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RISK FACTORS AND MEDICAL AND SOCIAL CONSEQUENCES OF GAMBLING DISORDER

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Introduction. Gambling disorder is a behavioral addiction with clinically significant psychological, family, social, and financial consequences. Its development reflects the interaction of individual vulnerability, cognitive and emotional factors, family exposure, social environment, gambling availability, advertising, and regulatory conditions.
Objective. To synthesize current evidence on the principal risk factors for gambling disorder and its medical and social consequences, and to identify implications for early detection, prevention, treatment, and public-health policy.
Methods. A structured narrative synthesis of 20 publications from 2021–2025 included in the manuscript bibliography was performed. The evidence base comprised population-based studies, psychometric validation studies, clinical and neurobiological research, a meta-analysis, studies of family and vulnerable populations, and comparative policy analyses. Findings were grouped into individual and psychosocial risk factors, comorbid mental disorders, screening, family harm, neurobehavioral mechanisms, environmental exposure, social support, and regulatory interventions. Because a fully reproducible search protocol and formal risk-of-bias assessment were not documented in the source manuscript, quantitative pooling was not undertaken.
Results. Risk is consistently associated with impulsivity, cognitive distortions, emotional distress, adverse social conditions, and exposure to gambling environments [1–5,9]. Gambling disorder frequently co-occurs with other mental disorders and is linked to impaired social and occupational functioning [5]. Validated screening instruments may support earlier identification [6]. Harms extend to families, particularly children exposed to parental gambling [7,8]. Advertising, normalization of betting in sports, and easy access to high-risk gambling products contribute to vulnerability among young people [10,14,15], whereas social support and a sense of belonging may facilitate recovery [18]. Population-level measures such as reducing the availability of electronic gaming machines and implementing coherent online gambling limits are supported by comparative policy evidence [11,13,19].
Discussion. The evidence supports a multilevel model in which gambling-related harm cannot be explained by individual pathology alone. Clinical vulnerability interacts with family, commercial, social, and regulatory environments. The available literature is heterogeneous in design and outcome definitions, and several policy studies are context-specific; therefore, causal and cross-country generalizations should be made cautiously.
Conclusion. Prevention and management of gambling disorder should integrate early screening, treatment of psychiatric comorbidity, family-oriented support, reduction of stigma, strengthening of social resources, and proportionate regulation of high-risk gambling environments. Further longitudinal and intervention studies are needed to determine which combinations of clinical and population-level measures most effectively reduce harm.
Keywords: gambling disorder; gambling addiction; risk factors; mental health; social support; behavioral addiction; harm reduction.

ФАКТОРЫ РИСКА И МЕДИКО-СОЦИАЛЬНЫЕ ПОСЛЕДСТВИЯ ИГРОВОГО РАССТРОЙСТВА

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Введение. Игровое расстройство (зависимость от азартных игр, лудомания) представляет собой поведенческую зависимость с выраженными психологическими, семейными, социальными и финансовыми последствиями. Его

развитие связано с взаимодействием индивидуальной уязвимости, когнитивных и эмоциональных факторов, семейного опыта, социальной среды, доступности азартных игр, рекламы и регуляторных условий.
Цель. Обобщить современные данные об основных факторах риска игрового расстройства и его медико-социальных последствиях, а также определить практические направления раннего выявления, профилактики, лечения и общественно-здравоохранительной политики.
Материалы и методы. Выполнен структурированный нарративный синтез 20 публикаций 2021–2025 гг., представленных в библиографии рукописи. Доказательная база включала популяционные исследования, психометрическую валидацию диагностических инструментов, клинические и нейробиологические исследования, метаанализ, исследования семей и уязвимых групп, а также сравнительные анализы регулирования азартных игр. Данные систематизированы по индивидуальным и психосоциальным факторам риска, психической коморбидности, скринингу, семейному вреду, нейроповеденческим механизмам, влиянию среды, социальной поддержке и регуляторным мерам. Поскольку в исходной рукописи не была документирована полностью воспроизводимая стратегия поиска и формальная оценка риска систематической ошибки, количественное объединение результатов не проводилось.
Результаты. Риск проблемного игрового поведения устойчиво связан с импульсивностью, когнитивными искажениями, эмоциональным неблагополучием, неблагоприятными социальными условиями и высокой доступностью азартных игр [1–5,9]. Игровое расстройство нередко сочетается с другими психическими расстройствами и сопровождается нарушением социального и профессионального функционирования [5]. Валидированные скрининговые инструменты могут способствовать более раннему выявлению проблемы [6]. Последствия распространяются на членов семьи, особенно на детей родителей с игровым расстройством [7,8]. Реклама, нормализация ставок в спортивной среде и доступность высокорисковых форм азартных игр повышают уязвимость молодежи [10,14,15], тогда как социальная поддержка и чувство принадлежности могут способствовать восстановлению [18]. Сравнительные исследования поддерживают популяционные меры, включая сокращение доступности электронных игровых автоматов и последовательное ограничение параметров онлайн-игры [11,13,19].
Обсуждение. Совокупность данных поддерживает многоуровневую модель, в которой вред от азартных игр нельзя объяснить только индивидуальной патологией. Клиническая уязвимость взаимодействует с семейными, коммерческими, социальными и регуляторными факторами. Исследования неоднородны по дизайну и исходам, а ряд политико-регуляторных работ контекстно зависим, поэтому причинные и межстрановые обобщения требуют осторожности.
Заключение. Профилактика и ведение игрового расстройства должны сочетать ранний скрининг, лечение психической коморбидности, семейно-ориентированную поддержку, снижение стигмы, укрепление социальных ресурсов и пропорциональное регулирование высокорисковой игровой среды. Необходимы дальнейшие продольные и интервенционные исследования, позволяющие определить наиболее эффективные сочетания клинических и популяционных мер.
Ключевые слова: игровое расстройство; зависимость от азартных игр; факторы риска; психическое здоровье; социальная поддержка; поведенческая зависимость; снижение вреда.

