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Classification criteria for gaming disorders: a comparison of APA and WHO approaches

Kryteria klasyfikacyjne zaburzeń grania w gry komputerowe: porównanie podejścia APA i WHO

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Abstract

Computer games play a significant role in modern entertainment, appealing to diverse age groups worldwide. This paper examines "internet gaming disorder" and "gaming disorder", comparing their diagnostic criteria as defined by the American Psychiatric Association and the World Health Organization. While internet gaming disorder employs a broader set of criteria conducive to early identification of problematic gaming, gaming disorder focuses on more severe symptoms and significant functional impairment. These differences in diagnostic frameworks influence reported prevalence rates, highlighting the need for standardised methodologies. Key distinctions include internet gaming disorder's emphasis on behaviours such as withdrawal, tolerance, and escapism, whereas gaming disorder prioritises impaired control and life disruption. Despite their differences, both classifications underscore gaming's potential to induce behavioural addiction, comparable to substance use disorders. Diagnostic tools such as the IGDS9-SF and GAMES enhance the precision of evaluations; however, the absence of unified standards poses challenges in prevalence assessments and treatment approaches. These discrepancies complicate international comparisons and hinder the development of universal therapeutic strategies. Future research should aim to harmonise diagnostic criteria and improve tools to account for demographic variations and guide effective interventions. Establishing a balanced framework may aid in differentiating pathological gaming from non-harmful gaming behaviours, fostering better understanding and management of gaming-related disorders. Additionally, such a framework could prevent stigmatisation of non-pathological gaming, ensuring that interventions are appropriately targeted.

Keywords: internet gaming disorder, gaming disorder, DSM-5, ICD-11, behavioural addictions

Streszczenie

Gry komputerowe odgrywają istotną rolę we współczesnej rozrywce, na całym świecie angażując osoby w różnym wieku. W pracy dokonano analizy zaburzenia związanego z grami internetowymi (*internet gaming disorder*, IGD) i zaburzenia związanego z graniem (*gaming disorder*, GD), porównując kryteria diagnostyczne zaproponowane przez Amerykańskie Towarzystwo Psychiatryczne i Światową Organizację Zdrowia. Zaburzenie związane z grami internetowymi obejmuje szerszy zestaw kryteriów, co sprzyja wczesnej identyfikacji problemowego grania, podczas gdy zaburzenie związane z graniem koncentruje się na poważnych objawach i znacznym upośledzeniu funkcjonowania. Różnice w podejściu diagnostycznym wpływają na rejestrowane wskaźniki rozpowszechnienia tych zaburzeń, co podkreśla potrzebę ujednolicenia metodologii. Główne różnice obejmują nacisk w przypadku zaburzenia związanego z grami internetowymi na takie zachowania, jak objawy odstawienia, tolerancja i eskapizm, podczas gdy diagnoza zaburzenia związanego z graniem podkreśla brak kontroli i zakłócenia w życiu codziennym. Pomimo tych różnic obie klasyfikacje wskazują na potencjał gier do wywoływania uzależnień behawioralnych, porównywalnych z zaburzeniami spowodowanymi używaniem substancji psychoaktywnych. Chociaż narzędzia diagnostyczne, takie jak IGDS9-SF i GAMES, poprawiają precyzję oceny, to brak jednolitych standardów utrudnia szacunki rozpowszechnienia i podejścia terapeutyczne.

Różnice te komplikują międzynarodowe porównania i ograniczają rozwój uniwersalnych strategii terapeutycznych. Przyszłe badania powinny dążyć do harmonizacji kryteriów diagnostycznych i udoskonalania narzędzi, uwzględniając różnice demograficzne oraz umożliwiając skuteczniejsze interwencje. Opracowanie zrównoważonych ram diagnostycznych pozwoli odróżnić patologiczne granie od zachowań nieszkodliwych, wspierając lepsze zrozumienie i zarządzanie zaburzeniami związanymi z grami. Ponadto takie ramy mogłyby zapobiec stygmatyzacji nieszkodliwego grania, zapewniając adekwatność podejmowanych interwencji.

Słowa kluczowe: zaburzenie związane z grami internetowymi, zaburzenie związane z graniem, DSM-5, zaburzenia behawioralne, ICD-11

INTRODUCTION

Computer games have become one of the most popular forms of entertainment, engaging individuals of all ages and backgrounds around the world. According to research, up to 97% of teenagers play computer games, demonstrating their immense popularity in this age group. Computer games can offer various benefits, such as the development of social skills, particularly as more than 70% of players engage in games with friends. They also promote the development of leadership and organisational skills (Lenhart et al., 2008).

