

Mental health vulnerabilities among incarcerated women: correctional professionals' perspectives in Spain

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Abstract

Purpose – Women in prison have been reported to show greater vulnerability to mental health problems when compared to women in the general population or incarcerated men. Despite growing research on prison mental health, fewer studies have examined correctional professionals' perspectives as they relate to the mental health needs and vulnerabilities of incarcerated women. This study aims to analyze correctional professionals' perceptions of the mental health needs and vulnerabilities of incarcerated women in Spain.

Design/methodology/approach – A questionnaire to 362 professionals across 32 Spanish correctional institutions examined correctional professionals' perceptions of mental health vulnerabilities, psychiatric symptoms and treatment-related issues affecting incarcerated women.

Findings – Correctional professionals identified vulnerability factors affecting incarcerated women's mental health, including a high perceived prevalence of depressive and anxiety disorders, excessive demand for medication and insufficient specialized care, particularly in contexts of family disconnection and substance-use disorders.

Research limitations/implications – This study relies on professionals' perceptions, which may introduce bias and does not allow the establishment of clinical diagnoses. Its cross-sectional design and the exclusion of regions with transferred healthcare competences limit generalizability. Nevertheless, these constraints highlight the need for future longitudinal and comparative research on women's mental health in prison. Future research should triangulate these findings with clinical data and the perspectives of incarcerated women themselves.

Originality/value – This study highlights the perceived need to reform prison healthcare models by incorporating integrated, psychosocial and gender-sensitive approaches. It emphasizes enhancing prison staff training, improving mental health services in prisons and fostering coordination between penitentiary and public healthcare systems to ensure continuity of care.

Keywords Prison mental health, Incarcerated women, Psychotropic medication, Correctional professionals, Psychological vulnerability, Comprehensive care

Paper type Research paper

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Introduction

Mental health in the prison environment has become a critical issue, given the disproportionately high prevalence of psychiatric disorders among the incarcerated population (Calcedo-Barba *et al.*, 2024; Peiró, 2021). Incarcerated women, in particular, exhibit a higher incidence of psychiatric disorders than their male counterparts, including anxiety, depression, suicidal ideation and substance use disorders (Zhong *et al.*, 2021; Hidayati *et al.*, 2023; Calcedo-Barba *et al.*, 2024). These psychiatric vulnerabilities are often exacerbated by pre-existing social disadvantages, such as histories of gender-based violence, economic precariousness and limited access to mental health services prior to

incarceration (Perza *et al.*, 2021). Gender shapes mental health vulnerability in different ways across incarcerated populations, highlighting the need for gender-responsive approaches.

International research has consistently documented the disproportionate burden of mental health disorders among incarcerated populations, particularly among women. Studies conducted across different prison systems report elevated prevalence of depression, anxiety disorders, trauma-related disorders and substance use disorders compared with both incarcerated men and the general population (Fazel *et al.*, 2016; Baranyi *et al.*, 2018; Zhong *et al.*, 2021). These vulnerabilities are often linked to cumulative trajectories of social exclusion, exposure to violence and limited access to healthcare prior to imprisonment (Hidayati *et al.*, 2023). Furthermore, recent studies highlight the widespread use of psychotropic medication in prison populations, particularly among women, often associated with complex mental health needs and structural limitations in correctional healthcare systems (Miranda Seixas *et al.*, 2023).

Experiences of domestic violence, sexual abuse and problematic substance use have been identified as factors associated with increased psychiatric vulnerability among incarcerated women (López *et al.*, 2021).

Additionally, the lack of social support and the emotional toll of separation from their children also contribute to the deterioration of mental health during the sentence (Burgos-Jiménez, 2023). These factors underline the need for comprehensive and gender-responsive care models that integrate both pharmacological treatment and psychosocial interventions, aimed at rehabilitation and successful reintegration (Hidayati *et al.*, 2023). In this context, motherhood in prison adds an additional emotional burden, as separation from children has been associated with increased levels of anxiety, depression and post-traumatic stress disorder (PTSD) (Staton *et al.*, 2023). Similarly, the weight of family responsibilities, such as caregiving duties for children and elderly relatives, also affects their mental state and hinders access to healthcare treatments (Burgos-Jiménez, 2023). Many women prioritize their families' well-being over their own, which may worsen their vulnerability to mental disorders (Staton *et al.*, 2023). These challenges may operate both prior to and during incarceration, shaping women's mental health trajectories over time.

Among the symptoms most frequently reported in this population are anxiety, depression and suicidal ideation rates that are significantly higher compared to the general population (Rodríguez-Lirón *et al.*, 2024). According to a study in Spanish prisons, 22.8% of women reported pre-existing mental health problems, but only 8.8% received treatment while in prison (Mennicke *et al.*, 2021). This considerable treatment gap highlights the systemic challenges in the identification and management of mental disorders among incarcerated women.

