Mental disorder and victimisation in prison: Examining the role of mental health treatment

Article *in* Criminal Behaviour and Mental Health · August 2017

DOI: 10.1002/cbm.2056

CITATIONS
2

READS
257

2 authors:

Jane C Daquin
University of Alabama
6 PUBLICATIONS **23** CITATIONS
SEE PROFILE

Leah E. Daigle
Georgia State University
49 PUBLICATIONS **2,190** CITATIONS
SEE PROFILE

Criminal Behaviour and Mental Health
(2017)
Published online in Wiley Online Library
(wileyonlinelibrary.com) DOI: 10.1002/cbm.2056

Mental disorder and victimisation in prison: Examining the role of mental health treatment

JANE C. DAQUIN[1] AND LEAH E. DAIGLE[2], [1]Department of Criminology and Criminal Justice, The University of Alabama, Box 870320, Tuscaloosa, AL 35487-0320, USA; [2]Department of Criminal Justice and Criminology, Georgia State University, PO Box 4018, Atlanta, GA 30302, USA

ABSTRACT

Background *There is evidence that people with mental disorders are at increased risk of victimisation in prison. It is unclear whether this risk of victimisation varies across types of disorders or symptoms and what role mental health treatment has on victimisation risk in this context.*

Aims *To examine the relationship between specific mental disorders, psychiatric symptoms, and victimisation in prison and the effect of treatment for the disorders on victimisation risk.*

Methods *Using a nationally-representative sample of prisoners, path analyses were conducted to examine the relationship between mental disorder and victimisation. The analyses also examined whether receiving mental health treatment in prison affected any such relationship.*

Results *Victimisation risk varied with the type of mental disorder or symptoms. Depression, personality disorder, hopelessness, paranoia, and hallucinations were associated with increased victimisation risk. Psychotic illnesses were otherwise negatively associated with victimisation. Receiving mental health treatment in prison was associated with greater risk of victimisation there. Receiving treatment appeared to mediate the relationship between mental disorders, symptoms, and victimisation.*

Conclusions *The findings suggest that not all inmates with mental disorders are at an increased risk of victimisation. Further, mental health treatment in prison also appears to be a risk factor of victimisation. More research is needed to further elucidate the relationship between mental disorders, treatment, and victimisation.*

Introduction

Substantial numbers of prisoners have a mental disorder (Fazel & Seewald, 2012; James & Glaze, 2006) with the prevalence of mental disorder being much higher among prisoners than in the general population (Diamond et al., 2001; Prins, 2014). Among the many concerns this may raise is the safety of these individuals within prisons, particularly since research has shown that having a mental illness significantly increases the risk of victimisation (Blitz et al., 2008; Caravaca-Sanchez & Wolff, 2016; Teasdale et al., 2016; Wolff et al., 2007).

When researchers have investigated becoming a victim in this context, they have simply identified having a mental disorder, typically, a serious disorder such as schizophrenia or bipolar disorder, as a risk factor for victimisation or compared the prevalence of victimisation among disordered prisoners and non-disordered prisoners (Blitz et al., 2008; Caravaca-Sanchez & Wolff, 2016; Wolff et al., 2007). As such, the role that specific mental disorders or psychiatric symptoms may play in such risk has been relatively unexplored (Pare & Logan, 2011). These omissions are surprising as research in the community indicates that the risk of victimisation is not consistent across disorder, psychiatric symptoms affect actions, and those exhibiting particular symptoms may be more likely than others to become targets (Silver et al., 2005). Further, psychiatric symptoms which are related to violence perpetration may, in turn, increase the risk of victimisation (Swanson et al., 2006). It is not known if receipt of treatment is related to victimisation risk among prisoners.