Studies on gaming motives indicate that competitiveness, escapism, and social interaction play a key role in the complex relationship between psychological distress and gaming disorders (Dauriat et al., 2011; Hilgard et al., 2013; Király et al., 2015). Additionally, factors such as impulsivity in males, attention deficit hyperactivity disorder, dysphoria, and isolation combined with social anxiety are strong contributors to disordered gaming (Ko et al., 2023). Furthermore, problematic game use can lead to symptoms resembling those of substance use disorders, which presents a significant challenge for medical professionals in distinguishing pathological gaming from a disorder.

Along with research on disordered gaming, the first classifications of behavioural addictions were developed, which led to the disorder being firmly established in this group. Both the World Health Organization (WHO) and the American Psychiatric Association (APA) have proposed distinct names, definitions, and criteria to facilitate the diagnosis of disordered gaming. The purpose of this paper is to compare internet gaming disorder (IGD), as defined by the APA, with gaming disorder (GD), as proposed by the WHO.

MATERIALS AND METHODS

The analysis was performed using the monographic method. We searched the PubMed database using the following keywords: "internet gaming disorder", "gaming disorder", "behavioural addictions", "ICD-11", "DSM-5". Original papers and review papers in English, published between 2004 and 2022, were included.

BEHAVIOURAL ADDICTIONS IN THE DSM-5 CLASSIFICATION

Behavioural addictions are a broad category of potential disorders, characterised by repetitive, problematic behaviour and poor impulse control, ultimately resulting in distress or dysfunction.

Gaming is not the first behavioural addiction described in the DSM-5. In 2013, the APA's classification of psychiatric disorders – DSM-5 – added gambling disorder to the category of "Substance-related and Addictive disorders". The change was prompted by research indicating that gambling activates reward systems similar to those activated by substance abuse, producing similar behavioural symptoms as those associated with substance use disorder (SUD) (Grant et al., 2010; McBride and Derevensky, 2016).

IGD is also included in the DSM-5. However, due to insufficient evidence regarding its similarity to SUDs, the disorder was placed in Section 3: "Disorders for Further Study". The proposed classification criteria for IGD include persistent and repeated use of the Internet to engage in gaming, often with other gamers, leading to clinically significant impairment or "distress", as indicated by five (or more) of the following symptoms over a period of 12 months or longer:

1. preoccupation with online gaming (the person thinks about the previous gaming activity or anticipates the next game; internet gaming becomes the dominant activity in daily life);
2. withdrawal symptoms when online gaming is taken away (these symptoms are usually described as irritability, anxiety, or sadness, but there are no physical symptoms as in substance withdrawal);
3. tolerance (the need to spend more and more time playing online games);
4. unsuccessful attempts to control participation in online games;
5. loss of interest in previous hobbies and pastimes both due to and independent of online gaming;
6. continued excessive use of online games despite awareness of psychosocial problems;
7. deceiving family members, therapists, or others about the amount of time spent playing online games;
8. using online gaming to escape or alleviate a negative mood (e.g. feelings of helplessness, guilt, anxiety);
9. jeopardising or losing an important relationship, job, educational or professional opportunity because of online gaming (American Psychiatric Association, 2013).

Clinically significant impairment is defined as a marked dysfunction in various areas of life, such as social relationships, work, education, or mental health, as a result of excessive and compulsive gaming.

