



Original communication

Exposure to physical and sexual violence prior to imprisonment predicts mental health and substance use treatments in prison populations

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ABSTRACT

The present study aimed to establish rates of exposure to physical or sexual violence (PSV) prior to imprisonment for prisoners in Spain and to explore whether people exposed to PSV access mental health treatment during imprisonment. In a sample of 2484 male and 225 female prisoners, socio-demographic variables, exposure to PSV prior to imprisonment and mental health treatments during imprisonment were assessed. Frequencies were calculated as per cent values with 95% confidence intervals (CI). The Risk Ratio (RR) of PSV and other socio-demographic variables to associate with mental health treatment during imprisonment was established. History of PSV was present in 35.2% (95% CI: 33.3–37.0) of the male and 40.0% (95% CI: 33.9–46.8) of the female prisoners. 70.7% (95% CI: 67.8–73.9) of the male and 76.9% (95% CI: 67.7–86.0) of the female prisoners with prior exposure to PSV were in mental health treatment during imprisonment. PSV was a significant predictor of mental health treatment during imprisonment in male (RR: 2.79; 95% CI 2.44–2.92) and female (RR: 1.94; 95% CI 1.76–2.23) prisoners. Most people with exposure to PSV prior to imprisonment access mental health treatment during imprisonment. Treatments may have to focus more on traumatic experiences.

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1. Introduction

Exposure to physical and sexual violence (PSV) in childhood is a diagnostic criterion for post-traumatic stress disorders (PTSD) and borderline personality disorders, it also relates to anxiety and depression disorders in the general population.^{1–4} Exposure to PSV in childhood can contribute to criminal behaviour,⁵ substance abuse⁶ and suicide attempts.⁷ Two meta-analyses found that people exposed to PSV or neglect during childhood show higher prevalence rates of mental disorders in adulthood.^{8,9}

Exposure to PSV prior to imprisonment is common in prison populations.^{10–15} Rates of exposure to PSV in prisoners are higher than in the general population.¹⁶ Nearly 60% of the women in US state prisons had been exposed to PSV prior to imprisonment, of

which 70% indicated that exposure took place prior to age of 18 years.¹⁷ Nearly 17% of the male prisoners reported exposure to PSV during childhood.¹⁸ Childhood exposure to PSV in prisoners is associated with violent behaviour in adulthood prior to imprisonment.^{19–22} A study conducted in Germany reported estimates that half of the male and more than half of the female prisoners were exposed to physical violence in childhood; 16% of the male and 22% of the female prisoners were exposed to sexual violence in childhood.²³ Previous studies indicate an association between exposure to PSV in childhood and a wide range of psychiatric disorders, including depression, anxiety and substance use disorders in prisoners.^{22,24}

This present study aimed to establish rates of childhood and adulthood PSV for prison populations in Spain. Furthermore, the study aimed to explore whether PSV relates to mental health treatments during imprisonment.

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2. Methods

2.1. Setting

This was a descriptive study with a cross-sectional design. A random sample of inmates aged 18–74 was drawn from eight adult prisons for men and women operated under the Spanish Prison System located in the southeast of Spain ($N = 5545$), in the provinces of Murcia, Andalucía, Valencia and Castilla la Mancha. There are 68 adult prisons in Spain, including 65 minimum, 2 medium, and 1 maximum security level. The Spanish prison system is public. Male and female inmates are co-located in the same prison facilities but housed in segregated units. Inclusion criteria were: 1) having been imprisoned in one of the 8 prison facilities for at least six months in January 2014. Exclusion criteria were: 1) language barrier and 2) being classified as high-risk or special needs (approximately 2.5% of the total prison population).

2.2. Procedures

Questionnaires were self-administered (paper and pencil administration) and were available in Spanish and French, which accommodated the language needs of the inmate population (15 inmates completed the French version of the survey). The questionnaire was administered in a private room by research staff and without the presence of prison staff. The survey was administered to groups of approximately 20 people in a classroom setting. On average, subjects completed the survey in approximately 45 minutes. Face-to-face interviews were conducted with 58 inmates (2.1%). When special assistance was requested, there was the possibility to conduct the interview face-to-face.

Four research assistants (Bachelor's level) were trained in the data collection protocol and administered the questionnaire. Interviewers assisted reading or discerning the meaning of any question if requested. They followed a protocol in terms of explaining the questionnaire and the study. The four trained fieldworkers conducted the interviews between January and August 2014.