Pharmacological management within prisons also presents multiple challenges. Studies have reported the widespread prescription of benzodiazepines and antidepressants among incarcerated women, often without adequate clinical monitoring to ensure their effectiveness and minimize the risks of dependency (Friedman *et al.*, 2019). Additionally, overdose and polypharmacy are recurring issues in correctional environments, which highlights the urgent need for a systematic review of psychiatric treatments in prisons (Miranda Seixas *et al.*, 2023).

One of the main obstacles to implementing effective mental health treatment within prisons is the limited availability of specialized professionals. In many correctional facilities, psychiatric care is restricted to sporadic visits from external consultants, which makes it difficult to provide adequate clinical follow-up for patients (Hidayati *et al.*, 2023). Furthermore, the lack of coordination between prison healthcare services and the general healthcare system impedes the continuity of care after release, contributing to both

recidivism and deterioration of mental health among incarcerated women (Calcedo-Barba *et al.*, 2023).

The prison intake represents a critical moment for women's mental health, but the lack of coordination between public healthcare and the correctional system hinders the identification of pre-existing disorders and access to appropriate treatments. Many incarcerated women arrive with prior diagnoses or prescribed medication, but the absence of a shared clinical history delays their evaluation and treatment, which can cause interruptions in medication or inadequate dose adjustments. This gap in health assistance becomes more problematic for women with severe mental disorders or substance abuse problems, as poor management in the first few weeks of incarceration can exacerbate their condition. The overload of prison healthcare personnel and limited frequency of psychiatric consultations within the prison further complicate early detection of mental health needs among new inmates (Calcedo-Barba *et al.*, 2023).

Previous research has emphasized the importance of incorporating the perspectives of correctional professionals to better understand the challenges of mental health care delivery within prison environments (Calcedo-Barba *et al.*, 2023; Hidayati *et al.*, 2023). Professionals working in correctional settings are uniquely positioned to observe daily interactions with incarcerated women, identify emerging psychological needs and detect institutional barriers affecting access to mental health care. Examining their perceptions therefore provides valuable insights into the functioning of prison healthcare systems and helps identify opportunities for improving mental health interventions in correctional settings. Recent qualitative research has highlighted the importance of incorporating gender-sensitive and contextual perspectives to better understand the mental health needs of incarcerated women and the challenges faced in prison settings (Binswanger *et al.*, 2010; Bright, Higgins and Grealish, 2023).

Methods

Design

A cross-sectional survey was conducted using questionnaires administered to prison professionals. The survey instrument was specifically developed for this study based on prior qualitative interviews (not included in the present study), existing literature and feedback from experts and prison professionals. A formal pretest was not conducted due to the limited accessible sample and participation difficulties without the research team's on-site presence. It comprises 37 items organized into four thematic sections: sociodemographic data, perceptions regarding the pharmacological treatment of incarcerated women, professionals' training needs and mental health issues among female inmates. The present study focuses specifically on the latter domain, addressing variables related to the mental health status of women in prison. The questionnaire included a combination of item formats aimed at capturing professionals' perceptions and experiences regarding the mental health of incarcerated women. The full questionnaire is provided as supplementary material.

Participants

In Spain, prison healthcare is generally administered by the national prison administration under the Ministry of the Interior. However, the Basque Country and Catalonia operate autonomous penitentiary and healthcare systems within their correctional institutions, with responsibilities transferred to the regional governments. For this reason, prisons in these regions were not included in the study in order to ensure institutional comparability across the participating facilities.

A total of 390 professionals participated in the study; however, the final sample consisted of 362 respondents, after excluding individuals who did not have direct involvement in the care or treatment of incarcerated women. Among the participants, technical healthcare professionals working in correctional settings, namely psychologists ($n = 60$), physicians ($n = 10$) and nurses ($n = 17$), were considered particularly relevant due to their direct role in providing treatment. The remaining participants consisted primarily of social educators and social workers involved in the daily support and intervention processes with incarcerated women. For certain variables, such as medication management and the identification of mental health disorders, only the responses from healthcare professionals were analyzed. Although questionnaires were distributed across 32 correctional institutions, the total number of eligible professionals invited to participate could not be precisely determined, and therefore a response rate could not be calculated.

