



# Suicidal Risk Among Individuals With Online Gambling Problems: A Scoping Review

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EXCESSIVE GAMBLING: PROMOTING AND PROTECTING

HEALTH IN A DIGITALISED WORLD



I have no financial interests or relationships to disclose regarding the subject matter of this presentation.

- Suicidal behaviour is a public health problem and one of the leading causes of death among young adults.
- Suicidal behaviour = umbrella term referring to the combined constructs of suicidal ideation, suicide attempts and suicide
- **Suicidal ideation** is defined as "passive thoughts about wanting to be dead or active thoughts about killing oneself, not accompanied by preparatory behavior".
- Suicide attempts is defined as "a potentially self-injurious behavior, associated with at least some intent to die, as a result of the act".

- Gambling problems have been associated with an elevated risk of suicidal behaviour (Gray et al., 2021) due to:
  - Financial crisis and debts
  - Comorbid psychiatric disorders
  - Impulsivity and poor emotion regulation
  - Greater severity of the gambling disorder
  - Shame and guilt
  - Social isolation

 Suicidal risk among individuals with gambling problems has become a public health issue

- Suicidal ideation throughout life in individuals with problem gambling:
   31%
- Lifetime suicide attempts in individuals with problem gambling: **16%** (Armoon et al., 2023)
- People with gambling problems were more likely to report suicidal ideation throughout their lives compared to people with mental disorders (substance use disorder, bipolar disorder, or major depression)
- The cohort of individuals with gambling disorder was 15 times more likely to die by suicide compared to the general population (Karlsson & Hakansson, 2018)

- Technological innovation has contributed to the rapid expansion of online gambling.
- Internet-based gambling platforms (including online casinos, sports betting websites, poker rooms, etc.) have drastically increased the accessibility and availability of gambling opportunities worldwide.
- Online gambling has been linked to greater accessibility, availability, anonymity and rapid betting cycles → faster financial losses, greater compulsivity, social isolation and emotional distress
  - → Greater **risk of suicide**

- Emerging evidence suggests that problem gambling may be more prevalent or severe among online gamblers than traditional land-based gamblers
- The relationship between online gambling and suicidal behaviour has not been comprehensively mapped.
- Given the rising popularity of online gambling, especially among younger adults, this is an important gap in knowledge. Understanding any unique associations or risk factors in online gamblers is critical for tailoring prevention efforts

Aims of the current study:

- To map existing research on the potential link between online gambling and suicidal behaviour
- 2) To identify **research gaps and opportunities** for future studies

# **Methods**

#### **Search strategy**

- Studies published from January 2000 up to March 2025 that examined suicidal behaviors among individuals participating in online gambling
- Three electronic databases were searched: PubMed, PsycINFO, and Scopus
- Keywords: ("online gambling" OR "internet gambling" OR "online betting" OR "internet gaming") AND (suicide OR suicidality OR "suicidal ideation" OR "suicide attempt" OR self-harm)
- Searches were limited to peer-reviewed journal articles (including original research studies, case series, and reviews) and government/organizational reports if they contained empirical data, published in English.

# **Methods**

#### **Study selection**

- Inclusion criteria:
  - Explicitly state that the **participants engaged in online gambling** (either exclusively or in combination with land-based gambling),
  - Report on at least one **suicidal behavior outcome** such as suicidal ideation (thoughts of suicide), suicide plans, suicide attempts, or death by suicide
  - Quantitative studies (surveys, cohort studies, case-control, etc.), qualitative studies (interviews, case studies), and mixed-methods studies, as long as they provided empirical data on the link between online gambling and suicidality
- Exclusion criteria: not explicitly mentioning participants' involvement on online gambling

#### Study selection

- After final screening, 15 studies met the inclusion criteria
- The included studies span the years 2004 to 2024 (with the majority published after 2015) and represent several countries
- Study designs were varied: epidemiological surveys, treatment-seeking clinical samples, a qualitative case series, and retrospective analyses
- All included studies explicitly confirmed that their participants were engaged –at least to some degree- in online gambling

#### Characteristics of Included Studies

- Sample sizes of included studies ranged from small case series (n=3 in one report)
   to large national surveys of online gamblers
- Most studies focused on adults (with some specifically examining young adults), and both genders were represented, though several noted higher proportions of males in online gambling samples
- Participants often engaged in online casinos (slot machines, roulette), online sports betting, online poker, or a mix of multiple internet gambling forms

#### Characteristics of Included Studies

- The outcomes examined were primarily suicidal ideation (usually assessed via self-report questionnaires or clinical interviews asking if the individual had thoughts of suicide) and suicide attempts (self-reported history of attempting suicide)
- Some studies compared online-only gamblers to those who gamble in land-based venues, or to mixed-venue gamblers who do both. This allowed for some observations about differences in suicidal risk by gambling modality

#### Presence and prevalence of Suicidal Ideation and Attempts in Online Gamblers

- A nationally representative online survey of young adults (aged 16–24) examined the link between gambling and suicidality
  - problem gambling was associated with dramatically elevated past-year suicidality. Specifically, about 19.2% of young problem gamblers had suicidal ideation in the past year (many exposed to online gambling)
  - 4.7% of problem gamblers in this cohort attempted suicide in the past year (Wardle et al. 2019)
- Giotakos et al., 2016 found a significant association between online gambling and suicidal behavior in a sample of Greek military personnel
- A large cross-sectional survey investigated self-harm and suicidality in 4,125 online gamblers recruited through gambling websites (Lloyd et al., 2016)
  - 7.3% of these active online gamblers had experienced suicidal thoughts specifically due to their gambling problems
- Jeannot et al., 2023 found that online gamblers showed higher prevalence of suicidal behavior compared to other modalities.

