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Disparities in use of disciplinary solitary confinement by mental health diagnosis, race, sexual orientation, and sex: Results from a national survey in the United States of America

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Abstract

Background: Solitary confinement is still used in prisons in the USA, despite its links to poor health. Past research suggests that there may be disparities by race, ethnicity, sex and mental disorders regarding who is placed in solitary confinement, although nationwide studies have been sparse.

Aims: To explore possible disparities by race, ethnicity, sex, sexual orientation, adverse childhood experiences, and mental disorders in solitary confinement as a disciplinary action for adults incarcerated in USA prisons.

Methods: Data come from a recently released national survey of 24,848 adults incarcerated in the USA – the 2016 Survey of Prison Inmates. Logistic regression models were used to identify disparities in the use of disciplinary action and solitary confinement as a disciplinary action, while controlling for type of rule violation.

Results: After controlling for rule violation type, solitary confinement was used as a disciplinary action at higher rates for people who: were multiracial, as compared to white (aOR = 1.30), male, as compared to female (aOR = 1.46), bisexual, as compared to heterosexual (aOR = 1.64), had multiple mental disorders, as compared to none (aOR = 1.22) or had more adverse childhood experiences (aOR = 1.13).

Conclusions: Findings highlight demographic and health disparities in the use of solitary confinement, which may further widen health disparities. More effective implementation of policies to reduce the use of solitary confinement are still needed. Mental health professionals should have an active role in advising on measures when mental disorder is a factor and must ensure adequate treatment of disorders in prison or transfer to health facilities.

Keywords

Solitary confinement; Mental health; Prison; Rule violation; Health equity

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Introduction

In the USA, solitary confinement in prisons has been legally permissible for nearly 200 years, despite its link to serious health consequences (Cloud, Drucker, Browne, & Parsons, 2015). Solitary confinement (sometimes called restrictive housing) is generally defined as the experience of being locked alone in a prison cell for at least 22 hours a day (Resnik et al., 2016) and is typically, although not exclusively, used for disciplinary purposes. Related health problems include increased rates of skin irritations, weight fluctuations and chronic musculoskeletal pain (Strong et al., 2020), along with mental health problems including depression, anxiety (Miller & Young, 1997) and self-harm (Reiter et al., 2020).

The effect of solitary confinement on mental health is likely to be further compounded by the disproportionately higher rate at which people with mental disorders are placed in solitary confinement (Ahalt et al., 2017; Labrecque & Smith, 2019). Research has linked certain mental disorders to specific types of rule violations (Felson, Silver, & Remster, 2012; Stoliker, 2016), which are likely to lead to placement in solitary confinement as a disciplinary action. There is also evidence that mental disorders mediate the role of adverse childhood experiences a driver towards breaking major prison rules (Henry, 2020). Less research has connected these factors to placement in solitary confinement as a disciplinary action for breaking rules.

A recent study, however, does suggest that a history of problems with mental health is associated with placement in solitary confinement as a disciplinary action, although, when controlling for violent rule violations, only a recent history of symptoms of mental disorder among women was associated with placement in solitary confinement (Severson, 2019). This is noteworthy as, overall, men are more likely to be placed in solitary confinement as a disciplinary action (Cochran, Toman, Mears, & Bales, 2018; Labrecque & Smith, 2019). There is also recent evidence of an interaction effect between gender and age where, in one study, solitary confinement as a disciplinary action was used at higher rates for younger than older women, without a similar trend for men (Cochran et al., 2018). Less is known about the role that sexual orientation may play as a driver of solitary confinement as a disciplinary action.

Research suggests that there may also be disproportionate use of solitary confinement among people from marginalized racial and ethnic groups in the USA (Simes & Sakoda, 2019). Existing studies, however, have generally focused on single states and have had mixed results. A recent study from the state of Florida, for example, reported some evidence for higher risk of placement in solitary confinement as a disciplinary action for Black people, but not when controlling for the type of rule violation (Cochran et al., 2018).

The aims for this paper are to examine recently released (2020) national survey data of adults incarcerated in US prisons to identify disparities the use of solitary confinement as a disciplinary action by race, ethnicity, sex, sexual orientation, adverse childhood experiences, and mental health disorders.