ҚҰМАР ОЙЫНДАРҒА ТӘУЕЛДІЛІКТІҢ ҚАУІП ФАКТОРЛАРЫ ЖӘНЕ МЕДИЦИНАЛЫҚ-ӘЛЕУМЕТТІК САЛДАРЫ

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Кіріспе. Құмар ойындарға тәуелділік (ойындық бұзылыс, лудомания) психологиялық, отбасылық, әлеуметтік және қаржылық салдары бар мінез-құлықтық тәуелділік болып табылады. Оның қалыптасуына жеке осалдық, когнитивтік және эмоциялық факторлар, отбасылық тәжірибе, әлеуметтік орта, құмар ойындардың қолжетімділігі, жарнама және реттеуші жағдайлар өзара ықпал етеді.
Мақсаты. Құмар ойындарға тәуелділіктің негізгі қауіп факторлары мен медициналық-әлеуметтік салдары туралы қазіргі деректерді жинақтау және ерте анықтау, профилактика, емдеу мен қоғамдық денсаулық сақтау саясаты үшін практикалық бағыттарды айқындау.
Материалдар мен әдістер. Қолжазба библиографиясына енгізілген 2021–2025 жылдардағы 20 жарияланымға құрылымдалған нарративтік синтез жүргізілді. Дәлелдер базасына популяциялық зерттеулер, диагностикалық құралдардың психометриялық валидациясы, клиникалық және нейробиологиялық зерттеулер, мета-талдау, отбасылар мен осал топтарды зерттеу, сондай-ақ құмар ойындарды реттеудің салыстырмалы талдаулары кірді. Деректер жеке және психоәлеуметтік қауіп факторлары, психикалық коморбидтілік, скрининг, отбасылық зиян, нейромінез-құлықтық механизмдер, ортаның ықпалы, әлеуметтік қолдау және реттеуші шаралар бойынша

жүйеленді. Бастапқы қолжазбада толық қайталанатын іздеу хаттамасы мен жүйелі қателік қаупін формалды бағалау құжатталмағандықтан, нәтижелерді сандық біріктіру жүргізілген жоқ.

Нәтижелер. Проблемалық ойын мінез-құлқының қаупі импульсивтілікпен, когнитивтік бұрмаланулармен, эмоциялық қолайсыздықпен, қолайсыз әлеуметтік жағдайлармен және құмар ойындарға жоғары қолжетімділікпен байланысты [1–5,9]. Ойындық бұзылыс басқа психикалық бұзылыстармен жиі қатар жүреді және әлеуметтік әрі кәсіби қызметтің нашарлауымен ұштасады [5]. Валидтелген скрининг құралдары проблеманы ертерек анықтауға мүмкіндік береді [6]. Зиян отбасы мүшелеріне, әсіресе құмар ойындарға тәуелді ата-аналардың балаларына таралады [7,8]. Жарнама, спорт ортасындағы ставкаларды қалыпты құбылыс ретінде қабылдау және жоғары тәуекелді ойын түрлерінің қолжетімділігі жастардың осалдығын арттырады [10,14,15], ал әлеуметтік қолдау мен тиесілік сезімі қалпына келуге ықпал етуі мүмкін [18]. Салыстырмалы зерттеулер электрондық ойын автоматтарының қолжетімділігін қысқарту және онлайн-құмар ойындарда жүйелі шектеулер енгізу сияқты популяциялық шараларды қолдайды [11,13,19].