Procedure

Participation was voluntary, and prison professionals were invited to take part in the study during institutional visits conducted by the research team in coordination with prison authorities. Prison authorities facilitated access to the institutions and oversaw the distribution and collection process, including the secure handling and mailing of completed questionnaires. They had no involvement in data analysis or interpretation. Participants were informed about the objectives of the study, the voluntary nature of participation and the confidential use of the data collected. Data collection was conducted through the administration of paper-based questionnaires across various prison facilities. During on-site visits, the questionnaires were distributed along with individual envelopes, allowing professionals to complete the forms, seal them in the envelopes and thereby ensure confidentiality. Questionnaires were delivered to prison authorities, who were responsible for safeguarding them until completion by participating professionals. Once completed, they were collected by the prison director and sent to the university by registered mail in a sealed envelope, ensuring that no intermediary had access to the responses. Upon receipt at the university, the envelopes were opened and the questionnaires were incorporated into a digital database by the research team. The original paper questionnaires are securely stored at the university in a locked cabinet. Data collection took place between September 2023 and July 2024 in 32 correctional institutions across different regions of the national prison system under the Ministry of the Interior, excluding facilities in the Basque Country and Catalonia. Upon receipt, incomplete or invalid questionnaires were excluded, and the data were digitized and analyzed using SPSS version 29.

Analysis

A descriptive analysis was first conducted on the variables under study, followed by bivariate and multivariate analyses. Specifically, bivariate analyses involved the use of association tests and group comparisons to explore relationships between sociodemographic, clinical and intervention variables. Subsequently, multiple linear regressions were applied to identify predictors of life circumstances, while logistic regression models were used to analyze the association between medication demand, risky behaviors and clinical interventions. Separate models were constructed for the overall sample and for the subgroups of healthcare professionals. Prior to the regression analysis, an exploratory factor analysis was performed on the variables of clinical symptoms and life circumstances, yielding several relevant factors, including anxious-depressive syndrome, as well as dimensions related to family disconnection, vulnerability and substance dependency. These factor scores were used as dependent variables in multiple linear regression models. High medication demand, given its central role in professional perceptions, was analyzed as a dependent variable in

logistic regression models, along with interventions for suicide attempts and overdoses, which were modeled as dichotomous outcomes.

Ethical requirements

This study complied with all ethical norms in social sciences research and was approved by the Ethics Committee of Universidad Pontificia Comillas (Madrid, Spain), under approval number n°2022/40, ensuring compliance with the principles of voluntariness, anonymity, confidentiality and truthfulness. To protect the identities of participants, questionnaires did not include any identifying data and were delivered to researchers in sealed envelopes, guaranteeing that the collected information could not be linked to any specific individual. Participants were informed that their participation was voluntary and that they could withdraw from the study at any time without consequences. No financial or material incentives were offered for participation.

Results

Sociodemographic characteristics of the professional workers sample

Among the surveyed prison professionals, 62.1% identified as women ($n = 242$), 32.8% as men ($n = 128$), 0.3% as non-binary ($n = 1$) and 4.8% ($n = 19$) preferred not to respond. The average age of participants was 47 years ($SD = 10.58$), with a range of 21–69 years. In terms of work experience, participants reported 18.5 years ($SD = 11.65$) of professional experience, ranging from 1–45 years. The mean duration of employment at the same prison center was 11.6 years ($SD = 10.29$), varying from less than a year to 42 years. Job satisfaction, measured on a scale from 1 to 10, yielded an average score of 7.67 ($SD = 1.78$).

Life circumstances found in female prisoners

The following results reflect the perceptions and professional experiences of prison staff regarding the mental health and life circumstances of incarcerated women.

Prison professionals identified several life circumstances they perceived as significantly affecting female prisoners, that could potentially be vulnerability factors for mental health disorders. The most reported situations include family disconnection and estrangement (84.4%; $n = 329$) followed closely by substance abuse (84.1%; $n = 328$). Other variables mentioned were limited professional training of female inmates (81.3%; $n = 317$), the need for emotional support and affection (71.6%; $n = 279$), and emotional dependence on their partners (75.4%; $n = 294$). Additionally, 69.0% ($n = 269$) of respondents indicated that poverty conditions affect the situation of female prisoners, while 57.9% ($n = 226$) highlighted the lack of family support as a key circumstance. These variables were grouped into three factors: family disconnection or estrangement (F1), vulnerability (F2) and substance use or drug addiction (F3), as shown in [Table 1](#).

To identify the best predictor variables of prison professionals about female inmates, three multiple linear regression models were constructed, one for each of the factors obtained from the factor analysis.

In all models, the perception of high demand for medication and the degree of perceived control over pharmacological treatment were introduced, as both variables capture key aspects of the relationship between professionals and female inmates. Additionally, other sociodemographic and contextual variables that could modulate these perceptions were added, such as:

- professional type (medical or non-medical) in models with F2 and F3;

Table 1 Factor analysis of variables identifying life circumstances found among female prisoners

<i>Life circumstance variables</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>Communalities</i>
Detachment from family and children	0.786			0.640
Lack of family support	0.774			0.603
Need for affection and care	0.546			0.629
Poor professional training		0.782		0.571
Poverty conditions		0.745		0.504
Emotional dependence on partner		0.541		0.565
Psychoactive substance abuse			0.965	0.947
Total variance explained	25.25%	23.87%	14.59%	63.71%

Source(s): Authors' own work

- years of experience in prison centers in models with F1 and F3; and
- the variable on conflicts between female inmates receiving psychiatric treatment in the model with F1, given its indicative value for direct exposure to complex clinical situations.