Methods

Ethics approval

Since these data are publicly available, analysis of the data for this study did not require Institutional Review Board authorization

The data

Data come from the cross-sectional 2016 Survey of Prison Inmates (SPI), which was released December 2020 (United States Bureau of Justice Statistics, 2020). The survey is conducted by the US Bureau of Justice Statistics. The total sample includes 24,848 adults serving prison sentences across the entire USA (20,064 from state prisons and 4,784 from federal prisons). Data were collected using two-stage stratified sampling where prisons were selected in the first phase (98.4% response rate) and incarcerated adults were selected in the second phase (70.0% response rate). Data are self-reported and collected via in person computer-assisted personal interviewing (CAPI). The survey includes a broad array of questions on topics that include: criminal justice history, demographic characteristics, family history, health status and treatment history, prison program participation, and rule violations (Glaze, 2019).

Independent Variables encompass self-reported demographic characteristics, mental health history and exposure to adverse childhood experiences. Available demographic characteristics include race/ethnicity (white, Black, Hispanic, native American, Asian, other single race, multiracial), sex (male, female), sexual orientation (heterosexual, gay/lesbian, bisexual, “something else” and “don’t know”) and age (in years). For analysis purposes native American, Asian, and other single race were combined into a single “other” category because of small numbers in each of these individual categories. Individuals who indicated “something else” or “don’t know” as their sexual orientation were counted as missing on that variable for the purposes of analysis, also due to small sample sizes.

Included disorders of mental health were having/ever having had a: 1) learning disability, 2) any personality disorder, 3) psychotic or bipolar disorder, 4) single other disorder (attention deficit disorder (ADD), attention deficit/hyperactivity disorder (ADHD), anxiety disorder, depressive disorder, posttraumatic stress disorder (PTSD), or other disorder), or 5) multiple mental disorders. These five categories were mutually exclusive.

Exposure to adverse childhood experiences included measures for ever being homeless as a child, having a parent incarcerated, or being in foster care. No other adverse childhood experiences were captured in this version of the survey. An additive index was created from these three variables indicating an overall “ACE Index” ranging from 0 – 3, where people with a score of 0 reported none of these three experiences, while people with a score of three reported all three experiences.

Dependent Variables were also self-reported, pertain to the past 12 months and include 1) receiving any disciplinary action and 2) being placed in solitary confinement or segregation as a disciplinary action.

Covariates include the self-reported type of “rule violation” for which the disciplinary action was received. Response options included: 1) drug or alcohol violation, 2) possession of a weapon, 3) possession of stolen property, 4) possession of any unauthorized substance or item, 5) verbal assault on staff, 6) physical assault on staff, 7) verbal assault on an “inmate”, 8) physical assault on an “inmate”, 9) escape or attempted escape, 10) some other major violation, 11) some other minor violation. No information is available about whether participants had multiple simultaneous violations.

Statistical Analysis applied descriptive statistics (mean, standard deviation, percent, and frequency). Multiple univariate logistic regression models were used to describe relationships between covariates (each rule violation type) and both dependent variables (any disciplinary action and being placed in solitary confinement). Multivariable logistic regression models were used to identify associations between independent variables and dependent variables alone, and while controlling for covariates (type of “rule violation”). Two multivariable logistic regression models were built for each dependent variable, a partially adjusted model, and a fully adjusted model. The partially adjusted models included all independent variables, but no covariates (rule violation type), therefore not adjusting for rule violation type. The full models included all independent variables and covariates to adjust for the impact of rule violation type. This allows for a description of how demographic characteristics and mental disorders were associated with receipt of any disciplinary action and of solitary confinement as a specific disciplinary action, both independent of rule violation type and in conjunction with rule violation type. All analysis was conducted in Stata 16 (StataCorp, 2019).

Results

Description of the sample

About 34% of the sample identified as white, 30% as Black, 22% as Hispanic, 2% as other single race and 11% as multiracial; 25% of the sample was of women and 75% men (see Table 1 for further details). Most people described themselves as heterosexual (93%), with just 2% identifying as gay or lesbian and 5% as bisexual. 42% of the sample reported never having had a disorder of mental health; 39% reported multiple mental health disorders, 6% reported a learning disability alone, 2% reported a psychotic or bipolar disorder alone, and 10% reported any other single other mental health disorder except for personality disorder. Less than 1% reported personality disorder alone. The mean age was 39 years old (SD 11.91, range 18 – 86), and the mean ACE Index score was 0.35 (SD 0.65, range 0 – 3).