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DSM-5		
Internet gaming disorder	**Gambling disorder**	**Alcohol use disorder**
Persistent and recurrent use of the Internet to engage in games, often with other players, leading to clinically significant impairment or distress as indicated by five (or more) of the following in a 12-month period:	Persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:	A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:
Preoccupation with Internet games (the individual thinks about previous gaming activity or anticipates playing the next game; internet gaming becomes the dominant activity in daily life)	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)	Alcohol is often taken in larger amounts or over a longer period than was intended. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects. Craving, or a strong desire or urge to use alcohol
Withdrawal symptoms when Internet gaming is taken away (these symptoms are typically described as irritability, anxiety, or sadness, but there are no physical signs of pharmacological withdrawal)	Is restless or irritable when attempting to cut down or stop gambling	Withdrawal, as manifested by either of the following: a. The characteristic withdrawal syndrome for alcohol (refer to Criteria A and B of the criteria set for alcohol withdrawal) b. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms
Tolerance – the need to spend increasing amounts of time engaged in Internet games	Needs to gamble with increasing amounts of money in order to achieve the desired excitement	Tolerance, as defined by either of the following: a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect b. A markedly diminished effect with continued use of the same amount of alcohol
Unsuccessful attempts to control the participation in Internet games	Has made repeated unsuccessful efforts to control, cut back, or stop gambling	There is a persistent desire or unsuccessful efforts to cut down or control alcohol use
Loss of interests in previous hobbies and entertainment as a result of, and with the exception of, internet games		Important social, occupational, or recreational activities are given up or reduced because of alcohol use
Continued excessive use of Internet games despite knowledge of psychosocial problems		Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol
Has deceived family members, therapists, or others regarding the amount of internet gaming	Lies to conceal the extent of involvement with gambling	
Use of Internet games to escape or relieve a negative mood (e.g. feelings of helplessness, guilt, anxiety)	Often gambles when feeling distressed (e.g. helpless, guilty, anxious, depressed)	
Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of participation in Internet games	Has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling	Recurrent alcohol use resulting in a failure to fulfil major role obligations at work, school, or home. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol
	After losing money gambling, often returns another day to get even ("chasing" one's losses)	Recurrent alcohol use in situations in which it is physically hazardous
	Relies on others to provide money to relieve desperate financial situations caused by gambling	

Tab. 1. Internet gaming disorder, gambling disorder and alcohol use disorder criteria based on DMS-5

Tab. 1 presents the compiled classification criteria for IGD, gambling disorder, and alcohol use disorder as an example of a classic SUD. All these disorders share clinical manifestations, i.e. social factors, comorbid disorders, personality traits, biochemistry, and neuroimaging changes, despite the distinctiveness in the underlying object of dependence, resulting in a high degree of convergence among their diagnostic criteria (King et al., 2020; Potenza, 2006).

Extensive research on gambling addiction has made the criteria more adaptable to the needs of the disorder by including features such as "pursuit of loss" or "reliance on others to provide money to alleviate the desperate financial situation caused by gambling". These criteria also encompass online gambling, distinguishing this activity from playing computer games (Sleczka et al., 2015).

In the case of IGD criteria, there have been many studies on the accuracy of the proposed criteria. Ko et al. (2014) conducted clinical interviews based on the DSM-5 criteria for IGD in three groups: individuals with current gaming problems, individuals with past but no longer present problems, and a control group. The study showed that the DSM-5 criteria have different diagnostic value. Criteria 6, "continued excessive use despite problems", and 9, "risk/loss of relationships or developmental opportunities", had high diagnostic accuracy, effectively distinguishing the control group from the group of people with gaming disorders, while criterion 7, "deceiving", showed the lowest diagnostic accuracy. A similar study in Germany found that "gaming to escape" and "preoccupation" less often predicted IGD, while "giving up other activities", "increasing tolerance" and "withdrawal" were the most important predictor variables. Király

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et al. (2017) reached similar conclusions in a study conducted among Hungarian players, noting that the criteria "preoccupation" and "gaming to escape" provide limited information when assessing the severity of IGD. Similarly, Besser et al. (2019) in Germany and Lemmens et al. (2015) in the Netherlands highlighted that "gaming to escape" has limited diagnostic utility.

Perhaps the limited diagnostic value of "gaming to escape" is due to the fact that using the Internet and gaming can serve as healthy forms of stress relief and relaxation, without being a clear predictor of pathological gaming.

However, the authors emphasise the validity of all criteria and a cutoff point of five or more criteria met.

GAMING DISORDER CLASSIFICATION IN ICD-11

The WHO proposes another term for gaming problems – gaming disorder (GD), and includes GD in the category of "Disorders due to substance use and addictive behaviors" along with SUD and gambling disorder. Unlike IGD, the definition of GD is based on just four criteria:

1. impaired control over gaming;
2. increasing priority given to gaming – gaming takes precedence over other interests;
3. continued gaming despite knowledge of undesirable consequences;
4. problematic gaming behaviour has led to significant impairment in important areas of life (e.g. interpersonal, professional/academic performance) for at least 12 months (World Health Organization, 2018).

