$ were entered into the final multivariable model.

Restricting the sample to those who were incarcerated ($n = 76$), we then used multinomial logistic regression analyses to explore bivariate associations between victimization class while incarcerated (Outcome 2) and key sociodemographic factors: race/ethnicity, gender identity, HIV status, and visual gender non-conformity. Due to the small sample size and limited power to detect differences, multivariable modeling was not employed for Outcome 2 (Peduzzi et al., 1996).

Results

Sample Characteristics

As shown in Table 1, the mean age was 31.4 years ($SD = 11.3$) and the majority of the sample were White non-Hispanic (81.5%). Overall, 43.4% of the sample identified as non-binary, 55.9% were college graduates, and 30.3% were unemployed. The majority reported being financially insecure (67.6%), 3.7% reported unstable housing in the past year, and 20.7% reported engaging in sex work in their lifetime. Additionally, 70.0% reported having medically affirmed their gender and 17.0% reported that they were visually gender nonconforming.

In terms of substance use and mental health, 34.3% of the sample reported past 12-month polysubstance use and 35.6% had attempted suicide. Additionally, 15.5% had clinically significant symptoms of depression, 12.9% anxiety, 36.6% somatization, and 36.6% PTSD.

More than half of participants reported moderate (49.1%) to high (22.4%) levels of victimization throughout the life course. More than three quarters of the sample (80.1%) reported having been bullied before age 18, 45.3% reported experiencing physical abuse as a child, 38.4% reported experiencing sexual abuse as a child, 29.5% reported physical abuse as an adult, and 48.0% reported experiencing sexual abuse as an adult. In the past 12 months, 37.0% of participants reported having been provided inferior service at a store, 16.4% reported having been hassled by the police, 12.9% reported having been denied medical care, 7.9% had been fired from a job, and 7.2% reported having been discouraged by a teacher or advisor from seeking higher education.

Figure 1(a) present the results of the latent class model for victimization experiences throughout the life course. A three-class solution was considered optimal. Class 1 ("Low Victimization"; $n = 163$; 28.5%) was characterized by a low probability of affirmative response to all life course victimization experiences, Class 2 ("Moderate Victimization"; $n = 281$; 49.1%) by a moderate probability of affirmative responses, and Class 3 ("High Victimization"; $n = 128$; 22.4%) by a high probability of affirmative responses.

Figure 1(b) present the results of the latent class model for victimization experiences while incarcerated. A three-class solution was considered optimal. Class 1 ("No Victimization"; $n = 32$; 43.8%) was characterized by having experienced no assault while incarcerated; Class 2 ("Moderate Victimization"; $n = 29$; 39.7%) by having experienced a high level of verbal assault from other inmates and COs as well as low-to-moderate sexual and physical assault from other inmates; Class 3 ("High Victimization"; $n = 12$; 16.4%) by having experienced

moderate-to-high verbal, physical, and sexual assault while incarcerated from other inmates, COs, and healthcare providers.

Table 2 presents the experiences of those who had been incarcerated in their lifetime (*n* = 76). The mean number of times people had been incarcerated was 3.3 (*SD* = 7.0). Most participants reported having been incarcerated for a little amount of time (78.9%) and 61.8% were incarcerated 5 years ago or more. The most common facilities in which participants were incarcerated were a holding cell (48.7%) and a local jail (43.4%). Overall, 12 participants reported experiencing sexual assault while incarcerated (16.4% by other inmates, 6.8% by a CO/other staff); 20 participants reported experiencing physical assault while incarcerated (27.4% inmates, 16.4% CO/other staff, 5.5% correctional healthcare provider); and 40 participants reported experiencing verbal harassment while incarcerated (54.8% inmates, 32.9% CO/other staff, 5.5% correctional healthcare provider).

For those who had been incarcerated in the last 12 months (*n* = 6), four were incarcerated in men's units (two transgender women and two non-binary people); one transgender man was housed in a special unit for LGBT people; and one transgender man was housed in a segregated housing unit. Only one participant reported trying to access medical care during their last incarceration experience. Two participants were on hormones prior to being incarcerated in the past 12 months and no participants reported trying to acquire hormones during their last incarceration experience.

