

# Suicidal ideation among prisoners: analysis with a gender perspective in a five-year follow-up (2017-2022)

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## ABSTRACT

**Introduction:** There is a high incidence of self-harming behavior in the prison setting, with a suicide rate that is higher than that of the general population. Previous studies describe the association of sociodemographic, clinical, and criminological factors with the risk of suicide in the male prison population, but there is little research that specifically analyses suicidal behavior among women. The objective of this study is to analyze the characteristics of inmates who are admitted to a psychiatric unit for suicidal thoughts or attempted suicide.

**Material and method:** Descriptive and comparative analysis of 97 inmates (68 men, 29 women) admitted to the Unidad de Hospitalización Psiquiátrica Penitenciaria de Cataluña (UHPP-C), for suicidal ideation, between January 1, 2017, and December 31, 2022.

**Results:** There are differences in terms of place of birth, with a more significant presence of African nationalities in non-national males, while foreign inmates tend to come from Latin American countries. Men have a lower mean age, longer admissions, and a higher readmission rate. They also suffer from more psychotic and addictive disorders. Women have a higher prevalence of personality disorders and affective symptoms.

**Conclusions:** There are sociodemographic and clinical differences between male and female prison inmates who require admission for suicidal ideation. Including a gender perspective in studies on suicide risk in the prison population can provide a solid foundation for future studies, thus allowing a more complete understanding of suicidal ideation and intervention needs in the prison population.

**Key words:** suicide; self-injurious behavior; prisons; gender perspective.

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## INTRODUCTION

A significant number of acts of self-harming, suicidal ideation and completed suicides have been detected in the prison setting. Self-harming includes any self-inflicted action that causes injury and pain but whose final objective is not death. Suicidal ideation describes a state when death is desired, with persistent thoughts of taking one's own life, generally without any clearly defined plans. Completed suicide is the act by which a person intentionally causes their own death.

When compared to the general public, the rate of suicide in prison is three times higher among men and nine times higher amongst women<sup>1</sup>. The incidence is increasing in many countries, making this phenomenon an important health issue.

Suicide in the prison setting is a complex process that arises in response to the interaction of factors, some of which are modifiable and individual (clinical, social, environmental) while others are external and form part of the context<sup>2</sup>. The intrinsic factors include psychiatric disorders, drug abuse and repeated self-harming<sup>1</sup>. Background of childhood trauma (physical and psychological) is also associated with self-harming in the past, with an increased risk of suicide in the future<sup>3</sup>.

At the same time, the risk of suicide can have significant correlations with the duration of the prison sentence, as does being housed in an individual cell, solitary confinement (with no visits), being in custody while awaiting trial or serving a life sentence and convictions for violent crime (especially murder)<sup>4,5</sup>. Disciplinary or administrative segregation (i.e. solitary confinement) is associated with a higher risk of suicide amongst inmates<sup>6,7</sup>.

The legal repercussions of criminal offences lead to psychological tensions that aggravate the day-to-day stressors characteristic of an institution, such as limited autonomy in decision-making and the loss of external support. Internment is in fact a risk factor for suicide<sup>8</sup>: the isolation inherent to the loss of freedom, social rejection, feelings of failure and frustrated feelings of belonging to a group all contribute towards the development of ideas of self-harming. Imprisonment deprives inmates of financial and social capital<sup>9</sup>, which in turn aggravates their situation. In such a context, when the demands of the situation exceed pre-existing mechanisms for coping with stress (which are often deficient) the potential for suicide is often triggered.

An added problem is that prisons lack mental health programmes with sufficient resources and trained

professionals. The financial difficulties faced by prisons further aggravate the problem, with a lack of suitable personnel who can respond to a possible suicidal crisis<sup>9</sup>. The experience, attitudes and characteristics of professionals who work in prisons have an influence on the behaviour of inmates and the risk of suicide, and so poorly trained or overworked staff may ignore the warning signs associated with suicidal tendencies<sup>10</sup>.

An especially vulnerable population are young people who are separated from the families and support networks for the first time<sup>10</sup>. This profile of inmate depends to a great extent on relationships of support that it establishes with prison staff<sup>11</sup>, and may run a higher risk of suicide if such support is lacking.

Previous studies highlight drug abuse<sup>9</sup> and mental health problems (aggressiveness, impulsiveness, introversion, instability)<sup>12,13</sup> as factors associated with the potential for suicidal conduct. Loss of hope, the stigma associated with diagnosis and somatic diseases may also aggravate the psychopathology<sup>9</sup>.

