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ORIGINAL ARTICLE

The Mediating Role of Mental Health in the Relationship Between Gambling Severity and Suicidal Ideation: A Study with Clinical and General Population

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Abstract

Gambling is a public health problem that affects many people in many ways. One of the most serious effects is on people's mental health and suicidal ideation. This study has two main aims: 1) To analyse the differences between the clinical population (i.e., individuals with gambling disorder) and the general population in terms of gambling severity, suicidal ideation, and mental health; and 2) to test the mediating role of mental health in the relationship between gambling severity and suicidal ideation in people with gambling disorder and the general population. A total of 318 participants were included in the study: 153 gamblers undergoing treatment for gambling disorder (M_{age} = 44.38, SD = 12.48, 81% males) and 165 individuals from the general population (M_{age} = 47.57, SD = 13.52, 26.67% males). Two structural equation models were conducted to test the mediating role of mental health issues (i.e., depression, anxiety, hostility, somatisation, and obsessive–compulsive) in the relationship between gambling severity and suicidal ideation. The results show no significant differences in mental health between the population with gambling disorder and the general population. However, the relationship between gambling severity and suicidal ideation appears to be mediated by mental health, both in the clinical and general populations. Findings show the importance of addressing mental health to prevent suicidal ideation. Given the high prevalence of suicidal ideation in individuals with gambling disorder, the assessment and treatment of gambling problems and mental health is strongly recommended. Results also highlight the importance of transdiagnostic protocols that address mental health, with a particular focus on suicidal ideation.

Keywords Gambling · Gambling severity · Suicidal ideation · Mental health

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Gambling is a public health problem that affects many individuals and their families (McGrane et al., 2025). Gambling disorder is a behavioural addiction characterised by persistent, uncontrollable and maladaptive patterns of gambling activity despite clinically significant consequences (e.g., loss of work, impairment of important personal relationships, debt, emotional disturbance) (American Psychiatric Association [APA], 2022). According to epidemiological data, meta-analyses show heterogeneous prevalence rates of gambling disorders, ranging from 0.1 to 3.4% in Europe (Calado & Griffiths, 2016) and between 0.2 and 3% worldwide (pooled prevalence 1.3%) (Gabellini et al., 2023). Prevalence data in Spain are in line with global and European epidemiological data. The most recent report of the Spanish government delegation to the National Plan on Drugs (Observatorio Español de las Drogas y las Adicciones [OEDA], 2023) indicates that, according to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.) DSM-5 criteria (APA, 2013), 1.3% of the population aged 15–64 has a potential gambling problem (between 1 and 4 DSM-5-TR criteria) and 0.4% has a possible gambling disorder (DSM-5-TR criteria > 4).

Gambling problems can span several domains, including financial problems, psychological and emotional distress, and negative functional outcomes such as relationship problems or loss of employment (Potenza et al., 2019), among others. One of the most serious aspects is related to mental health consequences (Langham et al., 2015; Richard et al., 2020; Wardle et al., 2019). Specifically, people with a gambling disorder score significantly higher than the general population on anxious and depressive symptomatology (Macía, Jauregui & Estévez, 2023) and symptoms of somatisation and hostility (Salerno & Pallanti, 2021).

One of the most serious mental health-related consequences is suicide. Studies have shown that gambling disorder could be related to suicidal ideation, attempts, and suicidal behaviour (Gutiérrez et al., 2024; Karlsson & Håkansson, 2018; Lovero et al., 2023). A recent meta-analysis by Kristensen et al. (2024) has shown that, among people with gambling problems, the prevalence of suicidal ideation is 31.6%, and 13.2% for suicidal attempts. Furthermore, the likelihood of suicidal ideation and attempts among people with gambling problems was 2.17 and 2.81 times higher, respectively, compared to people without gambling problems.