Modeling Incarceration History (Outcomes 1) as a Function of Life Course Victimization.—Table 3 presents the logistic regression analyses for Outcome 1. In the multivariable model, compared to those with low lifetime victimization experiences, those with high levels of victimization across the life course demonstrated a 2.19 increased odds of having been incarcerated in their lifetime (95% CI: 1.11–4.31; *p* = 0.02). Other factors significantly associated with lifetime incarceration in the adjusted model were: age (aOR = 1.05; 95% CI = 1.03–1.08; *p* < .0001), being a person of color (aOR = 2.09; 95% CI = 1.01–4.31; *p* = 0.046), being a transgender woman (aOR = 4.49; 95% CI = 1.91–10.57; *p* = 0.001), living with HIV (aOR = 7.57; 95% CI = 1.43–40.11; *p* = 0.02), and reporting polysubstance use in the past 12 months (aOR = 2.89; 95% CI = 1.24–6.71; *p* = 0.01).

Modeling Victimization While Incarcerated (Outcome 2) as a Function of Sociodemographics.—Figures 2(a)–(d), presents the bivariate multinomial logistic regression analyses examining associations between key sociodemographics and Outcome 2. Although not statistically significant in bivariate analyses (OR = 3.58; 95% CI = 0.90–14.26; *p* = 0.07), 33% of people of color reported high levels of victimization while incarcerated compared to 10% of White individuals (Figure 2(a)). With regard to gender identity (Figure 2(b)), 11% of transgender women reported high levels of victimization while incarcerated, compared to 25% of non-binary people (OR = 3.33; 95% CI = 0.78–14.14; *p* = 0.10) and 11% of transgender men (OR = 1.58; 95% CI = 0.13–19.42; *p* = 0.72); though these differences were not statistically significant. When examining victimization by HIV status (Figure 2(c)), those living with HIV had a significantly increased odds of experiencing high levels of victimization (78%) while incarcerated, compared to those who were not living with HIV (8%), although due to small sample size the 95% confidence interval was unstable

(OR = 43.40; 95% CI = 4.36–432.20; p = 0.001). Similarly, those who were always visually gender nonconforming (Figure 2(d)) had significantly increased odds of experiencing high levels of victimization while incarcerated (32%) compared to those who had some level of visual gender conformity (11%; OR = 5.40; 95% CI = 1.23–23.73; p = 0.03).

Discussion

This is the first study, to our knowledge, that simultaneously explores multiple indicators of victimization as a risk factor for incarceration, as well as assesses sociodemographic and behavioral factors associated with victimization while incarcerated in a multi-state sample of TGD adults. This study aligns with and builds upon research among transgender women (Hughto et al., 2019; Reisner, Bailey, & Sevelius, 2014a), by demonstrating that lifetime victimization, being a transgender woman, living with HIV, and past-year polysubstance use are all key factors associated with the elevated odds of lifetime incarceration. The present study also extends national research in the U.S. with TGD individuals (Grant et al., 2011), by showing that among TGD people with incarceration histories, in addition to racial/ethnic minorities, non-binary individuals, those with a nonconforming gender expression, and people with HIV are all at heightened risk of experiencing victimization while incarcerated. These findings underscore the need for multilevel interventions to prevent both victimization and incarceration among TGD people and help those who have experienced victimization cope with its negative sequelae.

Consistent with the Oppression-to-Incarceration framework (Clark et al., in press), findings from this study show that TGD adults who experienced the highest level of victimization throughout their lives were at greatest risk for incarceration relative to those with lower levels of lifetime victimization, even after accounting for sociodemographic and behavioral risk factors for incarceration. Prior qualitative and quantitative research with transgender women has found that physical and sexual assault is associated with the increased odds of incarceration in one's lifetime (Hughto et al., 2019; Reisner, Bailey et al., 2014a). Our findings extend prior research with transgender women (Reisner, Bailey, et al., 2014a) by demonstrating the associations between multiple forms of victimization (e.g., bullying and sexual and physical abuse as a child and as an adult) and incarceration risk in this multi-state sample of transgender women, transgender men, and non-binary adults. Also extending prior research with transgender women (Reisner, Bailey et al., 2014a), we found that older age, being a person of color (ref: White), identifying as a transgender woman (ref: transgender man), living with HIV, and past 12-month polysubstance use were all significantly and positively associated with lifetime incarceration. While the specific reasons why TGD people experienced various types of victimization were not reported, the aforementioned finding highlights the interplay between multiple sources of stigma and adverse social outcomes such as incarceration risk. Moreover, although we did not assess why TGD people in our sample were incarcerated, researchers have theorized that victimization can decrease access to health-promoting material or financial resources such as employment and income, leading some TGD people to engage in illicit activities such as substance use to cope and sex work due to socio-economic marginalization, which in-turn places them at-risk for incarceration (Brömdal, Mullens et al., 2019; White Hughto et al., 2015). Given the high levels of victimization reported before, during, and after incarceration, and the

relationship between polysubstance use and incarceration risk, our findings support prior theories describing pathways to incarceration by underscoring how victimization and related risk behaviors may place TGD people at-risk for incarceration and negative health sequelae.

