

Contents lists available at ScienceDirect

### **European Psychiatry**

journal homepage: http://www.europsy-journal.com



#### Original article

5 6

7

8 9

10

11

12

13

14

15

16 17

18

# The aggressor at the mirror: Psychiatric correlates of deliberate self-harm in male prison inmates

oı N. Verdolini <sup>a,b</sup>, A. Murru <sup>a</sup>, L. Attademo <sup>b,c</sup>, R. Garinella <sup>b,d</sup>, I. Pacchiarotti <sup>a</sup>, C. del Mar Bonnin <sup>a</sup>, L. Samalin <sup>a,e,f</sup>, L. Pauselli <sup>b,g</sup>, M. Piselli <sup>h</sup>, A. Tamantini <sup>h</sup>, R. Quartesan <sup>b</sup>, A.F. Carvalho <sup>i</sup>, E. Vieta <sup>a,\*</sup>, A. Tortorella <sup>b</sup>

- <sup>a</sup> Bipolar Disorders Unit, Institute of Neuroscience, IDIBAPS CIBERSAM, Hospital Clínic, c/Villarroel, 170, 12-0, 08036 Barcelona, Spain
- <sup>b</sup> Division of Psychiatry, Clinical Psychology and Rehabilitation, Department of Medicine, University of Perugia, Santa Maria della Misericordia Hospital, Edificio Ellisse, 8 Piano, Sant'Andrea delle Fratte, 06132 Perugia, Italy
- Department of Mental Health, Division of Psychiatry 1, "Azienda Socio-Sanitaria Territoriale Papa Giovanni XXIII", Piazza OMS 1, 24127 Bergamo, Italy
- d Centro di Selezione e Reclutamento Nazionale dell'Esercito, Italian Ministry of Defence, Viale Mezzetti, 2, 06034 Foligno, Perugia, Italy
- e EA 7280, Department of Psychiatry, CHU Clermont-Ferrand, University of Auvergne, 58, rue Montalembert, 63000 Clermont-Ferrand, France
- <sup>f</sup> Pôle de psychiatrie, Fondation FondaMental, hôpital Albert-Chenevier, 40, rue de Mesly, 94000 Créteil, France
- g New York Psychiatric Institute Columbia University Medical Center, 1051 Riverside Dr, Unit 100, 10032 New York City, NY, USA
- <sup>h</sup> Functional Area of Psychiatry, University of Perugia, AUSL Umbria 2, Servizio Psichiatrico Diagnosi e Cura Ospedale "S. Giovanni Battista", via Massimo Arcamone, 06034 Foligno, Perugia, Italy
- <sup>1</sup>Department of Clinical Medicine, Translational Psychiatry Research Group, Faculty of Medicine, Federal University of Ceará, Av. da Universidade, 2853, 60020-180 Benfica, Fortaleza CE, Brazil

#### ARTICLE INFO

Article history: Received 31 December 2016 Received in revised form 29 March 2017 Accepted 1st April 2017 Available online xxx

Keywords: Deliberate self-harm Forensic psychiatry Affective disorders Substance use disorders Psychosis

#### ABSTRACT

Background: Deliberate self-harm (DSH) causes important concern in prison inmates as it worsens morbidity and increases the risk for suicide. The aim of the present study is to investigate the prevalence and correlates of DSH in a large sample of male prisoners.

Methods: A cross-sectional study evaluated male prisoners aged 18+ years. Current and lifetime psychiatric diagnoses were assessed with the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders - DSM-IV Axis I and Axis II Disorders and with the Addiction Severity Index-Expanded Version. DSH was assessed with The Deliberate Self-Harm Inventory. Multivariable logistic regression models were used to identify independent correlates of lifetime DSH.