Despite finding studies that link gambling disorder, mental health and suicidal ideation separately, few studies analyse them together. Several of the existing studies have postulated suicidal ideation as a consequence of mental health problems in people with a gambling disorder (Armoon et al., 2023). Studies such as that of Verdura-Vizcaíno et al. (2015) only included in their sample people admitted to the hospital for suicide attempts and collected information on problem gambling. However, suicidal ideation, which can be understood as a step before the attempt, warrants further attention (Rogers et al., 2021). In addition, in many of the studies linking gambling and suicide, the suicide variable is measured with a single item (Kristensen, 2024), which may make it difficult to measure correctly. In terms of how gambling disorder is assessed, several of the studies follow the DSM-IV or DSM-III diagnostic criteria (Armoon et al., 2023), which may hinder generating disparities with more current diagnoses. In terms of the sample selected, many of the studies have small sample sizes ($N < 20$) (Marionneau & Nikkinen, 2022), and female samples in these studies tend to be lower than in studies of males (Tran et al., 2024).

Consequently, this study has two main aims: 1) to analyse the differences between individuals with gambling disorder and the general population in terms of gambling severity, suicidal ideation and mental health; and 2) to examine the mediating role of mental health issues in the relationship between gambling severity and suicidal ideation in people with gambling disorder and the general population. In the present study, two separate analysis

(one for the general population and one for the clinical population with gambling disorder) were conducted in line with previous research (Kidane et al., 2025; Kristensen et al., 2025). This approach was adopted because analyzing a combined sample would imply an assumption of homogeneity across participants, potentially overlooking the differential mechanisms and risk factors characteristic of each population, which could lead to erroneous interpretations of the results. It is hypothesised that the population with a gambling disorder will have greater gambling severity, greater mental health symptomatology and greater suicidal ideation compared to general population. Mental health is also expected to mediate the relationship between gambling severity and suicidal ideation in individuals with gambling disorder and the general population.

Method

Participants

A total of 318 participants were included in the study. The sample consisted of 165 individuals (51.88%) from the general population and 153 individuals (48.11%) undergoing treatment for gambling disorder (i.e., clinical population).

A post hoc power analysis was conducted using the semPower tool (Moshagen & Bader, 2023), which allows for general power analysis in structural equation modeling frameworks (https://sempower.shinyapps.io/sempower/). The analysis was based on the final model specifications and the obtained sample sizes. The results indicated that statistical power was 0.766 for the general population sample and 0.806 for the clinical population sample, suggesting an acceptable power level in the latter and a slightly underpowered model in the former.

Among the general population, 26.67% were men, with a mean age of 47.96 ($SD = 13.52$). Of them, 64.24% were employed, 42.42% predominantly had a higher education level, and most of them lived with a partner and children. In contrast, among the clinical population, 81.05% were men, with a mean age of 44.38 ($SD = 12.48$). Most of them were employed (71.24%), had a secondary education level (50.33%), and primarily lived with their parents. Table 1 shows the differences in sociodemographic variables between the two populations.

Instruments

Gambling severity was assessed using the Problem Gambling Severity Index (PGSI; Lopez-Gonzalez et al., 2018). This index consists of nine items rated on a 4-point Likert scale (0 = *never*, 3 = *almost always*), resulting in a total score ranging from 0 to 27. Based on the total score, gamblers can be classified as: no problem gambling (0 points), low risk (1–2 points), moderate risk (3–7 points) or problem gambling (more than 8 points) (Ferris & Wynne, 2001; Lopez-Gonzalez et al., 2018). The scale demonstrated excellent internal consistency, with a Cronbach's alpha of 0.941.

Suicidal ideation was assessed using the Plutchik scale (Plutchik & Van Praag, 1989), adapted to Spanish by Rubio et al. (1998). This unidimensional scale consists of 15 dichotomous items (i.e., yes/no), resulting in a total score ranging from 0 to 15 points. The optimal cutoff point is a score of 6 or higher. The scale exhibits excellent internal consistency, with a Cronbach's alpha of 0.819.

