

Physical attacks in prison, mental illness as an associated risk factor

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ABSTRACT

Objective: To analyze physical victimization in the prison population, taking into account the existence of some kind of mental illness, in the prison of Albolote (Granada).

Methods: 270 inmates conducted an anonymous and voluntary survey about victimization.

Results: 36.7% of all inmates suffered some form of physical victimization in prison. 62.2% of participants consider that they have anxiety, depression, bipolar disorder, schizophrenia or other mental illness, half of whom receive treatment for these problems.

Conclusions: Physical attacks on people with mental illness are 2.5 times higher than on those who do not have a mental illness.

Keywords: Prisons; Mentally Ill Persons; Aggression; Crime Victims; Spain; Street Drugs; Child abuse, HIV.

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INTRODUCTION

In 2011 there were approximately 10 million people imprisoned worldwide, increasing one million every ten years¹. The physical and psychological well-being of this population has to be granted by the administration, since it is strongly influenced by the features and operation of each center. Factors such as drug abuse during imprisonment²⁻³ together with the concentration of people with potentially misfit⁴ social and mental behaviors can make this population particularly vulnerable to suffering different types of victimization⁵⁻⁶.

Previous research carried out in the Prisons of Murcia⁷ (Murcia I and Murcia II) concluded high physical conflict rates among inmates (9% had been physically assaulted). This data is similar to that described in United States by Wolff *et al*⁶ in 2007 (approximately 12% had been physically assaulted) and by Stephan and Karberg⁸ in 2003, when 2.8% of inmates had suffered some type of physical assault. Bibliography shows how the prevalence of mental disorders (MD) among the imprisoned population is higher than in the general population⁴. Conditions such as

psychosis, depression and personality disorders are considered risk factors for the development of violent behaviors both inside⁹ and outside¹⁰ prison. Mental disorders are even considered by some the cause leading to conflict with the criminal system^{11, 12}. Regarding the relationship between physical victimization (PV) and mental disorders we have only found the research carried out by Blitz *et al*¹³, which compared and contrasted 14 prisons and concluded that inmates suffering from mental disorders showed higher rates of physical and sexual victimization¹⁴.

This is the first study carried out in Spain where both the frequency and types of physical victimization are analyzed together with the potential relationship of PV and mental disorders (anxiety, depression, schizophrenia, bipolar disorder or other conditions).

MATERIALS AND METHODS

This paper is part of a broader project whose purpose is to analyze health problems of people deprived of liberty as well as risk and protective factors regarding different types of victimization among inmates

from South-eastern prisons in Spain, such as drug use, social and demographical triggers linked to the development of criminal behaviors and victimization prior to imprisonment both during childhood and as adults.

An analytical cross sectional study was carried out on the population of the Prison of Albolote in Granada, which included 15 individual modules, 2 of which exclusively hosted female inmates, including a total number of approximately 1100 inmates. The sample for the study (n= 270) was chosen by means of simple random sampling with a $\pm 5\%$ margin of error and a 95% confidence level (stratified according to the number of inmates included in each module) during the second week of December 2013.

Inclusion criteria were the following: a) being over 18; b) literacy; c) speaking and understanding Spanish; d) having been in prison for over a month. Exclusion criteria included the following aspects: a) inmates hosted in first degree modules for security reasons and b) not meeting sufficient cognitive and physical abilities for the successful completion of the survey.

The collection of data was carried out by an ad hoc questionnaire which was designed according to several publications (See Table 1) and which included six separate sets with different types of variables: 1) sociodemographic⁷; 2) penitentiary⁷; 3) drug use¹⁵ in prison and previously; 4) mental disorders⁴; 5) PV during childhood¹⁶ and 6) PV once imprisoned⁶.

Surveys were provided in common areas within the prison through a single interviewer who was present at all times to help with any doubts that may arise. Participants were divided in groups of ten and it took about 45 minutes to interview each group.

As to determine the existence of mental disorders among the sample, inmates themselves reported whether they suffered from any of the mental illnesses included, without this being contrasted with available medical records as to grant anonymous participation, a crucial condition to take part in the study.

Mental disorders included in the survey were the following: anxiety, depression, bipolar disorder, schizophrenia and last, any other mental disorder. We considered the inclusion of this last variable in view of the amount of mental disorders that can be found in this environment and as to facilitate the understanding of the question for participating inmates.

