

The Socio-economic Impact of Legalizing Interactive Gaming (iGaming) and Online Betting in Maryland

A Report by

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1. Introduction

Maryland's gambling landscape faces the specter of transformation with the recent introduction of online sports betting and the potential legalization of Interactive Gaming (iGaming) in the State. This report delves into the socio-economic impacts of these changes, focusing particularly on the adverse effects, informed by data and trends from other states.

2. Background of Gambling Expansion in Maryland

Maryland's commercial casino operations generate substantial gaming tax revenue for the State. Of the gaming tax total revenue of \$854.7 million generated in 2022, approximately \$617.1 million was distributed to Maryland's Education Trust Fund, which supports public education and construction of new schools, including public colleges, throughout the State. Approximately \$108.3 million was distributed in the form of local impact grants and other contributions to local governments.

The legalization of sports betting in 2020 marked a new chapter in Maryland's gambling history. Initially, sports wagering was limited to in-person retail wagering at Maryland's land-based casinos. Generally, a robust sports betting market had developed, with revenues that surpassed the \$100 million mark in its inaugural year ("Maryland Gaming," 2023). However, in late 2022, operators launched mobile sports betting. Since that time, income from physical sports betting has significantly decreased. This downturn has affected investments in brick-and-mortar sportsbooks and the earnings from slot machines and table games in Maryland's casinos due to a drop in customer visits. Additionally, the surrounding communities and businesses have experienced diminished direct and indirect economic advantages as a consequence.

Now, the State stands divided on the expansion into iGaming – the online realm of mobile betting on casino games such as slot machines, poker, blackjack, and roulette. The debate is heated and multifaceted, as stakeholders weigh the prospects of economic gain against social and societal repercussions. Proponents of iGaming point to the possibility of further revenue for the State, while critics raise alarms over the ease of access to iGaming platforms, the heightened risk of gambling addiction, and the loss of living-wage jobs at brick-and-mortar casinos.

The central concern revolves around the societal costs that often accompany addiction, from the strain on healthcare systems and social services to the broader social impact. With only seven (7) states having legalized iGaming to date, and New York's Governor deciding not to include iGaming in her 2024-25 budget, this ongoing debate places Maryland at an inflection point – does the State want to be a pioneer in the role and regulation of iGaming despite the associated societal risks and costs?

3. Social Impacts

Unlike iGaming, which has been authorized in only a small number of states, online sports betting has rapidly expanded across the United States following a 2018 Supreme Court decision that struck down the federal ban on state-authorized sports wagering. Since that time, 38 states have legalized the practice. As a result, "more than half of American adults—146 million people—now live in a live, legal sports-betting market." This is of particular concern as those most vulnerable to gambling addiction are also those most likely to participate in online sports betting – those in their early twenties. This population is most at risk as they are more susceptible to activities that trigger the reward centers of the brain, leading to addiction.²

The repercussions of the surge in legalized sports wagering have been alarming. The National Council on Problem Gambling ("NCPG") operates a National Problem Gambling Helpline (1-800-GAMBLER) that serves as a resource for individuals who may be struggling with problem gambling or gambling addiction.³ Individuals may contact the helpline by calling, sending a text message, or through an online chat. According to the contacts that NCPG publishes in a public dashboard on its website, calls to the helpline rose "43 percent, while texts increased 59 percent and chats jumped 84 percent" in 2021. ⁴ Notably, as indicated in the chart below, states with mobile sports betting saw the volume of contacts increase at more than four times the rate of increase seen in states without statewide mobile sports betting.

https://www.newsweek.com/2023/04/07/sports-betting-boom-linked-rising-gambling-addiction-anxiety-suicide-1789055.html

² Id

https://www.ncpgambling.org/help-treatment/about-the-national-problem-gambling-helpline/

https://www.ncpgambling.org/pa-resources/access-helpline-dashboard/

	Contacts in 2017	Contacts in 2023	% Increase
All States	235,713	358,745	52.20%
States without Mobile Sports Betting as of 1/1/2024 ⁵	118,664	141,559	19.29%
States with Mobile Sports Betting as of 1/1/2024 ⁶	114,376	213,563	86.72%

Research suggests that similar impacts can be expected in states that legalize iGaming. A study by M.N. Potenza suggests that iGaming can cultivate an addiction akin to substance-use disorders. In fact, research has found that iGaming "is one of the most addictive activities available." According to a study published by the American Psychological Association, of the subjects who had participated in gambling activities, nearly 75% of those with iGaming experience reported rates of problem or pathological gambling versus 22% of individuals who did not have iGaming experience. The ease of access to iGaming is projected to lead to more health and emotional difficulties that come with gambling disorders, including substance abuse, circulatory disease, depression, risky sexual behaviors and increased rates of suicide.