Table 1 Sociodemographic characteristics based on general population and clinical population

	Total $N=318$	General Population $n=165$	Clinical Population $n=153$	*p*-value	Effect size
Age[a]	46.23 (13.13)	47.96 (13.52)	44.38 (12.48)	0.014	0.138
Gender (male)	168 (52.83%)	44 (26.67%)	124 (81.05%)	<0.001	0.544
Living together				0.030	0.210
Children	10 (3.14%)	9 (5.45%)	1 (0.65%)		
Mother	14 (4.40%)	4 (2.42%)	10 (6.54%)		
Father	31 (9.75%)	11 (6.67%)	20 (13.07%)		
Couple	96 (30.19%)	52 (31.52%)	44 (28.76%)		
Couple and children	116 (36.48%)	65 (39.39%)	51 (33.33%)		
Alone	38 (11.95%)	17 (10.30%)	21 (13.73%)		
Other	13 (4.09%)	7 (4.24%)	6 (3.92%)		
Educational level				<0.001	0.277
No studies	8 (2.52%)	3 (1.82%)	5 (3.27%)		
Primary studies	80 (25.16%)	35 (21.21%)	45 (29.41%)		
Secondary studies	134 (42.14%)	57 (34.55%)	77 (50.33%)		
University studies	96 (30.19%)	70 (42.42%)	26 (16.99%)		
Occupational status				0.328	0.084
Unemployed	39 (12.26%)	24 (14.55%)	15 (9.80%)		
Employed	215 (67.61%)	106 (64.24%)	109 (71.24%)		
Other	64 (20.13%)	35 (21.21%)	29 (18.95%)		
Monthly income (€)				0.070	0.192
I have no income	20 (6.29%)	15 (9.09%)	5 (3.27%)		
Lower than 500	18 (5.66%)	12 (7.27%)	6 (3.92%)		
Between 500 and 1000	43 (13.52%)	21 (12.73%)	22 (14.38%)		
Between 1000 and 1500	84 (26.42%)	36 (21.82%)	48 (31.37%)		
Between 1500 and 2000	82 (25.79%)	38 (23.03%)	44 (28.76%)		
Between 2000 and 2500	44 (13.84%)	26 (15.76%)	18 (11.76%)		
More than 2500	26 (8.18%)	16 (9.70%)	10 (6.54%)		

[a]mean (standard deviation)

Mental health was assessed using the Symptoms Assessment-45 (SA-45; Davison et al., 1997), adapted to Spanish by Sandín et al. (2009). It is a brief 45-item version of the Symptom Check-List (SCL-90; Derogatis et al., 1976). Participants rate on a 5-point Likert scale how much the following signs or symptoms have worried or bothered them (0 = *no symptom-related distress;* 4 = *maximum distress*). The 45 items are grouped into nine dimensions: Somatisation, Obsession-Compulsion, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. In this study, in order not to saturate the model with too many variables, only the dimensions of Somatisation, Obsession-Compulsion, Depression, Anxiety, Hostility and Paranoid Ideation were selected, as they had the most evidence of being related to gambling (Garea et al., 2023; Granero et al., 2024; Macía et al., 2023a, 2023b; Mestre-Bach et al., 2023; Salerno

& Pallanti, 2021; Stanmyre et al., 2024; Vaughan & Flack, 2022). The questionnaire demonstrated adequate reliability, with Cronbach's alpha ranging from 0.852 on the obsession-compulsion subscale to 0.907 on the Depression scale.

Procedure

The sample voluntarily and anonymously responded to an online questionnaire between March 8 and March 25, 2024, providing their informed consent to participate.

The sample was categorized into two groups: the "general population," which included individuals who did not consider themselves pathological gamblers or had not been diagnosed with gambling disorder. Conversely, the "clinical population" comprised individuals diagnosed with gambling disorder who were currently undergoing gambling treatment through any of the entities affiliated with FEJAR (Spanish Federation of Rehabilitated Gamblers).

On the other hand, participants from the general population were recruited using a snowball sampling method. An invitation to participate in the study was disseminated through online platforms, social media, and personal contacts, encouraging participants to share the information with others in their network. No exclusion criteria were applied, allowing anyone interested to complete the questionnaire.

All participants provided written informed consent. We assured the participants of the confidentiality and anonymity of their responses and their voluntary participation. No compensation was provided for participation in this study. The research obtained the ethics committee's approval from the first author's university (ref.: ETK-37/23–24) and was performed following the principles of the Declaration of Helsinki.

Data Analysis

Descriptive statistics (i.e., mean and standard deviation) were calculated to explore participants' sociodemographic characteristics. To compare the clinical and general populations in terms of sociodemographic characteristics, gambling severity, suicidal ideation, and mental health, U Mann Whitney was used for quantitative variables and the chi-square test for categorical variables. Effect sizes were calculated through $r = Z / \sqrt{n}$ (Rosenthal, 1994), with > 0.10 being small, > 0.30 medium, and > 0.50 large (Field, 2013) and Cramer's V, as appropriate.

Two structural equation models were conducted to assess the mediating role of mental health (i.e., depression, anxiety, hostility, somatisation, and obsessive–compulsive symptoms) in the relationship between gambling severity and suicidal ideation. In addition to gambling severity, the models included two interaction terms: the interaction between gender and gambling severity, and the interaction between age and gambling severity, to assess whether these factors moderated the relationship between gambling severity and suicidal ideation.

Model fit parameters were estimated using the maximum likelihood estimation method with a comprehensive approach. A chi-square test was used to compare the model-implied covariance matrix with the sample matrix, where a non-significant p-value indicated no significant variance differences, suggesting a good model fit. Several fit indices were considered for model evaluation (Byrne, 2009; Schermelleh-Engel et al., 2003): (1) the Tucker-Lewis index (TLI), with values above 0.90 indicating adequate fit; (2) the comparative fit index (CFI), where values exceeding 0.90 reflect good fit; and (3) the root mean square error of approximation (RMSEA), which assesses model robustness, with values

below 0.08 suggesting an acceptable fit (Kline, 2011). All reported coefficients are standardized (i.e., beta), with a 95% confidence level.

Data analysis was performed using IBM SPSS (version 26.0; SPSS, Inc., Chicago, IL) and AMOS (version 23), using 5,000 bootstrapping samples.

Results

Differences Between General and Clinical Populations in Gambling, Suicidal Ideation and Mental Health

The results showed that the clinical population had greater gambling severity and a higher likelihood of being categorized as problem gamblers. Regarding mental health, no differences were found (p-value ≥ 0.182). However, the clinical population had an average suicidal ideation score that was twice as high as that of the general population (see Table 2). Specifically, individuals with gambling disorder (i.e., clinical population) were 3.66 times likelier to present suicidal ideation (i.e., equal to or higher than 6 points in the Plutchik scale) ($OR = 3.66$, 95% CI [2.11, 6.35]).

The Mediating Role of Mental Health in the Relationship Between Gambling Severity and Suicidal Ideation in the General Population

A structural equation model was conducted to examine the direct and indirect associations between gambling severity and suicidal ideation, as well as the mediating relationship of mental health in the general population. The model demonstrated an adequate fit to the data [$\chi^2(23) = 35.262$, $p = 0.049$, CFI = 0.993, TLI = 0.988, RMSEA = 0.059 (95%CI 0.000, 0.096)].

The a-path from gambling severity to mental health was statistically significant ($\beta = 0.268$, $p = 0.014$), indicating that greater gambling severity was associated with poorer mental health. Similarly, the b-path from mental health to suicidal ideation was also significant ($\beta = 0.776$, $p < 0.001$), suggesting that poorer mental health was related to increased suicidal ideation. These two paths constitute the indirect (mediated) association, which was statistically significant ($\beta = 0.208$, $p = 0.014$), providing support for the mediation hypothesis. After accounting for the indirect association, the direct relationship between gambling severity and suicidal ideation was not significant ($\beta = 0.059$, $p = 0.801$), suggesting that mental health fully mediates the relationship between gambling severity and suicidal ideation in this general population sample. See Fig. 1 for the full path diagram.

Additionally, two interaction terms were included in the model to assess moderation relationships (i.e., gambling severity*age and gambling severity*gender). Neither interaction term was significantly related to suicidal ideation ($\beta = 0.046$ and $\beta = -0.060$, respectively, $p \geq 0.713$ for both), indicating that the mediation association was consistent across age and gender.

The Mediating Role of Mental Health in the Relationship Between Gambling Severity and Suicidal Ideation in the Clinical Population

In the clinical population, the results of the structural equation model showed a good fit of the model [$\chi^2(23) = 45.593$, $p = 0.003$, CFI = 0.979, TLI = 0.967, RMSEA = 0.047 (90%CI 0.000, 0.094)].

Table 2 Gambling and psychological variables based on general population and clinical population

	Total $N=318$	General Population $n=165$	Clinical Population $n=153$	*p*-value	Effect size
Problem gambling severity	5.44 (7.47)	0.80 (2.97)	10.45 (7.63)	<0.001	0.138
Problem gambling severity categories[a]				<0.001	0.710
No problematic gambling	169 (53.14%)	138 (83.64%)	31 (20.26%)		
At risk	22 (6.92%)	16 (9.70%)	6 (3.92%)		
Moderate risk	20 (6.29%)	4 (2.42%)	16 (10.46%)		
Problem gambler	107 (33.65%)	7 (4.24%)	100 (65.36%)		
Suicidal ideation	3.66 (3.42)	2.62 (2.97)	4.77 (3.52)	<0.001	0.339
Mental health					
Hostility	2.20 (3.44)	2.01 (3.31)	2.41 (3.58)	0.319	0.056
Somatisation	4.97 (4.57)	4.69 (4.47)	5.27 (4.68)	0.275	0.062
Depression	4.61 (5.02)	4.07 (4.56)	5.20 (5.44)	0.182	0.075
Obsessive–compulsive	4.94 (4.32)	4.86 (4.39)	5.03 (4.25)	0.565	0.032
Anxiety	4.27 (4.56)	4.20 (4.56)	4.35 (4.56)	0.761	0.017

[a]frequency (percentage)

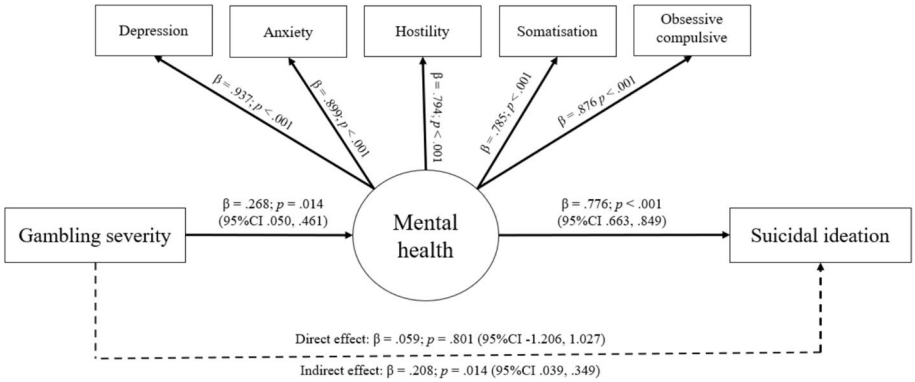

Fig. 1 Structural equation modeling on the relationship between gambling severity and suicidal ideation mediated by mental health problems in the general population. Note. Gender and age were included as moderators of the path between gambling severity and suicidal ideation (gambling severity*gender, gambling severity*age interactions), although they are not depicted in the figure for simplicity. Solid lines indicate significant indirect associations at a 95% confidence interval. Dashed lines indicate non-significant indirect associations at a 95% confidence interval

The analysis revealed that the a-path from gambling severity to mental health was statistically significant ($\beta = 0.259$, $p = 0.007$), indicating that higher gambling severity was associated with poorer mental health. Likewise, the b-path from mental health to suicidal ideation was also significant ($\beta = 0.645$, $p < 0.001$), suggesting that individuals with poorer mental health were more likely to experience suicidal ideation.

These two pathways formed a significant indirect (mediated) relationship ($\beta = 0.167$, $p = 0.007$), supporting the hypothesis that mental health mediates the relationship between gambling severity and suicidal ideation. In contrast, after accounting for this indirect association, the direct relationship between gambling severity and suicidal ideation was not significant ($\beta = -0.037$, $p = 0.812$), indicating full mediation within this general population sample.

To examine potential moderation relationships, two interaction terms were also included in the model (gambling severity * age and gambling severity * gender). However, neither interaction term was significantly associated with suicidal ideation ($\beta = 0.259$ and $\beta = 0.028$, respectively, $p \geq 0.120$ for both), suggesting that the mediation association remained stable across age and gender. The diagram in the clinical population can be seen in Fig. 2.

Discussion

The first aim of this study was to examine gambling severity, suicidal ideation and mental health in the clinical population (i.e., with gambling disorder) and the general population. First, the population with a gambling disorder showed higher suicidal ideation. This finding is consistent with the results of several systematic reviews and meta-analyses, which also show a stronger association between gambling disorder and suicidal ideation compared to the general population (Armoon et al., 2023; Kristensen et al., 2024; Marionneau & Nikkinen, 2022). In contrast, no differences in mental health were found between the general and clinical populations. Although the clinical population

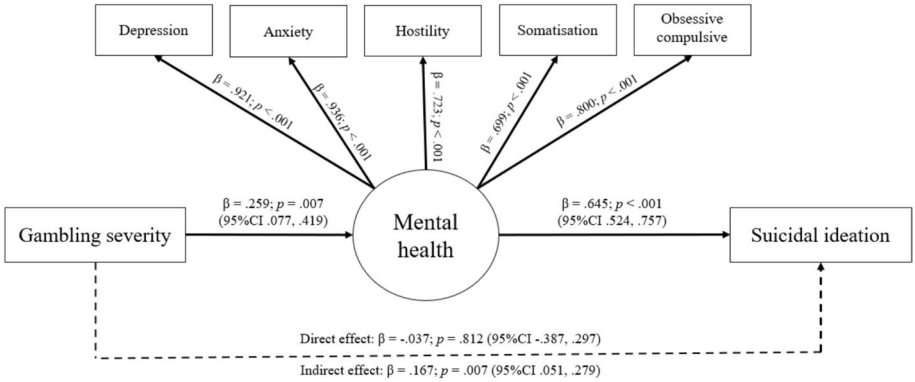

Fig. 2 Structural equation modeling on the relationship between gambling severity and suicidal ideation mediated by mental health problems in the clinical population. Note. Gender and age were included as moderators of the path between gambling severity and suicidal ideation (gambling severity*gender, gambling severity*age interactions), although they are not depicted in the figure for simplicity. Solid lines indicate significant indirect associations at a 95% confidence interval. Dashed lines indicate non-significant indirect associations at a 95% confidence interval

scored higher on all mental health problems, these differences were not statistically significant. Previous studies have found higher levels of hostility, somatisation, depression, obsessive–compulsive disorder and anxiety in people with gambling disorder (Garea et al., 2023; Granero et al., 2024; Macía et al., 2023a, 2023b; Mestre-Bach et al., 2023; Salerno & Pallanti, 2021; Stanmyre et al., 2024; Vaughan & Flack, 2022). However, the absence of significant differences in this study may be due to a lack of statistical power because of the small sample size. In addition, the clinical population was also undergoing treatment where all problems were addressed, not just problem gambling (Bodor et al., 2021; Pfund et al., 2023). At the same time, both clinical and general populations differed in sociodemographic variables. Thus, differences in mental health variables may not be observed between the clinical and general populations because there were also differences in age, gender, marital status, etc., which have been studied as risk/protective factors for mental health (Staneva et al., 2022; Yoon et al., 2023). Finally, as mental health problems are multi-causal (World Health Organisation [WHO], 2025), the general population may have other problems that were not assessed but that may cause similar levels of hostility, somatisation, obsession-compulsion, anxiety, interpersonal sensitivity and paranoid ideation as in the clinical population.

The second aim of the study was to test whether mental health problems mediate the relationship between gambling severity and suicidal ideation. In both the general and clinical populations, this relationship was fully mediated by mental health issues. This suggests that poor mental health is a critical pathway linking gambling-related problems to suicidal ideation. Specifically, while the direct association between gambling severity and suicidal ideation was not significant in either group, the indirect association (mediated by mental health) was significant in both populations, providing support for the mediation hypothesis. Notably, the total relationship between gambling severity and suicidal ideation was found to be greater in the general population than in the clinical population. This indicates that while mental health plays a key role in mediating the relationship between gambling severity and suicidal ideation in both groups, the overall relationship of gambling severity on suicidal ideation is more pronounced in the general population.