The questionnaires were fulfilled according to the criteria established by the General Secretariat of Penitentiary Institutions: anonymity, willfulness and randomness. All participants received information on the objectives of the study and signed informed consent, in accordance of what is established in Articles 4.2b and 211 of the Penitentiary Regulations and with the provisions of Act 15/1999 on the protection of data.

Last, by means of the statistical software SPSS (v.20.0) chi-square and Odds ratio (OR) tests were carried out to establish significant association between different types of PV and MD in the imprisoned population under study.

RESULTS

Table 2 shows the main socio-demographic features regarding drug abuse and the prevalence of mental disorders previous to imprisonment for the whole sample (n=270) and it makes a difference between those who have suffered PV (n=99) and those who have not (n=171) during their current stay in prison. It is worth noting that the existence of MD among inmates who have been physically victimized is twice as high as among those who have not (40.4% vs. 20.6% respectively) as well as the prevalence of HIV (10.0% and 5.8% respectively).

Table 3 lists the different types of physical victimization suffered during imprisonment and previously for the whole sample, and it makes a difference between those who also suffer from some type of MD (n=168) and those who don't (n=102). As we

Table 1: Structure of the questionnaire according to the variables analyzed and their origin.

Variables	Measure	Reference
Sociodemographic	Structure of the questionnaire	7
Penitentiary	Structure of the questionnaire	7
Drug use	Drug types	15
Mental disorder	Types of MD	4
Child abuse	Physical victimization during childhood	16
Physical victimization in prison	Types of victimization	6

can already see, the number of persons physically assaulted who suffer from some type of mental disorder is significantly higher than those who don't (47.6% and 18.6% respectively), and especially in those who were assaulted with some type of object (20.2% and 2.9% respectively). With regard to physical victimization prior to imprisonment, this is also more frequent among inmates with mental disorders both during childhood (25.0% and 14.7% respectively) and as adults (39.9% and 13.7% respectively).

Finally, Table 4 shows the different types of physical victimization in prison, grouping inmates according to the mental disorder that they suffer: anxiety (n=128), depression (n=99), other mental disorders (n=65), bipolar disorder (n=22) and schizophrenia (n=21) and showing the statistical association between each of the disorders and the different types of

PV. It is worth noting that, in the first place, all mental disorders under study keep a statistically significant relationship with PV in prison to a greater or a lesser extent.

DISCUSSION

The present study has observed that the Prison of *Albolote* (Granada) is a violent facility, as well as other establishments analyzed both in national⁷ and international¹⁵ research. The prevalence of mental disorders (MD) and physical victimization (PV) that has been concluded is similar to that observed previously in international publications^{6, 17-18}.

We couldn't find previous studies in Spain that analyzed the potential relationship between PV and

Table 2: Sociodemographic features of inmates, physically assaulted or not and on the whole.

	Physically victimized (n=99)	Not physically victimized (n=171)	All inmates (n=270)
	Mean (SD)	Mean (SD)	Mean (SD)
Age	41.9 (38.8-45.0)	37.8 (35.6-40.0)	38.1 (36.8-39.4)
	n (%)	n (%)	n (%)
Gender			
Male	78 (78.8%)	135 (79.4)	214 (79.3)
Nationality			
Spanish	92 (92.9)	147 (86.5)	240 (88.9)
Employment status			
Employed	29 (29.3)	63 (37.1)	92 (34.3)
Unemployed	40 (40.4)	76 (44.7)	116 (42.8)
Student	13 (13.1)	9 (5.3)	22 (8.1)
Retired	7 (7.1)	5 (2.9)	12 (4.4)
Housework	10 (10.1)	17 (10.0)	27 (10.0)
Education level			
Primary	29 (29.6)	55 (32.4)	84 (31.5)
Former Secondary	33 (33.3)	58 (34.1)	91 (34.1)
Current secondary/ Professional Training	24 (24.2)	45 (26.5)	69 (25.6)
University	12 (12.2)	12 (7.0)	24 (8.8)
Drug use			
In prison	70 (70.7)	84 (49.4)	154 (57.0)
Previously	82 (82.8)	125 (73.5)	207 (76.7)
MD prior to imprisonment			
Existing	40 (40.4)	35 (20.6)	75 (27.8)
HIV infection			
Existing	10 (10.0)	10 (5.8)	20 (7.4)

MD yet, in our specific case, we have been able to conclude how PV in prison is clearly more frequent among inmates who suffer from some MD (47.6% vs. 18.6%) and we found a statistically significant relationship between both variables ($p=0.00001$; $OR=4.1$) as indicated in the Results section.