These criteria are based on research into the main characteristics of excessive gaming (Billieux et al., 2015). A significant departure from the DSM-5 is the absence of tolerance and withdrawal symptoms, which may be more closely linked to long-term gaming (Kaptsis et al., 2016; King and Delfabbro, 2016). The criteria for GD, gambling disorder, and alcohol dependence are presented in Tab. 2. In both behavioural addictions, the criteria do not include tolerance symptoms or withdrawal syndrome, which are key to classic addictions (Bayard et al., 2004). Withdrawal symptoms in individuals with IGD have been described as "irritability" and "restlessness" caused by the discontinuation of gaming. However, there is a lack of studies providing detailed descriptions of clinical symptoms resulting from gaming cessation (Kaptsis et al., 2016). Pery et al. (2014) highlight that it is important to distinguish between emotions that result from external forces that prevent playing and withdrawal symptoms that occur when a person is unable to play or when they try to stop playing on their own initiative.

DIFFERENCES BETWEEN INTERNET GAMING DISORDER AND GAMING DISORDER

The definition of IGD offers a total of 9 criteria, of which at least 5 must be met. These criteria are broader, taking into account a wider range of gaming behaviours. The WHO proposes different, more rigorous approach that requires all criteria to be met, emphasising more severe symptoms and functional impairment.

This divergence may affect the results of studies examining morbidity, risk factors, and treatment course (Pontes et al., 2021). A study comparing the APA and WHO criteria demonstrated that the differences in the prevalence rates of GD and IGD were statistically significant, with a coefficient $\varphi = 0.75$ indicating a large effect size. Among the study subjects, 5.74% met the IGD criteria, while only 3.28% met the GD criteria (Montag et al., 2019). A study conducted by Tuncturk et al. (2023) revealed that among individuals who met the diagnostic criteria for IGD, only 73% also met the diagnostic criteria for GD. A study comparing the diagnostic criteria, clinical picture, and gaming behaviour

ICD-11		
Gaming disorder	**Gambling disorder**	**Alcohol dependence**
A pattern of persistent or repeated gaming behaviour that may be online (i.e. via the Internet) or offline, lasting for at least 12 months, manifested by:	A pattern of persistent or repeated gambling behaviour that may be online (i.e. *via* the Internet) or offline, lasting for at least 12 months, manifested by:	Alcohol use disorder resulting from repeated or continuous alcohol use. It is characterised by a strong internal urge to use alcohol over a period of at least 12 months (or 3 months if alcohol has been consumed daily/almost daily for at least 3 months), which is manifested by:
Impaired control over gaming	Impaired control over gambling (e.g. onset, frequency, intensity, duration, cessation, context)	Impaired ability to control alcohol consumption
Increasing the priority given to gaming – gaming takes precedence over other interests	Increasing the priority given to gambling to the point that gambling takes precedence over other life interests and daily activities	Increasing the priority of alcohol consumption over other activities
Continues gaming despite knowledge of negative consequences	Continuation or escalation of gambling despite negative consequences	Continued alcohol consumption despite harm or negative consequences
Leads to significant disruptions in major areas of life (e.g., interpersonal, professional/academic performance)	Results in significant suffering or significant impairment of personal, family, social, educational, occupational or other important areas of functioning	There may also be physiological features of addiction, including tolerance to the effects of alcohol, withdrawal symptoms after cessation or reduction of alcohol use or repeated use of alcohol or pharmacologically similar substances to prevent or relieve withdrawal symptoms

Tab. 2. Gaming disorder, gambling disorder, and alcohol dependence criteria based on ICD-11

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patterns of IGD and GD conducted in the Korean population also revealed notable differences between the two conditions. The ICD-11 confirmed that individuals with GD exhibit more severe Internet, gaming, and smartphone addiction than those without GD. The diagnostic criteria in the ICD-11 are more rigorous and emphasise functional impairment (Jo et al., 2019).