2.3. Sample and recruitment procedure

Equivalent numbers of inmates were selected from each province. However, the targeted samples varied in size across prisons due to differences in population size (e.g., the largest housed approximately 1800 inmates and the smallest, approximately 100). To enrol a 50% random sample from each facility, with an expected refusal rate of 40%, we randomly selected 92% of residents from each facility. Participation rates across facilities ranged from 41% to 65%, with a mean participation rate of 57%. $N = 105$ inmates refused to participate in the study for the following reasons: “there was nothing to be gained from the survey” and “I am leaving prison soon”.

Approximately 2 weeks prior to the fieldwork at each prison, the vice-director of the prison sent census information to the principal investigator, which included legal status, location, and time incarcerated for current incarceration (in days). Each resident was assigned a random number and was selected for inclusion in the study by a random number generator. A list of the inmate numbers selected for inclusion in the study were sent to the vice-director at each facility. Social Workers at the prisons delivered recruitment letters to people selected to participate, and explained details of the study (purpose, date of the interview, and the ability of the prisoner not to participate without any adverse consequences).

2.4. Participants

On August 31, 2015, there were 64,496 adult inmates: 59,543 (92.3%) males and 4953 (7.7%) females' inmates.²⁵ We compared sociodemographic characteristics of our sample (only participants) with the total prison populations separately for each gender regarding data provided by the Spanish Prison System and Ministry of Justice.

The male subsample did not differ with regard to age from the total male prison population (with a mean age of 36.8 years) but it did show a lower proportion of foreigners among study participants (21.3 vs. 27.4%). Women comprised 8.3% of the sample, which was equivalent to the 7.7% of women in the total prison population. As for the male prisoners, the proportion of foreigners was significantly lower than in the total female prison population (19.1% vs. 30.1%). In terms of offense characteristic, the proportion of the enrolled sample serving a sentence for theft was not significantly different from the prison population as a whole (males: 43.3% vs. 39.4%; females: 30.7% vs. 33.8%) as well as drug-related offenses (males: 24.7% vs. 22.5%; females: 38.7% vs. 35.3%) and violent offenses (males: 20.0% vs. 17.6%; females: 17.8% vs. 15.9%), and the mean age of first offense in the sample was also equivalent to the total prison population (males: 21.6 vs. 20.3 years; females: 23.4 vs. 22.5 years).

2.5. Variables

2.5.1. Independent variables

2.5.1.1. Demographic characteristics. Participants provided information on gender (measured as 0 = male and 1 = female), age (continuous variables starting at age 18), nationality (coded categorically as 0 = Spanish, 1 = European countries excluding Spain, and 2 = non-European countries) marital status (coded categorically as 0 = never married, 1 = married, 2 = divorced, and 3 = widowed), and highest level of education completed (coded categorically from 0 to 3, with higher level representing higher educational level).

2.5.1.2. Criminal variables. Adapted from a previous study,²⁶ three variables were constructed for the offense leading to the current incarceration. Including: violent offense (1 = yes) (defined as battery, assault, or murder), property offense (1 = yes) (defined as burglary, grand larceny, and armed, strong-arm, or common-law robbery), drug trafficking offense (1 = yes) (defined as substance use manufacture, distribution, or trafficking) and other offense (1 = yes). Finally, questions regarding duration of the current prison sentence (continuous variables starting at 6 months), age at first offense (continuous variables in years), and number of previous convictions (whether or not offense led to legal proceedings) were included.

2.5.1.3. Exposure to violence. Exposure to PSV was assessed using protocols from previous studies.^{22,27} Items were dichotomized (0 = no, 1 = yes) depending on whether the respondent had been exposed to PSV during childhood (prior to age 18) and during adulthood (18 and older and prior to imprisonment). Exposure to physical violence was assessed using the following question: “Have you been physically assaulted or threatened with a knife or gun?”. Respondents who responded ‘yes’ were considered to have been exposed to physical violence. Exposure to sexual violence was indicated if the following specific questions were answered with ‘yes’: 1) Had anyone touched you in a way that you felt was sexually? and 2) Had anyone made you have oral or anal sex (or vaginal sex for women) by using force or threat of force?”. Exposure to sexual violence was coded ‘yes’ if ‘yes’ was responded to one of the two questions. Participants exposed to physical and/or sexual

violence at any age (childhood or adulthood) were categorized as having been exposed to any PSV.