There are several challenges to providing care and treatment to mentally ill prisoners. First, despite the constitutional right to receive mental health care and treatment in prisons in the USA, research shows that, in practice, access to such care is irregular (Gonzalez & Connell, 2014), with many prisoners not receiving mental health care after admission (James & Glaze, 2006; Wilper et al., 2009). Secondly, the method of mental health care delivery varies by state. In some states, administration of care is provided directly by the Department of Correction, whereas other states employ the services of private vendors, and the cost and challenges associated with outsourcing treatment may act as a barrier to quality treatment (Daniel, 2007). It is possible that those receiving treatment experience a reduction in the negative outcomes typically associated with having a mental disorder in prison, including victimisation (Hiday et al., 2002), so a better understanding of the role of treatment in victimisation risk is essential.

Method

The study utilised secondary data, which was acquired following approval by the Institutional Review Board. The original data collection was conducted by a

DOI: 10.1002/cbm

governmental agency. Confidentiality was strictly maintained throughout both studies.

Data and Sampling

We used data from the *Survey of Inmates in State and Federal Correctional Facilities* (SISFCF; (U. S. Department of Justice, 2004)), which were collected between October 2003 and May 2004. The SISFCF consists of datasets that are nationally and geographically representative of prisoners in the USA. The sample is generated through a two-stage sampling procedure, with prisons being selected in the first stage and prisoners within them in the second. The sample included 14,499 prisoners from 287 state prisons and 3,686 prisoners from 39 federal prisons.

Measures

Dependent variable: *victimisation*. Prisoners were asked "Since your admission [most recent admission date], have you been injured in a fight, assault, or incident in which someone tried to harm you?" (coded 0 = no, 1 = yes).

Independent variables

Mental disorders. Respondents were asked "Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had… a depressive disorder, bipolar disorder, psychotic disorder, posttraumatic stress disorder (PTSD), anxiety disorder, or personality disorder?" (each coded as 0=no, 1=yes).

Psychiatric symptoms. The measure of *depressive cognition* was made up of three questions about feelings during the past year (e.g., have you ever felt numb or empty inside?) Each was coded 0 if the answer was 'no' to all three questions or 1 if 'yes' to one or more. *Paranoia* was rated according to the answer to a question 'do you feel like you are being plotted against or spied on?' (code 0/1); *delusions* 'do you think that others can read your thoughts? Or control your mind?' (code 0/1); *hallucinations* 'do you see or hear things that others around you cannot see or hear?' (code 0/1). For a description of all survey items used to create these measures see Appendix A in Online Supporting Information.

Mental health treatment. Two measures of mental health treatment were created. *Recent mental health treatment:* 'were you taking medication or receiving mental health care in the 12 months before arrest or being in prison?' (code 0/1) and *treatment in prison* – the same question but referring to the period in prison (code 0/1; see Appendix B for full details in Online Supporting Information).

DOI: 10.1002/cbm

Substance dependence. In the SISFCF 2004, drug and alcohol abuse and dependence are defined by the DSM-IV categories (see Appendix C in Online Supporting Information). Using the survey items, a dichotomous measure was created and coded 1 if inmates met the criteria for drug/alcohol abuse and dependence and 0 if they did not.

Control variables. In line with previous research, several variables that are potentially related to victimisation were also included. *Previous victimisation* measured physical and sexual victimisation experiences prior to admission to prison (0 = no, 1 = yes). *Age* was measured as a continuous variable, but all personal descriptors treated categorically (*sex* male= 0, female=1; *ethnicity* 0=Non-White (subgroups were too small for further division), White=1; *marital status* (married=0, single/divorced/in a relationship=1).

Time served was measured in years as a continuous variable. As a proxy for facility security level, available only for the federal data, hours spent in place where respondents slept was used as a measure of the amount of time inmates spend in their cells; higher security prisons require inmates to spend more time in their cells: 'In the last 24 hours, how much total time did you spend where you sleep?'. A single variable was created to measure participation in *programmes* (e.g., classes, religious groups; 0 = none, 1 = participation in any programme). Dummy variables were created for the *conviction offence* variable: violence, including sex offences (reference category), property, drug, and other. To measure *any misconduct in prison*, respondents were asked 'Since your admission [most recent admission date], have you been written up or found guilty of breaking any of the prison rules?' (0/1). *Facility type* measured whether or not respondents were housed in a state or federal facility (0 = state, 1 = federal). Distributions of age, time served and hours in cell were skewed so the natural log was taken for each measure.