TGD adults in our sample reported a high burden of victimization throughout their lives, including while incarcerated. Overall, 13.2% of the sample had been incarcerated in their lifetime. The percentage of the sample who had been incarcerated is slightly lower than reported in national the National Transgender Discrimination Survey (NTDS), which found that 16% of the sample had been incarcerated in their lifetime (Grant et al., 2011). This difference may be due to the fact the NTDS sample enrolled a higher proportion of transgender women than our study, and transgender women are known to be disproportionately incarcerated relative to transgender men (Grant et al., 2011). Additionally, although the majority (78.9%) had been incarcerated for less than year in total, those with incarceration histories were incarcerated 3.3 times on average ($SD = 7.0$; Range 1–5). Further, nearly half the sample had been incarcerated most recently in a holding cell (48.7%), 43.5% jail, 17.1% state prison, and 3.2% federal prison, which suggests that the vast majority of TGD individuals were detained for minor crimes and misdemeanors. Our findings are consistent with prior research with transgender women which suggests that the majority of crimes committed by TGD individuals are due to economic survival (e.g., sex work, drug dealing) or to cope with mental health issues via substance use (Brömdal, Mullens et al., 2019; Hughto et al., 2019; Stotzer, 2014; White Hughto et al., 2018).

Once incarcerated, TGD individuals in our sample reported having experienced diverse forms of victimization from correctional staff and other incarcerated people. The most commonly reported form of victimization was verbal harassment (54.8% total), from other incarcerated people (54.8%), COs/other staff (32.9%), and correctional healthcare providers (5.5%). The prevalence of reported harassment by other inmates in our sample is substantially higher than reported in the 2009 National Transgender Discrimination Survey (35%), yet the prevalence of harassment by staff is comparable (37%; all staff combined) (Grant et al., 2011). Notably, the prevalence of reported physical assault in our sample (27%) is higher than was reported by participants in the NTDS survey (16%), though the rates of sexual assault are comparable (16.4% our study; 15% NTDS) (Grant et al., 2011). Additionally, unlike the NTDS, our research distinguishes victimization by healthcare providers versus by other staff. While the reported prevalence of victimization perpetrated by correctional healthcare providers was lower than reported victimization by COs and other staff, our findings support qualitative research showing that victimization at the hands of correctional providers–those charged with protecting the health of incarcerated populations– does occur (Clark et al., 2017). Together these findings underscore the importance of ensuring that correctional staff receive training in cultural and clinical TGD competency and that there are policies and reporting mechanisms in place to ensure that staff members are held accountable for perpetrating violence against TGD individuals under their care (Brömdal, Mullens et al., 2019).

In examining subgroups at greatest risk for victimization while incarcerated, our study found that people of color, those with HIV, non-binary individuals, and people with a nonconforming gender expression reported the highest levels of victimization while

incarcerated. These findings corroborate prior research with TGD populations which found that TGD people who are racial/ethnic minorities and living with HIV were at-risk for mistreatment while incarcerated compared to White non-Hispanic and HIV-negative TGD individuals, respectively (Grant et al., 2011; Reisner, Bailey et al., 2014a). Moreover participants in qualitative research with formerly incarcerated transgender women (Sanders et al., 2022) and currently incarcerated LGBTQ people (Lydon et al., 2015) reported that living with HIV was the basis for much of their mistreatment. Interestingly, however, prior research with TGD samples found that transgender women reported the highest prevalence of victimization relative to transgender men and non-binary individuals (Grant et al., 2011; Lydon et al., 2015). Although transgender women in our sample were at greatest risk for incarceration, non-binary people reported the most experiences of victimization while incarcerated. It is likely that having a gender nonconforming expression makes TGD individuals, particularly those who are non-binary, more visible in binary carceral facilities, in turn placing them at higher risk for mistreatment. This theory has been raised by transgender women in qualitative research who reported that any expressions of femininity were punished in male correctional facilities by staff and often led to victimization from other incarcerated people (White Hughto et al., 2018). Ongoing work is needed to ensure the protections of the most vulnerable incarcerated populations, including TGD people with intersecting marginalized identities.