2.5.2. Dependent variables

2.5.2.1. Anxiety and depression treatment. Adapted from a previous studies²² data on anxiety and depression treatments were collected using the following questions: ‘Currently in prison, have you ever been treated for anxiety by a psychologist or psychiatrist?’ and ‘Currently in prison, have you ever been treated for depression by a psychologist or psychiatrist?’. Response options were: no, never (coded as 0) and yes, at least one time (coded as 1). Inmates who responded ‘yes’ to one of the two previous questions were considered as receiving treatment for anxiety/depression during incarceration.

2.5.2.2. Substance use disorder treatment. The question on treatment for substance use disorders during imprisonment was adapted from a previous research²²: ‘Currently in prison, have you ever been treated for a drug or alcohol dependence by a psychologist or psychiatrist; such as alcohol, cannabis, cocaine, etc.?’. Responses options were: no, never (coded as 0) and yes, at least one time (coded as 1). Participants who responded ‘yes’ were categorized as receiving treatment for substance use disorders during imprisonment. Responding ‘yes’ to one of the three questions (anxiety, depression or substance use treatment) was categorized as receiving any mental health treatment during the current imprisonment.

The treatments of anxiety/depression commonly consist of 1 individual and 3 group sessions which are held by psychologists who are part of the prison staff. However, the number and frequency is variable. If required sessions with external consulting/internal psychiatrists, who are also part of the prison staff, can be arranged. Substance use treatments usually comprise 5 group sessions, which are held once a week by psychology trainees.

2.6. Statistical analyses

Statistical analyses were conducted using SPSS 20.0 (SPSS Inc. Chicago, IL, USA) with a significance level set at 95% ($p \leq 0.05$). First, descriptive statistics on the characteristics of participants (including demographic and criminal characteristics) were calculated to assess the distribution of each variable for both genders. Secondly, per cent prevalence rates and 95% confidence intervals (CIs) for the different categories of exposure to violence were calculated: lifetime exposure to physical violence, lifetime exposure to sexual violence, exposure to violence in childhood (prior to age 18), and exposure to violence in adulthood (18 and older and prior to imprisonment). Thirdly, the frequency of mental health treatment was calculated as per cent values with 95% confidence intervals for the different prisoners with histories of exposure to violence. Furthermore, bivariate regression analyses were conducted to explore sociodemographic characteristics, criminal factors and exposure to violence associating with mental health treatment during current imprisonment. Risk Ratio (RR) and 95% confidence intervals (CI) were calculated. A multivariate logistic regression was used to identify predictors of mental health treatment during current imprisonment. The independent variables with significance levels below 0.05 in univariate analyses were retained in this model.

2.7. Ethics statement

The study adhered to the principles laid out in the Declaration of Helsinki for research with human study participants. It followed international standards for studies with prisoners.²⁸ Participation

did not lead to benefit or punishment. No monetary incentive was given to the prisoners who participated. The ethics committee of the Spanish Prison System reviewed and approved of the study protocols. Permission was given from the institution to undertake the current study. The ethics committee of the University of Murcia (Spain) approved of the study (document number 124/2014). All study participants were informed about the purpose of the research, as well as the voluntary nature of their participation and the anonymity of all collected data. Participants gave written informed consent prior to enrolment.

3. Results

A total of 2,484 men (mean age = 36.3, SD = 11.1) and 225 women (mean age = 37.5, SD = 11.0) agreed to participate in the research, and completed the survey. [Table 1](#) presents demographic and criminal characteristics of inmates by gender. Most of the participants were men, Spanish nationals, had low education levels and about half were married. Drug trafficking was more common among women (38.7%) as compared to men, whereas, property crimes were more common among male (43.3%) as compared to female (30.7%) prisoners.

Rates of exposure to violence and the frequency of mental health treatment during imprisonment are displayed in [Table 2](#). More than one out of three male (35.2%; 95% CI: 33.3–37.0) and female prisoners (40.0%; 95% CI: 33.9–46.8) were exposed to violence at any point during their life prior to imprisonment. Exposure to physical violence was more common than exposure to sexual violence for both genders. Rates of exposure to violence were higher during adulthood (25.1%) than during childhood (16.9%) in male prisoners, whereas exposure during childhood (30.2%) had been more frequent than during adulthood (23.6%) in female prisoners.