Analytical Plan

Binary logistic regression with path analyses were conducted in Mplus 7.4 (Muthén & Muthén, 1988-2015). First, direct effects of mental disorders, psychiatric symptoms, and substance dependence on prison victimisation were examined. In the second model, the direct and indirect effects of mental health treatment were examined. Because of the complex structure (sample weights and clustering) of the data, Mplus uses the weighted least squares estimation, and produces probit coefficients for binary outcomes. The final sample size was 15,629 after missing cases were deleted listwise; none of the measures had more than 10% of cases missing.

DOI: 10.1002/cbm

Results

Table 1 shows the distribution of the main variables. Of the sample, 13% (2,382) had experienced being a victim of some sort of physical assault during this period of imprisonment, and about one quarter have a history of victimisation before this imprisonment. Overall, between 1% (bipolar) and 20% (depression) of the prisoners reported being diagnosed with one of the mental disorders other than substance abuse (details are shown in Table 1), and two-thirds of them reported substance dependence. Only 14% reported having had any treatment in the community during the year prior to imprisonment and just one fifth during prison. Half were White, four-fifths men and most (81%) single. Mean age was nearly 36, but there was a wide range. The largest offence group was violent offences (41%).

Table 1: *Descriptive Statistics (weighted, N=15,629)*

Variables	**N (%)**	***Mean (SD)***	**Range**
Victimisation	2,382 (13%)		
Depression	3,651(20%)		
Bipolar	1,911 (1%)		
Psychotic	775 (4%)		
PTSD	1,153 (6%)		
Anxiety	1,449 (8%)		
Personality	1,078 (6%)		
Depressive cognition	7,607 (43%)		
Paranoia	1,291 (7%)		
Delusions	1,193 (7%)		
Hallucinations	5,739 (32%)		
Substance dependence	11,322 (67%)		
Recent treatment	2,448 (14%)		
Prison treatment	3,683 (20%)		
Time in prison (years)		3.87 (5.04)	0-43
Programme participation	12,373 (69%)		
Hours in cell		12.59 (5.68)	0-24
Rule violations	8,300 (47%)		
Previous victimisation	4,376 (24%)		
White	8,931 (50%)		
Female	3,888 (21%)		
Age (years)		35.83 (10.51)	16-84
Marital status	14,772 (81%)		
Violent offence	7,590 (41%)		
Property offence	4,106 (20%)		
Drug offence	4,271 (27%)		
Other offence	1,788 (11%)		
Federal institution	3,686 (20%)		

Note. All variables in the models are binary except age, time in prison, and hours in cell.

DOI: 10.1002/cbm

Table 2 presents the findings for models examining the relationship between mental disorder and victimisation. In the direct effects model, depression and personality disorder were positively associated with victimisation. That is, inmates with depression or a personality disorder were more likely to have become a victim of violence in this episode of imprisonment than those without either disorder. Inmates who reported depressive cognition, paranoia, and/or