Finally, this study explored housing status and medical care access among participants incarcerated in Massachusetts or Rhode Island in the past 12 months. With regard to medical care, although two participants had been on hormones prior to being incarcerated, none of the participants tried to acquire hormones while incarcerated. While the reasons for not attempting to access hormones were not explored, prior research with TGD people found that restrictive policies requiring documentation of prior hormone use often leads to long delays in accessing hormones; thus, TGD individuals serving short sentences may not seek out hormones (White Hughto et al., 2018). Further, TGD people have reported that they may intentionally avoid seeking out hormones as doing so identifies them as TGD, which could lead to mistreatment in correctional settings (White Hughto et al., 2018). With regard to housing, although recent state laws and policies have been implemented calling for TGD people to be housed in facilities that align with their gender identity (Beam, 2021; Transgender Law, 2021), our findings reveal that TGD people are still being placed in facilities that do not align with their gender identity or in isolated units. Although single cell and/or segregated units may shield TGD people from physical or sexual assault, isolated units can also present increased risk of mental health problems; thus, concerns regarding physical safety must be balanced against threats to poor mental health due to isolation (Brömdal, Clark et al., 2019; Brömdal, Mullens et al., 2019). Further, while being housed in a female facility may be preferable to some TGD people, transgender women in prior qualitative research voiced concerns about being seen as a threat to cisgender women, particularly if a transgender women still retains her natal genitals (Clark et al., in press; White Hughto et al., 2018). While we did not assess the correctional housing preferences of TGD people in our sample, 56.2% of those who were incarcerated reported being victimized by other incarcerated people, COs, and/or healthcare providers. A one-sized fits all approach to housing TGD people is not ideal and ongoing efforts are needed to balance the safety

and housing preferences of incarcerated TGD populations (Brömdal, Mullens et al., 2019; White Hughto et al., 2015). Given recent laws such as SB132 in California that calls for the housing of TGD people in facilities that align with their gender identity (Beam, 2021), future research is needed to understand whether and how housing placement decisions are made that balance the safety, health, and preferences of incarcerated TGD people.

Limitations

This study has methodological limitations that should be taken into account when interpreting findings. As a cross-sectional study, causality cannot be determined. Although the racial/ethnic distribution of this convenience sample (81.5% White; 3.3% Black, 2.4% Asian; 3.3% Hispanic/Latinx; 0.2% Native American; 7.7% more than one race; and 1.5% another race [1.2% Middle Easter; 0.3% other]) was similar to the racial/ethnic distribution of residents of Massachusetts (80.6% White; 9.0% Black, 7.3% Asian; 12.4% Hispanic/Latinx; 0.5% Native American; and 2.6% more than one race) and Rhode Island (83.6% White; 8.5% Black, 3.9% Asian; 16.3% Hispanic/Latinx; 1.1% Native American; and 2.9% more than one race) (U.S. Census, 2020a, 2020b), it is possible that these findings might not be generalizable to samples largely comprised of racial/ethnic minorities or recruited in other geographic locations. Additionally, although our sample included gender, sexual orientation, and socio-economic diversity, participants that spanned in ages from 18 to 73, and the survey was offered in English and Spanish and written at an 8th grade level, diversity also pertains to other factors such as ability; thus, our use of a self-administered web-based survey likely means that the findings are unlikely to be generalizable to people with limited technological skills, reading comprehension ability, and other ability deficits.

Also, the measures are based on self-report, which is subject to bias. Further, although we examined numerous forms of victimization throughout the life course and in incarceration settings, we did not assess psychological abuse. Future research exploring victimization in relation to incarceration outcomes among TGD samples should incorporate measures of psychological abuse. Finally, due the smaller sample size, it was not possible to construct stable multivariable models examining risk factors for victimization while incarcerated. Larger, longitudinal studies with clear temporal ordering of events are needed to understand the victimization and incarceration experiences of TGD individuals over time.

Conclusion

In sum, the present study finds that throughout their lives, TGD people experience numerous types and sources of victimization–both within and outside of prison walls. TGD individuals with marginalized identities and/or who engage in stigmatized or illicit behaviors are not only at-risk for incarceration but are also more likely to report being victimized while incarcerated. Intervention development research is needed to end the cycle of victimization and incarceration among TGD people to reduce the health inequities faced by this vulnerable and underserved population.

Acknowledgments

Biographies

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Kirstie Daken is a PhD candidate in the School of Psychology and Counselling at the University of Southern Queensland, Australia. Kirstie is also a research assistant, clinical psychologist registrar, and has extensive research experience working on a range of projects in the areas of health promotion, health psychology, sexual health, and chronic illness.