Results: Ninety-three of 526 inmates (17.7%) reported at least 1 lifetime DSH behavior, and 58/93 (62.4%) of those reported a DSH act while in prison. After multivariable adjustment (sensitivity 41.9%, specificity 96.1%, area under the curve = 0.854, 95% confidence interval CI = 0.811–0.897, P < 0.001), DSH was significantly associated with lifetime psychotic disorders (adjusted Odds Ratio aOR = 6.227, 95% CI = 2.183–17.762, P = 0.001), borderline personality disorder (aOR = 6.004, 95% CI = 3.305–10.907, P < 0.001), affective disorders (aOR = 2.856, 95% CI = 1.350–6.039, P = 0.006) and misuse of multiple substances (aOR = 2.024, 95% CI = 1.111–3.687, P = 0.021).

Conclusions: Borderline personality disorder and misuse of multiple substances are established risk factors of DSH, but psychotic and affective disorders were also associated with DSH in male prison inmates. This points to possible DSH-related clinical sub-groups, that bear specific treatment needs.

 $\ensuremath{\text{@}}$  2017 Elsevier Masson SAS. All rights reserved.

Abbreviations: aOR, adjusted Odds Ratio; ASI-X, Addiction Severity Index-Expanded Version; AUC, area under the curve; CI, confidence interval; DSH, deliberate self-harm; DSHI, Deliberate Self-Harm Inventory; DSM, Diagnostic and Statistical Manual of Mental Disorders; OR, Odds Ratio; PD, personality disorders; ROC, receiver operating characteristic; SCID-I, Structured Clinical Interview for DSM-IV Axis I Disorders; SCID-II, Structured Clinical Interview for DSM-IV Axis II Disorders; SD, standard deviation.

Corresponding author. Fax: +34 932279228. *E-mail address:* evieta@clinic.cat (E. Vieta).

http://dx.doi.org/10.1016/j.eurpsy.2017.04.002

0924-9338/ © 2017 Elsevier Masson SAS. All rights reserved.

#### 1. Introduction

Acts of self-harm encompass a wide range of behaviors, which differ in severity, from minor cuts to violent suicide attempts [1]. Some experts suggest that both deliberate self-harm (DSH) and suicide attempts could be conceptualized on *a continuum* of lethality, while a dichotomous differentiation between those two sets of behavior may be arbitrary and of limited clinical utility

21

24

25

26

27

Please cite this article in press as: Verdolini N, et al. The aggressor at the mirror: Psychiatric correlates of deliberate self-harm in male prison inmates. European Psychiatry (2017), http://dx.doi.org/10.1016/j.eurpsy.2017.04.002

## ARTICLE IN PRESS

N. Verdolini et al./European Psychiatry xxx (2017) xxx-xxx

[2,3]. Despite these controversies, DSH and suicide attempts could be identified as distinct psychopathological phenomena, with meaningful differences related to lethality, aims of the act, the presence of suicidal intent, among other clinical characteristics [1,4].

DSH can be conceptualized as the deliberate, voluntary and not accidental, direct destruction or alteration of body tissue without conscious suicidal intent [5]. In prison populations, DSH was not studied as much as suicidality [6]. Yet, it may represent a relevant source of morbidity and, when present, may moderate the risk of suicide [7,8], especially when underlying mental disorders are present [9]. The prevalence of lifetime DSH in adult offenders ranges between 15 [10] and 35% [11] in male prisoners. Rates are smaller for those who self-harm while in custody, ranging between 5 [7] and 15% [10], whilst they significantly increase among inmates with mental disorders (up to 53% [12] for lifetime DSH and 61% [13] for DSH while in custody).

Relatively few studies evaluated possible clinical correlates of DSH in incarcerated samples [12,14–16]. Most of them were epidemiological studies [7,17], whilst others bore methodological limitations, such as a non-standardized assessment of personality disorders (PD) [18,19]. Finally, very few studies investigated specific factors independently associated with DSH in prison inmates [7,11,19,20].

The objectives of the present study are:

- to estimate the prevalence of DSH in a large sample of male prisoners;
- to explore whether DSH and suicide attempts lie on a same continuum, or otherwise might be more accurately characterized as separated psychopathological entities;
- to investigate socio-demographic, clinical, and treatment-related variables independently associated with DSH in this sample.

#### 2. Methods

#### 2.1. Participants

The sample was collected from October the 1st, 2010 to September the 30th, 2011 at the Spoleto Prison (Umbria, Italy). In this prison, 4 groups of criminals serve their time:

- common criminals;
- organized crime prisoners, except for leading bosses;
- protected inmates (e.g., serving for pedophilia, rape, or cooperating witnesses);
- leading bosses in organized criminality.

