

## GAMBLING DISORDER

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**Abstract:** Playing, in its various forms, is a normal and positive activity in the development of the individual. In 2017, 60.2% of the population aged between 15 and 64 years old reported having played games with money (63.5% in men and 56.9% in women) and more than 70% of young people aged between 6 and 24 years old have played video games. Gambling disorder refers to persistent and recurrent problematic gambling behaviours leading to clinically significant impairment or distress. The 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes a new category called "Internet Gaming Disorder". The core aspect of dysfunctional gambling behaviour patterns is the loss of control over this activity, which continues despite its negative consequences. There are several screening tools for pathological gambling patterns, some of them designed specifically for young people.

**Keywords:** Gambling, youth, screening, betting, videogames.

## EL JUEGO PATOLÓGICO

**Resumen:** El juego es, en sus diversas modalidades, una actividad normal y positiva en el desarrollo de las personas. En 2017 el 60,2 % de la población de 15 a 64 años refiere haber jugado a juegos con dinero (63,5% en hombres y 56,9% en mujeres) y más del 70% de los jóvenes entre los 6 y los 24 años han jugado a videojuegos. Juego patológico hace referencia a un patrón de juego problemático persistente y recurrente, que provoca un deterioro o malestar clínicamente significativo. La 5ª edición del Manual Diagnóstico y Estadístico de los Trastornos Mentales (DSM-5) incluye como novedad una nueva categoría denominada "trastorno por juego en internet". El aspecto nuclear de los patrones de conducta disfuncionales relacionados con el juego es la pérdida del control sobre la actividad, que continúa a pesar de las consecuencias negativas que esta le produce. Existen diversas herramientas de cribado de patrones de juego patológico, algunas de ellas diseñadas específicamente para jóvenes.

**Palabras clave:** Juego patológico, ludopatía, jóvenes, cribado, apuestas, videojuegos.

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## O JOGO PATOLÓGICO

**Resumo:** O jogo é, nas suas diversas modalidades, uma atividade normal e positiva no desenvolvimento das pessoas. Em 2017, 60,2% da população de 15 a 64 anos refere ter jogado jogos com dinheiro (63,5% em homens e 56,9% em mulheres) e mais de 70% dos jovens entre os 6 e os 24 anos jogaram videojogos. O jogo patológico refere-se a um padrão de jogo problemático persistente e recorrente que causa deterioração ou mal-estar clinicamente significativo. A 5.ª edição do Manual Diagnóstico e Estatístico de Distúrbios Mentais (DSM-5) inclui como novidade uma nova categoria denominada “distúrbio por jogo na Internet”. O aspeto nuclear dos padrões de comportamento disfuncionais relacionados com o jogo é a perda de controlo sobre a atividade, que continua apesar das suas consequências negativas. Existem diversas ferramentas de triagem de padrões de jogo patológico, algumas delas concebidas especificamente para jovens.

**Palavras-chave:** Jogo patológico, dependência do jogo, juventude, triagem, apostas, jogos de vídeo.

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### INTRODUCTION

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Playing, in its various forms, is a normal and positive activity in the development of the individual. Playing facilitates the psychological and social growth of the individual, as well as the internalisation of social and coexistence rules. Gambling is often associated with games of chance that have an economic incentive. However, gambling may also occur in games that do not have such an incentive and are merely a pastime in and of themselves (such as video games).

The Spanish Observatory on Drugs and Addictions recently produced a report on behavioural addictions using information from the EDADES and ESTUDES surveys (Observatorio Español de las Drogas y las Adicciones, 2019). According to this report, in 2017, 60.2% of the population aged between 15 and 64 years old reported having played games with money (63.5% in men and 56.9% in women). There is a large difference between online gambling, with a prevalence of only 3.5% in the last year, and in-person gambling, with a prevalence of 59.5% in the last year. Regarding the type of games used, it may be observed that, among those who gamble in person, there is a predominance of individuals who play the conventional lottery or instant lottery, while the most practiced game among those who play online is sports betting. According to the data by the EDADES 2017 survey, it is estimated that 15.4% of the individuals who report having gambled in the 12 months prior to the survey would engage in problematic gambling, and 9.3% would have a possible gambling disorder. These figures, extrapolated to the Spanish population aged between 15 and 64 years old, mean that 0.4% of people engage in problematic gambling and 0.3% have a possible gambling disorder (Observatorio Español de las Drogas y las Adicciones, 2019).