#### Risk of suicide in online vs. land-based Gamblers

- A recent large-scale survey in New Jersey (USA) stratified gamblers by modality: online-only, land-based-only, and mixed (both online and land-based) and found that individuals who gambled in mixed venues (both online and offline) exhibited the highest rates of suicidal thoughts and attempts, followed by online-only gamblers, with the lowest rates among land-based-only gamblers (Nower et al., 2023)
- Certain forms of online betting correlated with higher suicidality. For instance, around 10% of online sports bettors and 14% of online horse race bettors reported a suicide attempt in their lifetime, compared to less than 1% among people who did not engage in those forms of gambling (Nower et al., 2023)
- On a Portuguese sample, **no difference were found on suicide attempts** between online and land-based gamblers (Hubert & Griffith, 2018).
- A study conducted among individuals with gambling problems to compare online vs. offline in terms of risk of suicide did not find statistically significant differences between both groups (Jimenez-Murcia et al. 2014).

- Risk Factors and Mechanisms Linking Online Gambling to Suicidality
  - Individuals with online gambling problems might be especially prone to suicidal thoughts or actions:
    - Financial Debt and Crisis as online gambling often enables rapid, repeated betting and easy access to credit (credit cards, quick loans), which can lead players to accumulate large debts. Indebtedness and shame as key processes linking gambling and suicide (Marionneau & Nikkinen, 2022)
    - Greater comorbidity (depression and substance use)
    - Gambling severity (Hâkansson & Widinghoff, 2020)

#### Gaps in the literature

- Limited Direct Research on Online vs Offline Differences: Few studies have explicitly
  compared suicidal outcomes between online gamblers and land-based gamblers. Thus, it
  remains uncertain whether online gambling independently elevates suicide risk more
  controlled studies are needed to isolate the effect of the gambling mode
- Longitudinal and Causal Evidence: The bulk of evidence is cross-sectional or retrospective
- Intervention and Treatment Research: There is almost no research evaluating interventions specifically aimed at reducing suicidal risk among online gamblers.
- Understudied Populations: Certain subgroups warrant more attention. Young people (including adolescents) and women.
- Qualitative Understanding: We have limited qualitative research capturing the personal experiences of suicidality among online gamblers. More narrative data would complement quantitative findings and help humanize the problem for targeted solutions.

#### **Discussion**

- The evidence, while limited, consistently indicates a strong association between online gambling problems and suicidality, mirroring what is known in gambling disorder generally.
- However, few studies isolated the unique role of online gambling, and no longitudinal studies have yet clarified causality
- Online gambling environment may intensify certain risk factors associated with suicidality. The convenience, anonymity, and rapid pace of internet gambling can lead to more frequent gambling and larger cumulative losses in a short period
- Several studies highlighted financial catastrophe as a proximal driver of suicidal crises in gamblers
- The role of **shame and social isolation**, which might be exacerbated in online gambling contexts. Many online gamblers suffer alone, without the knowledge of friends or family, until their situation becomes dire

### **Discussion**

- Most of the studies exploring the association between gambling problems and suicidal behavior have been conducted among land-based gamblers or the authors did not specific the modality of gambling.
- The pathway to suicidality in online gambling often involves a convergence of heavy gambling-related losses (and ensuing debt), psychological distress (depression, anxiety), and feelings of shame and hopelessness when one's gambling is no longer controllable.

### **Discussion**

#### Limitations:

- We relied on published studies and may have missed some grey literature or unpublished data on this topic.
- The heterogeneity of measures for suicidality (from single self-report questions to clinical interviews) is another consideration prevalence figures should be interpreted with caution given different definitions.

# **Conclusions**

- The **normalization of online gambling** among youth could have serious mental health implications, including suicidality.
- Online gambling has been associated with more severe harms (including suicidal behaviour) compared to land-based gambling.
- Although there is a surprising lack of studies, empirical data suggest that individuals with online gambling problems may be at least at the same risk as land-based gamblers to engage in suicidal behaviours.
- Online gamblers tend to have more severe gambling-related problems and greater psychiatric comorbidity, and both consequences are related to greater risk of suicidality
- Many articles reference problem gambling generally without differentiating online gambling from offline forms. There is a need of studies that clearly define the modality as online

### **Conclusions**

- Dedicated research is needed to understand how online gambling's unique features contribute to suicidality and to inform targeted prevention and intervention strategies.
- From a public health and policy perspective, the findings point to a need for greater safeguards in the online gambling industry. If easy 24/7 access and financial credit in online gambling are contributing to suicidal crises, regulators might consider interventions like mandatory loss limits, better affordability checks, and more robust self-exclusion systems.

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