The results of these regression models are presented in [Table 2](#), detailing the associations between predictor variables and family, vulnerability and drug dependence factors.

Regarding the family factor, it is important to note that a higher score reflects a greater affective disconnection, thereby indicating emotional deprivation or disconnection from the family environment. In this model, higher perceived demand for medication was associated with lower scores on the family disconnection factor, indicating that, in their view, professionals tended to report fewer situations of family disconnection in cases where medication demand was perceived as higher.

Additionally, professionals with longer experience are those who most frequently report this dimension, suggesting that professional expertise allows them to better identify the family care needs of female inmates. It is also observed that when professionals perceive fewer conflicts between female inmates under psychiatric treatment, they tend to detect more situations of affective disconnection, although this finding will require further analysis in the discussion.

A higher perceived need for control over pharmacological treatment was significantly associated with lower scores on the vulnerability factor. This association indicates that professionals who emphasize pharmacological control tend to report lower scores on the vulnerability factor. Additionally, the type of professional exhibited a statistically significant trend, indicating that medical professionals are more adept at detecting this dimension of vulnerability compared to their non-medical counterparts.

Finally, in the analysis performed involving the drug dependence factor, the perception of high demand for medication is negatively associated with this dimension, suggesting that as perceived demand increases, fewer elements related to drug dependence are identified. Moreover, professionals who believe that stricter control should be exercised over pharmacological treatments tend to assign less importance to this component.

Symptoms, disorders and treatment of mental health

The results indicate that prison professionals frequently perceived mental health-related symptoms among the female prison population. Professionals most frequently identified mood disturbances (65.9%, $n = 257$), anxiety symptoms (65.6%, $n = 256$) and decreased motivation and performance (61.3%, $n = 239$) as the most common symptoms. Insomnia (57.7%, $n = 225$) was also commonly reported, followed by diminished interest in personal

Table 2 Significant predictors of life factors according to intermediate multiple linear regression models

Predictor variables	B			Sig			C.I. (95%)		
	F1	F2	F3	F1	F2	F3	F1	F2	F3
High demand for medication	-0.135	-0.093	-0.186	0.026*	0.11	0.002**	(-0.504; -0.033)	(-0.405; 0.041)	(-0.598; -0.138)
Control of pharmacological treatment	-0.043	-0.186	-0.122	0.48	0.007***	0.04*	(-0.064; 0.030)	(-0.115; -0.028)	(-0.093; -0.002)
Years of experience	0.125		0.003	0.039*		0.958	(0.008; 0.299)		(-0.156; 0.385)
Fewer conflicts among inmates under treatment	0.136			0.023*			(0.038; 0.507)		
Type of professional		-0.111	0.049		0.055*	0.406		(-0.517; 0.006)	(-0.139; 0.147)

Note(s): Significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source(s): Authors' own work

hygiene and appearance (53.6%, $n = 209$). Hallucinatory experiences were also noted in approximately one-third of the cases (36.2%, $n = 141$).

Regarding the need for treatment, 60.8% ($n = 237$) of professionals rated the requirement for enhanced mental health care among incarcerated women as 8 or higher on a 10-point scale. In terms of perceived severity, 30.3% ($n = 118$) assigned the maximum score of 10, while only 4.1% ($n = 16$) indicated that no treatment was necessary.

Pharmacological treatment represents a central component in the management of mental health in prison settings. According to healthcare professionals surveyed, anxiolytics were the medications most frequently identified as requiring regular review (87.4%, $n = 76$), followed by hypnotics and sedatives (80.5%, $n = 70$), antidepressants (77.0%, $n = 67$) and antipsychotics (72.4%, $n = 63$). These findings suggest widespread concerns regarding the adequacy and safety of pharmacological regimens in prison environments, particularly in female populations.

In terms of psychiatric disorders most treated, professionals reported high rates of mood disorders (90.8%, $n = 79$), anxiety disorders (87.4%, $n = 76$), substance use disorders (80.5%, $n = 70$), impulse control disorders (75.9%, $n = 66$) and trauma- and stress-related disorders (73.6%, $n = 64$). These data suggest the complex clinical profiles of incarcerated women and the pressing need for structured, multidisciplinary approaches to their mental healthcare.

Regarding crisis intervention within the prison center, 32.2% ($n = 28$) of correctional professionals reported having intervened in suicide attempts, while 12.6% ($n = 11$) reported interventions in overdose cases. Notably, the most frequent type of intervention was related to conflicts between female inmates (79.3%, $n = 69$).

Two regression groups were conducted: one including the entire sample ($n = 362$) and another limited to healthcare professionals ($n = 87$).

In the analysis of the total sample, the primary outcome variable was high medication demand, which was examined in relation to clinical and contextual variables (see Table 3).