The prevalence of both GD and IGD varies considerably, depending on a multitude of factors. With regard to IGD, the prevalence rate spans a considerable range, from 0.21% to 57.5%. This notable discrepancy may be attributed to the use of diverse diagnostic tests that lack standardisation. Additionally, studies on gaming addiction have indicated that the age of participants can influence prevalence rates. Studies that included primarily adolescents reported higher prevalence rates compared to those considering broader age groups (Gao et al., 2022). The prevalence rate of IGD should therefore be interpreted with caution. The multitude of approaches employed in the study of IGD serves to reinforce the legitimacy of discourse on the subject and the absence of definitive diagnostic criteria (Darvesh et al., 2020). One of the diagnostic methods for IGD is the IGDS9-SF test, which assesses the severity of IGD by considering the nine DSM-5 diagnostic criteria on a five-point scale. Results obtained with this test confirm the accuracy and reliability of the Polish IGDS9-SF and its usefulness as a psychometric tool in assessing IGD in Polish-speaking samples (Schivinski et al., 2018). The IGD-20 is another survey instrument that, in its Polish version, exhibits positive psychometric properties (Grajewski and Dragan, 2021). The ICD-11 GD still lacks research on prevalence rates. The Gaming Disorder Test (GDT) assesses the severity and consequences of GD; however, it does not evaluate the prevalence of the disorder (Pontes et al., 2021). GADIS-A, on the other hand, was developed for use in adolescents only (Paschke et al., 2020). A diagnostic test, GAMES, developed in a representative group of the general young population in Japan, showed a prevalence rate of 5.1%, with 7.6% in males and 2.5% in females (Higuchi et al., 2021).

CONCLUSION

In conclusion, IGD and GD exhibit significant parallels with SUDs, particularly with regard to clinical manifestations and neurobiological substrates. The inclusion of IGD in the DSM-5 as a disorder requiring further study and the classification of GD in the ICD-11 as "Disorders due to substance use and addictive behaviors" indicate advancements in understanding behavioural addictions and their influence on functioning.

However, the absence of uniform diagnostic standards for IGD results in considerable discrepancies in reported prevalence rates, rendering it challenging to compare findings across diverse populations and methodologies. Examining the discrepancies between the DSM-5 and ICD-11 classifications, and further investigating the relevance and reliability of the proposed criteria, remain pivotal to unifying diagnostic and therapeutic approaches.

Both the ICD-11 and DSM-5 criteria have the potential to be beneficial in clinical practice. IGD, which considers a more comprehensive range of behaviours, may facilitate earlier intervention for those seeking help. In contrast, GD more precisely identifies pathological gaming, circumventing the stigmatisation of avid hobbyist gaming that is not harmful. It thus appears advisable to utilise screening instruments that encompass criteria for both disorders, such as the Internet Gaming Disorder Screening Test (IGDS9-SF), in individuals seeking assistance.

Therefore, it is essential to develop diagnostic tools like the IGDS9-SF or GAMES, which can improve diagnostic precision and assess the impact of IGD and GD on various aspects of life. To gain a more accurate understanding of the prevalence of these disorders, studies should take into account demographic factors, such as age and gender, which can significantly affect prevalence rates. This approach will enable the development of more effective therapeutic and preventive strategies tailored to the specific needs of different populations.

Conflict of interest

The authors do not report any financial or personal connections with other persons or organisations which might negatively affect the content of this publication and/or claim authorship rights to this publication.

Author contribution

Original concept of study; analysis and interpretation of data; final approval of manuscript: BŁ. Collection, recording and/or compilation of data: BŁ, AM. Writing of manuscript: BŁ, AM, MŁ. Critical review of manuscript: SM, NW.

References

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders: DSM-5™. 5th ed., American Psychiatric Publishing, Washington 2013.

Bayard M, McIntyre J, Hill KR, Woodside J: Alcohol withdrawal syndrome. Am Fam Physician 2004; 69: 1443–1450.

Besser B, Loerbroks L, Bischof G et al.: Performance of the DSM-5-based criteria for Internet addiction: a factor analytical examination of three samples. J Behav Addict 2019; 8: 288–294.

Billieux J, Thorens G, Khazaal Y et al.: Problematic involvement in online games: a cluster analytic approach. Comput Hum Behav 2015; 43: 242–250.

Darvesh N, Radhakrishnan A, Lachance CC et al.: Exploring the prevalence of gaming disorder and Internet gaming disorder: a rapid scoping review. Syst Rev 2020; 9: 68.

Dauriat FZ, Zermatten A, Billieux J et al.: Motivations to play specifically predict excessive involvement in massively multiplayer online role-playing games: evidence from an online survey. Eur Addict Res 2011; 17: 185–189.

Gao YX, Wang JY, Dong GH: The prevalence and possible risk factors of internet gaming disorder among adolescents and young adults: systematic reviews and meta-analyses. J Psychiatr Res 2022; 154: 35–43.

Grajewski P, Dragan M: Polish validation of the Internet Gaming Disorder-20 (IGD-20) Test. Psychiatr Pol 2021; 55: 1275–1292.