Various surveys also indicate that the majority of the young population plays video games regularly, in some cases spending significant amounts of time. According to a 2012 report (Interactive Software Federation of Europe, 2012), one out of every four citizens have played video games in the last week and more than 70% of young people between the ages of 6 and 24 have played video games. Spain is one of the European countries whose use of video games is at an average level, with video games being the first option for audio-visual leisure, with a turnover of 1.083 billion euros in 2015. Various studies have determined that between 9% and 23% of young Spaniards play video games daily, with this proportion increasing during the weekend. The time spent on video games increases with age, up to 5.16 hours a week on average (Lloret Irlés, Morell Gomis, Marzo Campos, & Tirado González, 2018).

In recent decades (especially in the last few years) there has been a significant increase in society's concern about the potential negative effects of video games (Gentile et al., 2017).

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Gambling and its social and health-related ramifications is a topic that began to draw the attention of the scientific community in the mid-1970s. However, it was not recognised officially until 1980, when the American Psychiatric Association (APA) included gambling disorder in the third revised version of its Diagnostic and Statistical Manual of Mental Disorders (DSM) as one of its categories within the impulse control group of disorders not classified in other sections (American Psychiatric Association, 1980). The World Health Organization (WHO) first included this diagnostic category in its International Classification of Diseases (ICD) in the tenth revised version (World Health Organization, 2004), similarly as an impulse control disorder. Thus, until the appearance of DSM-III, authors studying this disorder referred to it as “neurotic gambling”, “compulsive gambling”, “excessive gambling”, “addictive gambling,” and “pathological gambling” (Sánchez Hervas, 2003).

In 2013, the DSM-5 (American Psychiatric Association, 2013) included gambling disorder in a new category called “Substance-Related and Addictive Disorders”. Within this category, the DSM-5 differentiates substance-related disorders from pathological gambling (the only “behavioural addiction” recognised thus far). This change in the DSM-5 from previous editions reflects the idea that gambling behaviours activate reward systems similar to those activated by drugs, as they produce some behavioural symptoms similar to drug-related disorders (Sociedad Española de Toxicomanías, 1999) (Sánchez Hervas, 2003).

Therefore, gambling disorder refers to persistent and recurrent problematic gambling (which is not better explained by a manic episode), leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the criteria listed in Tabla 1. Diagnostic criteria for gambling disorder. DSM-5, in a 12-month period:

*Tabla 1. Diagnostic criteria for gambling disorder. DSM-5*

<b>Diagnostic criteria for gambling disorder. DSM-5</b>
1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
2. Is restless or irritable when attempting to cut down or stop gambling.
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
7. Lies to conceal the extent of involvement with gambling.
8. Has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling.
9. Relies on others to provide money to relieve desperate financial situations caused by gambling.

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### PATHOLOGICAL GAMING WITHOUT ECONOMIC REWARD

It should be noted that gambling disorder refers exclusively to gambling with money. Any gaming without financial compensation would not fall into this category. The group working on the updating of the DSM understood that, at the time of publication of the DSM-5, there was insufficient evidence on whether problems related to nongambling games constituted a unique mental disorder, and insufficient evidence on the diagnostic criteria to classify it.

However, the group working on the DSM-5 acknowledged that there is a diagnostic category, which they called “Internet gaming disorder”, that requires further research. This group understands that it must be a persistent and recurrent pattern of behaviour that leads to clinically significant impairment or distress in various aspects or areas of life of individuals. Nonetheless, this category is limited to gaming activities on the Internet or any other electronic device, excluding problems related to the general use of the Internet, social networks, and smartphones, as well as online betting. Table 2. Diagnostic criteria for Internet gaming disorder. DSM-5) lists the symptoms for this diagnostic category. The diagnosis requires the presence of 5 or more symptoms over a period of one year (American Psychiatric Association, 2013).

*Table 2. Diagnostic criteria for Internet gaming disorder. DSM-5*

<b>Diagnostic criteria for Internet gaming disorder. DSM-5</b>
1. Preoccupation with Internet games.
2. Withdrawal symptoms when Internet gaming is taken away (irritability, anxiety, or sadness).
3. Tolerance—the need to spend increasing amounts of time engaged in Internet games.
4. Unsuccessful attempts to control the participation in Internet games
5. Loss of interests in previous hobbies and entertainment as a result of, and with the exception of, Internet games.
6. Continued excessive use of Internet games despite knowledge of psychosocial problems.
7. Has deceived family members or others regarding the amount of Internet gaming.
8. Use of Internet games to escape or relieve a negative mood (e.g., feelings of helplessness or guilt).
9. Has jeopardised or lost a significant relationship, job because of participation in Internet games.