Reasons for receipt of disciplinary action & solitary confinement

Three-quarters of the sample reported at least one rule violation in the past 12 months. Of those people 43% received disciplinary action for that rule violation. Among people who received disciplinary action, 35% were given solitary confinement, or nearly 10% of the total sample. The most commonly reported reason for receiving disciplinary action was for some minor violation other than aggression/violence, drug or alcohol possession, theft or attempted escape (45%). Possession of an unauthorized item accounted for 13% of disciplinary actions and physical assault on another “inmate” also 13%. All other reasons

comprised less than 10% of those disciplined. The most common reasons for placement in solitary confinement as a disciplinary action followed a similar hierarchy of frequency and are also detailed in Table 1. Thus, ‘other minor violations’ accounted for 25% of the episodes of solitary confinement, physical assault on another “inmate” 23%, drug or alcohol violation 13%, and possession of an unauthorized item 12%). Again, all other reasons were reported at a rate of less than 10% each.

Relationships between rule violation and disciplinary action

In multiple univariate logistic regression models, rule violation type was significantly associated with receipt of both disciplinary action generally and solitary confinement as a specific disciplinary action. As compared to all other rule violation types, people deemed to have committed drug or alcohol violations (OR = 1.94, $p < 0.01$), been in possession of an unauthorized item (OR = 1.59, $p < 0.01$), physical assaulted another “inmate” (OR = 3.50, $p < 0.01$) or committed “some other major violation” (OR = 3.00, $p < 0.01$) were two to three times more likely to have received some disciplinary action. Only people with “some other minor violation” had lower odds of such punishment (OR = 0.37, $p < 0.01$) compared to people with all other rule violation types (Table 2).

With the exception of drug or alcohol violation, it was some form of aggressive behavior that was associated with solitary confinement. People with an alcohol or drug violation were nearly twice as likely to be put in solitary compared with all others deemed to have violated rules (OR = 1.77, $p < 0.01$), as were those who had been verbally aggressive to staff (OR = 1.75, $p < 0.01$) or to other incarcerated people (OR = 1.92, $p < 0.01$). Physical assault on staff was most likely to result in solitary confinement, with nearly seven times the odds (OR = 6.73, $p < 0.01$), followed by weapon possession (OR = 5.08, $p < 0.01$) and physical assault on another “inmate” (OR = 4.33, $p < 0.01$). As compared to all other rule violation types, only possession of an unauthorized item (OR = 0.78, $p < 0.01$) and “some other minor violation” (OR = 0.25, $p < 0.01$) were associated with lower odds of receiving solitary confinement as a disciplinary action (Table 2).

Other variables affecting likelihood of disciplinary action generally

In partially adjusted multivariate logistic regression models, the following characteristics were associated with higher odds of receiving disciplinary action for a rule violation: male sex—as compared to female sex (aOR = 1.62, $p < 0.01$), and bisexual orientation—as compared to heterosexual orientation (aOR = 1.49, $p = 0.02$). Older age was significantly associated with marginally lower odds of receiving disciplinary action (aOR = 0.99, $p = 0.03$). In fully adjusted multivariate logistic regression models where the effects of rule violation type were also included, only male sex (aOR = 1.32, $p = 0.02$) was significantly associated with receiving disciplinary action (Table 3).

Variables affecting the odds of solitary confinement as a disciplinary action

A second series of multivariate logistic regression models was used to test relationships with disciplinary solitary confinement. In partially adjusted models, all variables except for age were associated with higher odds of receiving solitary confinement as a disciplinary action. Compared to people who identified as white, all other racial and ethnic groups had higher

odds of receiving solitary confinement (Black aOR = 1.36, $p < 0.01$; Hispanic aOR = 1.22, $p = 0.01$; other aOR = 1.46, $p = 0.04$; multiracial aOR = 1.40, $p < 0.01$). Men had higher odds of receiving solitary confinement than women (aOR = 1.83, $p < 0.01$). People identifying as gay or lesbian or bisexual had higher odds of receiving solitary confinement than those identifying as heterosexual (gay/lesbian aOR = 1.38, $p = 0.04$; bisexual aOR = 1.58, $p < 0.01$). Among mental disorders, only having multiple disorders compared to having none was significant (aOR = 1.26, $p < 0.01$). Finally, having a higher ACE Index, or exposure to more adverse events, was associated with higher odds of receiving solitary confinement (aOR = 1.17, $p < 0.01$). In fully adjusted models, after adjusting for type of rule violation, being multiracial (aOR = 1.30, $p = 0.01$), male (aOR = 1.46, $p < 0.01$), bisexual (aOR = 1.64, $p < 0.01$), having multiple mental disorders (aOR = 1.22, $p = 0.01$) and ACE Index (aOR = 1.13, $p = 0.01$) remained significant.