In line with these findings, previous studies have also identified mental health as a mediating and predictive variable for suicidal ideation (Gómez-Vallejo et al., 2025; Lovero et al., 2023; Tang et al., 2022). Similarly, greater suicidal ideation is closely associated with increased depressive symptoms (Gijzen et al., 2021), higher levels of anxiety (Stanley et al., 2018), hostility (Schafer et al., 2022), somatisation (Torres et al., 2021) and obsessive–compulsive disorder (Benster et al., 2022; Kim et al., 2023). Additionally, the strong association between gambling and suicidal ideation has been widely documented (Armoon et al., 2023; Kristensen et al., 2024; Marionneau & Nikkinen, 2022).

Interestingly, while the mediating role of mental health in the association between gambling severity and suicidality was consistent across both clinical and general population samples, the total effect of gambling severity on suicidality was greater in the general population. Several factors may account for this discrepancy. First, the general population sample likely exhibited greater variability in both gambling behavior and mental health symptoms, which may have amplified the observed total effect. In contrast, clinical participants, who typically present with more severe and homogenous gambling problems, may show less variance in these measures, potentially reducing the magnitude of the total effect. Second, being engaged in clinical care often entails exposure to protective factors such as therapeutic interventions and structured follow-up, which can mitigate mental health problems. Finally, responses in the general population may have been facilitated by the anonymous and confidential nature of the survey, encouraging more open disclosure of suicidal ideation and thus contributing to a higher total effect estimate in this group.

This study is not without limitations. Firstly, it is a cross-sectional study, which prevents establishing causal relationships between the variables analyzed. Secondly, the two samples selected present significant sociodemographic differences, which may bias their comparison. Moreover, although age and gender were included as control variables, other relevant sociodemographic differences between the general and clinical samples (e.g., education and living together) may have acted as confounding factors. These disparities, which reflect the natural differences between populations, nonetheless limit the internal validity of group comparisons and should be addressed in future research using more stringent control strategies. Fourth, as the variables are very sensitive and the information was collected through self-reporting, participants may have biased their responses to be more socially desirable. In addition, some variables that were not considered might explain the results: for example, the length of time the clinical participants had been in treatment or whether they had a psychological diagnosis. Furthermore, there has been no detailed analysis of medical history and comorbidities, such as the presence of other addictive disorders or previous suicide attempts. Finally, short questionnaires were chosen, but it would have been interesting to use more extensive questionnaires or questionnaires focused on each problem instead of the SA-45, which is more general and presents fewer items for each dimension.

Future research should consider longitudinal designs to better understand the directionality and evolution of these associations over time. Additionally, efforts should be made to match samples more closely or apply statistical techniques to enhance comparability. To improve the reliability of self-reported data, future studies could incorporate complementary assessment methods, such as clinical interviews or reports from significant others. Moreover, including variables such as treatment duration, psychological diagnoses, and a detailed assessment of comorbidities would allow for a more comprehensive understanding of the studied phenomena. Finally, employing more detailed and disorder-specific instruments could provide a more precise evaluation of the constructs analyzed.

In conclusion, individuals with gambling disorder exhibit higher levels of suicidal ideation compared to the general population. Furthermore, the relationship between gambling

severity and suicidal ideation is mediated by mental health problems. These findings contribute to the existing scientific knowledge and support the development of targeted prevention programs and treatment interventions. Notably, our results emphasize the critical role of mental health in preventing suicidal ideation, both in individuals with gambling disorder and in those without problem gambling. Given the high prevalence of suicidal ideation in this clinical population, suicide risk should be a key consideration in the assessment and treatment of gambling-related problems. Furthermore, our findings highlight the importance of transdiagnostic approaches that integrate mental health care, with particular attention to suicidal ideation.

Author contributions All authors contributed to the study conception and design. Material preparation and data collection were performed by Rosana Santolaria, Juan Lamas and Virtu Mico. Analysis were performed by Gema Aonso-Diego. The first draft of the manuscript was written by Nerea Etxaburu and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Data Availability The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Informed Consent All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all patients for being included in the study.

Conflicts of interest The authors have no competing interests to declare that are relevant to the content of this article.

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