Beyond the immediate effects on the individual, iGaming addiction can cause significant disruption in family dynamics, often leading to conflicts, financial strain, neglect of familial responsibilities, and emotional detachment. The addictive nature of online games can result in compulsive behaviors that overshadow personal relationships, leading to estrangement, divorce and the breakup of family units.

Numerous studies have been conducted on the risk factors for developing or maintaining a gambling disorder. These risk factors include being young, a male, single or married for less than 5 years, living alone, having a poor education, and struggling financially.¹⁰ Moreover, as

Alabama, Alaska, California, Delaware, Georgia, Hawaii, Idaho, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, and Wisconsin.

Arizona, Arkansas, Colorado, Connecticut, District of Columbia, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia, and Wyoming.

Potenza, M. N., Faust, K., & Faust, D. (Eds.). (2020). The Oxford Handbook of Digital Technologies and Mental Health. Oxford University Press.

⁸ If Marylanders get an online casino option, they must understand the dangers | GUEST COMMENTARY – Baltimore Sun

Ladd, G.T. and Petry, N.M. (2002). Disordered Gambling Among University-Based Medical and Dental Patients: A Focus on Internet Gambling; Psychology of Addictive Behaviors, Vol.16, No. 1, 769-79.

Moreira D, Azeredo A, Dias P. (2023). Risk Factors for Gambling Disorder: A Systematic Review. *J Gambl Stud.* June; 39(2):483-511. doi: 10.1007/s10899-023-10195-1. Epub 2023 Mar 8. PMID: 36884150; PMCID: PMC9994414.

iGaming typically involves solitary engagement, it can significantly reduce the time individuals spend in social environments. Traditional forms of community engagement, such as participating in local events or visiting public spaces, may decline as individuals opt for the convenience of online entertainment. This isolation can have a ripple effect through communities, weakening the social bonds that are integral to societal cohesion and resilience.

Another aspect of iGaming is the possible impact on the workforce. As iGaming becomes more prevalent, employers may face challenges with employees who struggle with addiction, potentially leading to decreased productivity, increased absenteeism, and higher turnover rates. For example, a report by the Rutgers Center for Gambling Studies on iGaming in New Jersey found that 31% of online gamblers surveyed had gambled during work hours. In fact, approximately 25% of those surveyed reported gambling while at work 3-5 days per week. These behaviors can strain professional relationships and impact team dynamics, as co-workers compensate for the decreased output of their colleagues.

The social consequences extend to the broader society as well. The normalization of iGaming could lead to an increased tolerance of risky behaviors, potentially influencing the behaviors of vulnerable populations, including youth and those with a predisposition to addictive behaviors. Additionally, the potential for cyberbullying and online harassment within iGaming platforms presents another layer of social risk, where the anonymity of online interactions can foster harmful behaviors and interactions that may go unchecked.

4. Comparative Analysis of Other States

Of the 43 states that do not allow iGaming, there are many very notable hold outs including Nevada and Mississippi, which, despite taking a free market approach to gaming expansion, have been steadfast in their election not to authorize online gaming.¹² For the seven states that have legalized iGaming (with only six operational), the societal impacts have only begun to be realized.

Gaming on mobile devices provides constant access, where users literally have a slot machine or roulette wheel at their fingertips all day and all night. The result of this 24/7 access is that online gamblers are as much as eight times more likely to report compulsive gambling problems and addictive behavior than traditional casino players, according to a 2021 Survey on Gambling Attributes conducted by The National Problem Gambling Council. In addition, as many as 28% of individuals surveyed in a study conducted for the State of Indiana said they would find it easier to spend more money on iGaming than land-based gambling.¹³ These findings are consistent with the impacts realized in the states that have authorized iGaming.

<u>Connecticut's Helpline Surge</u>: In Connecticut, the implementation of iGaming has been closely monitored. However, that State has faced challenges in tracking and mitigating problem

Nower, L., Caler, K., and Guan R., Internet Gaming in New Jersey. Rutgers Center for Gambling Studies.

Nevada has legalized online Poker only but has not approved any other type of iGaming.