Rates of mental health treatment by gender are reported for people with exposure to violence in [Table 3](#). A majority of 70.7% (95% CI: 67.8–73.9) in male prisoners and 76.9% (95% CI: 67.7–86.0) in female prisoners exposed to violence at any point in their lives were in mental health treatment during imprisonment. Especially high rates were found for those exposed during childhood (74.2% of male and 77.9% of female prisoners) and for men exposed to sexual violence (80.0%). A majority of prisoners exposed to violence, 60.9% (95% CI: 57.7–64.1) of the male prisoners and 70.3% (95% CI: 60.4–80.4) of the female prisoners, received treatment for anxiety or depression disorders. About one third (31.5%; 95% CI: 28.6–34.6) of the male prisoners and one fourth (25.3%; 95% CI: 16.7–34.0) of the female prisoners exposed to violence received substance use treatment.

Predictors of mental health treatment during imprisonment are reported in [Table 4](#). Spanish nationality was a predictor of treatment in male and female prisoners in bivariate analyses. It remained a statistically significant predictor for treatment in male prisoners in multivariate analyses (RR: 2.12; CI95%: 1.73–2.61). Robbery was identified as an offense category predicting mental health treatment in men and women in bivariate analyses; it remained a statistically significant predictor for treatment in male prisoners using multivariate analyses. Exposure to violence was identified as a predictor of mental health treatment in the bivariate for male (RR: 2.79; CI95%: 2.44–2.92) and female prisoners (RR: 1.94; CI95%: 1.76–2.23). Using multivariate analyses, exposure to violence remained a significant predictor of treatment in male (RR: 2.77; CI95%: 2.31–3.22) and female prisoners (RR: 3.33; CI95%: 1.74–6.35).

Table 1
Demographic and criminal characteristics by gender.

Variables	Male (N = 2484)	Female (N = 225)
	(% and 95% CI ^a)	(% and 95% CI ^a)
Nationality		
Spanish	78.7 (77.0–80.2).	80.9 (75.6–86.1)
European states	4.2 (3.4–5.0)	3.1 (0.9–5.6)
Non-European states	17.0 (15.7–18.6)	16.0 (11.1–20.8)
Marital status		
Never married	25.6 (23.9–27.4)	24.0 (18.3–29.3)
Married	45.1 (43.1–47.1)	48.4 (42.0–55.3)
Divorced	18.4 (16.8–20.0)	19.1 (14.1–24.4)
Widow	10.8 (9.6–12.1)	8.4 (5.1–12.0)
Education		
No degree	32.2 (30.4–34.0)	33.8 (27.7–40.4)
Lower degree	32.5 (30.7–34.5)	37.3 (30.6–43.7)
High school	24.3 (22.6–25.9)	21.3 (15.9–28.1)
University degree	11.0 (9.8–12.3)	7.6 (4.3–11.1)
Type of criminal offenses		
Drug trafficking offense	24.7 (23.0–26.5)**	38.7 (32.3–45.5)
Property crimes	43.3 (41.4–45.0)**	30.7 (24.5–37.2)
Violent offense	20.0 (18.3–21.6)	17.8 (12.7–23.1)
Other offense	23.7 (22.0–25.4)	16.9 (12.0–22.0)
	(mean and \pm SD)	(mean and \pm SD)
Duration of current conviction (in months)	71.1 (119.7)*	57.2 (56.0)
Age at first offense ^a (in years)	21.6 (10.6)	23.4 (9.9)
No. of previous convictions	13.5 (20.2)	11.1 (17.6)

Statistically significant difference between male and female inmates at * $p \leq 0.01$, ** $p \leq 0.001$.

^a Confidence interval.

Table 2
Prevalence estimates of exposure to violence prior to imprisonment and mental health treatment during imprisonment.

Variables	Male (N = 2,484)	Female (N = 225)
	(% and 95% CI ^a)	(% and 95% CI ^a)
No exposure to violence	64.8 (62.8–66.6)	60.0 (52.8–66.1)
Exposure to violence	35.2 (33.3–37.0)	40.0 (33.9–46.8)
Physical violence	33.8 (31.9–35.7)	37.3 (30.9–43.6)
Sexual violence	6.6 (5.7–7.6)**	18.7 (13.2–23.9)
Childhood exposure	16.9 (15.3–18.4)**	30.2 (23.6–35.9)
Adulthood exposure	25.1 (23.3–26.9)	23.6 (17.9–29.3)
Mental health treatment	55.0 (53.0–56.9)*	62.7 (56.0–68.7)
Treatment for anxiety/depression	45.9 (43.8–47.7)	53.3 (46.4–60.2)
Treatment for substance use disorder	24.3 (22.6–25.9)	21.3 (15.9–26.5)

Statistically significant difference male and female inmates at * $p < 0.05$, ** $p < 0.001$.