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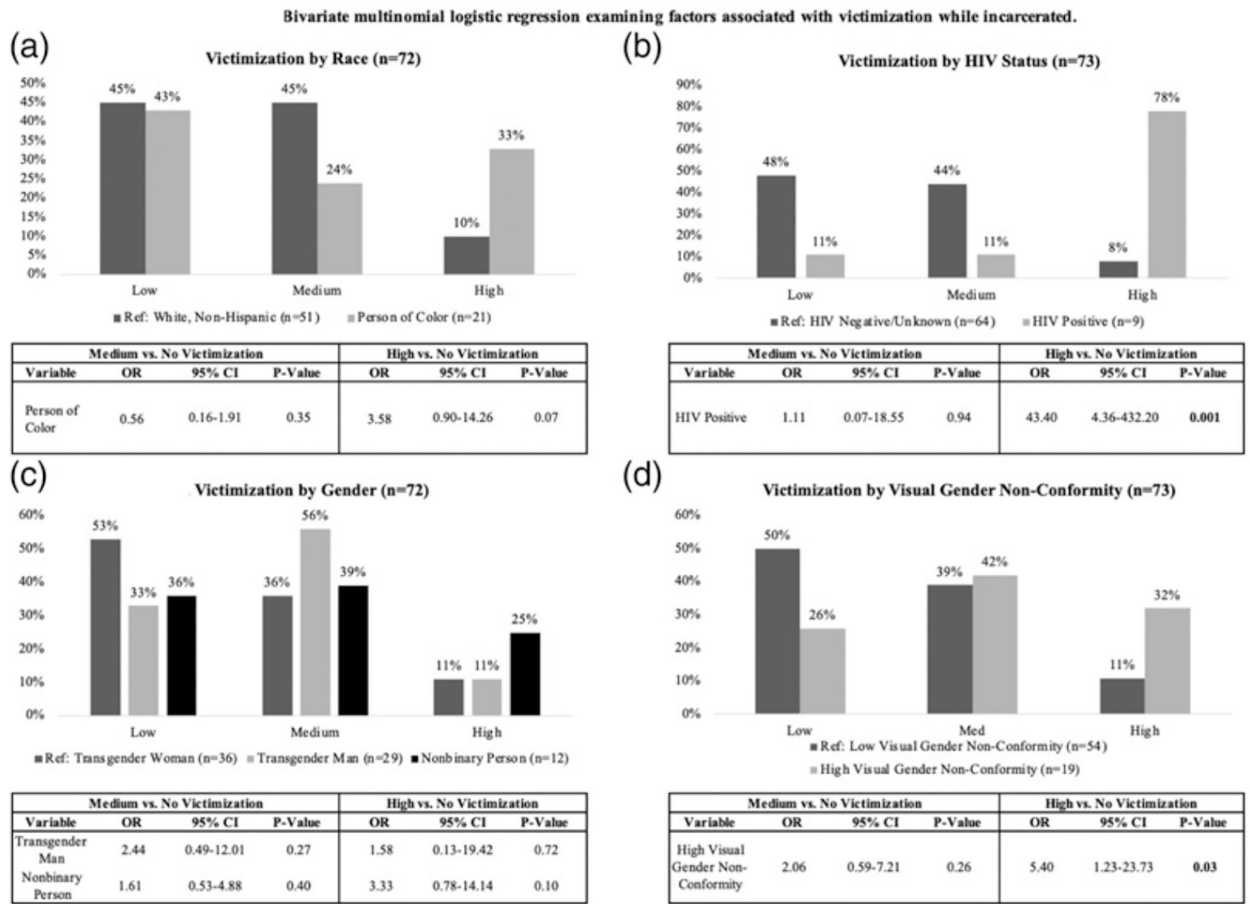
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(a)