Spectrum Gaming Group, Market and Policy Analysis: Prospective Internet Casino Gaming in Indiana (2023); citing Gainsbury SM. Online Gambling Addiction: the Relationship Between Internet Gambling and Disordered Gambling (2015). *Curr Addict Rep*.

gambling. Calls to Connecticut's problem-gambling hotline have more than tripled over the last six months after the launch of online sports betting and iGaming platforms, a deluge that advocates say has caught them off guard and strained resources. The increase in calls to gambling hotlines is a testament to the social impact that online gambling can have on individuals and families.¹⁴ These calls are not just numbers – they represent real people struggling with the consequences of gambling addiction, including financial distress, relationship breakdowns, and mental health issues. Connecticut's experience highlights the critical need for robust support services, limitations on gambling, and preventative measures to combat the rise in gambling addiction that often accompanies the legalization of iGaming.

Michigan's Challenges with Problem Gambling: The State of Michigan's experience with online gambling post-legalization paints a complex picture of the challenges that accompany the financial benefits. The fivefold increase in helpline calls in February 2021, just one month after online betting began, signals a significant demand for support services and indicates a rise in gambling-related problems within the community. The Michigan Problem Gambling Helpline's data reflects a substantial need for intervention and resources to address the issues that result from the greater accessibility to 24/7 gambling. This surge in helpline activity suggests that the State was similarly unprepared for the immediate impact of iGaming on problem gambling. Michigan's experience is particularly relevant for Maryland as it underscores the necessity for a well-resourced and proactive approach to problem gambling in the wake of iGaming legalization.

New Jersey's Rutgers Center for Gambling Studies: New Jersey is a similar case-study for the increases in problem gambling that result from iGaming. According to the Rutgers Center for Gambling Studies, 40% of online gamblers surveyed reported problem and disordered gambling – far outpacing the experience when gambling was only done at land-based casinos. This study also found that African Americans and other minority groups were two to three times more likely to be high-risk gamblers. This data is reflected in the increase in call volume to New Jersey's 1-800 helpline, which has seen an increase of 225% since the advent of iGaming according to the Council on Compulsive Gambling of New Jersey. The survey of the council on Compulsive Gambling of New Jersey.

Pennsylvania tells a similar story: According to a 2022 report conducted by the Pennsylvania Department of Drug & Alcohol Programs, more than 36% of iGaming players in that State experienced problem gambling. Reported incidents included people betting beyond their means, spending excessive amounts of time gambling on their phones, family discord and social isolation. The Council on Problem Gambling of Pennsylvania has similarly seen calls to its 1-800-GAMBLER hotline more than double since iGaming launched, increasing nearly 140%.

https://www.ctinsider.com/news/article/Everybody-s-getting-burned-out-Calls-to-17084211.php

¹⁵ https://kindbridge.com/gambling/problem-gambling-helpline-calls-increasing-at-record-pace/

Nower, L., Volbertg, R.A., and Caler, K. (2017). The Prevalence of Online and Land-Based Gabling in New Jersey, *Rutgers Center for Gambling Studies*.

¹⁷ Id

Sterner, G.E.., Ahlgren, M.B., Kaye, M.P., & Chandler, R. (2021). Pennsylvania Interactive Gaming Report 2021. Report prepared for the Pennsylvania Department of Drug and Alcohol Programs. April 10, 2022. https://www.ddap.pa.gov/Documents/Agency%20Reports/Interactive%20Gaming%20Reports/2021%20Interactive%20Gaming%20Report.pdf

5. Health Impacts

As far as health is concerned, it is widely agreed that gambling addiction negatively impacts life quality, mirroring deteriorating mental health, as evidenced by numerous studies.¹⁹ Research indicates a strong link between gambling issues and elevated stress levels, increased impulsivity, and cognitive distortions.²⁰ Furthermore, a range of pathologies is associated with gambling problems, including anxiety, schizophrenia, bipolar disorder, depression, alexithymia, mood disorders, and substance use disorders.²¹

The legalization of iGaming intersects with a spectrum of mental and physical health concerns. Research by De Pasquale et al. (2020) brings to light the correlation between iGaming and mental health disorders such as depression, anxiety, and stress.²² The instant gratification and intermittent rewards offered by iGaming can create a feedback loop that reinforces continuous play, which may exacerbate or trigger mental health issues. The immersion and emotional investment in iGaming can result in mood swings, irritability, and in more severe cases, lead to withdrawal from real-life activities and responsibilities, contributing to a sedentary lifestyle. Physically, the sedentary nature of iGaming poses significant risks, including obesity, musculoskeletal issues from prolonged sitting, and vision problems from excessive screen time. These conditions are often coupled with poor dietary habits, as prolonged gaming sessions can lead to increased consumption of convenience foods, which are typically high in calories and low in nutritional value.