Self-harming is another key element when evaluating the risk of suicide. Although the intention is not to kill oneself in this case, the practice is quite common amongst inmates<sup>14</sup>, and may appear in many ways: self-inflicted cutting of the skin, swallowing sharp objects or headbutting a wall<sup>9</sup>. There is a solid association between self-harming behaviours and death by suicide; which can be explained as an accidental outcome (due to accumulated stress and impulsive aggression)<sup>9</sup> or from habituation to pain, which increases the capacity to reach a fatal outcome<sup>8</sup>.

It is therefore essential to take self-harming into consideration when evaluating the risk of suicide amongst inmates, and decide if the behaviours should be classified as self-harming or may be associated with suicidal intentions. At this point, it is important to highlight the discrepancies between the customary interpretation made by prison officers (who understand self-harming as "manipulation" or "attention-seeking" strategies) and those of the medical personnel (who explain self-harming as issues of "affective regulation" or "as a form of self-punishment")<sup>15</sup>. These difference in the analysis of such situations can also lead to different approaches in the treatment of inmates.

As regards communication, the willingness of an inmate to give voice to suicidal tendencies should call one's attention<sup>16</sup>, making it necessary to consider issues related to verbal and behavioural signs of a wish to die, beliefs that suicide is acceptable or the presence of a specific plan<sup>9</sup>.

Studies show that self-harming behaviours in prison are processed with a variety of causes brought about complex psychosocial trajectories. There is also scientific evidence that points to the existence of gender differences in self-harming<sup>17</sup>. This evidence highlights the influence of traumatic experiences, such as gender violence, sexual abuse in childhood or aggression in adulthood<sup>18,19</sup>.

However, there is little in the way of research that analyses suicidal behaviour from a gender perspective, and most studies on preventing the risk of suicide in prison do not take gender-based differences into account<sup>20</sup>.

This study works from the hypothesis that female inmates admitted into a prison psychiatric hospital unit for suicidal ideation or attempted suicide have a different clinical and sociodemographic profile from male inmates. In this context, the aim is to evaluate the situation in our setting, given that there are no national studies, in order to establish the magnitude of the problem and to adapt and improve clinical practice.

The objective is to analyse the characteristics of the inmates admitted to a psychiatric unit for presenting suicidal ideas or for attempted suicide. Women are a vulnerable segment in prisons, and so discovering their peculiarities and needs (as modifiable risk factors) may enable us to design interventions to prevent and manage such behaviours.

## METHODOLOGY

We carried out a unicentric, descriptive and retrospective study, with two comparative branches (men and women). Patients included were those admitted in the UHPP-C for suicidal ideation from 1 January 2017 to 31 December 2022. No exclusion criteria other than not meeting the above requirements were applied.

All the variables were directly extracted from the electronic clinical history (SIGSAM program). The data dumping was carried out by the IT service of the Parc Sanitari Sant Joan de Déu (PSSJD), and the research unit included them in a pseudonymised database with restricted access. The participants could not be traced from the information provided.

Sociodemographic variables were analysed for each case (age, sex, nationality, place of residence). Clinical variables (diagnoses, data of admission, average stay, treatment on admission and discharge, and referral process). All the participants who had these variables recorded in the clinical history were included, and no case was rejected.

The diagnosis was the one established by the psychiatrist who attended and treated the participant, and was obtained in individualised open interviews. To facilitate the subsequent analysis, and compare the prevalences between them, different labels were grouped into large categories (psychotic, affective, addictive, mental, personality and organic disorders).

A bivariate analysis was carried out using parametric or non-parametric tests, according to distribution normality. In both cases, the preset value to establish a statistical association was  $P \leq 0.05$ . The Statistical Package for the Social Sciences (SPSS) 20 (IBM Corp., Chicago, Ill, USA) program was used for the analysis.

The participants' informed consent was not required, given that the study was a non-interventionist one in which statistical analyses were carried out with data obtained from medical reports, and the calculations did not involve any risk for the patients included in the records. Clinical diagnoses or therapeutic strategies were not modified, since all the reports were definitively closed and signed long before this research project was proposed, designed and set in motion.

The study was approved by the Institut de Recerca de Sant Joan de Déu (gender suicide protocol), which authorised the processing and analysis of the data. The following was also approved in accordance with the Declaration of Helsinki (the latest valid version of which was the one established in Fortaleza, Brazil, in October 2013): Law 14/2007 of 3 July, on Biomedical Research (given that it is a research project that has nothing to do with medicines); Regulation EU 2016/679 of the European Parliament and of the Council of 27 April 2016, on the protection of natural persons with regard to the processing of personal data and the free movement of such data; and Organic Law 3/2018, of 5 December, on the protection of personal data and the guarantee of digital rights.

## RESULTS

The descriptive study of the sample can be seen in Table 1, while the comparative analysis between male and female inmates admitted for suicidal ideation is summarised in Table 2.

The participants included in the study were generally admitted for short periods (less than seven days), with a balanced seasonal distribution (apart from autumn, where there was a slightly higher prevalence of over 18%). Hospitalisations were especially frequent in the summer, making up 30% of the total.

Table 1. Description of sample (n = 97).

Sex	Men (70.1%) Women (29.9%)
Age	37.30 (SD: 9.89)
Place of birth	Spain (57.5%) Africa (20.2%) Latin America (9.2%)
Place of residence	Urban (50.5%) Rural (49.5%)
Number of admissions	1.10 (SD: 0.34)
Duration of stay	6.68 (SD: 5.95)
Season of year	Winter (27.8%) Spring (23.7%) Summer (29.9%) Autumn (18.6%)
Psychotic disorder	12.4%
Mood disorder	44.3%
Personality disorder	43.3%
Addictions	49.5%
Intellectual disability	13.4%
Infectious disease	7.2%
No. of antipsychotics	1.28 (SD*: 1.04)
No. of antidepressants	0.91 (SD: 0.78)
No. of mood stabilisers	0.39 (SD: 0.67)
No. of anxiolytics	0.90 (SD: 0.48)
No. of somatic medications	0.98 (SD*: 1.24)
Destination after discharge	CP B1† (51.5%) SAU‡ (19.6%) CP QC§ (10.3%) CP LL   (5.2%)

**Note.** \*SD: standard deviation; †CP B1: Brians 1 Prison; ‡SAU: subacute unit; §CP LL: Lledoners Prison; ||CP QC: Quatre Camins Prison.

More than 50% came from urban settings and were registered in Brians 1 Prison (where the UHPP-C operates).

In diagnostic terms, almost half of the inmates presented problems of addiction, and more than 40% suffered from affective and/or personality disorders. The most commonly prescribed drugs were antipsychotics, followed by somatic medication, anxiolytics and antidepressants.

A comparison of the male and female inmates showed a major disproportion between the groups, which has caused many of the calculations to not be statistically significant. However, when the gender distribution of the prison population is taken into consideration, with a considerable majority of men, the sample may be regarded as representative.

One notable finding is that the women who are admitted for self-harming ideation are older (with a mean age of 39 years in comparison to 36.66 years for men), and more frequently live in urban settings. Foreign female inmates (31%) mostly come from Latin American countries (in contrast to foreign male inmates, who come from Africa, especially Morocco) (Figures 1 and 2). They have lower rates of recidivism and slightly shorter stays.

Diagnostic results show that female inmates suffer more from personality disorders (62.10% against 35.29%). This finding is statistically significant ( $\chi^2 = 5.93$ ,  $P < 0.05$ ). They also have a higher prevalence of affective symptoms and infectious diseases, which contrasts with the psychotic and drug-use disorders that most frequently appear amongst male inmates (14.70% for psychosis and 51.47% for addictions, compared to 6.89% and 44.82% respectively for women).

There are also significant differences between the destination after discharge (Figures 3 and 4). Men are more frequently referred to Brians 1 Prison (58.62%), while women have a more diverse distribution, with a higher percentage being referred to other resources (17.25%), the subacute unit (13.79%) or Mas d'Enric Prison (10.34%). This difference is statistically significant ( $\chi^2 = 21.00$ ,  $P < 0.05$ ).

It should also be mentioned that no differences were found in the background of the inmates or in the quantity of psychiatric drugs prescribed. There is a notable presence of antipsychotics and benzodiazepines (both of which are more frequently prescribed for men). Female inmates are prescribed larger amounts of antidepressive and somatic medicines, while mood stabilisers are very evenly distributed between the two groups.

## DISCUSSION

Suicide in prison is a complex phenomenon that involves a variety of determining factors that have not been fully investigated. This study analysed the statistical data of a sample of 97 inmates who were admitted for suicidal ideation, with a focus on gender differences. This is the first research project to be carried out in Spain with this type of focus, where suicidal ideation is studied from a gender perspective.

The research showed that the women were generally older, with shorter admission periods and lower rates of recidivism. They suffered more from personality and affective disorders, which may be related to more prescriptions for antidepressants. They also

Table 2. Comparative study of inmates.