(b)
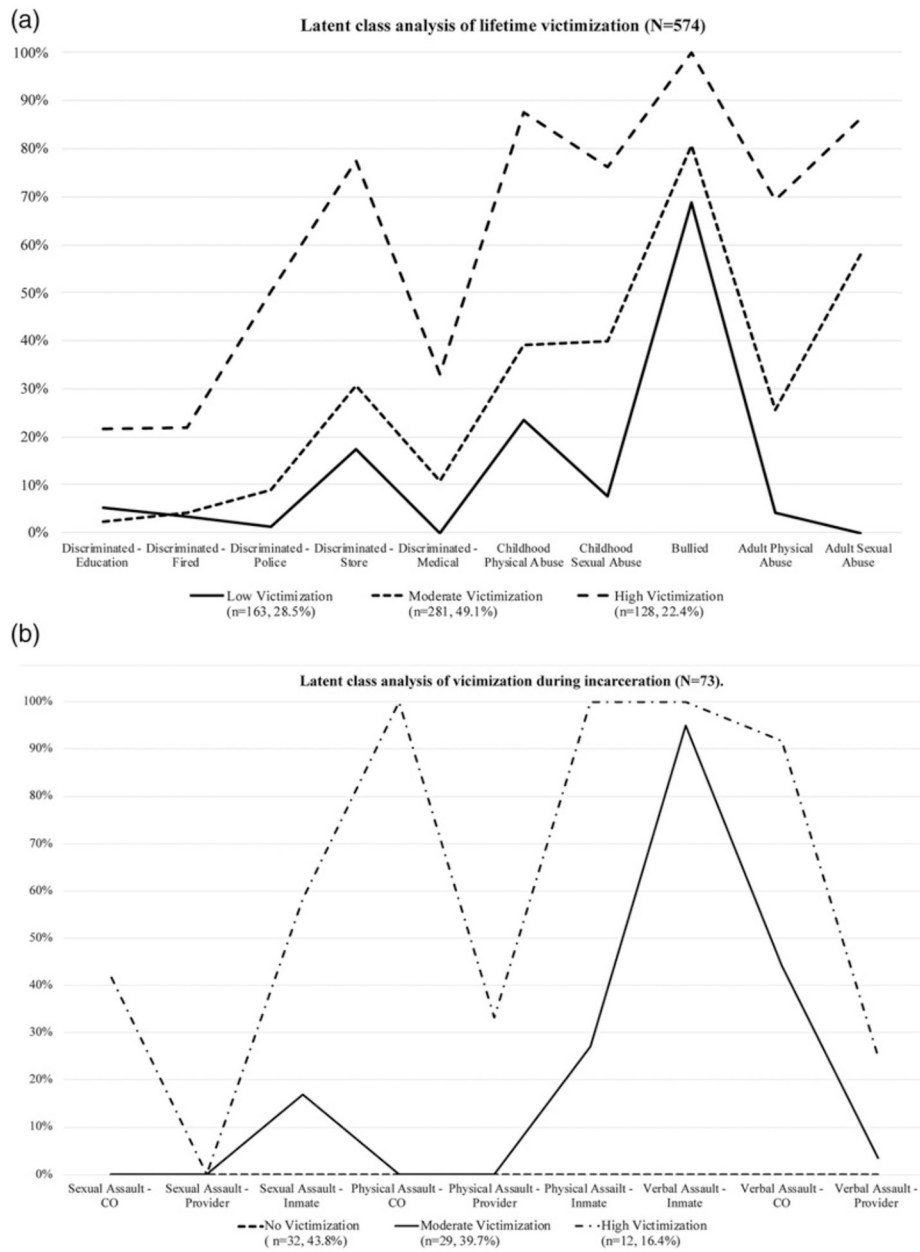
Figure 1.
(a) Latent class analysis of lifetime victimization ($N = 574$). (b) Latent class analysis of victimization during incarceration ($N = 73$).

Bivariate multinomial logistic regression examining factors associated with victimization while incarcerated.

(a) Victimization by Race (n=72)

	Medium vs. No Victimization			High vs. No Victimization		
Variable	OR	95% CI	P-Value	OR	95% CI	P-Value
Person of Color	0.56	0.16-1.91	0.35	3.58	0.90-14.26	0.07

(b) Victimization by HIV Status (n=73)

	Medium vs. No Victimization			High vs. No Victimization		
Variable	OR	95% CI	P-Value	OR	95% CI	P-Value
HIV Positive	1.11	0.07-18.55	0.94	43.40	4.36-432.20	**0.001**

(c) Victimization by Gender (n=72)

	Medium vs. No Victimization			High vs. No Victimization		
Variable	OR	95% CI	P-Value	OR	95% CI	P-Value
Transgender Man	2.44	0.49-12.01	0.27	1.58	0.13-19.42	0.72
Nonbinary Person	1.61	0.53-4.88	0.40	3.33	0.78-14.14	0.10

(d) Victimization by Visual Gender Non-Conformity (n=73)

	Medium vs. No Victimization			High vs. No Victimization		
Variable	OR	95% CI	P-Value	OR	95% CI	P-Value
High Visual Gender Non-Conformity	2.06	0.59-7.21	0.26	5.40	1.23-23.73	**0.03**

Figure 2.
(a)-(d) Bivariate multinominal logistic regression examining factors associated with victimization while incarcerated.

Table 1.

Characteristics of a Sample of Transgender and Gender-Diverse Adults in Massachusetts and Rhode Island, Ages 18–73 Years ($N = 574$).