These analyses aimed to identify key predictors of elevated psychotropic medication use as perceived by professionals, providing insight into the factors that shape mental health responses in correctional environments.

The high demand for medication emerges in the overall analysis as a central variable significantly associated with multiple indicators. It is positively linked to the occurrence of conflicts between female inmates and to the perception that pharmacological treatments should be more strictly monitored. This pattern indicates that professionals frequently associate high medication demand with the need for closer monitoring of pharmacological treatments. The model predicting this high demand identifies intervention suicide attempts and conflicts between female inmates as relevant new factors.

Table 3 Results of significant regressions for the total sample: high demand for medication versus variables of interest

Predictor variables	High demand for medication		
	Exp(B)	Sig	C.I. (95%)
Control of pharmacological treatments	1.131	0.007**	(1.035; 1.237)
Interventions for suicide attempts	2.847	0.018*	(1.197; 6.773)
Interventions for conflicts among inmates	4.369	0.02*	(1.261; 15.145)
Years of experience	1.34	0.29	(0.779; 2.303)
Sex	0.822	0.669	0.335; 2.019)

Note(s): Significance: * $p < 0.05$; ** $p < 0.01$
Source(s): Authors' own work

In the regression models based exclusively on healthcare professionals' responses, an exploratory factor analysis was conducted to examine the syndromes they most frequently observed. This analysis resulted in three principal components: anxious-depressive syndrome factor (FS1), somatic syndrome factor (FS2) and cognitive-affective syndrome factor (FS3), as detailed in Table 4. These dimensions served as dependent variables in subsequent regression analyses to assess their associations with contextual and treatment-related factors.

Multiple linear regression analyses were conducted using the three extracted factors. However, only the anxious-depressive syndrome factor (FS1) demonstrated statistically significant associations with the independent variables analyzed. As a result, the relevant findings focused exclusively on this factor, as presented in Table 5.

Within the group of healthcare professionals, high demand for medication was significantly associated with higher professional reporting of anxiety- and depression-related symptoms among female inmates. This association was accompanied by other relevant clinical and intervention-related predictors. The need to review anxiolytic prescriptions emerged as the strongest predictor, followed by the review of hypnotics and sedatives, as well as antiepileptics, all of which showed significant association with variations in emotional

Table 4 Factor analysis of variables identifying mental health-related symptoms

<i>Mental health-related symptoms</i>	<i>FS1</i>	<i>FS2</i>	<i>FS3</i>	<i>Communalities</i>
Loss of motivation and performance	0.704			0.563
Mood disorder	0.739			0.602
Loss of interest in personal hygiene and appearance	0.611			0.599
Anxiety	0.903			0.823
Insomnia	0.837			0.728
Tachycardia or cardiovascular problems		0.790		0.648
Increased susceptibility to infections		0.779		0.659
Chest pain or respiratory depression		0.845		0.729
Memory loss			0.783	0.661
Hallucinations			0.818	0.729
Total variance explained	30.36%	20.31%	16.75%	67.42%

Source(s): Authors' own work

Table 5 Results of significant regressions among healthcare professionals: Anxiety-depressive syndrome factor (FS1) versus variables of interest

<i>Independent variables</i>	<i>Anxiety-depressive syndrome factor (FS1)</i>		
	<i>β</i>	<i>Sig</i>	<i>C.I. (95%)</i>
High demand for medication	0.570	0.036*	(0.08; 2.1)
Review prescription of antiepileptics	-0.889	0.003**	(-2.75; -0.65)
Review prescription of antipsychotics	-0.268	0.293	(-1.81; 0.58)
Review prescription of anxiolytics	0.826	0.001***	(2.14; 7.50)
Review prescription of hypnotics and sedatives	-0.524	0.027*	(-2.99; -0.20)
Review prescription of antidepressants	-0.506	0.065	(-2.69; 0.09)
Interventions for overdose	-0.411	0.049*	(-2.84; -0.01)
Interventions for suicide attempts	-0.406	0.148	(-1.9; 0.31)
Interventions for conflicts among inmates	-0.001	0.993	(-1.03; 1.02)
Years of experience	-0.152	0.409	(-0.61; 0.26)
Prison type: women only / mixed gender	0.244	0.249	(-1.09; 3.94)
Family factor	0.603	0.023*	(0.09; 1.05)
Vulnerability factor	-0.112	0.553	(-0.41; 0.23)
Drug factor	0.605	0.016*	(0.13; 1.12)

Note(s): Significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source(s): Authors' own work

symptomatology. Furthermore, contextual factors such as family environment and substance use disorders also contributed positively to the increase in anxiety and depressive symptoms.

Interventions and clinical care devices

Logistic regressions were performed to analyze the relationship between clinical and contextual variables with healthcare professionals' interventions (conflicts, overdoses and suicide attempts). Only interventions for overdoses (Table 6) and suicide attempts (Table 7) yielded significant results.