	Men (n = 68)	Women (n = 29)	
Age	36.66 (SD*: 10.33)	38.79 (SD*: 8.77)	t: -0.97 (P value: 0.33)
Place of birth	Spain (52.94%) Africa (30.86%) Latin America (5.9%) Middle East (5.9%) Other European country (4.4%)	Spain (68.96%) Latin America (20.68%) Other European country (6.89%)	$\chi^2$ : 13.92 (P value < 0.05)†
Place of residence	Urban (47.05%) Rural (52.95%)	Urban (58.62%) Rural (41.38%)	$\chi^2$ : 1.09 (P value: 0.29)
Number of admissions	1.13 (SD*: 0.38)	1.03 (SD: 1.85)	t: 1.69 (P value: 0.09)
Length of stay	6,91 (SD*: 6,71)	6,14 (DE*: 3,62)	t: 0,58 (P valor: 0.56)
Season of year	Winter (27.94%) Spring (22.05%) Summer (29.41%) Autumn (20.60%)	Winter (27.58%) Spring (27.58%) Summer (31.03%) Autumn (13.81%)	$\chi^2$ : 0.78 (P value: 0.85)
Psychotic disorder	14.70%	6.89%	$\chi^2$ : 1.14 (P value: 0.28)
Mood disorder	41.17%	51.72%	$\chi^2$ : 0.91 (P value: 0.33)
Personality disorder	35.29%	62.10%	$\chi^2$ : 5.93 (P value < 0.05)†
Addictions	51.47%	44.82%	$\chi^2$ : 0.36 (P value: 0.55)
Intellectual disability	14.70%	10.34%	$\chi^2$ : 0.33 (P value: 0.56)
Infectious disease	4.4%	13.8%	$\chi^2$ : 2.67 (P value: 0.10)
No. of antipsychotics	1.30 (SD*: 1.02)	1.24 (SD*: 1.09)	t: 0.29 (P value: 0.77)
No. of antidepressants	0.83 (SD*: 0.76)	1.10 (SD*: 0.81)	t: -1.53 (P value: 0.13)
No. of mood stabilisers	0.39 (SD*: 0.71)	0.37 (SD*: 0.56)	t: 0.12 (P value: 0.90)
No. of anxiolytics	0.92 (SD*: 0.49)	0.86 (SD*: 0.44)	t: 0.60 (P value: 0.55)
No. of somatic medications	0.91 (SD*: 1.26)	1.17 (SD*: 1.19)	t: -0.94 (P value: 0.34)
Destination after discharge	CP B1‡ (48.52%) SAU§ (22.05%) CP QC¶ (14.7%) Others (14.7%)	CP B1‡ (58.62%) SAU§ (13.79%) CP ME   (10.34%) Others (17.25%)	$\chi^2$ : 21.00 (P value < 0.05)

Note. \*SD: standard deviation; †P < 0,05: Statistically significant differences; ‡CP B1: Brians 1 Prison; §SAU: subacute unit; ||CP ME: Mas d'Enric Prison; ¶CP QC: Quatre Camins Prison.

suffer more frequently from infectious and contagious diseases, which may be related to higher consumption of somatic treatments. There was more variability between men and women in hospital discharges, with evidence to show that male inmates have a more clearly defined treatment or healthcare plan, while female inmates find it difficult to engage in a clinical milieu (due to lack of specific resources).

This comparison is especially important, given that there is growing interest in preventing self-harming and suicide (both amongst the general public

and the prison population). However, although suicide and self-harming are important problems in prisons, these issues receive limited attention in national suicide prevention strategies. For example, self-harming increases the likelihood of suicide by 6 to 11 times, but there is no information on the prevalence or recurrence of self-harming in the prison setting<sup>21</sup>.

The high prevalence of self-harming makes it a challenge (up to 24% of female inmates)<sup>21</sup>, as do the reasons for this behaviour (from influences of the setting itself, to mood regulation or responses to



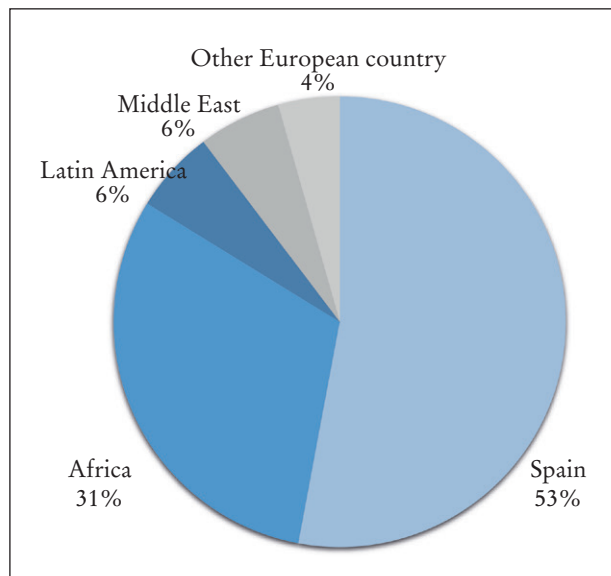


Figure 1. Place of birth of male inmates.