Socio-Demographics	Mean	SD
Age (Range: 18–73 years)	31.4	11.3
Race/Ethnicity	N	%
White (non-Hispanic)	468	81.5
Person of color	106	18.5
Asian/Pacific Islander (non-Hispanic)	14	2.4
Black (non-Hispanic)	19	3.3
Hispanic/Latino	19	3.3
Middle Eastern	7	1.2
Native American	1	0.2
Multiple race/ethnicities	44	7.7
Another race (non-Hispanic)	2	0.3
Gender identity		
Transgender man	184	32.1
Transgender woman	141	24.6
Non-binary person	249	43.4
Unstably housed-past 12 months		
No	553	96.3
Yes	21	3.7
Educational attainment		
College graduate or more	321	55.9
Some college or less	253	44.1
Financially insecure		
No	185	32.2
Yes	388	67.6
Unemployed		
No	396	69.0
Yes	174	30.3
Sex work-lifetime ($n = 560$)		
No	441	76.8
Yes	119	20.7
Living with HIV ($n = 571$)		
No	559	97.9
Yes	12	2.1
High visual gender conformity ($n = 571$)		
No	474	83.0
Yes	97	17.0
Medical gender affirmation (hormones or surgery)		
No	172	30.0

Socio-Demographics	Mean	SD
Yes	402	70.0
Substance use & mental health		
Polysubstance use-past 12 months ($n = 569$)		
No	353	62.0
Yes	195	34.3
Attempted suicide-lifetime ($n = 548$)		
No	353	64.4
Yes	195	35.6
Depression-current ($n = 568$)		
No	479	83.4
Yes	89	15.5
Anxiety-current ($n = 569$)		
No	495	86.2
Yes	74	12.9
Somatization-current ($n = 569$)		
No	361	63.4
Yes	208	36.6
PTSD-current ($n = 569$)		
No	361	63.4
Yes	208	36.6
Victimization		
Victimization throughout the life course (n = 567)		
Low	278	49.0
Moderate	161	28.4
High	128	22.6
Indicators of victimization ($n = 567$)		
Bullied before age 18 ($n = 559$)	460	81.1
Childhood physical abuse ($n = 545$)	257	45.3
Childhood sexual abuse ($n = 538$)	218	38.4
Physical abuse in adulthood ($n = 544$)	167	29.5
Sexual abuse in adulthood ($n = 564$)	272	48.0
Provided inferior service at a store-past 12 months ($n = 545$)	210	37.0
Hassled by the police-past 12 months ($n = 545$)	93	16.4
Denied medical care-past 12 months ($n = 545$)	73	12.9
Fired-past 12 months ($n = 545$)	45	7.9
Discouraged by a teacher or advisor from seeking higher education–past 12 months ($n = 545$)	41	7.2

Note. The total N for each variable is 574 unless otherwise noted. PTSD = post-traumatic stress disorder.

Table 2.

Incarceration Experiences of Transgender and Gender-Diverse Adults in Massachusetts and Rhode Island ($N = 76$).

Incarceration History - Lifetime		
Number of Times Incarcerated ($n = 71$)	Mean	SD
Range (1–50)	3.3	7.0
Total amount of time incarcerated	N	%
A little (less than a year)	60	78.9
A moderate amount (1 year to less than 5 years)	6	7.9
A lot (5 years or more)	8	10.5
Prefer not to answer	2	2.6
Last incarcerated		
Less than a month ago	3	3.9
1 month to < 6 months ago	1	1.3
6 months ago to < 12 months ago	2	2.6
12 months ago to < 3 years ago	8	10.5
3 years ago to < 5 years ago	13	17.1
5 years ago or more	47	61.8
Prefer not to answer	2	2.6
Detention facility		
Federal prison	3	3.9
State prison	13	17.1
Local jail	33	43.4
Holding cell	37	48.7
Juvenile system	7	9.2
Other	4	5.3
Victimization-Lifetime ($n = 73$)		
Victimization while incarcerated		
No victimization	32	43.8
Moderate victimization	29	39.7
High victimization	12	16.4
Sexual assault		
By anyone	12	16.4
Inmate	12	16.4
Correctional officer or another staff person	5	6.8
Correctional healthcare provider	0	0.0
Physical assault		
By anyone	20	27.4
Inmate	20	27.4
Correctional officer or another staff person	12	16.4
Correctional healthcare provider	4	5.5
Verbal harassment		