With respect to the ICD, the 11th edition (ICD-11; WHO, 2018) will come into force in 2022, being incorporated into it a classification which is very similar to that of the DSM-5. In the section “Disorders due to substance use or addictive behaviours”, the ICD-11 includes the subsection “Disorders due to addictive behaviours,” where it includes two diagnostic categories depending on whether the pattern of behaviour refers to gambling or to the use of video games:

1. Gambling disorder.
2. Gaming disorder.

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In both cases, the persistent or recurring pattern of behaviour may relate to online or offline activities. The common criteria for both diagnostic categories are detailed in Table 3. Diagnostic criteria for gambling disorder and gaming disorder. ICD-11.

*Table 3. Diagnostic criteria for gambling disorder and gaming disorder. ICD-11*

<b>Diagnostic criteria for gambling disorder and gaming disorder. ICD-11</b>
<ol style="list-style-type: none"><li>1. Pattern of behaviour manifested by:<ol style="list-style-type: none"><li>a) Impaired control over gambling/gaming (e.g., onset, frequency, intensity, duration, termination, context)</li><li>b) Increasing priority given to gambling/gaming to the extent that gambling/gaming takes precedence over other life interests and daily activities</li><li>c) Continuation or escalation of gambling/gaming despite the occurrence of negative consequences.</li></ol></li><li>2. The behaviour pattern is of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning.</li><li>3. The pattern of gaming behaviour may be continuous or episodic and recurrent. The gaming behaviour and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.</li></ol>

Most pathological gamers report that they started gaming in their adolescence. Several studies report a mean age of initiation of 13 years old (half of them start gaming between the ages of 11 and 19 years old, although up to a third do so even before the age of 10). Research indicates that gaming patterns are established during the childhood stage and evolve as the person grows and has access to money and different modes of play (Gupta & Pinzon, 2012). As a result, gaming disorder is part of a continuum that goes from an adaptive and non-problematic gaming pattern (in which the majority of the population is found) to pathological gaming, with a range of intermediate degrees.

The literature indicates that there are certain characteristics that may serve as risk factors for developing gaming-related problems, such as mood disorders, loss and adaptive disorders, abuse, low self-esteem, impulsivity, antisocial personality traits, or learning disabilities. Younger individuals are also influenced by the usual tendency to take risks and by the immaturity of their decision-making skills (Gupta & Pinzon, 2012).

The core aspect of dysfunctional behaviour patterns related to gaming is the relationship of dependence that the individual establishes with the behaviour involved, that is, the loss of control over the activity, which continues despite the negative consequences that it generates.

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In more general terms, as mentioned above, the related symptoms are usually as follows:

1. Intense desire or need to perform the activity and irritability and discomfort when faced with the inability to perform it.
2. Need to increase the time dedicated to the activity.
3. Progressive loss of control over the activity.
4. Focusing progressively on relationships, activities, and interests surrounding the activity, and abandoning other interests, relationships, and previous activities (family, academic, work, and leisure activities).
5. Denial of the existing problem, despite the warnings from the environment.

## CRIBADO DEL JUEGO PATOLÓGICO Y DEL TRASTORNO POR JUEGO EN INTERNET

Apart from the aforementioned DSM diagnostic criteria, there are various tools for screening pathological gambling patterns, some of which are designed specifically for young individuals. This is the case of the Gambling Screening Questionnaire for the adolescent population (South Oaks Gambling Screen-Revised for Adolescents, SOGS-RA) (Becoña, 1997). As shown in **¡Error! La autoreferencia al marcador no es válida.**, this is a gambling disorder screening scale made up of 12 items. Item 1 consists of 4 alternative answers (every time; most of the time; some of the time; never) and the remaining items consist of two alternative answers (yes/no). Each affirmative answer scores 1 point (as does “every time” and “most of the time” in the case of item 1). All other answers score 0.

The ratings are classified into 3 categories: non-gambler or non-problem gambler (0-1 affirmative answers), at-risk gambler (2-3 affirmative answers), and problem gambler (4 or more affirmative answers). Predictably, those classified as problem gamblers will be having problems with their gambling that will negatively affect their daily functioning, whereas those classified as at-risk gamblers will be in a less severe stage, but their gambling patterns may cause them problems in the future.