Table 2: *Probit regression predicting prison victimisation*

	Direct effects		*Direct & Indirect effects*	
Variables	***b***[1]	***SE***[2]	***b***[1]	***SE***[2]
Depression	0.176***	0.046	0.076	0.055
Bipolar	0.025	0.056	-0.014	0.057
Psychotic	-0.170*	0.077	-0.220**	0.080
PTSD	0.021	0.067	-0.006	0.068
Anxiety	-0.017	0.066	-0.065	0.067
Personality	0.128*	0.066	0.123	0.063
Depressive cognition	0.178***	0.066	0.162***	0.035
Paranoia	0.323***	0.052	0.303***	0.052
Delusions	0.070	0.058	0.064	0.059
Hallucinations	0.075*	0.035	0.064	0.035
Substance dependence	0.056	0.036	0.055	0.037
Recent treatment	--	--	0.025	0.051
Prison treatment	--	--	0.076**	0.029
Time in prison	0.433***	0.025	0.426***	0.025
Hours in cell	0.135***	0.037	0.127***	0.038
Programme participation	0.082*	0.036	0.065	0.035
Rule violation	0.625***	0.037	0.613***	0.037
Prior victimisation	0.176***	0.038	0.154***	0.040
White	0.151***	0.033	0.135***	0.033
Female	-0.402***	0.061	-0.428***	0.062
Age	-0.636***	0.065	-0.663***	0.064
Marital status	0.106*	0.045	0.094*	0.045
Property offence[3]	-0.025	0.044	-0.019	0.044
Drug offence	-0.219***	0.044	-0.201***	0.045
Other offence	-0.054	0.058	-0.044	0.059
Federal institution	-0.071	0.066	-0.065	0.068
Intercept	0.552*	0.254	0.534*	0.256
Pseudo R^2	0.334		0.340	

Note. *N* = 15,629. The final sample weight was employed for all analyses.
*p < .05,
**p < .01,
***p < .001
[1]Probit coefficients
[2]Standard errors
[3]The reference category for the offences is violent offence

DOI: 10.1002/cbm

hallucinations were also more likely to report experiencing such victimisation. Neither substance abuse nor dependence, by contrast, was significantly associated with the likelihood of victimisation. Interaction terms between each mental disorder and substance dependence were created and run to examine the effects of co-occurring disorders on victimisation; none of the interaction terms was significant. Several of the control variables were also associated with victim experiences: time served, hours in cell, participation in programmes, having a rule violation, previous victimisation and ethnic group. Conversely, sex, age, and having an index drug offence were inversely associated with victimisation.

The second column in Table 2, and Figure 1, shows the relationship between mental disorder and in-prison victimisation experiences after accounting for mental health treatment. Prisoners who received mental health treatment while incarcerated were more likely to experience such victimisation. The figure shows evidence of mediation. Specifically, the coefficient for depression is no longer significant, reduced from 0.176 to 0.076, although depressive cognition and paranoia remained positively and significantly associated with victimisation, regardless of treatment. The effect of psychotic disorder remained significant, with the coefficient changing only from -0.170 to -0.220, indicating that prisoners with a psychotic disorder are less likely to be victimised, regardless of treatment in prison. The relationship between hallucination and victimisation was no longer significant after allowing for treatment (coefficient reduction: 0.075 to 0.064).

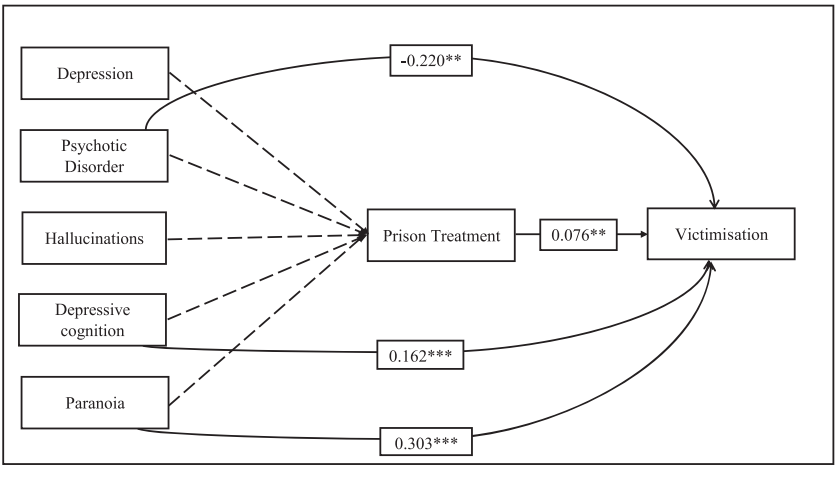

Figure 1: Graphical depiction of the full model with direct and indirect effects. Note. * $p < .05$, ** $p < .01$, *** $p < .001$. All significant indirect effects at $p<.05$ are denoted by dashed lines. Direct effects are denoted by solid lines. Control variables and independent variables that were not significant were omitted from the figure for clarity.