The leading MD is anxiety, followed by depression in the population under study, as concluded by previous revisions¹⁹. Based on gender, male inmates suffering from MD were more common than female inmates (63.6% vs. 57.1%) unlike in other prisons¹³.

As to study the magnitude of the data collected, especially with regard to PV indexes, we compared

the frequency of this type of victimization among the general population to contrast the data of both populations (despite them being completely different and belonging to different contexts). We therefore analyzed the information provided by the Crime Observatory of Andalusia²⁰ and concluded that PV rates among the general population are about 1.5%, much lower than in the penitentiary context under study.

The imprisoned population with MD has a lower educational level than those without MD (70% of those who suffer from some MD abandoned their studies during or after primary education, yet only 55% who don't suffer any MD did so) and further econo-

Table 3: Frequency and features of physical victimization among all inmates, with or without mental disorder and statistically significant associations

	Any mental disorder (n=168)	No mental disorder (n=102)	All inmates (n=270)	
	n (%)	n (%)	n (%)	p
PV in prison				
Physically victimized	80 (47.6)	19 (18.6)	99 (36.7)	<0.001*
Kicking	42 (25.0)	10 (9.8)	52 (19.3)	0.992
Multiple hits (beating)	37 (22.0)	8 (7.8)	45 (16.7)	0.744
Hit with an object	34 (20.2)	3 (2.9)	37 (13.7)	0.031†
Attacked with knives	25 (14.9)	5 (4.9)	30 (11.1)	0.674
PV prior to imprisonment				
Childhood	42 (25.0)	15 (14.7)	57 (21.1)	0.044‡
adulthood	67 (39.9)	14 (13.7)	81 (30.0)	<0.001§

PV: physical victimization; OR: Odds Ratio

*OR=4.1 (95%CI: 2.24-7.20) $p<0.001$; †OR=3.94 (95% CI: 1.06-14.61) $p=0.031$; ‡OR=1.93 (95% CI: 1.01-3.70) $p=0.031$; §OR=4.21 (95% CI: 2.21-8.01) $p<0.001$

Table 4: Distribution of inmates according to the mental disorder and type of physical victimization suffered, statistically significant associations

	Anxiety (n=128)	Depression (n=99)	Bipolar disorder (n=22)	Schizophrenia (n=21)	Other (n=65)
	n% [p]	n% [p]	n% [p]	n% [p]	n% [p]
Physically victimized	59 (46.5) [0.002]*	46 (46.5) [0.012] †	12 (57.1) [0.044] ‡	14 (66.7) [0.003] §	31 (47.7) [0.003]
Kicking	32 (25.0) [0.679]	29 (29.3) [0.051]	6 (28.5) [0.852]	9 (42.9) [0.430]	14 (21.5) [0.622]
Beating	29 (22.7) [0.369]	25 (25.3) [0.098]	7 (33.3) [0.339]	5 (23.8) [0.430]	16 (24.6) [0.918]
Hit with an object	26 (20.3) [0.095]	24 (24.2) [0.005] ¶	5 (23.8) [0.743]	8 (38.1) [0.099]	14 (21.5) [0.819]
Attacked with knives	19 (14.8) [0.617]	17 (17.2) [0.180]	5 (23.8) [0.361]	7 (33.3) [0.084]	10 (15.4) [0.346]

*OR=2.21 (95% CI 1.33-3.66) $p=0.002$; †OR=1.91 (95%CI: 1.14-3.19) $p=0.012$; ‡OR=2.56 (95%CI: 1.00-6.06) $p=0.044$; §OR=3.83 (95% CI: 1.49-9.86) $p=0.003$; ||OR=2.35 (95%CI: 1.05-5.25) $p=0.033$; ¶OR=3.35 (95% IC: 1.43-7.87) $P=0.005$.

mic instability (69% vs. 58%) but similar unemployment rates prior to imprisonment for both groups (approximately 50%) were found.

Physical assault for mental patients is 2.5 times more frequent in prison, up to 5 times more frequent for male inmates and 2.5 times more frequent for female inmates, unlike in previous publications which concluded higher rates of physical victimization for female inmates¹³.