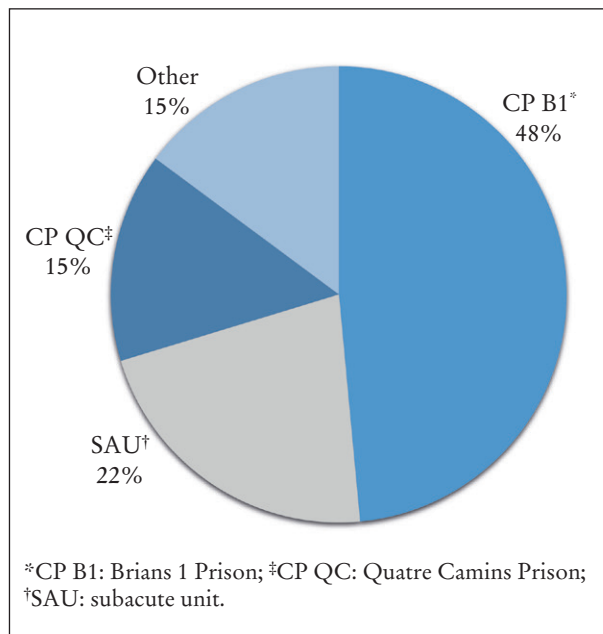


Figure 3. Destination after hospital discharge for male inmates.

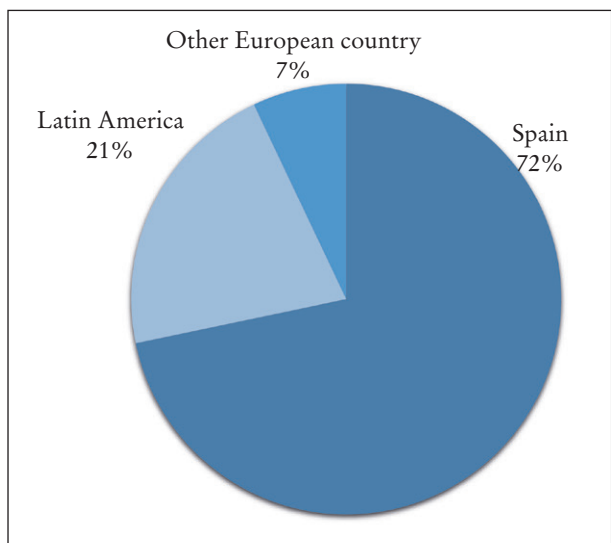


Figure 2. Place of birth of female inmates.

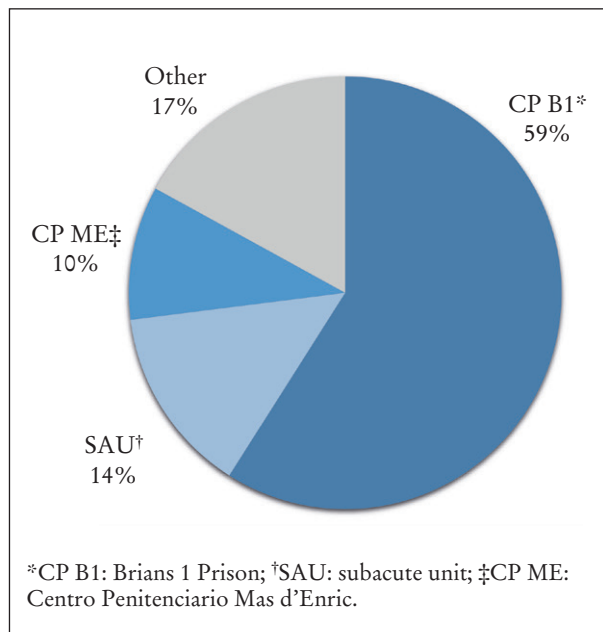


Figure 4. Destination after hospital discharge for female inmates.

a latent psychopathology)<sup>22</sup>. The potential of self-harm as a predictive tool<sup>23</sup> has led to it being used for early intervention strategies. Even so, the use of risk assessment strategies is controversial and their success is limited<sup>24,25</sup>. Furthermore, some of the psychometric tools have been used in settings that are different from the ones that they were designed for, and some have not been fully validated<sup>25</sup>.

The main recommendations for tackling the risk of suicide includes identifying inmates with prior self-destructive behaviours (especially if they suffer from psychiatric disorders), and psychological

autopsies after completed suicides<sup>26</sup>. Comprehensive individual analyses and in-depth psychiatric evaluations should be encouraged<sup>27</sup>.

Despite the magnitude of the problem, research on the factors for protecting against suicide is very limited<sup>10</sup>, and tends to focus on close monitoring and esta-

blishing settings free of objects that might be used for self-harming or as tools for suicide attempts<sup>28</sup>. It has also been shown that although negative staff attitudes constitute a risk, professional support for the positive behaviour of other inmates is a protective factor<sup>21</sup>.

Protective strategies include encouraging communication with families and friends, promoting the participation of inmates in support groups, disseminating education about the use of medications, relocation to a cell with another person (or near security personnel) and developing greater commitment to religious services (for inmates who define themselves as believers)<sup>9</sup>. Another priority should be to not use restrictive confinement or isolation, avoiding the use of administrative segregation as a punishment<sup>10,13,16</sup>.

In any case, several barriers need to be overcome when assessing the risk of suicide. These include prison overcrowding in many jurisdictions<sup>29</sup> and the deeply reserved personalities of some inmates who do not want to reveal their vulnerabilities or who do not trust the prison staff<sup>30</sup>. Variations in assessment skills and cultural or ethnic differences can also play a part in detecting risks<sup>31</sup>.

Our research brought to light differences between men and women who develop suicidal ideations, and our findings match those found in international studies, which state that women present a higher incidence of self-harming<sup>32</sup> and higher levels of mortality from transmissible diseases and suicide<sup>33</sup>. Possible aetiopathogenic factors include exposure to sexual violence as one element associated with attempted self-harm<sup>34</sup>. Prison policies should therefore include specific approaches for inmates with a background of sexual victimisation<sup>35</sup>.

This study shows that the sociodemographic and clinical profile of the prison population with suicidal tendencies differs according to gender, presenting significant differences in the phenomenology of suicide. The lack of studies from a gender perspective indicates a need for more studies on this issue to enable us to understand potential differences, and with this adequately detect the risks and apply appropriate prevention strategies. This study opens up a new investigative approach where gender differences amongst inmates with suicidal ideations can be analysed in greater depth.

One of the limitations of this research is that it is a descriptive study limited to analysing the characteristics of the sample without establishing causal or explanatory relationships. The very nature of the study makes it impossible to infer any causality between the variables or establish the direction of the relationships. The data gathering process may also

have led to the loss of some cases. This may be due to several factors, such as errors in data labelling, technical problems with the computer system or limitations in the records. The loss of cases may affect the representativeness of the sample and the generalisation of the results of the target population.

Furthermore, the diagnosis was established from open interviews conducted by the psychiatrists providing the treatment, who may have received different type of training and apply different treatment approaches, which would lead to a degree of variation. The labels were not obtained with diagnostic instruments, since they were used for treatment and not for research, and this too may limit their validity.

Another difficulty in this study is that it was carried out at one single centre, which limits extrapolation of the results to other clinical settings. The particular conditions of the centre may affect the results obtained, given that each centre has its own unique characteristics: size, geographical location, population, healthcare policies, available resources or therapeutic approaches.

It would be interesting to further extend the objective of the research and study the characteristics of inmates who committed suicide, but access to this information was not authorised, given the highly sensitive nature of the data. An analysis of the cases that slip through the process proposed in the suicide prevention framework programme would help to update and improve Instruction 5/2014, of the General Secretary of Prison Instructions, by detecting new variables for inclusion or placing greater emphasis on the ones that are found to be more relevant or important.

Detecting the risk of suicide in prisons continues to be a highly complex challenge. Current evidence identifies several elements of risk and protection that fall within a wide range of sociodemographic, criminological, clinical and penitentiary factors. Understanding these variables is a determining factor in preventing suicide, since some of them can be modified and changed with public health policies.

Prisons hold individuals who represent groups that run the highest risk of suicide (young people, people with mental disorders, the socially isolated, drug users, persons with impulsive personality traits and others with a record of self-harm). The factors intrinsic to the prison setting also generate psychosocial stress that can have an effect on suicidal behaviours: overcrowding, isolation, lack of communication with family and friends, and sanctions imposed by the prison system are just a few examples.

Self-harming behaviour in prison appears to be more common amongst the female population than

amongst men and is correlated with suicidal ideation. This study shows that there are variations between inmates who need to be admitted for suicidal ideation, and also indicates that women are associated with some sociodemographic elements (older age, living in urban settings, of Latin American origin) and diagnostic factors (presence of personality and affective disorders) that distinguish them from their male peers.

Multi-factorial prevention programmes should be developed to effectively deal with self-harming ideations and completed suicides. For such policies to be effective, they should include the proactive detection of risks of suicide and serious mental health problems, training prison staff in assessing and managing the risk of suicide, and intensive monitoring with psychological treatment for inmates at risk (including detainees with a history of drug abuse)<sup>28,36</sup>.