This study was approved by the local Ethics Review Board, by the Regional Penitentiary Committee and by the Italian Psychiatric Association. All participants provided written informed consent.

#### 2.2. Inclusion/exclusion criteria

Male inmates, aged 18+ years, serving for crime groups 1, 2, 3 as detailed in the "Participants" section were eligible for this cross-sectional survey.

Inmates serving for crime type 4 or inmates awaiting trial were excluded from the study, as well as those with mental retardation, severe cognitive impairment or unwilling to provide written informed consent.

#### 2.3. Study procedures

Eligible inmates underwent a comprehensive psychiatric evaluation performed by medical doctors (LA and RG) with at

least 3 years of training in psychiatry. The interviewers were specifically trained to discriminate between suicide attempts and DSH.

#### 2.4. Measures

Participants were interviewed and the following measures were collected:

- the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) [21,22], which was shown to provide an accurate assessment of Axis I disorders in correctional settings [23];
- the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II) [24,25], whose reliability has been tested [26], has been widely used in correctional settings for the assessment of Axis II PD [27,28];
- the Addiction Severity Index-Expanded Version (ASI-X) [29] is a semi-structured interview validated for use in Italian samples [30] that evaluate the use of alcohol and other substances as well as their impact on functioning in several areas (medical, employment, support, legal, family/social, psychiatric). The reliability of the ASI-X has been previously demonstrated [31,32] and it was validated in prison populations [33,34].

In the psychiatric status area, misuse of substances was reported.

The interviewers also assessed both reported suicide attempts, lifetime and in the last month, and severe suicidal thoughts according to the specific ASI-X items [35]. Suicide attempts were defined as acts of self-harm with intent to die that were not self-mutilatory in nature [36].

In the legal status area, specific information about charges was collected.

In the family/social relationships area, questions about past 30 days and lifetime emotional, physical, sexual abuse and sexual harassment, as well as family history of legal/substances/psychiatric disorders were presented.

#### 2.4.1. The Deliberate Self-Harm Inventory (DSHI) [37]

The DSHI is a 17-item, behaviorally based, self-report questionnaire that assesses frequency, severity, duration, and type of different self-harm behaviors. Interviewers recorded for each self-harm behavior information regarding the age of onset of a DSH behavior, the last time (in months) presenting that behavior, the total duration (in years) of that behavior, and whether a DSH-derived hospitalization or medical care had been required. Psychometric and language-specific characteristics of DSHI are presented elsewhere [37–39]. DSHI was previously used to assess DSH in male inmates [39].

Socio-demographic and clinical variables (drug and alcohol, medical and psychiatric status, prescribed treatments and use of services) were also collected through the specific ASI-X form.

Inmates' records at the Spoleto Prison were also reviewed to collect further information.

#### 2.5. Statistical analysis

The dichotomous DSH variable was derived when inmates affirmatively answered to any of the first 16 items on the DSHI, or when the answer to the item 17 ("Have you ever intentionally done anything else to hurt yourself that was not asked about in this questionnaire? If yes, what did you do to hurt yourself?") described a behavior consistent with the conceptual definition of DSH [37]. Normality of distribution for continuous variables was evaluated with the Kolmogorov-Smirnov test, visually and with the skewness and kurtosis values. Bivariate analyses were

Please cite this article in press as: Verdolini N, et al. The aggressor at the mirror: Psychiatric correlates of deliberate self-harm in male prison inmates. European Psychiatry (2017), http://dx.doi.org/10.1016/j.eurpsy.2017.04.002

# دريافت فورى ب متن كامل مقاله

## ISIArticles مرجع مقالات تخصصی ایران

- ✔ امكان دانلود نسخه تمام متن مقالات انگليسي
  - ✓ امكان دانلود نسخه ترجمه شده مقالات
    - ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  - ✓ امكان دانلود رايگان ۲ صفحه اول هر مقاله
  - ✔ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
    - ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات