

Original Research

Psychosocial Risk Factors for Gambling Disorder in Socially Excluded People

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Abstract

Background: The problem of gambling has gained relevance and it is necessary to delve deeper into gambling behaviour in young people and adolescents at risk of social exclusion. Therefore, the main objectives of the study were: (1) to examine the relationship between the severity of gambling behaviour, motives for gambling, social support, depression, attachment styles, sensation-seeking, substance use and gaming, (2) to analyse the predictive role of attachment styles in the severity of gambling behaviour, (3) to analyse the differences according to sex and age. **Methods:** The sample comprised 187 participants, 148 males and 39 females aged between 13 and 25 ($M = 17.48$, $SD = 2.02$). **Results:** The results show that gambling severity is positively related to gambling motives, to secure attachment, sensation-seeking and drug use. In addition, attachment predicts gambling severity. Finally, differences were found depending on the participants' sex and age. **Conclusions:** This study provides relevant information that could be applied to the treatment and prevention of problem gambling among people at risk of social exclusion.

Keywords: gambling; social exclusion; attachment; substance use; youth; adolescents

Factores Psicosociales de Riesgo del Trastorno de Juego de Azar en Situación de Exclusión Social

Resumen

Introducción: La problemática del juego de azar ha adquirido relevancia y es necesario profundizar en la conducta de juego en los jóvenes y adolescentes en riesgo de exclusión social. Los objetivos del estudio fueron: (1) estudiar la relación entre la gravedad de la conducta de juego, los motivos de juego, el apoyo social, la depresión, los estilos de apego, la búsqueda de sensaciones, el consumo de sustancias psicoactivas y la adicción los videojuegos, (2) analizar el papel predictor de los estilos de apego sobre la gravedad de la conducta de juego, (3) analizar las diferencias en función del sexo y de la edad. **Método:** Participaron 187 adolescentes y jóvenes en riesgo de exclusión social (148 hombres y 39 mujeres), entre 13 y 25 años ($M = 17,48$; $DT = 2,02$). **Resultados:** Los resultados muestran que la gravedad de juego se relaciona positivamente con los motivos de juego, el apego seguro, la búsqueda de sensaciones y el uso de las drogas. Además, el apego predice la gravedad del juego. Se encontraron diferencias dependiendo del sexo y edad de los participantes. **Conclusiones:** este estudio ofrece información relevante que podría aplicarse para el tratamiento y prevención del juego problemático en personas en riesgo de exclusión social.

Palabras Claves: juego de azar; exclusión social; apego; consumo de sustancias psicoactivas; jóvenes; adolescentes



1. Introduction

Adolescence is a life cycle stage characterised by involvement in risky behaviours (Ksinan et al, 2022). This includes betting and gambling. By considering gambling disorder from a biopsychosocial perspective, which integrates biological, psychological and social factors in its aetiology and maintenance, we can define it as a progressive and chronic failure to resist the urge to gamble, becoming a maladaptive behaviour that damages and violates personal, family and professional goals (American Psychiatric Association, 2013). In Spain, young people between the ages of 18 and 25 are most at risk of gambling disorder, according to the Gambling Prevalence Study 2022–2023 [Observatorio Español de las Drogas y las Adicciones], prepared by the General Directorate for Gambling Regulation of the Ministry of Consumer Affairs (2023). According to the report, the gambler's profile in Spain is increasingly younger (22% of gamblers are under 25), and the route of entry to gambling is mostly face-to-face. In this sense, several studies indicate that the likelihood of developing problem gambling and related high-risk behaviours is high during adolescence and young adulthood (Richard and King, 2023). Previous research suggests that the younger the age of the first contact with gambling, the greater the likelihood of developing problem gambling and the greater the severity of the problem (Kang et al, 2019; Sarabia et al, 2014).

It is worth noting that the emergence of online gambling has changed gambling behaviour. This new form of gambling has led to a strong increase in gambling behaviour due to its greater accessibility, the uninterrupted and private nature of the game, the use of digital money, and the speed and ease of access to rewards that enhance greater gambling capacity (Brooks and Clark, 2019). Activities with gambling-like features, such as achievements or skills that act as rewards, account for various propositions that simulate gambling or gambling-like dynamics and allow players to practice or approximate gambling without spending money (King et al, 2015). Exposure to these technologies increases gambling behaviour and the development of related problem behaviours (King et al, 2020).

As mentioned above, adolescents and young people are more vulnerable to developing problem gambling. However, the concern is heightened in the case of young people in a situation of, or at risk of, social exclusion. If we consider the definition of social exclusion as a dynamic process that hinders people's integration in their social context at different levels: political, economic, socio-cultural... (Camacho, 2015), we observe a clear relationship between situations of social exclusion and problem gambling disorder and other mental health pathologies (Raybould et al, 2021; Van der Maas, 2016). Hence, social exclusion is not only a vulnerability factor for problem gambling occurrence but also a factor in the severity of its symptomatology.

Attachment, understood as the affective bond formed through people's early experiences with their primary

caregivers—usually their parents (Bowlby, 1982)—can also be affected by social exclusion. For example, because parents have to work longer hours to meet expenses and cannot devote as much time to attending to their children's affective needs, leaving them unmet, an insecure attachment style may develop. This attachment style is characterised by anxiety or avoidance in intimate relationships. In these cases, gambling may be used as an attempt to regulate emotions (Mikulincer and Shaver, 2016). Moreover, authors like Simons et al (2019) have explored how attachment style may interact with other risk factors, such as stress and impulsivity, to increase vulnerability to developing a gambling disorder.

Problems comorbid with gambling disorder, especially in these vulnerable groups, include substance use (Wu et al, 2014) and depressive symptoms (Nower et al, 2022). The latter is considered one of the main causes of problem gambling. It is important to consider the strong impact that processes of social exclusion have on the relational and emotional domain of those who suffer it (Zhang and Wang, 2022). Indeed, traumatic experiences, segregation and social isolation may put these young people at greater risk of mental health problems (Sapiro and Ward, 2020).

However, little is known about the possible psychological mechanisms through which social exclusion might influence gambling. Broadly, three types of gambling motivation have been proposed: (1) coping motivation, where gambling is used to reduce negative affect; (2) enhancement motivation, where gambling is used to increase positive affect; and (3) social motivation, where gambling is used to increase social belonging (Mackinnon et al, 2016). It is also reasonable to assume that economic motivation is a significant motivation for gambling in low socio-economic status groups (Devos et al, 2017).

Given the scarcity of studies dealing with the profile of young people and adolescents in a situation of or at risk of social exclusion, the main objectives of the present study were as follows: (1) to examine the relationship between the severity of gambling behaviour, gambling motives, social support, depression, attachment styles, sensation-seeking, substance use and video game addiction in adolescents and young people at risk of social exclusion, (2) to analyse the predictive role of attachment styles in the severity of gambling behaviour, and (3) to analyse sex and age differences in the study variables.

2. Methods

2.1 Participants

The sample was obtained through different socio-educational intervention mechanisms and educational centres in the province of Bizkaia (Spain). The participating centres were Complementary School Programmes (13–15 years old), Basic Vocational Training (16–17 years old), Intermediate Training Cycles (18–19 years old) and Higher Training Cycles or other Work Orientation Courses (20–25

years old). All these centres work in the area of education and training adolescents and young people at risk of or in a situation of social exclusion.

The sample consisted of 187 participants, 148 males and 39 females, aged between 13 and 25 ($M = 17.48$, $SD = 2.02$). Concerning country of birth, most of the participants were born in Spain ($n = 102$), followed by the Maghreb ($n = 45$), America ($n = 12$), the rest of Europe ($n = 10$), sub-Saharan Africa ($n = 9$), Asia ($n = 4$) and 5 did not respond. Regarding educational level, 70 were studying or had completed vocational training at the time of participation in the research, 62 had secondary education, 42 had primary education, 7 had no education, 3 had university education and 3 chose not to answer.

2.2 Instruments

(a) *South Oaks Gambling Behaviour Scale-Revised for Adolescents* (SOGS-RA; Winters et al, 1993), adapted to Spanish by Secades and Villa (1998). The instrument consists of 12 items describing gambling behaviour in the last 12 months (e.g., ‘Have you felt that you should reduce your gambling behaviour?’). All items except Item 1 are answered with ‘yes’ or ‘no’. The scores are interpreted as follows: 0–1 = non-problem gambler; 2–3, at-risk gambler; 4 and above = problem gambler. The original Cronbach’s alpha was 0.81 and 0.90 in the present study.

(b) *Gambling Motives Questionnaire-Financial* (GMQ and GMQ-F; Dechant, 2014), adapted to Spanish by Jauregui et al (2018). The questionnaire consists of 19 items divided into four subscales aimed at assessing gambling motives: Enhancement Motives, which assess the use of gambling as a way of seeking pleasurable experiences (e.g., “Because I like the way I feel”); Coping Motives, which assess the use of gambling as a way of dealing with unpleasant experiences (e.g., “To forget worries”); Social Motives, which assess the use of gambling as a way to increase social interaction (e.g., “To be sociable”); and Economic Motives, which assess the use of gambling as a way to gain economic benefits (e.g., “To make money”). The response format is Likert-type with 4 response options ranging from 1 (*never/almost never*) to 4 (*almost always*). The higher the score obtained in each of the scales, the higher the motivation to gamble. The Cronbach’s alpha for this study was 0.87 for Enhancement Motives, 0.86 for Coping Motives, 0.91 for Social Motives and 0.86 for Economic Motives.

(c) *MULTICAGE CAD-4* (Pedrero et al, 2007). This instrument measures the co-occurrence of addictive behaviours with and without substances and other related problems. The scale consists of 32 items grouped into 8 factors: Alcohol Abuse and Dependence, Pathological Gambling, Substance-Related Addictions, Eating Disorders, Internet Addiction, Video Game Addiction, Excessive Spending and Sex Addiction. The response format is dichotomous (‘yes’ or ‘no’), and scores are interpreted as follows: 0–1 =

no addiction; 2 = risk of addiction; 3 = addiction very likely; 4 = addiction. In the present study, we used the Video Game Addiction subscale (e.g., ‘Do you spend more time playing video or computer games than you think you should?’). Internal consistency values were satisfactory ($\alpha = 0.86$ for the entire instrument and above 0.70 for each subscale). The Cronbach’s alpha for the Video Game Addiction subscale was 0.69.

(d) *Arnett Inventory of Sensation-Seeking* (AISS; Arnett, 1994). This inventory consists of 20 items divided into two subscales: Intensity, which refers to the intensity of stimulation of the senses (e.g., ‘When I listen to music, I like to hear it loud’) and Novelty, which assesses openness to experience (e.g., ‘I like to travel to unknown and remote places’). The response format is a 4-point Likert-type scale, ranging from 1 (*describes me very well*) to 4 (*does not describe me at all*). The total score is the sum of the two subscales. Arnett (1994) reported internal reliability of 0.70 for the total scale and 0.64 and 0.50 for the Intensity and Novelty subscales, respectively. Cronbach’s alpha for the overall score in this study was 0.88, 0.77 for Intensity and 0.80 for Novelty.

(e) *Symptom Assessment-45 Questionnaire* (SA-45; Davison et al, 1997), Spanish version by Sandín et al (2008). This 45-item instrument is divided into 9 subscales, each with 5 items, assessing psychopathological symptoms: Somatization, Obsessions and Compulsions, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism. In the present study, we used the Depression subscale (e.g., ‘Not feeling interested in things’). The response format is a 5-point Likert-type scale, ranging from 0 (*not at all*) to 4 (*very much or extremely*). The higher the score on each scale, the greater the symptomatology. Cronbach’s alpha in the present study was 0.87 for the Depression subscale.

(f) *Brief Questionnaire on Pathological Gambling* (CBJP; Fernández-Montalvo et al, 1995). It consists of four dichotomous items assessing the risk of pathological gambling (e.g., ‘Have you ever felt that you should reduce your gambling behaviour?’). Scores range from 0 to 4, with a score of 2 or higher indicating possible gambling addiction problems. The questionnaire has shown high internal reliability ($\alpha = 0.94$) both in pathological gamblers and the general population (Fernández-Montalvo et al, 1995). The Cronbach’s alpha in this study was 0.66.

(g) *Relationship Scales Questionnaire* (RSQ; Griffin and Bartholomew, 1994). We used the Spanish version of Yáñez-Yaben and Comino (2011). The RSQ contains 30 statements divided into 4 attachment patterns: Secure Attachment (e.g., ‘I find it easy to be emotionally close to others’), Dismissing Attachment (e.g., ‘It is very important for me to feel independent’), Fearful Attachment (e.g., ‘I worry that I will be hurt if I allow myself to get too close to others’) and Preoccupied Attachment (e.g., ‘I am comfortable without emotionally close relationships’). The response format

Table 1. Correlations between study variables in adolescents and young people at risk of social exclusion.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Severity of gambling in the last year (SOGS-RA)	–																
2. Gambling (CBJP)	0.26*	–															
3. Pathological gambling (CBJP)	0.27**	0.87**	–														
4. Social motive	0.54**	0.27**	0.24**	–													
5. Enhancement motive	0.63**	0.25**	0.25**	0.72**	–												
6. Coping motive	0.43**	0.29**	0.26**	0.77**	0.65**	–											
7. Economic motive	0.67**	0.28**	0.22*	0.75**	0.64**	0.55**	–										
8. Social support	0.16	–0.17	–0.20	0.06	0.14	0.02	0.01	–									
9. Depression	0.08	0.05	0.03	0.15	0.12	0.29**	0.13	0.05	–								
10. Secure attachment	0.22*	0.06	0.06	0.07	0.03	0.08	0.10	0.10	–0.04	–							
11. Avoidant attachment	0.05	0.06	0.06	–0.04	0.06	0.05	–0.12	0.22*	0.32**	0.03	–						
12. Preoccupied attachment	0.07	0.01	0.00	0.01	0.02	0.10	–0.01	0.34**	0.29**	–0.01	0.60**	–					
13. Rejecting attachment	0.18	0.02	0.01	–0.02	0.13	0.00	0.02	0.25**	0.22**	0.06	0.60**	0.32**	–				
14. Sensation-seeking intensity	0.20*	–0.09	–0.07	0.05	0.03	0.06	–0.03	0.26**	0.00	0.09	0.04	0.07	0.03	–			
15. Sensation-seeking novelty	0.24*	–0.04	–0.03	0.12	0.06	0.15	0.13	0.00	0.02	0.20*	–0.07	–0.01	0.02	0.58**	–		
16. Total sensation-seeking	0.24*	–0.05	–0.04	0.12	0.08	0.14	0.06	0.14	0.04	0.16	–0.01	0.03	0.02	0.89**	0.88**	–	
17. Addiction to video games	0.15	–0.01	–0.02	0.22*	0.25**	0.22*	0.23*	–0.21*	0.03	–0.09	–0.13	–0.07	–0.14	–0.09	–0.03	–0.06	–

Note: SOGS-RA, South Oaks-Revised for Adolescents; CBJP, Brief Pathological Gambling Questionnaire.

* $p < 0.05$; ** $p < 0.001$.

is a 5-point Likert-type scale ranging from 1 (*not at all like me*) to 5 (*very much like me*). The statements refer to different ways of behaving in close relationships. The person would be classified in the attachment style in which he/she scored the highest. Cronbach's alpha in this study was 0.93 for the overall score, 0.62 for Secure Attachment, 0.78 for Dismissing Attachment, 0.65 for Fearful Attachment and 0.59 for Preoccupied Attachment.

(h) *Medical Outcomes Study-Social Support Survey* (MOS-SSS; Sherbourne and Stewart, 1991). We used the Spanish version of Revilla et al (2005). This instrument measures perceived social support both in its structural dimension—understood as the size of the social network—and its functional dimension—considered the usefulness of the social network. The instrument assesses Emotional/Informational Social Support (e.g., 'Someone to inform you and help you understand a situation'), Instrumental Support (e.g., 'Someone to prepare your meals if you can't'), Positive Social Interaction (e.g., 'Someone to relax with') and Affective Support (e.g., 'Someone to hold you'). An overall index of social support can be obtained as the sum of the scores of the 19 items. The higher the score, the greater the support. Cronbach's alpha for the overall score in this study was 0.98, 0.94 for Emotional Support, 0.92 for Instrumental Support, 0.90 for Positive Social Interaction and 0.88 for Affective Support.

2.3 Procedure

This is a cross-sectional study. Interviews were conducted with the people in charge of centres for young people at risk of or in a situation of social exclusion to obtain their cooperation. The information was collected individually in the classroom. An educational figure was present during the application of the questionnaires to control for their correct use.

The questionnaires were presented either online or in paper-and-pencil format. The latter was only used with the adolescents in the Complementary School Programmes, after the research team and the teachers had jointly assessed the possible distracting effect of using technological devices.

The data were collected from January to April 2021. Before participating in the study, participants were informed about the general aspects of the study and its aims. All participants gave their informed consent. Parental consent was obtained from those under the age of 18. It was also made clear that there were no right or wrong answers and that participants could email the principal investigator if they wanted more information about the study. In addition, the confidentiality and anonymity of the participants' responses and their voluntary participation were guaranteed.

2.4 Data Analysis

Firstly, the bivariate relationships between problem gambling and the study variables were analysed using Pear-

son's r . Secondly, the predictive role of attachment styles in problem gambling was analysed using linear regressions. Thirdly, the differences in the means of the study variables according to sex were analysed using Student's t -test. The size of the differences was determined according to the parameters established by Cohen's d (1988), where values below 0.20 are considered small, around 0.50 medium, and above 0.80 large. Next, the differences in the study variables as a function of age were analysed using one-factor ANOVA. The age groups were formed based on the participants' centre [Complementary School Programmes (13–15 years old), Basic Vocational Training (16–17 years old), Intermediate Training Cycles (18–19 years old) and Higher Training Cycles or other Work Orientation Courses (20–25 years old)]. All statistical analyses were performed with SPSS Version 28.0 (IBM Corp., Armonk, NY, USA).

3. Results

First, the relationships between the study variables were analysed in young people at risk of social exclusion (Table 1). The results showed that gambling severity in the last year was positively associated with the four gambling motives, especially the Economic Motive ($r = 0.67^{**}$) and the Enhancement Motive ($r = 0.63^{**}$). It was also positively associated with secure attachment ($r = 0.22^*$) and sensation-seeking ($r = 0.24^*$). Pathological gambling was associated with all four gambling motives: the Coping Motive ($r = 0.26^{**}$), the Enhancement Motive ($r = 0.25^{**}$), the Social Motive ($r = 0.24^{**}$) and the Economic Motive ($r = 0.22^{**}$).

Secondly, the relationships between the study variables and substance use were analysed (Table 2). The results revealed statistically significant and positive relationships between gambling severity in the past year and the use of tobacco ($r = 0.37^{**}$), alcohol ($r = 0.50^{**}$), tranquillisers ($r = 0.38^{**}$), cannabis ($r = 0.46^{**}$), cocaine ($r = 0.34^{**}$), hallucinogens ($r = 0.66^{**}$), speed ($r = 0.77^{**}$) and MDMA (ecstasy) ($r = 0.61^{**}$). Gambling disorder was also positively associated with the use of tranquillisers ($r = 0.24^{**}$), cocaine ($r = 0.18^*$), hallucinogens ($r = 0.31^{**}$) and MDMA ($r = 0.29^{**}$). Concerning gambling motives, economic motives were positively associated with all substance use (tobacco $r = 0.20^*$, alcohol $r = 0.30^{**}$, tranquillisers $r = 0.27^{**}$, cannabis $r = 0.31^{**}$, cocaine $r = 0.23^{**}$, hallucinogens $r = 0.29^{**}$, speed $r = 0.29^{**}$ and MDMA $r = 0.22^{**}$). Similarly, social support was negatively associated with cocaine use ($r = -0.21^{**}$). Likewise, preoccupied attachment was positively related to tobacco use ($r = 0.23^{**}$) and video game addiction to speed use ($r = 0.27^{**}$).

Thirdly, the predictive role of attachment styles in problem gambling among young people at risk of social exclusion was analysed. The statistically significant results obtained are presented below (Table 3). The results reflect the predictive role of secure and dismissing attachment in the severity of gambling in the last 12 months ($R = 0.33$, $R^2 =$

Table 2. Correlations between study variables and substance use in young people at risk of social exclusion.

Variables	Tobacco	Alcohol	Tranquillisers	Cannabis	Cocaine	Hallucinogens	Speed	MDMA
Severity of gambling last year (SOGS-RA)	0.37**	0.50**	0.38**	0.46**	0.34**	0.66**	0.77**	0.61**
Gambling (CBJP)	0.06	0.07	0.17*	0.06	0.18*	0.28**	0.10	0.22*
Pathological gambling (CBJP)	0.12	0.08	0.24**	0.13	0.18*	0.31**	0.06	0.29**
Social motive	0.03	0.11	0.20*	0.15	0.25**	0.17*	0.27**	0.11
Improvement motive	0.07	0.18*	0.28**	0.18*	0.22*	0.17*	0.26**	0.12
Coping motive	0.08	0.20*	0.16	0.12	0.30**	0.20*	0.29**	0.14
Economic motive	0.20*	0.30**	0.27**	0.31**	0.23**	0.29**	0.29**	0.22*
Social support	0.04	0.09	−0.04	0.01	−0.21*	−0.17	−0.15	−0.18
Preoccupied attachment	0.23**	0.10	0.05	0.15	−0.14	−0.07	−0.05	−0.11
Video game addiction	−0.09	0.02	0.06	−0.01	0.16	0.14	0.27**	0.14

* $p < 0.05$; ** $p < 0.001$.

Table 3. The predictive role of attachment styles in problematic gambling.

Predictor variable	<i>B</i>	β	<i>t</i>	Sig.	Criterion variable
Secure attachment	0.44	0.24	2.52	0.01*	Gambling severity in the last 12 months (SOGS-RA)
Dismissing attachment	0.25	0.26	2.20	0.03*	Gambling severity in the last 12 months (SOGS-RA) ($R = 0.33$; $R^2 = 0.11$; adjusted $R^2 = 0.07$)
Fearful attachment	−0.22	−0.30	−2.51	0.01*	Gambling severity across the lifespan (SOGS-RA)
Dismissing attachment	0.14	0.28	2.71	0.01*	Gambling severity across the lifespan (SOGS-RA) ($R = 0.27$; $R^2 = 0.07$; adjusted $R^2 = 0.04$)

* $p < 0.05$.

0.11, adjusted $R^2 = 0.07$), as well as the predictive role of dismissing and fearful attachment in the severity of lifetime gambling ($R = 0.27$; $R^2 = 0.07$; corrected $R^2 = 0.04$).

Fourthly, mean differences in the study variables were analysed according to sex. As can be seen in Table 4, women reported higher scores than men for severity of gambling in the past 12 months ($M = 4.47$ and $M = 2.98$, respectively), secure attachment ($M = 14.46$ and $M = 14.41$, respectively) and preoccupied attachment ($M = 11.42$ and $M = 10.41$, respectively), as well as for tobacco ($M = 2.36$ and $M = 1.41$, respectively) and alcohol ($M = 1.82$ and $M = 1.12$, respectively) use. The effect size was medium for severity of gambling in the past 12 months ($d = 0.37$), preoccupied attachment ($d = 0.24$), and smoking ($d = 0.29$) and alcohol use ($d = 0.28$), whereas it was small for secure attachment ($d = 0.01$).

Fifthly, the mean differences in the study variables were analysed as a function of age. The statistically significant results obtained are presented in Table 5. Group 4 (20–25 years, $M = 4.71$) obtained higher scores for gambling severity in the last 12 months compared to Group 3 (18–19 years, $M = 1.32$). In terms of social support, Group 2 (16–17 years, $M = 49.78$) scored higher than Group 3 (18–19 years, $M = 33.23$). Finally, Group 2 (16–17 years, $M = 22.17$) scored higher in intensity of sensation-seeking compared to Group 1 (13–15 years, $M = 19.38$) and Group 3 (18–19 years, $M = 19.91$).

4. Discussion

The first aim of the study was to assess the relationship between attachment style, different motives for gambling, social support, sensation-seeking, depressive symptoms, substance use and video game abuse with problem gambling among young people experiencing or at risk of social exclusion. The results have shown that in this population profile, the motives of enhancement and the search for economic resources are significantly correlated with sensation-seeking and secure attachment, whereas depressive symptoms are positively associated with coping motives and fearful, preoccupied and dismissing attachment styles. On the basis of the results obtained, we can identify two possible profiles of young people at risk of or in a situation of social exclusion. On the one hand, a profile of depressive symptomatology linked to a dysfunctional attachment pattern, seeking relief from negative emotional situations in gambling behaviour, and on the other hand, a second profile of people with a more functional attachment pattern, who seek resources in gambling to improve their economic situation, and also feel excitement linked to the search for novelty. Both profiles, which may be influenced by adaptation to a socio-economically disadvantaged environment, account for two different coping strategies that could be risk factors for the onset of a gambling disorder.

Concerning the first profile, other studies also find a relationship between attachment styles and depression in adolescents and young people (Cortés-García et al, 2019) and between depression and gambling behaviour (Lister et

Table 4. Sex differences in the study variables.

Variables	Females (<i>n</i> = 39)		Males (<i>n</i> = 148)		<i>t</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Gambling severity in the last 12 months	4.47	7.16	1.48	2.98	−2.23**	0.37
Secure attachment	14.46	3.84	14.41	2.25	−0.06**	0.01
Preoccupied attachment	11.42	3.41	10.41	2.47	−1.65**	0.24
Tobacco use	2.36	2.37	1.41	2.06	−2.26**	0.29
Alcohol use	1.82	1.86	1.12	1.52	−2.14**	0.28

***p* < 0.001.

Table 5. Age differences in the study variables.

Variables	Group 1: 13–15 years (<i>n</i> = 32)		Group 2: 16–17 years (<i>n</i> = 66)		Group 3: 18–19 years (<i>n</i> = 69)		Group 4: 20–25 years (<i>n</i> = 17)		Total (<i>n</i> = 184)		F	<i>p</i>	Tukey's Post hoc HSD
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Severity of gambling in the past 12 months (SOGS-RA)	3.09	3.79	1.66	2.23	1.32	3.47	4.71	9.55	2.07	4.33	2.92	0.04*	3–4*
Social support	46.77	25.02	49.78	20.90	33.23	23.30	45.83	22.74	42.27	23.73	4.81	0.00**	2–3*
Sensation-seeking intensity	19.38	3.49	22.17	5.28	19.91	3.56	22.00	3.49	20.80	4.37	3.95	0.01*	1–2*; 2–3*

p* < 0.05; *p* < 0.001.

al, 2015; Takamatsu et al, 2016). Regarding the second profile, research shows that economic motives, especially in the young population, are positively correlated with the frequency of gambling and the severity of the problems it can generate (Tabri et al, 2022). In this sense, seeking to improve one's economic situation may be an important predictor of gambling behaviour or the emergence of a gambling disorder, especially in economically disadvantaged populations (Flack and Morris, 2015). This is related to sensation-seeking, as gambling may be a faster and, therefore, more exciting way to seek economic improvement.

Concerning video game use, the results suggest that abusive video game use is significantly correlated with all gambling motives. A meta-analysis by Wang and Cheng (2022) also found a relationship between video game use and different gambling motives. In particular, the enhancement motive showed the strongest relationship with video game addiction.