Including a gender perspective in suicide risk studies on the prison population may generate valuable information and provide a solid basis for future studies, leading to a better understanding of suicidal ideation and the need for prevention and intervention in the prison population. The lack of training with a gender perspective in prisons and in the community is a challenge for the future, and highlights the need to improve our perspectives on and management of the very grave problem of attempted (and completed) suicide in prisons.

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## BIBLIOGRAPHY

1. Fazel S, Ramesh T, Hawton K. Suicide in prisons: an international study of prevalence and contributory factors. *Lancet Psychiatry*. 2017;4(12):946-52. doi: 10.1016/S2215-0366(17)30430-3.
2. Marzano L, Hawton K, Rivlin A, Fazel S. Psychosocial influences on prisoner suicide: a case-control study of near-lethal self-harm in women prisoners. *Soc Sci Med*. 2011;72(6):874-83. doi: 10.1016/j.socscimed.2010.12.028.
3. Clements-Nolle K, Wolden M, Bargmann-Loesche J. Childhood trauma and risk for past and future suicide attempts among women in prison. *Womens Health Issues*. 2009;19(3):185-92. doi: 10.1016/j.whi.2009.02.002.
4. Blaauw E, Kerkhof AJ, Hayes LM. Demographic, criminal, and psychiatric factors related to inmate suicide. *Suicide Life Threat Behav*. 2005;35(1):63-75. doi: 10.1521/suli.35.1.63.59268.
5. Zhong S, Senior M, Yu R, Perry A, Hawton K, Shaw J, *et al*. Risk factors for suicide in prisons: a systematic review and meta-analysis. *Lancet Public Health*. 2021;6(3):e164-74. doi: 10.1016/S2468-2667(20)30233-4.
6. Hayes LM. Suicide prevention in correctional facilities: reflections and next steps. *Int J Law Psychiatry*. 2013;36(3-4):188-94. doi: 10.1016/j.ijlp.2013.04.010.
7. Way BB, Sawyer DA, Barboza S, Nash R. Inmate suicide and time spent in special disciplinary housing in New York State prison. *Psychiatric Services*. 2007;58(4):558-60. doi: 10.1176/appi.ps.58.4.558
8. Van Orden KA, Witte TK, Cukrowicz KC, Braithwaite SR, Selby EA, Joiner TE. The interpersonal theory of suicide. *Psychol Rev*. 2010;117(2):575-600. doi: 10.1037/a0018697.
9. Fagan TJ, Cox J, Helfand SJ, Aufderheide D. Self-injurious behavior in correctional settings. *J Correct Health Care*. 2010;16(1):48-66. doi: 10.1177/1078345809348212.
10. World Health Organization. Preventing suicide in jails and prisons. 2007. Geneva: WHO Document Production Services; 2007.
11. Liebling A. The role of the prison environment in prison suicide and prisoner distress. 2006. En: Dear GE, ed. Preventing suicide and other self-harm in prison. Basingstoke, England: Palgrave-Macmillan; 2006. p. 16-28.
12. Ireland JL, York C. Exploring application of the Interpersonal-Psychological Theory of Suicidal Behaviour to self-injurious behaviour among women prisoners: Proposing a new model of understanding. *Int J Law Psychiatry*. 2012;35(1):70-6. doi: 10.1016/j.ijlp.2011.11.006.
13. Cramer RJ, Johnson SM, McLaughlin J, Rausch EM, Conroy MA. Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training. *Train Educ Prof Psychol*. 2013;7(1):1-11. doi: 10.1037/a0031836.
14. Mangnall J, Yurkovich E. A literature review of deliberate self-harm. *Perspect Psychiatr Care*. 2008;44(3):175-84. doi: 10.1111/j.1744-6163.2008.00172.x.