Discussion

Despite changes to policies, these data indicate that high use of solitary confinement as a disciplinary measure continues, with one in ten of the 2016 survey of US prisoners having had at least one such period, and that its use cannot be explained solely by the nature of rule violation. Even after controlling for rule violation type, there was a greater likelihood of solitary confinement as a disciplinary action for men, people identifying as multiracial, as bisexual, as having had more adverse childhood experiences or as having multiple mental disorders. This may indicate bias in use of solitary confinement as a disciplinary action.

Past research related to sentencing bias supports the existence of racial and ethnic bias towards harsher criminal sentences for people who are Black, Hispanic (Sutton, 2013) and native American (Everett & Wojtkiewicz, 2002). Given that due process must be followed during prison based disciplinary proceedings (Krelstein, 2002), and the fact that prison officials have considerable discretion in the use of disciplinary action (Butler & Steiner, 2017), it is likely that similar 'sentencing bias' was operating here. Disparities related to sex and sexual orientation may result from a similar mechanism, but also indicates a need for research to understand better how these factors impact placement in solitary confinement as a disciplinary action. Most research on solitary confinement has focused on men, and solitary confinement related to sexual orientation has largely focused on non-disciplinary solitary confinement (Ahalt et al., 2017).

Findings related to mental disorders indicate that people with multiple mental disorders may receive the more harsh disciplinary action in prison in the form of solitary confinement. These findings are consistent with earlier research which also found that people with certain mental disorders had much higher odds of being placed in solitary confinement (Clark, 2018) – even when controlling for disciplinary history (Siennick, Picon, Brown, & Mears, 2021). However, this study adds new information by identifying that only people with multiple mental health disorders received solitary confinement at higher rates, in fully controlled models. This finding may be related to the fact that that people in this sample who had personality disorders, also commonly had another mental health disorder. Findings related to adverse childhood experiences may relate to their identification as a driver of rule violations during incarceration (Henry, 2020). Regardless of type of violation, people with

ACE histories were, in effect, being retraumatized. This is, if anything, likely to exacerbate their behavioral and other problems as trauma and re-traumatization have consistently been linked to poor health and social outcomes (Kendall-Tackett, 2009).

Mechanisms underlying the relationships between mental health, adverse experiences, and placement in solitary confinement as a disciplinary action may also be related to bias in discretionary use of solitary confinement. Another factor at play could be self-selection into solitary confinement. Recent qualitative evidence suggests that, sometimes, incarcerated people seek out solitary confinement, even through disciplinary mechanisms (Laws, 2021). Interviewees reported that sometimes solitary confinement provided a reprieve from a socially toxic or unsafe housing placement. Alternatively, it also afforded a mechanism to protest the institution's rules both by refusing to follow the rules and by occupying a space in solitary confinement after their disciplinary sanction had ended (Laws, 2021). Such mechanisms may help to explain some of this study's findings as bisexual and multiracial people may have more difficulty aligning with an identity-based peer group which could provide safety and support. People with multiple mental disorders may also have more difficulty coping with an unsafe environment or engaging in proactive self-advocacy than healthier peers, thus leaving them to seek out solitary confinement as a respite or mechanism of self-advocacy.

Limitations of this study include the inability to disaggregate data by prison or state which would have allowed for direct investigation of prison and state level impact. Data regarding the use of non-disciplinary solitary confinement were not available, and people who were actually in solitary confinement during the survey were not allowed to participate in it, so the prevalence figure is a minimum estimate. Data are cross-sectional, which, in the case of mental disorder, does not allow for testing timing of relationships between disorder, violation and punishment, nor it is possible to describe trends over time. Finally, all data are self-reported and subject to response bias, which may lead to an undercount in the prevalence of key variables.