Талқылау. Жинақталған деректер құмар ойындардың зиянын тек жеке патологиямен түсіндіруге болмайтын көпдеңгейлі модельді қолдайды. Клиникалық осалдық отбасылық, коммерциялық, әлеуметтік және реттеуші ортамен өзара әрекеттеседі. Зерттеулер дизайн мен соңғы нәтижелер бойынша әртекті, ал бірқатар саясаттық зерттеулер нақты елдік контекске тәуелді; сондықтан себеп-салдарлық және елдер арасындағы қорытындылар сақтықпен түсіндірілуі тиіс.

Қорытынды. Құмар ойындарға тәуелділіктің алдын алу мен оны басқару ерте скринингті, психикалық коморбидтілікті емдеуді, отбасыға бағытталған қолдауды, стигманы азайтуды, әлеуметтік ресурстарды нығайтуды және жоғары тәуекелді ойын ортасын пропорционалды реттеуді біріктіруі тиіс. Клиникалық және популяциялық шаралардың ең тиімді үйлесімін анықтау үшін ұзақ мерзімді және интервенциялық зерттеулер қажет.

Түйінді сөздер: құмар ойындарға тәуелділік; ойындық бұзылыс; қауіп факторлары; психикалық денсаулық; әлеуметтік қолдау; мінез-құлықтық тәуелділік; зиянды азайту.

Introduction

Gambling disorder is a behavioral addiction that can impair mental health, family relationships, social functioning, and financial stability. In clinical practice, problematic gambling may remain hidden because individuals underestimate the severity of their behavior, experience stigma, or seek care for associated anxiety, depression, financial stress, or family conflict rather than gambling itself [1]. This makes early recognition relevant not only for mental-health services but also for primary care and other points of first contact.

Current evidence supports a multifactorial model of vulnerability. Socio-demographic conditions, emotional distress, impulsivity, cognitive distortions, and patterns of social exposure interact with the availability and design of gambling products [2–4,9]. Co-occurring psychiatric disorders may further increase clinical severity and complicate treatment [5]. At the same time, gambling-related harm is not restricted to the person who gambles: family members, children, and socially vulnerable groups may experience substantial secondary consequences [7,8,17].

The expansion of online gambling, betting advertising, sponsorship in sports, and highly accessible electronic gambling products has shifted part of the prevention agenda from individual responsibility toward environmental and regulatory determinants [10–15,19,20]. This broader perspective is important because effective harm reduction may require simultaneous action at clinical, family, community, commercial, and policy levels.

The aim of this review was to synthesize recent evidence on the major risk factors for gambling disorder and its medical and social consequences, and to identify implications for early detection, prevention, treatment, and population-level harm reduction.

Scientific novelty and practical significance

The contribution of this review lies in integrating individual, clinical, family, social, commercial, and regulatory determinants of gambling-related harm within a single analytical framework. Rather than treating gambling disorder solely as an individual behavioral problem, the review links neurobehavioral vulnerability and psychiatric comorbidity with family exposure, social support, normalization of gambling, product availability, advertising, and policy. This multilevel synthesis is practically relevant for designing prevention and care pathways that combine clinical intervention with population-level harm reduction.

Materials and Methods

Review design and evidence base

The article was prepared as a structured narrative review. The synthesis was based on the 20 publications listed in the source manuscript bibliography, all published between 2021 and 2025. The evidence base included population-based studies, clinical and psychosocial research, psychometric validation, neurobiological studies, a neuropsychological meta-analysis, studies of children and other vulnerable populations, and comparative policy analyses [1-20].

Data organization and synthesis

Evidence was grouped thematically into: individual and psychosocial risk factors; psychiatric comorbidity; screening and early identification; family and intergenerational consequences; neurobehavioral mechanisms; gambling normalization and advertising; product availability and online limits; vulnerable populations; social support and recovery; and regulatory approaches. The synthesis was qualitative because the included publications differed substantially in design, populations, exposures, and outcome definitions.

Methodological scope

The source manuscript did not document a fully reproducible database search strategy, exact search dates, study-selection flow, duplicate screening by independent reviewers, or a formal risk-of-bias assessment. Accordingly, the present work is framed as a structured narrative review rather than a systematic review or meta-analysis. These methodological constraints were considered when interpreting the strength and generalizability of the findings.