15. Kenning C, Cooper J, Short V, Shaw J, Abel K, Chew-Graham C. Prison staff and women prisoner's views on self-harm; their implications for service delivery and development: A qualitative study. *Crim Behav Ment Health*. 2010;20(4):274-84. doi: 10.1002/cbm.777.
16. Hayes LM. Suicide prevention in correctional facilities: An overview. En: Puisis M, ed. *Clinical practice in correctional medicine*. 2ª ed. Philadelphia, PA: Mosby-Elsevier; 2006. p. 317-28.
17. Mennicke A, Daniels K, Rizo CF. Suicide Completion Among Incarcerated Women. *J Correct Health Care*. 2021;27(1):14-22. doi: 10.1089/jchc.18.12.0070.
18. Walker T, Shaw J, Gibb J, Turpin C, Reid C, Guttridge K, *et al.* Lessons Learnt From the Narratives of Women Who Self-Harm in Prison. *Crisis*. 2021;42(4):255-262. doi: 10.1027/0227-5910/a000714.
19. Moore KE, Siebert S, Brown G, Felton J, Johnson JE. Stressful life events among incarcerated women and men: Association with depression, loneliness, hopelessness, and suicidality. *Health Justice*. 2021;9(1):22. doi: 10.1186/s40352-021-00140-y.
20. Stijelja S, Mishara BL. Preventing suicidal and self-Injurious behavior in correctional facilities: A systematic literature review and meta-analysis. *EClinicalMedicine*. 2022;51:101560. doi: 10.1016/j.eclinm.2022.101560.
21. Hawton K, Linsell L, Adeniji T, Sariaslan A, Fazel S. Self-harm in prisons in England and Wales: an epidemiological study of prevalence, risk factors, clustering, and subsequent suicide. *Lancet*. 2014;383(9923):1147-54. doi: 10.1016/S0140-6736(13)62118-2.
22. Jeglic EL, Vanderhoff HA, Donovan PJ. The function of self-harm behavior in a forensic population. *Int J Offender Ther Comp Criminol*. 2005;49(2):131-42. doi:10.1177/0306624x04271130
23. Slade K, Edelman R. Can theory predict the process of suicide on entry to prison? Predicting dynamic risk factors for suicide ideation in a high-risk prison population. *Crisis*. 2014;35(2):82-9. doi: 10.1027/0227-5910/a000236.
24. Perry AE, Olason DT. A new psychometric instrument assessing vulnerability to risk of suicide and self-harm behaviour in offenders: Suicide Concerns for Offenders in Prison Environment (SCOPE). *Int J Offender Ther Comp Criminol*. 2009;53(4):385-400. doi: 10.1177/0306624X08319418.
25. Perry AE, Marandos R, Coulton S, Johnson M. Screening tools assessing risk of suicide and self-harm in adult offenders: a systematic review. *Int J Offender Ther Comp Criminol*. 2010;54(5):803-28. doi: 10.1177/0306624X09359757.
26. Cramer RJ, Wechsler HJ, Miller SL, Yenne E. Suicide Prevention in Correctional Settings: Current Standards and Recommendations for Research, Prevention, and Training. *J Correct Health Care*. 2017;23(3):313-28. doi: 10.1177/1078345817716162.
27. Walker T, Towl G. *Preventing self-injury and suicide in women's prisons*. Hampshire, UK: Water-side Press; 2016.
28. Fazel S, Hayes AJ, Bartellas K, Clerici M, Trestman R. Mental health of prisoners: prevalence, adverse outcomes, and interventions. *Lancet Psychiatry*. 2016;3(9):871-81. doi: 10.1016/S2215-0366(16)30142-0.
29. Konrad N, Welke J, Opitz-Welke A. Prison psychiatry. *Curr Opin Psychiatry*. 2012;25(5):375-80. doi: 10.1097/YCO.0b013e328356b7c3.
30. Durcan G. *From the inside: Experiences of prison mental health care*. Sainsbury Centre for Mental Health; 2008.
31. Daigle MS, Labelle R, Côté G. Further evidence of the validity of the Suicide Risk Assessment Scale for prisoners. *Int J Law Psychiatry*. 2006;29(5):343-54. doi: 10.1016/j.ijlp.2006.01.004.
32. McTernan N, Griffin E, Cully G, Kelly E, Hume S, Corcoran P. The incidence and profile of self-harm among prisoners: findings from the Self-Harm Assessment and Data Analysis Project 2017-2019. *Int J Prison Health*. 2023. doi: 10.1108/IJPH-02-2023-0012. [Online antes de impresión].
33. Vanhaesebrouck A, Tostivint A, Lefèvre T, Melchior M, Khireddine-Medouni I, Chee CC. Characteristics of persons who died by suicide in prison in France: 2017-2018. *BMC Psychiatry*. 2022;22(1):11. doi: 10.1186/s12888-021-03653-w.
34. Friestad C, Åse-Bente R, Kjelsberg E. Adverse childhood experiences among women prisoners: relationships to suicide attempts and drug abuse. *Int J Soc Psychiatry*. 2014;60(1):40-6. doi: 10.1177/0020764012461235.
35. Newman M, Fedina L, Nam B, DeVyllder J, Alleyne-Green B. Associations Between Interpersonal Violence, Psychological Distress, and Suicidal Ideation Among Formerly Incarcerated Men and Women. *J Interpers Violence*. 2022;37(3-4):NP2338-9. doi: 10.1177/0886260520933045.
36. Favril L, Vander Laenen F, Vandeviver C, Audenaert K. Suicidal ideation while incarcerated: Prevalence and correlates in a large sample of male prisoners in Flanders, Belgium. *Int J Law Psychiatry*. 2017;55:19-28. doi: 10.1016/j.ijlp.2017.10.005.