It has been observed how drug abuse during imprisonment is a reality, 57% of those surveyed had taken some type of drug during the previous month, plus 76.7% used drugs outside prison. Both behaviors were considered risk factors for being physically victimized during imprisonment ($p=0.001$; $OR=2.38$ and $p=0.0955$; $OR=1.69$ respectively), similarly to the conclusions of other authors²¹⁻²².

We also found a statistically significant relationship between having suffered from physical victimization as a child or as an adult previously to imprisonment and suffering again PV in prison ($p=0.044$; $OR=1.93$ and $p=0.00005$; $OR=4.21$ respectively) therefore confirming the risk factor known as physical "re-victimization", similarly to the data from other studies in this field²³⁻²⁴.

With regard to the mental condition prior to prison admission, previous MD such as depression and anxiety lead the list, being slightly more frequent among male inmates (29.7% vs. 23.2% in female inmates) unlike previous studies¹³ (73% vs. 55%). Nevertheless, the conclusions regarding this issue were similar to previous publications, where a third of the cases suffered from the same MD as prior to imprisonment²⁵.

Last we studied the prevalence of HIV among the population under study since this virus is usually highly prevalent among Spanish inmates²⁶. In our case we observed that HIV is especially frequent among inmates with MD (85% of the participants who were HIV-positive suffered from some type of MD) and the probability of HIV was 1.4 times higher among inmates with MD. This risk relationship has been previously addressed by other authors²⁷⁻²⁸.

Currently in Spain there are two psychiatric penitentiaries (located in Alicante and Sevilla) where those inmates who need special measures derived from the existence of complete or incomplete mental exempting circumstances²⁹ are derived and admitted, in accordance with what our legal code provides to meet the rehabilitation and care objectives for mental patients who entail damage to third parties or on themselves. However we believe that we should count upon more facilities like these as to meet the needs de-

rived from the current situation as it is currently being done in ordinary prisons by means of the implementation of PAIEM programs.

We can find several limitations in this study. First and as we have already mentioned, not accessing inmates hosted in close regime modules entails a limitation. Second, since it is a cross sectional study only the data collected at a particular moment is considered, and the evolution of different variables cannot be assessed. Last but not least, that regarding self-awareness of the mental illness by inmates, since this could not be contrasted with medical records as to grant anonymity.

In view of the results obtained, we firmly believe that these events must be further researched in our prisons as to mitigate as much as possible such behaviors and hence providing further care to mental patients deprived of liberty, who are especially vulnerable in comparison with other inmates.

To conclude I'd like to say that we are aware of the complexity of these situations and the difficulty to find solutions that may improve the situation of inmates suffering from MD: However we believe that the creation of specific modules for MD would entail improved treatment and care by specialized staff with specific training which would probably reduce violence within this particularly vulnerable group.

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BIBLIOGRAPHICAL REFERENCES

1. Walmsley R. World Prison Population List. London: Essex: International centre for prison studies; 2013.
2. Freudenberg N. Jails, prisons, and the health of urban populations: a review of the impact of the correctional system on community health. *J Urban health*. 2001; 78: 214-35.
3. Hayton P, Boyington, J. Prisons and Health Reforms in England and Wales. *American J Public Health*. 2006; 96: 1730-3.
4. Mundt AP, Alvarado R, Fritsch R, Poblete C, Villagra C, Kastner S, Priebe S. Prevalence rates of mental disorders in Chilean prisons. *PloS One*. 2013; 8: 1-8.

5. Struckman-Johnson C, Struckman-Johnson D. Sexual coercion rates in seven midwestern prison facilities for men. *The Prison J.* 2000; 80: 379-90.
6. Wolff N, Blitz CL, Shi J, Siegel J, Bachman R. Physical Violence Inside Prisons Rates of Victimization. *Crim Justice Behav.* 2007; 34: 588-99.
7. Sánchez FC, Rodríguez FS, Maldonado AL. La situación de las mujeres en las prisiones de Murcia ¿Más vulnerables que los hombres? *Boletín criminológico.* 2013; 146: 1-4.
8. Stephan JJ, Karberg JC. Census of state and federal correctional facilities 2000. Washington, D.C: Bureau of Justice Statistics, U.S. Department of Justice; 2003.
9. Fazel S, Seewald K. Severe mental illness in 33588 prisoners worldwide: systematic review and meta-regression analysis. *Br J Psychiatry.* 2012; 200: 364-73.
10. Baillargeon J, Penn JV, Knight K, Harzke AJ, Baillargeon G, Becker EA. Risk of reincarceration among prisoners with co-occurring severe mental illness and substance use disorders. *Adm Policy Ment Health.* 2010; 37: 367-74.
11. Arroyo JM, Ortega E. Los trastornos de personalidad en reclusos como factor de distorsión del clima social de la prisión. *Rev Esp Sanid Penit.* 2009; 11: 3-7.
12. Lamb H, Weinberger L, Gross B. Mentally ill persons in the criminal justice system: Some perspectives. *Psychiatr Q.* 2004; 75: 107-26.
13. Blitz CL, Wolff N, Shi J. Physical victimization in prison: the role of mental illness. *Int J Law Psychiatry.* 2008; 31: 385-93.
14. Wolff N, Blitz CL, Shi J, Bachman R, Siegel JA. Sexual violence inside prisons: Rates of victimization. *J Urban health.* 2006; 83: 835-48.
15. Mumola CJ, Karberg JC. Drug use and dependence, state and federal prisoners 2004. Washington DC: US Department of Justice, Bureau of Justice Statistics; 2006.
16. Bernstein DP, Fink L, Handelsman L, Foote J, Lovejoy M, Wenzel K, et al. Initial reliability and validity of a new retrospective measure of child abuse and neglect. *Am J Psychiatry.* 1994; 151: 1132-36.
17. Kerley KR, Hochstetler A, Copes H. Self-control, prison victimization, and prison infractions. *Crim Justice Rev.* 2009; 34: 553-68.
18. Diamond PM, Wang EW, Holzer III, CE, Thomas C. The prevalence of mental illness in prison. *Adm Policy Ment Health.* 2001; 29: 21-40.
19. Lamb HR, Weinberger LE. Persons with severe mental illness in jails and prisons: a review. *Issues in Community Treatment of Severe Mental Illness: A Compendium of Articles from Psychiatric Services.* Washington DC: American psychiatric association; 1999.
20. García E, Díez JL, Pérez F, Benítez MJ, Cerezo AI. Evolución de la delincuencia en España: Análisis longitudinal con encuestas de victimización. *Sociedad Española de Investigación Criminológica.* 2010; 8: 6-10.
21. Dinis-Oliveira RJ, Magalhaes T. Forensic Toxicology in Drug-Facilitated Sexual Assault. *Toxicol Mech Methods.* 2013; 23: 471-8.
22. Kirschbaum KM, Grigoleit L, Hess C, Madea B, Musshoff F. 2013. Illegal drugs and delinquency. *Forensic Sci Int.* 2013; 226: 230-4.
23. Barnes JE, Noll JG, Putnam FW, Trickett PK. Sexual and physical revictimization among victims of severe childhood sexual abuse. *Child Abuse Negl.* 2009; 33: 412-20.
24. Messman-Moore TL, Long PJ. Child sexual abuse and revictimization in the form of adult sexual abuse, adult physical abuse, and adult psychological maltreatment. *J Interpers Violence.* 2000; 15: 489-502.
25. James DJ, Glaze LE. Mental health problems of prison and jail inmates. Washington DC: Bureau of Justice Statistics, U.S. Department of Justice; 2006.
26. Marco A, Saiz de la Hoya P, García-Guerrero J. Estudio multicéntrico de Prevalencia de Infección por el VIH y factores asociados en las prisiones de España. *Rev Esp Sanid Penit.* 2012; 14: 19-27.
27. Meade CS, Sikkema KJ. HIV risk behavior among adults with severe mental illness: a systematic review. *Clin Psychol Rev.* 2005; 25: 433-57.
28. Stoskopf CH, Kim YK, Glover SH. Dual diagnosis: HIV and mental illness, a population-based study. *Community Ment Health J.* 2001; 37: 469-79.
29. Hospitales psiquiátricos dependientes de la administración penitenciaria: propuesta de acción [Internet]. Madrid: Secretaría General de Instituciones Penitenciarias. Dirección General de Coordinación Territorial y Medio Abierto; 2011 [citado 18 Ene 2014]. Disponible en: http://www.institucionpenitenciaria.es/web/export/sites/default/datos/descargables/bEpidemiologicos/PROPUESTA_DE_ACCION_HOSPITALES_PSIQUIATRICOS_PENITENCIARIOS.pdf