DOI: 10.1002/cbm

Discussion

Our study provides several key findings. First, not all mental disorders or symptoms of mental disorder are significantly related to risk of becoming a victim of violence in prison. Prisoners with depression and/or personality disorder were more vulnerable than prisoners without disorder, but those with psychotic disorders less so; those who reported depressive cognitions, paranoia, and/or hallucinations were more vulnerable. The finding that symptoms are relevant for becoming a victim, even after allowing for mental disorder, are consistent with the findings of Teasdale et al. (2014) and Swanson et al. (2006).

Our findings suggest support for the previous research, in that inmates with mental disorders are acutely vulnerable. Specifically, it is possible that inmates with the types of disorders and symptoms we found to be positively related with victimisation may be targeted because they deviate from prison norms and are viewed as easy to manipulate (Pare & Logan, 2011; Schnittker & Bacak, 2015). Additionally, inmates with depression may suffer from functional deficiencies such as loss of interest, difficulty sleeping, and diminished movement that increases target attractiveness and suggests to others vulnerability. Further, these inmates may be physically or cognitively unable to engage in self-protective action.

Second, the findings suggest support for the social interactionist theory of violence (Felson, 1992), in that aggression and violence are a result of negative social interactions with others. It is possible that bizarre behaviour and symptoms that manifest from mental disorders are perceived by others as disrespectful or provoke others into fights (Pare & Logan, 2011). For example, persons with borderline personality disorder experience unstable emotions, thoughts, and relationships as well as impulsive and reckless behaviour (National Institute of Mental Health, 2016). Inmates experiencing paranoia and/or hallucinations—symptoms positively related to victimisation in our study—may respond to perceived threats with aggressive behaviours towards others. Pare and Logan (2011) previously found that prisoners with paranoia were more likely to experience victimisation and that the relationship is mediated by provocation on the part of inmates with a mental disorder. These authors suggest that paranoid prisoners are also more likely to perpetrate physical and verbal assaults. A finding that certain symptoms increase vulnerability to victimisation has important implications for correctional officers who are in a position to observe inmates' behaviours on a daily basis. It is important that correctional officers identify the inmates experiencing severe symptoms as they may be able to identify those who are particularly vulnerable to victimisation and provide them with extra surveillance and support.

Contrary to previous research (Blitz et al., 2008), we found that prisoners with psychotic disorders are less likely to experience victimisation. Although this finding is at first counterintuitive, particularly as some of the symptoms of these disorders in themselves were associated with vulnerability, it is possible that, once diagnosed, these prisoners may be placed in restricted housing, thus reducing

DOI: 10.1002/cbm

their exposure to risk of victimisation (Reiter & Blair, 2015). Alternatively – and these explanations are not mutually exclusive, psychotic prisoners may be perceived as more dangerous and at greater risk of engaging in violence towards others than prisoners with internalising disorders such as anxiety disorder, and so have restrictions placed on their interactions with others. The difference in relationship between a diagnosis of psychotic illness on the one hand and symptoms on the other and victimisation could be further explained by the fact that the symptoms may indicate acute disturbance but the diagnosis something treated and more settled. In support of this possibility, in our data, 67% of those with a psychotic disorder reported hallucinations and 32% reported paranoia, but 29% did not report any symptoms during the previous 12 months. Of those who reported experiencing psychiatric symptoms, 31% reported receiving treatment in prison. It may be that those who have been labelled with a psychiatric disorder are treated differently by staff and other prisoners than those who exhibit symptoms, but without the sanction of diagnosis.