High medication demand was also significantly associated with the likelihood of interventions for suicide attempts. Other significant predictors included the vulnerability factor (F2) and the absence of conflicts among inmates receiving psychiatric treatment. Lastly, interventions for overdose were partially explained by the perception of lower levels of interpersonal conflict among treated inmates.

Discussion

Life circumstances of female prisoners

The results from the perspective of prison professionals highlight the critical role that life circumstances may play in shaping mental health vulnerability among incarcerated women. These findings can also be understood from a life-course perspective, as many of the vulnerabilities observed among incarcerated women – such as trauma, mental health problems, substance use and family disruption – often precede imprisonment and continue

Table 6 Results of significant regressions among healthcare professionals: Interventions for suicide versus variables of interest

<i>Variables of interest</i>	<i>Exp(B)</i>	<i>Interventions for overdose</i>	
		<i>Sig</i>	<i>C.I. (95%)</i>
High demand for medication	8.682	0.065	(0.877; 86.002)
Fewer conflicts among inmates under mental health treatment	0.157	0.027*	(0.030; 0.806)
Need for greater control over women receiving pharmacological treatment	1.394	0.093	(0.947; 2.054)

Note(s): Significance: * $p < 0.05$
Source(s): Authors' own work

Table 7 Results of significant regressions among healthcare professionals: Interventions for suicide attempts versus variables of interest

<i>Variables of interest</i>	<i>Exp(B)</i>	<i>Interventions for suicide</i>	
		<i>Sig.</i>	<i>C.I. (95%)</i>
Sex	1.765	0.645	(0.157; 19.863)
Drug dependence factor (F3)	0.229	0.080	(0.044; 1.195)
Years of experience	0.279	0.084	(0.066; 1.186)
Satisfaction at current center	1.177	0.673	(0.552; 2.510)
Working with both men and women	1.546	0.795	(0.058; 41.249)
Family factor (F1)	0.471	0.156	(0.166; 1.334)
Vulnerability factor (F2)	0.249	0.023*	(0.075; 0.829)1
Fewer conflicts among inmates under mental health treatment	0.084	0.032*	(0.008; 0.807)
High demand for medication	69.727	0.005**	(3.645; 1333.872)

Note(s): Significance: * $p < 0.05$; ** $p < 0.01$
Source(s): Authors' own work

to shape their experiences within correctional settings (King and Smith, 2024). Key factors identified by professionals in this study included family disconnection, psychoactive substance abuse and social vulnerability.

Family disconnection, particularly separation from children, was perceived as a strong emotional stressor, strongly associated with psychological distress and suicidal ideation (Markez *et al.*, 2022a; Rodriguez-Lirón *et al.*, 2024).

Substance abuse, often related to trajectories marked by exclusion, violence and emotional and familial deficiencies, requires an approach that goes beyond strictly pharmacological solutions. Previous studies emphasized the need to include these variables into clinical assessments (López *et al.*, 2021; Markez *et al.*, 2022b). The literature warns that instead of offering integrated therapeutic alternatives, institutions tend to replicate psychopharmacological containment strategies, paying little attention to the structural roots of substance use (Casado *et al.*, 2021; Álvarez Pérez *et al.*, 2021).

Similarly, the analysis showed that perceived psychological vulnerability and drug dependence issues are inversely associated with the perceived need for pharmacological control. This trend suggests that these situations require more integrated or psychosocial approaches from technical professionals, rather than exclusively medication-centered interventions, in line with collaborative management models in mental health (Alegre-Agís & Batalla, 2020).

In line with this, Burgos-Jiménez emphasizes the role of emotional support, family connections and distancing from drug-consumption environments in the recovery processes of women with substance use disorders. According to professionals' perceptions, emotional relationships among female inmates, serve as a buffer against isolation, although they can also be associated with drug-consumption dynamics and increased suicidal risk (Álvarez Pérez *et al.*, 2021; Caravaca-Sánchez *et al.*, 2019; Rodriguez-Lirón *et al.*, 2024).

A relevant finding of this research is the inverse relationship between medication demand and perceived family shortcomings or structural vulnerability. Although seemingly contradictory, this pattern may reflect how professionals interpret emotional distress becoming more visible during imprisonment, particularly in contexts involving caregiving disruption and family strain, as described in previous literature (Organization of American States, 2023), which increases emotional distress due to this responsibility, allowing it to be more clearly expressed, demanding more help from the female inmates and being easily identified by professionals. Recent studies support that caregiving commitments, which are common among women in prison, significantly contribute to the development of mental health problems among women (Sapkota *et al.*, 2024).