The cumulative effect of these lifestyle choices can be an increased risk for chronic diseases such as type 2 diabetes, hypertension, and cardiovascular diseases. Sleep disturbances are another critical health concern associated with iGaming. The blue light emitted from screens can disrupt the natural sleep-wake cycle, leading to difficulties in falling and staying asleep, a condition known as sleep latency. Chronic sleep deprivation can have serious health implications, including impaired cognitive function, decreased immune response, and an increased risk of mental health disorders.

The psychological effects of iGaming are not limited to the aforementioned issues. The constant stimulation and fast pace of online games can lead to a decreased ability to focus and a potential increase in impulsive behavior. This could have broader implications for learning in young adults, whose cognitive development could be affected by the overuse of iGaming.

Moreover, the potential for developing problematic gaming behaviors is significant. Problematic iGaming can lead to gaming disorder, a condition recognized by the World Health Organization,

Buth et al., 2017; Butler et al., 2019; Cowlishaw et al., 2016; Dennis et al., 2017; Delfabbro et al., 2017.

Hing et al., 2017; Wong et al., 2017) (Browne et al., 2019; Dufour et al., 2019; Gori et al., 2021; Jiménez-Murcia et al., 2020; Flórez et al., 2016) (Black & Allen, 2021; De Pasquale et al., 2018

Fluharty et al., 2022; Landreat et al., 2020; Medeiros et al., 2016; Rodriguez-Monguio et al., 2017)(Bergamini, 2018) (Bergamini, 2018) (Bergamini, 2018; Black & Allen, 2021; Dufour et al., 2019; Fluharty et al., 2022; Landreat et al., 2020) (Bibby & Ross, 2017; Gori et al., 2021) (Rodriguez-Monguio et al., 2017) (Bergamini, 2018; Buth et al., 2017; Butler et al., 2019; Browne et al., 2019; Cowlishaw et al., 2016; Florez et al., 2016; Fluharty et al., 2022; Hing & Russell, 2020; Hing et al., 2017; Rodriguez-Monguio et al., 2017).

De Pasquale C, Dinaro C, Sciacca F. Relationship Of Internet Gaming Disorder With Dissociative Experience in Italian University Students. *Annals of General Psychiatry*. 2018 doi: 10.1186/s12991-018-0198-y.

which is characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.

It is also essential to consider the social stigma associated with mental health and gaming disorders, which can prevent individuals from seeking help. This stigma can lead to underreporting and undertreatment of these conditions, further compounding the health issues associated with iGaming.

At the federal level, efforts are underway to address gambling addiction. Senator Richard Blumenthal and Representative Andrea Salinas have introduced legislation that would create federal funding for preventing, treating and studying gambling addiction in the US. 2023. The health impacts of iGaming legalization are complex and warrant serious attention. The potential for increased sedentary behavior, disrupted sleep patterns, mental health disorders, and other physical health issues underscores the need for comprehensive public health strategies to mitigate these risks in the event iGaming is authorized despite the risks. This could include public awareness campaigns, the integration of healthy gaming habits into educational curricula, and the provision of resources for individuals and families affected by iGaming-related health issues.

6. Recommendations and Conclusion

In light of the data from various states, Maryland is advised to carefully weigh the promised economic benefits of iGaming against the potential for increased problem gambling. As a recent study from New Jersey found, gaming expansion has not been the windfall it was projected to be. In fact, researchers found that gaming expansion has decreased New Jersey's economic activity by approximately \$180 million and has curtailed jobs and wages for the State and its residents. ²³ Ultimately, the study found that the public costs attributable to addressing the societal impacts of digital gaming "could be roughly equal to the state's takings" – making the promised economic windfall from iGaming a mere illusion. ²⁴

Ultimately, sound public policy may weigh in favor of forgoing iGaming to benefit the health and wellbeing of the public. If iGaming is pursued, however, the following recommendations are proposed to ensure a balanced approach:

<u>Investment in Prevention and Treatment</u>: Given the rise in problem gambling-related calls in states like Connecticut, New Jersey, Pennsylvania and Michigan, significant investment in preventative and treatment programs is imperative.