A third important finding is that, contrary to expectations and inconsistent with the findings of Hiday et al. (2002), mental health treatment in prison was associated with an increased likelihood of becoming a victim of assault. The magnitude of the relationship between the disorders/symptoms and victimisation is reduced for those who received treatment during incarceration. Specifically, treatment fully mediates the relationship between depression, personality disorder, hallucinations, and victimisation. For inmates with these disorders, then, when accounting for treatment, the disorder is no longer directly related to victimisation. The relationship between psychotic disorders, depressive cognition, paranoia, and victimisation are partially mediated, indicating that there is some other factor in addition to treatment that can explain the relationship between mental illness and victimisation. Thus, these findings suggest that to some extent, having had treatment during incarceration accounts for the relationship between mental disorder, symptoms, and victimisation. It should be noted, however, that inmates could select into treatment; thus, unless selection effects are accounted for, it is not possible to know that treatment is predictive of victimisation.

Despite the prevalence of mental disorder and symptoms among these prisoners, only 20% reported receiving any mental health treatment in prison. Although both disorders and symptoms were included in the analyses, the treatment measure may also capture the severity of symptoms. Thus, it may be that treatment itself is not a risk factor, but rather those most likely to receive treatment are also at an increased risk of victimisation as a result of the severity of their mental disorder. Future research should try to unpack such relationships further.

Limitations

The measures of mental health diagnoses are self-reported measures and, given the source of the data, no independent diagnostic tool was used. There is

DOI: 10.1002/cbm

evidence, however, that suggests concordance between self-reported health and official records (Jackson et al., 2005; Wolff et al., 2004). Thus, while the measures of diagnosis are not necessarily as strong as if a diagnostic tool had been used, self-reports of disorder are likely to have reasonable validity among prisoners. As an additional measure of mental health, psychiatric symptoms were included as inmates could be symptomatic without a diagnosis. Another problem is that the treatment measure used here only accounts for the types of treatment inmates received since being admitted to prison and precluded examination of the quality, dosage, or duration of treatment. A third limitation is that the dependent variable, victimisation, encompasses all types of physical harm. As so few inmates report experiencing sexual victimisation, we were unable to examine any possible relationship between mental disorders and types of victimisation. Future research should evaluate these relationships, which might mean cooperation between researchers to generate samples of sufficient size. Fourthly, because disorders, victimisation and treatment are capturing experiences since admission to prison while symptoms were measured within the last 12 months, time ordering cannot be established. As such, disorders or symptoms may be the result of victimisation rather than creating vulnerability to it.

Generally, prisoners have little access to medical and mental health care while in the community (Petersilia, 2003). Although access to such care in prison is mandated, the extent to which treatment is effective is unclear. These findings suggest that inmates vulnerable to victimisation may be those with the greatest need for mental health care; however, it remains unclear how treatment can affect risk of becoming a victim. Treatment must be part of an holistic approach for managing prisoners with mental disorder.

Supporting information

Additional supporting information may be found online in the supporting information tab for this article.

References

Blitz CL, Wolff N, Shi J (2008) Physical victimisation in prison: The role of mental illness. *International Journal of Law and Psychiatry* **31**: 385–393.

Caravaca-Sanchez F, Wolff N (2016) Prevalence and predictors of sexual victimisation among incarcerated men and women in Spanish prisons. *Criminal Justice and Behavior* **43**: 977–991.

Daniel AE (2007) Care of the mentally ill in prisons: Challenges and solutions. *The Journal of the American Academy of Psychiatry and the Law* **35**: 406–410.

Diamond PM, Wang EW, Holzer CE, Thomas C, Cruser DA (2001) The prevalence of mental illness in prsion. *Administration on Policy in Mental Health* **29**: 21–40.

Fazel S, Seewald K (2012) Severe mental illness in 33,588 prisoners worldwide: Systematic review and meta-regression analysis. *The British Journal of Psychiatry* **200**: 364–373.

DOI: 10.1002/cbm

Felson RB (1992) "Kick'em when they're down": Explanations of the relationship between stress and interpersonal aggression and violence. *The Sociological Quarterly* **33**: 1–16. https://doi.org/10.1111/j.1533-8525.1992.tb00360.x.