Conversely, the results indicate that greater experience within the penal environment is associated with a greater detection of situations characterized by lack of family support, and that healthcare professionals tend to perceive greater vulnerability in female inmates compared to other professional profiles. This difference could be explained both by the more direct involvement of health professionals in the clinical treatment of female prisoners and by the fact that a longer professional trajectory fosters the development of skills needed for identifying psychological risk signals with greater accuracy and sensitivity.

Symptoms, disorders and treatment of mental health

The findings of this study indicate that professionals directly involved in women's care perceive depression and anxiety related problems as a central axis of vulnerability among female prisoners. This trend is well-established in the literature, which consistently shows that the prevalence of these disorders is notably higher compared to the general population (Casado *et al.*, 2021). It is estimated that incarcerated women are five times more likely to

experience a mental health disorder than their counterparts outside the prison system (Calcedo-Barba, 2024).

One of the most striking aspects is the gap between perceived need for treatment and the treatment access described in previous literature. While over half of the professionals surveyed consider that the need for mental health services is very high, other studies confirm that many women do not receive any treatment despite recognizing severe symptoms. Casado *et al.* (2021) found that although 73.2% of female inmates on parole reported having experienced some mental health problem, only 64.3% had received treatment. This disparity has been attributed both to the scarcity of specialized professionals and to the lack of continuity in healthcare upon incarceration (Álvarez Pérez *et al.*, 2021; López *et al.*, 2021).

The data on medication use reinforces the structural diagnosis: over 70% of healthcare professionals believe that anxiolytics, hypnotics/sedatives, antidepressants or antipsychotics should be reviewed. Miranda Seixas *et al.* (2023), in their study on benzodiazepines use in prison, document that many women rely on these medications to manage anxiety, insomnia and trauma related to the confinement environment, configuring a consumption pattern that may reflect both legitimate clinical needs and institutional responses to distress generated by the prison environment. This pattern aligns with findings by Casado *et al.* (2021), who report that psychotropic drug use in prisons can be up to three times higher than in the general population, and that clinical practice frequently emphasizes containment over therapeutic care.

Furthermore, a report on human rights and mental health in prison (Observatorio Derechos Humanos, Salud Mental y Prisión, 2022) emphasizes that the presence of individuals with psychiatric diagnoses in prison should be addressed as a social issue rather than an individual one, and advocates for the need to overcome overly medicalized models that do not consider the structural determinants of psychological distress. In the Spanish penitentiary context, the PAIEM (Program of Integral Attention to Mental Patients) was established to integrate clinical care, psychosocial rehabilitation and social reintegration. However, its practical implementation is constrained by limited resources and unequal application between men and women.

As a result, women often face reduced access to specialized units and comprehensive mental health programs, leading to an overreliance on pharmacological interventions as the primary, and sometimes only, available response.

Therefore, the data suggest that some technical professionals might be betting on a paradigm shift: moving beyond prescription-centered responses toward more integrated psychosocial care models and toward psychosocial care models that are more sensitive to gender, environment and life trajectories.

Intervention and clinical care devices

Findings from this study highlight the relevance of specific clinical interventions in prison settings, particularly those related to interpersonal conflicts and suicidal behaviors among incarcerated women. These results underscore the structural limitations of the penitentiary mental health system and the psychosocial tensions that characterize the prison environment.

Conflicts between inmates emerged as one of the most frequent intervention contexts. Such conflicts reflect the complex nature of forced cohabitation, the prevalence of substance use and relational imbalances in prison. Prior research has documented how the lack of tailored programs and the overburdened workload of correctional staff contribute to reactive, rather than preventive, conflict management approaches (Álvarez Pérez *et al.*, 2021; Carleton *et al.*, 2020). These findings support the call for

integrating psychoeducational and mediation strategies as part of comprehensive mental health responses.

Suicidal behavior also emerged as a critical area of concern. Suicide attempts were found to be significantly associated with high psychopharmacological demand, supporting earlier findings that link extreme medicalization to unresolved psychological suffering (Markez *et al.*, 2022a; Rodríguez-Lirón *et al.*, 2024). The literature emphasizes that suicidal ideation among incarcerated women is often exacerbated by factors such as trauma, substance dependence and severe social isolation, particularly separation from children and lack of support networks (Brime, Llorens and Sánchez, 2022; Markez, Gordaliza and Casaus, 2022a; Markez, Pérez and Pareja, 2022b). Given that previous literature has reported higher levels of suicidal ideation and suicidal behaviors among incarcerated women, although gender differences may also be influenced by men's lower help-seeking and symptom reporting, these data reinforce the need for gender-responsive and trauma-informed prevention strategies.

Moreover, the study reveals a strong association between high medication demand and increased interpersonal conflict. This relationship suggests that unresolved emotional distress may manifest behaviorally and result in higher psychotropic prescriptions, sometimes in the absence of formal psychiatric diagnoses (Álvarez Pérez *et al.*, 2021). In this context, pharmacological control becomes both a management tool and a signifier of institutional tension.