Policy & Practice Implications

Overall, these findings highlight how significant disparities in the use of solitary confinement remain, despite a recent wave of policies aimed at reducing its use and diverting people with mental health disorders (Steinbuch, 2014). For example, between 2011-2014 the following states made policy changes to reduce the use of solitary confinement: California, Colorado, Illinois, Maine, Massachusetts, Mississippi, New Mexico, New York, Ohio, Pennsylvania, and Washington (Ahalt et al., 2017; Cloud et al., 2015; Steinbuch, 2014). Mental health practitioners may have a role in reducing the use of solitary confinement by contributing evidence on needs. Those who are particularly distressed overcrowding in the context of mental disorder or by prior traumatic experiences might be better managed through confinement to own quarters and it goes without saying that it is important to ensure that mental disorder is fully assessed and treated appropriately. Insofar as people with psychosis are violent in prison, for example, the relationship is between untreated psychosis and violence (Keers, Ullrich, Destavola, & Coid, 2014). Further, in general, there

are alternatives to solitary confinement, such as loss of privileges, that may be less damaging (Cloud et al., 2015).

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Data is publicly available from: United States. Bureau of Justice Statistics. Survey of Prison Inmates, United States, 2016. Inter-university Consortium for Political and Social Research [distributor], 2021-03-04. <https://doi.org/10.3886/ICPSR37692.v2>

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Table 1:

General description of prisoners in the 2016 US National Survey

		N	(%)
Race & ethnicity N = 24,536	White	8,389	34.19
	Black	7,452	30.37
	Hispanic	5,393	21.98
	Other	587	2.39
	Multiracial	2,715	11.07
Sex N = 24,848	Female	6,307	25.38
	Male	18,541	74.62
Sexual Orientation N = 24,440	Heterosexual	22,686	92.82
	Gay or Lesbian	571	2.34
	Bisexual	1,183	4.84
Mental Disorders N = 24,659	No mental health disorder	10,417	42.24
	Multiple Disorders	9,728	39.45
	Learning Disability Only	1,517	6.15
	Personality Disorder Only	139	0.56
	Psychotic or Bipolar Disorder Only	447	1.81
	Other Single Mental Health Disorder	2,411	9.78
Reported reasons for disciplinary action N = 6,001	Drug or Alcohol Violation	542	9.99
	Weapon possession	127	2.34
	Stolen property possession	89	1.64
	Possession Unauthorized Item	728	13.41
	Verbal Assault on Staff	339	6.25
	Physical Assault on Staff	96	1.77
	Verbal Assault on an Inmate	99	1.82
	Physical Assault on Inmate	693	12.77
	Escape/ Attempted Escape	10	0.18
	Some Other Major Violation	248	4.57
Some Other Minor Violation	2,457	45.27	
Reported reasons for solitary confinement N = 2,375	Drug or Alcohol Violation	267	13.36
	Weapon possession	94	4.70
	Stolen property possession	32	1.60
	Possession Unauthorized Item	232	11.61
	Verbal Assault on Staff	168	8.41
	Physical Assault on Staff	76	3.80
	Verbal Assault on an Inmate	52	2.60
	Physical Assault on Inmate	466	23.32
	Escape or Attempted	5	0.25
Some Other Major Violation	106	5.31	
Some Other Minor Violation	500	25.03	

Note: Total N = 24,848; Received disciplinary action N = 6,859; Received solitary confinement N = 2,375

Multiple univariate logistic regression models with disciplinary action or solitary confinement as the dependent variable and type of rule violation as independent variables

Table 2:

	Disciplinary Action N = 6,001			Solitary Confinement N = 5,424		
	OR	95% conf. interval	p	OR	95% conf. interval	p
Drug or Alcohol Violation	1.94	1.34 - 2.82	< 0.01	1.77	1.48 - 2.11	< 0.01
Weapon possession	1.94	0.90 - 4.17	0.09	5.08	3.40 - 7.58	< 0.01
Stolen property possession	1.58	0.69 - 3.62	0.28	0.96	0.62 - 1.49	0.86
Possession Unauthorized Item	1.59	1.18 - 2.14	< 0.01	0.78	0.66 - 0.92	< 0.01
Verbal Assault on Staff	1.16	0.80 - 1.70	0.43	1.75	1.40 - 2.18	< 0.01
Physical Assault on Staff	2.56	0.94 - 6.99	0.07	6.73	4.10 - 11.06	< 0.01
Verbal Assault on an Inmate	0.74	0.42 - 1.31	0.30	1.92	1.29 - 2.86	< 0.01
Physical Assault on Inmate	3.50	2.29 - 5.35	< 0.01	4.33	3.65 - 5.13	< 0.01
Escape or Attempted	0.53	0.12 - 2.41	0.41	1.72	0.50 - 5.94	0.39
Some Other Major Violation	3.00	1.53 - 5.87	< 0.01	1.30	1.00 - 1.68	0.05
Some Other Minor Violation	0.37	0.31 - 0.45	< 0.01	0.25	0.22 - 0.28	< 0.01