^a Confidence interval.

4. Discussion

4.1. Main findings

More than one out of three prisoners has been exposed to PSV prior to imprisonment. A majority of the prisoners with prior exposure to PSV receive mental health or substance use treatment. Exposure to PSV prior to imprisonment significantly predicts mental health or substance use treatment during imprisonment.

4.2. Strengths and limitations

This is the first study establishing rates of exposure to PSV prior to imprisonment in a sample of prisoners from Spain and the first study reporting rates of treatment for mental health and substance use disorders in prisoners with exposure to PSV prior to imprisonment.

This study has several limitations. The current research was

cross-sectional. The sample included mainly male prisoners. The prevalence of mental health treatment in prisons was assessed using a self-report instrument and not corroborated by clinical records of the prison system.

4.3. Comparison against the literature

Rates of exposure to PSV in this study were lower than those found in the United States,^{12,22,29,30} England and Wales³¹ and France.³² However, rates of exposure to specifically sexual victimization were in line with the international literature.^{22,23} Findings from this study that exposure to sexual violence prior to imprisonment was almost three times more frequent in women compared to men, are also in line with previous studies.³³ Questions on exposure to sexual violence are delicate and the current mental state may influence the interpretation of the past.⁴ Nevertheless, we are confident that prevalence estimates are reasonably reliable using an instrument that was probed in previous research.^{27,34}

The frequency of self-reported mental health treatment corresponds to rates reported by the Spanish Prison System,³⁵ data from other European prisons.^{36–38} Considering current prevalence estimates, treatment rates for substance use disorders appear low while treatment rates for anxiety and depression are comparatively high. However, treatment participation does not only reflect the prevalence of the problem in the population but also patients' preferences for treatment and availability of services. It has been shown before that exposure to PSV associates with mental disorders in prisoners^{13,33} however, it was unclear whether people with those traumatic experiences access treatment. It was surprising in our study that the great majority of prisoners who had been exposed to PSV prior to imprisonment access anxiety, depression or substance use treatments during imprisonment. Exposure to PSV was identified as a strong predictor to access such treatment. Other socio-demographic factors predicting mental health treatment during imprisonment, such as unemployment,³⁹ low educational

Table 3
Frequencies and 95% confidence intervals of mental health treatment in prisoners exposed to violence prior to imprisonment among men (n = 2484) and women (n = 225).

	Any mental health treatment		Treatment for anxiety/depression		Treatment for substance use disorder	
	N	% (CI ^a 95%)	N	% (CI ^a 95%)	N	% (CI ^a 95%)
No exposure						
Men (n = 1609)	747	46.4 (44.0–48.7)	606	37.7 (35.3–40.0)	328	20.4 (18.3–22.3)
Women (n = 134)	71	53.0 (44.4–61.1)	56	41.8 (33.3–50.0)	25	18.7 (12.2–25.6)
Any violence						
Men (n = 875)	619	70.7 (67.8–73.9)	533	60.9 (57.7–64.1)	276	31.5 (28.6–34.6)
Women (n = 91)	70	76.9 (67.7–86.0)	64	70.3 (60.4–80.4)	23	25.3 (16.7–34.0)
Physical violence						
Men (n = 840)	594	70.7 (67.8–73.8)	508	60.5 (57.2–63.7)	273	32.5 (29.3–35.5)
Women (n = 84)	63	75.0 (35.3–84.6)	57	67.9 (57.9–77.8)	21	25.0 (16.0–34.9)
Sexual violence						
Men (n = 30)	24	80.0 (64.5–93.5)	18	60.0 (41.4–78.3)	13	43.3 (25.8–61.3)
Women (n = 42)	31	73.8 (69.5–77.2)	29	69.0 (54.8–83.3)	13	31.0 (17.4–45.0)
Childhood exposure						
Men (n = 419)	311	74.2 (70.0–78.8)	262	62.5 (57.7–67.5)	138	32.9 (28.6–37.5)
Women (n = 68)	53	77.9 (67.7–87.7)	47	69.1 (58.7–80.3)	20	29.4 (18.3–40.0)
Adulthood exposure						
Men (n = 623)	433	69.5 (65.7–73.1)	379	60.8 (57.1–64.8)	199	31.9 (28.4–35.)
Women (n = 53)	38	71.7 (59.1–83.3)	34	64.2 (51.5–76.6)	15	28.3 (16.3–40.9)

^a Confidence interval.