*Table 4. South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA)*

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### South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA)

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In the past year:

1. How often have you gone back another day to try and win back money you lost gambling?
  2. When you were betting, have you ever told others you were winning money when you weren't?
  3. Has your betting money ever caused any problems for you such as arguments with family and friends, or problems at school or work?
  4. Have you ever gambled more than you had planned to?
  5. Has anyone criticised your betting, or told you that you had a gambling problem whether you thought it true or not?
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6. Have you ever felt bad about the amount of money you bet, or about what happens when you bet money?
  7. Have you ever felt like you would like to stop betting, but didn't think you could?
  8. Have you ever hidden from family or friends any betting slips, IOUs, lottery tickets, money that you won, or any signs of gambling?
  9. Have you had money arguments with family or friends that centred on gambling?
  10. Have you borrowed money to bet and not paid it back?
  11. Have you ever skipped or been absent from school or work due to betting activities?
  12. Have you borrowed money or stolen something in order to bet or to cover gambling activities?
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There are briefer tools, such as the Brief Adolescent Gambling Screen (BAGS), which is a specific questionnaire for young people, made up of 3 items with 4 response options (0 never; 1 almost never; 2 sometimes; 3 often). A total score of 2 or more would indicate the need for a more detailed assessment of that individual. The BAGS scale has been created recently and has not yet been validated in the Spanish population. As a result, it has been suggested to be used as a guide to assess gambling patterns in a limited time frame. The 3 items that make up the questionnaire are listed in **¡Error! La autoreferencia al marcador no es válida..**

*Table 5. Brief Adolescent Gambling Screen (BAGS)*

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<b>Brief Adolescent Gambling Screen (BAGS)</b>
1. How often have you felt that you might have a problem with gambling/betting?
2. How often have you hidden your gambling/betting from your parents, other family members or teachers?
3. How often have you skipped hanging out with friends who do not gamble/bet to hang out with friends who do gamble/bet?

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Regarding internet gaming disorder, the American Pediatric Association, in its report on this disorder in adolescents (Gentile et al., 2017), concludes that as a newly created category, it would be premature to make a recommendation about the widespread use of a particular screening tool at this time. However, the APA stated that one of the tools used is the Internet Gaming Disorder Screening Scale (IGD) (Lemmens, Valkenburg, & Gentile, 2015). This screening is limited to turning each of the 9 diagnostic criteria listed in the DSM-5 into questions. Thus, the scale is made up of 9 items with two response options (yes or no). Five affirmative answers indicate that the patient has a problem with his or her internet gaming pattern.

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**TREATMENT**

The scientific literature reports a range of interventions to help individuals with gambling problems. These include pharmacological, psychological, and social treatments. A Canadian study that has been published recently (Problem Gambling Research and Treatment Centre, 2011) conducted a review of the available evidence regarding different intervention options (aimed at the general population). A summary of its recommendations is provided in **¡Error! La autoreferencia al marcador no es válida..**

*Table 6. Compilation of evidence on different therapeutic options in relation to pathological gambling*

Recommendation	Level of evidence for each recommendation
Individual or group Cognitive-Behavioural Therapy should be used to reduce gambling behaviour, gambling severity and psychological distress in people with gambling problems.	B
Motivational Interviewing and Motivational Enhancement Therapy should be used to reduce gambling behaviour and gambling severity in people with gambling problems.	B
Practitioner delivered psychological interventions should be used to reduce gambling severity and gambling behaviour in people with gambling problems.	B
Practitioner delivered psychological interventions should be used over self-help psychological interventions to reduce gambling severity and gambling behaviour in people with gambling problems.	B
Group psychological interventions could be used to reduce gambling behaviour and gambling severity in people with gambling problems.	C
Antidepressant medications should not be used to reduce gambling severity in people with gambling problems alone.	B
Naltrexone could be used to reduce gambling severity in people with gambling problems.	C

Source: Problem Gambling Research and Treatment Centre, 2011

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### RESOURCES

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#### For professionals

- Manual de intervención en juego patológico (Servicio Extremeño de Salud). Disponible en <http://www.drogasextremadura.com/archivos/manual.pdf>
- Guía clínica: actuar ante el juego patológico (Junta de Andalucía). Disponible en [http://www.ipbscordoba.es/uploads/Documentos/2016/GUIA\\_CLINICA\\_JUEGO\\_PATOLOGICO.pdf](http://www.ipbscordoba.es/uploads/Documentos/2016/GUIA_CLINICA_JUEGO_PATOLOGICO.pdf)
- Todo lo que los clínicos deben saber acerca de los trastornos del juego (National Center for Responsible Gaming, en inglés). Disponible en <http://www.ncrg.org/sites/default/files/uploads/docs/monographs/ncrgmonograph7final.pdf>

#### For patients and families

- Guía Jugando a perder, la ludopatía (Departamento de Sanidad del Gobierno Vasco). Disponible en [https://psicopedia.org/wp-content/uploads/2013/09/ludopatia\\_PDF.pdf](https://psicopedia.org/wp-content/uploads/2013/09/ludopatia_PDF.pdf)

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## RINSAD

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