Grant JE, Potenza MN, Weinstein A et al.: Introduction to behavioral addictions. Am J Drug Alcohol Abuse 2010; 36: 233–241.
Higuchi S, Osaki Y, Kinjo A et al.: Development and validation of a nine-item short screening test for ICD-11 gaming disorder (GAMES test) and estimation of the prevalence in the general young population. J Behav Addict 2021; 10: 263–280.
Hilgard J, Engelhardt CR, Bartholow BD: Individual differences in motives, preferences, and pathology in video games: the gaming attitudes, motives, and experiences scales (GAMES). Front Psychol 2013; 4: 608.
Jo YS, Bhang SY, Choi JS et al.: Clinical characteristics of diagnosis for Internet gaming disorder: comparison of DSM-5 IGD and ICD-11 GD diagnosis. J Clin Med 2019; 8: 945.
Kaptsis D, King DL, Delfabbro PH et al.: Withdrawal symptoms in internet gaming disorder: a systematic review. Clin Psychol Rev 2016; 43: 58–66.
King DL, Chamberlain SR, Carragher N et al.: Screening and assessment tools for gaming disorder: a comprehensive systematic review. Clin Psychol Rev 2020; 77: 101831.
King DL, Delfabbro PH: Defining tolerance in Internet gaming disorder: isn't it time? Addiction 2016; 111: 2064–2065.
Király O, Scleczka P, Pontes HM et al.: Validation of the Ten-Item Internet Gaming Disorder Test (IGDT-10) and evaluation of the nine DSM-5 Internet Gaming Disorder criteria. Addict Behav 2017; 64: 253–260.
Király O, Urbán R, Griffiths MD et al.: The mediating effect of gaming motivation between psychiatric symptoms and problematic online gaming: an online survey. J Med Internet Res 2015; 17: e88.
Ko CH, Király O, Demetrovics Z et al.: Heterogeneity of gaming disorder: a clinically-based typology for developing personalized interventions. J Behav Addict 2023; 12: 855–861.
Ko CH, Yen JY, Chen SH et al.: Evaluation of the diagnostic criteria of Internet gaming disorder in the DSM-5 among young adults in Taiwan. J Psychiatr Res 2014; 53: 103–110.
Lemmens JS, Valkenburg PM, Gentile DA: The Internet Gaming Disorder Scale. Psychol Assess 2015; 27: 567–582.
Lenhart A, Kahne J, Middaugh E et al.: Teens, Video Games, and Civics: Teens' Gaming Experiences Are Diverse and Include Significant Social Interaction and Civic Engagement. Pew Internet & American Life Project, Washington 2008.
McBride J, Derevensky J: Gambling and video game playing among youth. J Gambl Issues 2016; 34: 156–178.
Montag C, Schivinski B, Sariyska R et al.: Psychopathological symptoms and gaming motives in disordered gaming – a psychometric comparison between the WHO and APA diagnostic frameworks. J Clin Med 2019; 8: 1691.
Paschke K, Austermann MI, Thomasius R: Assessing ICD-11 gaming disorder in adolescent gamers: development and validation of the Gaming Disorder Scale for Adolescents (GADIS-A). J Clin Med 2020; 9: 933.
Petry NM, Rehbein F, Gentile DA et al.: An international consensus for assessing internet gaming disorder using the new DSM-5 approach. Addiction 2014; 109: 1399–1406.
Pontes HM, Schivinski B, Sindermann C et al.: Measurement and conceptualization of gaming disorder according to the World Health Organization framework: the development of the Gaming Disorder Test. Int J Ment Health Addict 2021; 19: 508–528.
Potenza M: Should addictive disorders include non-substance-related conditions? Addiction 2006; 101 Suppl 1: 142–151.
Schivinski B, Brzozowska-Woś M, Buchanan EM et al.: Psychometric assessment of the Internet Gaming Disorder diagnostic criteria: an Item Response Theory study. Addict Behav Rep 2018; 8: 176–184.
Sleczka P, Braun B, Piontek D et al.: DSM-5 criteria for gambling disorder: underlying structure and applicability to specific groups of gamblers. J Behav Addict 2015; 4: 226–235.
Tuncturk M, Karacetin G, Ermis C et al.: Rate of overlap between ICD-11 gaming disorder and DSM-5 Internet gaming disorder along with Turkish reliability of the Gaming Disorder Scale for Adolescents (GADIS-A). Dubai Med J 2023; 6: 291–300.
World Health Organization: Gaming disorder. 2018. Available from: https://www.who.int/standards/classifications/frequently-asked-questions/gaming-disorder.

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