Table 4
Bivariate and multivariate analysis of factors associated with mental health treatment by gender.

Variables	Bivariate analysis						Multivariate analysis					
	Male population (N = 2484)			Female population (N = 225)			Male population (N = 2,484)			Female population (N = 225)		
	RR	CI ^a (95%)	P value	RR	CI ^a (95%)	P value	RR	CI ^a (95%)	P value	RR	CI ^a (95%)	P value
Demographics												
Age	1.00	0.99–1.01	0.28	0.99	0.98–1.00	0.53						
Nationality												
Spanish (Ref)												
Foreigner	1.57	1.40–1.75	<0.01**	2.08	1.70–2.55	<0.01**	2.12	1.73–2.61	<0.01**	1.77	0.82–3.81	0.14
Employment status												
Unemployed (Ref)												
Working	1.40	1.28–1.52	<0.01**	1.63	1.38–1.93	0.04*	0.63	0.53–0.74	<0.01**	2.45	1.31–4.56	<0.04*
Educational level												
Less than secondary (Ref)												
Secondary level	1.17	0.97–1.41	0.23	1.42	1.19–1.70	0.03*				1.72	0.89–3.33	0.10
Type of crime												
Violent crime	1.35	1.11–1.65	0.03*	1.45	1.17–1.80	0.03*	1.50	1.21–1.87	<0.01**	1.48	0.64–3.45	0.35
Robbery	1.59	1.33–1.91	<0.01**	1.82	1.52–2.17	<0.01**	1.88	1.58–2.25	<0.01**	1.67	0.83–3.37	0.14
Drug trafficking crime	1.31	0.93–1.83	0.11	0.77	0.63–0.95	0.13						
Exposure to violence	2.79	2.44–2.92	<0.01**	1.94	1.76–2.23	<0.01**	2.77	2.31–3.22	<0.01**	3.33	1.74–6.35	<0.01**
Physical violence	2.52	2.10–3.02	<0.01**	1.96	1.74–2.21	<0.01**						
Sexual violence	1.97	1.33–2.90	0.02*	2.62	1.91–3.59	<0.01**						
Childhood exposure	2.75	2.17–3.48	<0.01**	2.09	1.10–3.79	0.04*						
Adulthood exposure	2.26	1.86–2.75	<0.01**	1.81	1.48–2.13	<0.01**						

Statistically significant difference at * $p < 0.05$, ** $p < 0.01$.

^a Confidence interval.

levels,⁴⁰ and having committed violent crimes^{40,41} were in line with the international literature. There may be interaction effects between robbery, violent crime and drug use associating with treatments received during imprisonment. Being a Spanish national also predicted mental health treatment during imprisonment. This could point to barriers of access for non-Spanish migrant populations. The development of equitable mental health services for migrants is considered a challenge even on the community level.⁴² Providing equitable access in more scarcely resourced prison settings could even be a greater challenge.³⁹ PSV remained a significant predictor of treatment after controlling for all other variables associated with mental health treatments during imprisonment.

Our data indicate that exposure to PSV associates with anxiety disorders, depression and substance use disorders, for which

prisoners commonly used services. Furthermore, exposure to PSV is associated with PTSD.^{43,44} Exposure to PSV by family members can lead to insecure attachment styles and contributes to the development of personality disorders.^{45,46} Many prisoners show comorbidities between axis one disorders, personality disorders and substance use disorders.⁴⁷ The comorbidity of PTSD may predict an unfavourable course of other axis one disorders, such as depression, during imprisonment.⁴⁸ Exposure to PSV seems to be a common, possibly causal characteristic of complex psychopathology in prisoners leading to mental health and substance use treatments during imprisonment. This should be acknowledged for service development. Prison mental health services may consider focusing more on treating those traumatic experiences. Otherwise, treatments risk remaining on the symptom level.

4.4. Conclusions for research, practice and policy

More than one third of the Spanish Prison population has been exposed to PSV prior to imprisonment. Most of the prisoners with exposure to PSV prior to imprisonment access mental health or substance use treatments during imprisonment. Prison mental health services should consider adopting and evaluating treatments that address those traumatic experiences. Prison health services may need to improve the access of migrants to mental health and substance use treatments.

Conflict of interests

The authors declare that they have no competing interests.

Ethical approval

None declared.

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