Results

Individual and psychosocial determinants of gambling risk

Problematic gambling emerges through the interaction of multiple risk and protective factors. In general practice, patients may present indirectly, making awareness of gambling-related warning signs and brief screening particularly important [1]. The integrated risk-and-protective-factor perspective emphasizes that stress, emotional regulation, cognitive biases, social influences, and protective resources such as self-regulation and support may jointly shape gambling trajectories [2].

Population-level data demonstrate that gambling participation and expenditure vary by age, gender, income, and social position. Importantly, the meaning of expenditure is not uniform across groups: a relatively modest absolute loss may create disproportionately greater harm among economically vulnerable individuals [3]. Psychosocial stressors can further intensify risky behavior; evidence from the COVID-19 period illustrates the interaction between anxiety, social relationships, resilience, and gambling-related problems [4].

Psychiatric comorbidity and clinical complexity

Gambling disorder frequently co-occurs with depression, anxiety disorders, substance-related problems, and personality pathology. The concept of a dual disorder highlights a subgroup in whom gambling behavior and psychiatric symptoms reinforce one another, producing greater functional impairment and a more complex treatment course [5]. For such patients, fragmented treatment focused on gambling alone may be insufficient; integrated assessment of psychiatric comorbidity is clinically more appropriate.

Screening and early identification

Reliable identification of gambling-related problems requires validated tools. The Gambling Disorders Identification Test (GDIT) has demonstrated psychometric utility for detecting both problem gambling and gambling disorder [6]. In primary care and general medical settings, structured screening may help identify patients who would otherwise remain undetected and facilitate referral to specialized support [1,6].

Family and intergenerational consequences

Gambling-related harm extends beyond the individual. Studies from Germany and Australia show that children exposed to parental gambling disorder may experience emotional and behavioral difficulties, stress, impaired social adaptation, and other forms of family harm [7,8]. These findings support the need to identify affected families rather than treating the gambler as the only person requiring support.

Family-oriented prevention should therefore include assessment of household financial strain, conflict, caregiving burden, child well-being, and exposure to gambling behaviors. The available evidence also raises concern about intergenerational normalization of gambling, although the strength of causal pathways requires further longitudinal study [7,8].

Neurobehavioral mechanisms and executive control

Impulsivity is an important component of gambling disorder and has been linked to serotonergic and dopaminergic mechanisms involved in reward processing, inhibitory control, and risky decision-making [9]. Neurobiological findings do not imply a single causal pathway but support the view that gambling disorder involves measurable alterations in behavioral control systems.

A 2025 meta-analysis of executive function in gambling disorder further supports clinically relevant impairments in cognitive control and decision-making [16]. These findings strengthen the rationale for psychological interventions that target impulsivity, distorted beliefs, planning, and self-regulation, while recognizing that neurocognitive vulnerability operates within a broader social environment.

Gambling normalization, advertising, and commercial exposure

Sports environments may contribute to normalization of betting through advertising, sponsorship, and routine discussion of gambling. Evidence from Belgian sports clubs indicates that such exposure can make gambling appear embedded in ordinary sports participation, with particular relevance for younger people [10].

Experimental attention research shows that gambling advertisements can capture young people's visual attention [14]. Responsible-gambling messages may contribute to risk communication, but the evidence suggests that warnings should not be treated as a stand-alone prevention strategy [15]. Their effect is more plausibly strengthened when combined with product-level restrictions, financial limits, self-exclusion or support tools, and reduced exposure to high-risk marketing.

Availability of gambling products and regulatory measures

Comparative evidence from Italy and Finland suggests that reducing the supply of electronic gambling machines can decrease population exposure and associated harms, although effectiveness depends on the scope and consistency of implementation [11]. This supports the principle that availability itself is a modifiable determinant of harm rather than a neutral background condition.

Online gambling introduces additional challenges because gambling is continuously accessible and can be intensified through rapid-play formats and frictionless payments. Comparative European policy analysis indicates that limit-setting is potentially useful, but outcomes depend on enforcement, consistency, and the architecture of the regulatory system [13]. Cross-country comparisons should therefore be interpreted in light of different legal, commercial, and cultural contexts.

Policy analyses from sub-Saharan Africa likewise demonstrate that effective regulation requires coherent legal frameworks and implementation capacity rather than isolated restrictions [19]. The Overton-window perspective has been used to describe how gambling may shift in public discourse from an individual lifestyle choice toward a social and epidemiological concern [20]. This framing is relevant to policy development but should be regarded as a conceptual lens rather than evidence of intervention effectiveness.