In terms of substance use, the present study shows a negative relationship between cocaine use and social support. Similarly, other studies have pointed to the importance of support networks as a protective factor against drug use (Lookatch et al, 2019). A relationship was also found between the severity of gambling and substance use. This finding is echoed in studies like those by Noel et al (2024) and Quinlan et al (2014).

Secondly, the predictive role of attachment styles in problem gambling in adolescents and young people at risk of exclusion was analysed. Concerning the predictive role of gambling-related attachment styles, the predictive ca-

capacity of both secure and dismissing attachment was observed in the severity of gambling behaviour in the last 12 months. These findings could be explained by following the two gambling profiles found, in which a secure attachment pattern was found to predict gambling behaviour when associated with enhancement and economic motives and sensation-seeking. In contrast, a preoccupied attachment associated with depression and coping motives established a distinct profile (Juodis and Stewart, 2016). In addition, many other studies find associations between insecure attachment and problem gambling (Topino et al, 2023).

Thirdly, we assessed sex differences in the study variables. Females obtained higher scores on gambling severity in the past 12 months, preoccupied attachment, and tobacco and alcohol use. In line with our findings, other research also concludes that females have a higher prevalence of preoccupied attachment than males (Padilla and Díaz, 2016). However, the rest of our findings differ from other studies, which found that males have higher tobacco and alcohol consumption (Observatorio Español de las Drogas y las Adicciones, 2023) and higher levels of problem gambling (Dirección General de Ordenación del Juego del Ministerio de Consumo, 2023). In general, the evidence suggests that gambling among men is more closely associated with sensation-seeking and variables related to impulsivity, whereas among women, it is associated with the search for relief from stressful life situations and unpleasant emotional states (Macía et al, 2023).

Fourthly, the mean differences in the study variables were analysed according to age. The older age group ob-

tained higher scores in gambling severity. In this regard, according to the report of the General Directorate for the Regulation of Gambling of the Ministry of Consumer Affairs (2023), the age group with the highest symptomatology of pathological gambling was 26–35 years, followed by 18–25 years and 36–45 years.

This study is not without limitations. Firstly, the sample size should be increased in future studies. Secondly, although adults accompanied the participants, there were numerous difficulties with reading comprehension and attention, which may have influenced the results. Thirdly, the cross-sectional nature of the study does not allow establishing causal relationships between variables. Fourthly, it is important to mention that the differences between the groups of participants (belonging to different educational centres) may have influenced the results when calculating the differences in means according to their age. Finally, there is an imbalance between the number of male and female participants in the study. There could be several reasons for this sex bias. We note the greater presence of male students in these training centres, which could be linked to a lower incidence of school failure among the female population or to the provision of training in occupations traditionally associated with males.

In conclusion, these findings are novel and could be useful in view of the lack of studies of this particular group. It seems that economic motivation could be closely linked to gambling behaviour in economically disadvantaged groups. This aspect should be considered when applying policies related to the planning and management of gambling. Similarly, from a gender perspective, attention to the situation of young women in situations of social exclusion is another important point to highlight. We can deduce that young women at risk of or in a situation of exclusion would present higher gambling severity, as well as a higher level of tobacco and alcohol consumption, which represents a specific risk profile for the design of treatment proposals.

The search for economic resources and the avoidance of emotionally depressive realities are two key explanatory factors of gambling behaviour that must be considered in any intervention strategy, as well as addressing the construction of support networks as a fundamental objective of these strategies.

5. Conclusions

This study shows how the severity of gambling in people at risk of social exclusion: is related to substance use, is predicted by attachment style, and differs by gender and age.

Availability of Data and Materials

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

Author Contributions

IGM, JM, NE and AE designed the research study. IGM performed the research. JM analyzed the data. JM, NE and AE reviewed and edited the manuscript. AE and NE supervised the study. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

The study was carried out in accordance with the guidelines of the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of University of Deusto (approval number: ETK-5/20-21). All patients or their families/legal guardians gave their informed consent for inclusion before they participated in the study.

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Conflict of Interest

The authors declare no conflict of interest.

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