Logistic regression models show that the use of medications – particularly anxiolytics, antidepressants and sedatives – correlates strongly with clinical indicators of distress. Within the subgroup of healthcare professionals, the associations are even more pronounced: medication demand was significantly related to the presence of anxiety-depressive symptoms and interventions for suicide attempts. These findings support the interpretation of psychotropic medication demand as an indirect marker of perceived psychological suffering, echoing conclusions drawn by Mennicke *et al.* (2021) and Rodríguez-Lirón *et al.* (2024).

Interestingly, overdose interventions were associated with lower levels of interpersonal conflict. This might be explained by the fact that overdose events activate emergency response systems that temporarily neutralize the relational dynamics contributing to conflict.

The findings also align with critiques of current prescription practices. More than 70% of the professionals surveyed reported that anxiolytics, hypnotics and antidepressants are often prescribed without consistent diagnostic criteria, an issue highlighted in recent national reports (Calcedo-Barba, 2024). This pattern may reflect a broader institutional tendency to prioritize containment over treatment.

Similar debates about the balance between pharmacological management and psychosocial care have been documented in other prison systems internationally. For instance, the mental health approach implemented in Parma, Italy, centers on a multidisciplinary team led by clinical psychologists rather than psychiatrists (Pelizza and Pallucchini, 2024). This model distinguishes emotional suffering linked to confinement from severe mental disorders and emphasizes therapeutic engagement, relational care and early intervention strategies – elements that are essential in reducing unnecessary medicalization and improving outcomes for incarcerated women.

This study presents several limitations. Based on subjective perceptions of correctional professionals, there is a risk of biases linked to personal experience or professional category. Although this perspective provides valuable insights into professionals' perceptions within the institutional context, it does not allow for establishing clinical diagnoses or direct causal relationships regarding female inmates.

Future research should triangulate these findings with clinical data and with the perspectives of incarcerated women themselves. Qualitative research based on women's lived experiences in prison settings highlights structural limitations in mental health care, including restricted access to psychiatric services, gender-based disparities in treatment provision and the exacerbation of psychological distress within the prison environment (Bright *et al.*, 2023; Meneses Falcón and Martínez Perza, 2026).

Furthermore, the majority representation of certain professional profiles, such as psychologists and social workers, may have conditioned the emphasis on certain problems.

In addition, the questionnaire did not specifically explore conditions related to first-degree imprisonment or isolation regimes, which have been identified in previous research as factors that may aggravate mental health problems among incarcerated individuals. This aspect is relevant, as various studies demonstrate that isolation and first-degree imprisonment exacerbate or cause mental health disorders in people deprived of liberty (Espacio, 2019; Droppelmann and Sylleros, 2024).

The study's cross-sectional design prevents analyzing changes over time. Additionally, the exclusion of correctional centers such as Catalonia, with transferred healthcare competencies, limits generalizing results to the entire Spanish state. These limitations open the door for future longitudinal and comparative studies on women's mental health in prison settings.

Conclusion

This study reflects how correctional professionals perceive a structural tension within prison settings between a dominant pharmacological model and the possibility of developing more person-centered, comprehensive care. The results of this study have important implications for designing public policies and clinical practices in the penitentiary setting. The professionals' identification of frequent psychiatric symptoms, together with the perception of high medication demand, reinforces the need to reevaluate healthcare models in prison, betting on strategies that do not rely exclusively on pharmacological control, but rather on integrated mental health interventions and psychosocial accompaniment.

Importantly, the results point to the perceived necessity of embedding a gender-sensitive lens into the evaluation, treatment and prevention of psychological distress among incarcerated women. The life trajectories of many of them – often marked by cumulative experiences of violence, social exclusion and caregiving burdens – require responses that are attuned to these intersecting vulnerabilities.

From an applied perspective, this work highlights the need to train correctional professionals in specific competencies for detecting emotional vulnerability, managing suicidal risk and managing interpersonal conflict using a psychoeducational framework.

The data also call for enhanced mental health services within correctional institutions and improved inter-institutional coordination with public healthcare systems. Ensuring continuity of care, particularly during the reentry process following release, is critical to improving long-term mental health outcomes for women in custody.

Ethics statement

This study was approved by an institutional Ethics Committee of Universidad Pontificia Comillas (Madrid, Spain). All participants were informed about the aims of the research and provided implied informed consent through voluntary questionnaire completion, in line with the Declaration of Helsinki.

Data availability

The data sets generated and analyzed during the current study are available from the corresponding author on reasonable request.

Credit author statement

Diana Rendo-Rodríguez: Conceptualization, Methodology, Supervision, Writing – review & editing. Maria José Polanco: Data curation, Formal analysis, Investigation, Writing – original draft. Carmen Meneses-Falcón: Writing – review and editing.

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Supplementary material

The supplementary material for this article can be found online.

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