Implementation of Stringent Regulations and Consumer Protection: Learning from the experiences of other states, Maryland should consider implementing strict regulations around iGaming to protect consumers. This could include measures such as betting limits, in person

8 of 12

https://www.theguardian.com/us-news/2024/jan/04/new-jersey-online-gambling-sport-betting-bad-economy-report-effect

²⁴ Id.

funding mechanisms, stringent marketing restrictions to ensure vulnerable people cannot be targeted, mandatory time limits on all gambling sessions, self-exclusion programs, required win and loss statements delivered to patrons' residences, prohibition on the use of credit and debit cards in online gambling, allow Maryland counties a voice by requiring affirmative opt-in through local referendums for iGaming, robust age verification processes and criminal penalties for underage gamblers and their guardians to prevent underage gambling.

<u>Data Access and Conducting Comprehensive Studies</u>: Before moving forward with legislation, Maryland should commission in-depth studies to understand the full impact of iGaming on its society and economy. These studies should consider not only the financial implications but also the human costs of increased problem gambling. The studies should also evaluate multiple years of data on the societal and fiscal impacts of mobile sports wagering in Maryland, considering data from a representative three-year period of online operations, as important trends and lessons can be gleaned from the in-state online gambling experience. Maryland should take steps in ensuring that researchers have access to data generated by various gambling operators. Other states have enacted laws ensuring this access to university research centers.

In conclusion, Maryland's decision on iGaming will have lasting effects on its fiscal landscape, public health, and societal well-being. A cautious, well-researched approach is paramount, incorporating lessons learned from other states' experiences with iGaming and Maryland's experience with online sports wagering. A healthy suspicion of current fads promoted heavily by business interests that stand to realize substantial financial gain from such fads is prudent. Only by considering both the potential financial benefits and the social risks can Maryland ensure that any expansion into online gambling is responsible, sustainable, and in the best interest of all its citizens.

The potential financial incentives to legalize iGaming are superficially clear. However, understanding the comprehensive financial pros and cons and the associated risks of iGaming, particularly the increased potential for problem gambling and its subsequent social and health costs, require a cautious and well-researched approach. Maryland must weigh these factors carefully and pause any legislation to ensure that any expansion into iGaming is made with the well-being of its residents as the priority.

References

- Bergamini A, Turrina C, Bettini F, Toccagni A, Valsecchi P, Sacchetti E, Vita A. At-Risk Gambling in Patients With Severe Mental Illness: Prevalence and Associated Features. *Journal of Behavioral Addictions*. 2018;7(2):348–354. doi: 10.1556/2006.7.2018.47.
- Bibby PA, Ross KE. Alexithymia Predicts Loss Chasing for People At-Risk for Problem Gambling. *Journal of Behavioral Addictions*. 2017;6(4):630–638.doi: 10.1556/2006.6.2017.076.
- Black DW, Allen J. An Exploratory Analysis of Predictors of Course In Older and Younger Adults With Pathological Gambling: A Non-Treatment Sample. *Journal of Gambling Studies*. 2021;37(4):1231–1243. doi: 10.1007/s10899-021-10003-8.
- Brodeur M, Audette-Chapdelaine S, Savard A, Kairouz S. Gambling and the COVID-19 Pandemic: A Scoping Review. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*. 2021;111:110389. doi: 10.1016/j.pnpbp.2021.110389.
- Browne M, Hing N, Rockloff M, Russell AMT, Greer N, Nicoll F, Smith G. A Multivariate Evaluation Of 25 Proximal and Distal Risk-Factors for Gambling-Related Harm. *Journal of Clinical Medicine*. 2019;8(4):509. doi: 10.3390/jcm8040509.
- Buth S, Wurst FM, Thon N, Lahusen H, Kalke J. Comparative Analysis of Potential Risk Factors for At-Risk Gambling, Problem Gambling and Gambling Disorder Among Current Gamblers – Results of the Austrian Representative Survey 2015. Frontiers in Psychology. 2017 doi: 10.3389/fpsyg.2017.02188.
- Butler N, Quigg Z, Bates R, Sayle M, Ewart H. Gambling With Your Health: Associations Between Gambling Problem Severity And Health Risk Behaviours, Health and Wellbeing. *Journal of Gambling Studies*. 2019;36(2):527–538. doi: 10.1007/s10899-019-09902-8.
- Cowlishaw S, Hakes JK, Dowling NA. Gambling Problems in Treatment for Affective Disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) *Journal of Affective Disorders*. 2016;202:110–114. doi: 10.1016/j.jad.2016.05.023.
- De Pasquale C, Dinaro C, Sciacca F. Relationship of Internet Gaming Disorder With Dissociative Experience in Italian University Students. *Annals of General Psychiatry*. 2018 doi: 10.1186/s12991-018-0198-y.
- Delfabbro P, Thomas A, Armstrong A. Gender Differences in the Presentation of Observable Risk Indicators of Problem Gambling. *Journal of Gambling Studies*. 2017;34(1):119–132. doi: 10.1007/s10899-017-9691-5.