Note: Reference group is people with all other rule violation types

Solitary confinement as a disciplinary action for a rule violation in the last 12 months, allowing for demographics, adverse childhood experiences and mental disorder

Table 3:

	Disciplinary Action						Solitary Confinement					
	Partially adjusted model N = 7,411			Fully adjusted model N = 5,781			Partially adjusted model N = 6,608			Fully adjusted model N = 5,228		
	aOR	95% conf. interval	p	aOR	95% conf. interval	p	aOR	95% conf. interval	p	aOR	95% conf. interval	p
Race (white = reference)												
Black	1.05	0.87 - 1.27	0.62	1.00	0.79 - 1.26	0.99	1.36	1.19 - 1.56	<0.01	1.16	0.98 - 1.36	0.08
Hispanic	1.24	0.99 - 1.55	0.06	1.16	0.88 - 1.52	0.30	1.22	1.05 - 1.42	0.01	0.95	0.79 - 1.14	0.56
Other	1.01	0.61 - 1.68	0.98	0.83	0.45 - 1.53	0.55	1.46	1.03 - 2.09	0.04	1.02	0.66 - 1.59	0.92
Multiracial	1.02	0.80 - 1.29	0.90	0.92	0.69 - 1.24	0.61	1.40	1.18 - 1.66	<0.01	1.30	1.06 - 1.61	0.01
Male (female = reference)	1.62	1.35 - 1.94	<0.01	1.32	1.04 - 1.67	0.02	1.83	1.58 - 2.13	<0.01	1.46	1.21 - 1.76	<0.01
Sexual Orientation (heterosexual = reference)												
Gay or Lesbian	1.14	0.76 - 1.72	0.53	0.84	0.53 - 1.34	0.47	1.38	1.02 - 1.87	0.04	1.39	0.97 - 1.99	0.07
Bisexual	1.49	1.08 - 2.07	0.02	1.26	0.86 - 1.86	0.24	1.58	1.27 - 1.96	<0.01	1.64	1.26 - 2.13	<0.01
Age (in years)	0.99	0.99 - 1.00	0.03	0.99	0.98 - 1.00	0.09	1.00	0.99 - 1.00	0.54	1.00	0.99 - 1.00	0.24
Mental Health Disorders (no mental health disorder = reference)												
Multiple Disorders	1.11	0.93 - 1.33	0.26	1.17	0.95 - 1.46	0.14	1.26	1.11 - 1.43	<0.01	1.22	1.05 - 1.41	0.01
Learning Disability Only	0.89	0.65 - 1.22	0.47	0.88	0.61 - 1.27	0.50	1.25	0.99 - 1.57	0.06	1.19	0.91 - 1.56	0.20
Personality Disorder Only	0.47	0.21 - 1.03	0.06	0.45	0.20 - 1.01	0.05	0.74	0.34 - 1.61	0.45	0.76	0.32 - 1.77	0.52
Psychotic or Bipolar Disorder Only	1.14	0.66 - 1.98	0.65	2.05	0.88 - 4.77	0.10	1.43	0.99 - 2.06	0.05	1.36	0.88 - 2.09	0.17
Other Single Mental Health Disorder	1.11	0.84 - 1.47	0.45	1.24	0.88 - 1.75	0.21	0.90	0.74 - 1.10	0.31	1.00	0.79 - 1.26	0.98
Trauma Index (scale 0 - 3)	1.10	0.99 - 1.23	0.09	1.08	0.95 - 1.23	0.24	1.17	1.09 - 1.25	<0.01	1.13	1.04 - 1.23	0.01
Constant	6.40	4.50 - 9.10	<0.01	5.68	3.65 - 8.84	<0.01	0.22	0.17 - 0.29	<0.01	0.16	0.11 - 0.22	<0.01

Note: Adjusted models are adjusted for rule violation type