Gonzalez JMR, Connell NM (2014) Mental health of prisoners: Identifying barriers to mental health treatment and medication continuity. *American Journal of Public Health* **104**: 2328–2333. https://doi.org/10.2105/AJPH.2014.302043.

Hiday VA, Swartz MS, Swanson JW, Borum R, Wagner HR (2002) Impact of outpatient commitment on victimisation of people with severe mental disorder. *American Journal of Psychiatry* **159**: 1403–1411. https://doi.org/10.1176/appi.ajp.159.8.1403.

Jackson CT, Covell NH, Frisman LK, Essock SM (2005) Validity of self-reported drug use among people with co-occuring mental health and substance use disorders. *Journal of Dual Diagnosis* **1**: 49–43.

James DJ, Glaze LE (2006) Mental health problems of prison and jail inmates. (NCJ 213800). Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.

National Institute of Mental Health (2016) Borderline personality disorder. Retrieved from Bethesda, MD: http://www.nimh.nih.gov/health/topics/borderline-personality-disorder/index.shtml

Pare P, Logan MW (2011) Risk of minor and serious violent victimzation in prison: The impact of inmates' mental disorders, physical disabilities, and physical size. *Society of Mental Health* **1**: 106–123.

Petersilia J (2003) When prisoners come home: Parole and prisoner reentry. New York, NY: Oxford University Press.

Prins SJ (2014) Prevalence of mental illnesses in U.S. state prisons: A systematic review. *Psychiatric Services* **65**: 862–872. https://doi.org/10.1176/appi.ps.201300166.

Reiter K, Blair T (2015) Punishing mental illness: Transinstitutionalization and solitary confinement in the United States. In Reiter K, Koenig A (eds) *Extreme punishment: Comparative studies in detention, incarceration and solitary confinement*. New York, NY: Palgrave Macmillan pp. 177–196.

Schnittker J, Bacak V (2015) Orange is still pink: Mental illness, gender roles, and physical victimisation in prisons. *Society of Mental Health* https://doi.org/10.1177/2156869315609733.

Silver E, Arseneault L, Langley J, Caspi A, Moffitt TE (2005) Mental disorder and violent victimisation in a total birth cohort. *American Journal of Public Health* **95**: 2015–2021.

Swanson JW, Swartz MS, Van Dorn RA, Elbogen EB, Wagner HR, Rosenheck RA, Stroup TS, McEvoy JP, Lieberman JA (2006) A national study of violent behavior in persons with schizophrenia. *Archives of General Psychiatry* **63**: 490–499.

Teasdale B, Daigle LE, Ballard E (2014) Trajectories of recurring victimisation among people with major mental disorder. *Journal of Interpersonal Violence* **29**: 987–1005. https://doi.org/10.1177/0886260513506054.

Teasdale B, Daigle LE, Hawk SR, Daquin JC (2016) Violent victimisation in the prison context: An examination of the gendered contexts of prison. *International Journal of Offender Therapy and Comparative Criminology* **60**: 995–1015.

U. S. Department of Justice, BoJS (2004) Survey of Inmates in State and Federal Correctional Facilities. Retrieved from: http://doi.org/10.3886/ICPSR04572.v2

Wilper AP, Woolhandler S, Boyd JW, Lasser KE, McCormick D, Bor DH, Himmelstein DU (2009) The health and health care of US prisoners: Results of a nationawide study. *American Journal of Public Health* **99**: 666–672.

Wolff N, Maschi T, Bjerklie JR (2004) Profiling mentally disordered offenders: A case study of New Jersey prison inmates. *Journal of Correctional Health Care* **10**: 1–16.

Wolff N, Blitz CL, Shi J (2007) Rate of sexual victimisation in prison for inmates with and without mental disorders. *Psychiatric Services* **58**: 1087–1094.

Address correspondence to: Assistant Professor Jane C. Daquin, Ph.D. Department of Criminology and Criminal Justice, The University of Alabama, Box 870320, Tuscaloosa, AL 35487-0320, USA. Email: jcdaquin@ua.edu

(2017)
DOI: 10.1002/cbm