Incarceration History - Lifetime		
By anyone	40	54.8
Inmate	40	54.8
Correctional officer or another staff person	24	32.9
Correctional healthcare provider	4	5.5
Incarceration History–Past 12 months ($n = 6$)		
Housing at last incarceration: Transgender women		
Men's unit	2	33.3
Housing at last incarceration: Non-binary people		
Men's unit	2	33.3
Housing at last incarceration: Transgender men		
Special unit for transgender and/or LGBT people	1	16.7
Solitary confinement/Segregated housing unit	1	16.7
Sought medical care		
No	5	83.3
Yes	1	16.7
On hormones prior to incarceration		
No	4	66.7
Yes	2	33.3
Tried to acquire hormones		
No	6	100.0
Yes	0	0.0

Note. The total N for each variable is 76 unless otherwise noted. No participants reported being housed in a women's facility. The two non-binary people housed in a men's unit were assigned a female birth sex.

Table 3.

Multivariable Logistic Regression Models Examining the Relationship Between Victimization Throughout the Life Course and Lifetime Incarceration in a Sample of Transgender and Gender-Diverse Adults From Massachusetts and Rhode Island ($N = 574$).

| | Outcome 1: Lifetime incarceration | | | | | |
| | Bivariate | | | Multivariable | | |
	OR	95% CI	*p*-Value	aOR	95% CI	*p*-value
Primary independent variable						
Victimization throughout the life course						
Low	1.00	–	–	1.00	–	–
Moderate	0.27	0.11–0.65	**0.004**	0.38	0.13–1.09	0.07
High	2.41	1.42–4.10	**0.001**	2.19	1.11–4.31	**0.02**
Covariates						
Age (in years)	1.06	1.04–1.08	**0.001**	1.05	1.03–1.08	**<.0001**
Race/Ethnicity						
White, non-Hispanic	1.00	–	–	1.00	–	–
Person of color	2.10	1.21–3.64	**0.01**	2.09	1.01–4.31	**0.046**
Gender identity						
Transgender man	1.00	–	–	1.00	–	–
Transgender woman	5.39	2.63–11.05	**<0.001**	4.49	1.91–10.57	**0.001**
Non-binary person	2.07	1.01–4.27	**0.048**	2.32	0.92–5.87	0.07
Educational attainment						
College graduate or more	1.00	–	–	1.00	–	–
Some college or less	2.45	1.49–4.04	**0.004**	1.48	0.78–2.81	0.23
Unstably housed						
No	1.00	–	–	–	–	–
Yes	2.12	0.75–5.97	0.15	–	–	–
Financially insecure						
No	1.00	–	–	1.00	–	–
Yes	2.11	1.17–3.83	**0.01**	1.29	0.62–2.70	0.50
Unemployed						
No	1.00	–	–	1.00	–	–
Yes	1.87	1.14–3.06	**0.01**	1.18	0.63–2.23	0.60
Sex work history						
No	1.00	–	–	1.00	–	–
Yes	3.79	2.25–6.39	**<0.001**	1.66	0.86–3.21	0.13
Living with HIV						
No	1.00	–	–	1.00	–	–
Yes	22.02	5.82–83.36	**<0.001**	7.57	1.43–40.11	**0.02**
Visual gender conformity						
No	1.00	–	–	–	–	–
Yes	1.94	1.10–.41	*0.02*	–	–	–

	Outcome 1: Lifetime incarceration					
	Bivariate			**Multivariable**		
	OR	**95% CI**	***p*-Value**	**aOR**	**95% CI**	***p*-value**
Medical gender affirmation						
No	1.00	–	–	1.00	–	–
Yes	0.40	0.21–0.76	*0.01*	0.42	0.17–1.03	0.06
Substance use & mental health						
Polydrug use - past 12 Months						
No	1.00	–	–	1.00	–	–
Yes	3.89	1.94–7.80	*0.0001*	2.89	1.24–6.71	*0.01*
Attempted suicide - lifetime						
No	1.00	–	–	–	–	–
Yes	1.31	0.78–2.20	0.30	–	–	–
Depression - current						
No	1.00	–	–	–	–	–
Yes	1.09	0.56–2.12	0.80	–	–	–
Anxiety - current						
No	1.00	–	–	–	–	–
Yes	0.68	0.30–1.54	0.36	–	–	–
Somatization - current						
No	1.00	–	–	–	–	–
Yes	1.00	0.48–2.12	0.99	–	–	–
PTSD - current						
No	1.00	–	–	–	–	–
Yes	1.30	0.79–2.13	0.31	–	–	–

OR = Odds Ratio; aOR = adjusted odds Ratio; variables significant at $p < 0.10$ were included in the multivariable model