Stigma, vulnerable populations, and social support

Stigma can discourage disclosure and help-seeking. Analysis of social-media discourse has identified stigmatizing attitudes toward people with gambling disorder, highlighting the importance of communication that avoids moralizing and emphasizes treatability and support [12].

Gambling-related harm may be amplified by social disadvantage. Among homeless men in Osaka, gambling disorder was associated with low income, social isolation, and psychological distress [17]. Such findings indicate that prevention and treatment pathways should be adapted for populations facing unstable

housing, poverty, and limited access to conventional health services.

Social support and a sense of belonging appear to be relevant recovery resources. Individuals who perceive stronger support from family, friends, or community may demonstrate better recovery-related outcomes and greater resilience [18]. This supports inclusion of social and relational factors in treatment planning rather than relying solely on individual symptom reduction.

Discussion

Integrated interpretation of the evidence

The reviewed evidence supports a multilevel understanding of gambling disorder. Individual susceptibility—impulsivity, cognitive distortions, emotional distress, and psychiatric comorbidity—interacts with family exposure, socioeconomic conditions, advertising, product availability, and regulatory context [2–5,9–15]. This interaction helps explain why interventions based only on personal responsibility may have limited reach.

Clinically, early detection and treatment of psychiatric comorbidity remain central. Screening tools such as the GDIT may be useful in settings where gambling problems are otherwise easily missed [1,6]. However, screening has value only when linked to accessible counseling, specialist referral, and follow-up. For patients with dual disorders, integrated mental-health treatment is more coherent than parallel, disconnected pathways [5].

At the family and population levels, the evidence supports extending prevention beyond the person who gambles. Children of affected parents, people experiencing homelessness, and young people exposed to gambling-intensive environments represent groups in whom harms may be disproportionate [7,8,10,14,17]. Social support may buffer some of these risks and should be treated as a component of recovery rather than an optional adjunct [18].

Policy evidence suggests that reducing high-risk product availability and implementing meaningful online limits can contribute to harm reduction [11,13,19]. Nevertheless, the heterogeneity of national regulatory systems makes it inappropriate to assume that one measure will have identical effects across settings. Regulatory interventions require local evaluation and monitoring.

Clinical and public-health implications

A practical response to gambling disorder should combine three levels of action: identification and treatment of the individual patient; support for family members and socially vulnerable groups; and reduction of environmental exposure to high-risk gambling. In healthcare, this means improving clinician awareness, using validated screening where appropriate, assessing depression, anxiety and other comorbid disorders, and establishing referral pathways. At the population level, it means aligning advertising controls, availability restrictions, online limits, responsible-gambling tools, and public education rather than relying on a single intervention.

Strengths and limitations

A strength of this review is the integration of clinical, neurobehavioral, family, social, and regulatory evidence within one framework. The included literature is recent (2021–2025) and covers both individual-level and population-level determinants, allowing gambling disorder to be considered as a medical and social problem rather than solely a matter of personal behavior.

The principal limitation is the narrative design. The source manuscript did not preserve a fully reproducible search strategy, study-selection flow, or formal risk-of-bias assessment, and the 20 included publications are heterogeneous in design and context. Several findings are based on cross-sectional or policy-comparison data, which limits causal inference. Evidence from specific countries or vulnerable groups may not generalize directly to other populations. Consequently, the review supports a coherent conceptual and practical framework but does not provide pooled effect estimates or a formal certainty-of-evidence rating.

Conclusion

Gambling disorder is shaped by the interaction of individual vulnerability and the environment in which gambling occurs. Impulsivity, cognitive distortions, emotional distress, psychiatric comorbidity, family exposure, social disadvantage, advertising, and product

availability all contribute to the risk and consequences of problematic gambling.

Effective prevention and care therefore require more than a single clinical or regulatory intervention. Early identification, integrated treatment of mental-health comorbidity, family-oriented support, stigma reduction, strengthening of social resources, and proportionate regulation of high-risk gambling environments should be considered complementary components of a harm-reduction strategy.

Future research should prioritize longitudinal and intervention designs, standardized outcome measures, and evaluations that connect clinical outcomes with family and population-level harm. Such evidence is needed to determine which combinations of clinical, social, and regulatory measures produce sustainable benefit across different settings.

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Conflict of Interest

The authors declare that they have no conflicts of interest requiring disclosure in relation to this article.

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Data Availability

All data used in this review are contained in the cited publications; no new primary dataset was generated.

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