- Dennis CB, Davis TD, Chang J, McAllister C. Psychological Vulnerability and Gambling in Later Life. *Journal of Gerontological Social Work*. 2017;60(6–7):471–486. doi: 10.1080/01634372.2017.1329764.
- Flórez G, Saiz PA, Santamaría EM, Álvarez S, Nogueiras L, Arrojo M. Impulsivity, Implicit Attitudes and Explicit Cognitions, and Alcohol Dependence as Predictors of Pathological gambling. *Psychiatry Research.* 2016;245:392–397. doi: 10.1016/j.psychres.2016.08.039.
- Fluharty M, Paul E, Fancourt D. Predictors and Patterns of Gambling Behaviour Across the COVID-19 Lockdown: Findings From a UK Cohort Study. *Journal of Affective Disorders*. 2022;298(Pt A):1–8. doi: 10.1016/j.jad.2021.10.117.
- Hing N, Russell AM, Browne M. Risk Factors For Gambling Problems On Online Electronic Gaming Machines, Race Betting and Sports Betting. *Frontiers in Psychology*. 2017 doi: 10.3389/fpsyg.2017.00779.
- Gori A, Topino E, Craparo G, Bagnoli I, Caretti V, Schimmenti A. A Comprehensive Model For Gambling Behaviors: Assessment Of The Factors That Can Contribute To The Vulnerability and Maintenance Of Gambling Disorder. *Journal of Gambling Studies*. 2021;38(1):235–251. doi: 10.1007/s10899-021-10024-3.
- Jiménez-Murcia S, Granero R, Giménez M, del Pino-Gutiérrez A, Mestre-Bach G, Mena-Moreno T, Moragas L, Baño M, Sánchez-González J, Gracia M, Baenas-Soto I, Contaldo F, Valenciano-Mendoza E, Mora-Maltas B, López-González H, Menchón J, Fernández-Aranda F. Moderator Effect of Sex in The Clustering of Treatment-Seeking Patients With Gambling Problems. *Neuropsychiatrie*. 2020;34(3):116–129. doi: 10.1007/s40211-020-00341-1.
- Landreat G, Chereau Boudet I, Perrot B, Romo L, Codina I, Magalon D, Fatseas M, Luquiens A, Brousse G, Challet-Bouju G, Grall-Bronnec M. Problem and Non-Problem Gamblers: A Crosssectional Clustering Study by Gambling Characteristics. *British Medical Journal Open.* 2020;10(2):e030424. doi: 10.1136/bmjopen-2019-030424.
- Medeiros GC, Sampaio DG, Leppink EW, Chamberlain SR, Grant JE. Anxiety, Gambling Activity, and Neurocognition: A Dimensional Approach to a Non-Treatment-Seeking Sample. *Journal of Behavioral Addictions*. 2016;5(2):261–270. doi: 10.1556/2006.5.2016.044.
- Moreira D, Azeredo A, Dias P. (2023). Risk Factors for Gambling Disorder: A Systematic Review. *J Gambl Stud*. June; 39(2):483-511. doi: 10.1007/s10899-023-10195-1. Epub 2023 Mar 8. PMID: 36884150; PMCID: PMC9994414.
- Potenza, M. N., Faust, K., & Faust, D. (Eds.). (2020). The Oxford Handbook of Digital Technologies and Mental Health. Oxford University Press.

- Rodriguez-Monguio R, Errea M, Volberg R. Comorbid Pathological Gambling, Mental Health, and Substance Use Disorders: Health-Care Services Provision by Clinician Specialty. *Journal of Behavioral Addictions*. 2017;6(3):406–415. doi: 10.1556/2006.6.2017.054.
- Wong DFK, Zhuang XY, Jackson A, Dowling N, Lo H. Negative Mood States or Dysfunctional Cognitions: Their Independent and Interactional Effects in Influencing Severity of Gambling Among Chinese Problem Gamblers in Hong Kong. *Journal of Gambling Studies*. 2017;34(3):631–645. doi: 10.1007/s10899-017-9714-2.