Developing lower-risk gambling limits using behavioural tracking data

What this research is about

Lower-risk gambling guidelines have been developed to help people gamble in a way that reduces their risk of harm. People who gamble above the suggested limits are expected to be at higher risk of harm. Most studies in this area have been based on people who have indicated in a survey how much they gambled (i.e., self-report). One study developed lower-risk limits using behavioural tracking data from online gambling accounts and compared them to the limits reported in a Canadian longitudinal study using self-reported data. That study found that the limits based on behavioural tracking data were higher. A study by Young et al (2022) reported lower-risk gambling guidelines based on data from eight different countries. While that study followed a robust methodology, the data were based on self-reports.

The aim of this study was to develop lower-risk gambling limits using behavioural tracking data provided by the Norwegian gambling provider, Norsk Tipping (NT). Another aim was to compare the identified limits to those reported in the Young et al (2022) study. Additionally, this study explored limits for young people aged 18 to 25 years old.

What the researchers did

The researchers used behavioural tracking data from 35,753 people who gamble with NT. NT is a state-owned gambling monopolist. Playscan is a tool that people who gamble with NT can use to assess their gambling behaviours. Playscan offers feedback and recommendations based on each person’s gambling risk level. GamTest is a brief self-assessment within Playscan to assess harms due to gambling. All 35,753 people completed GamTest between April 2019 and April 2020.

What you need to know

Lower-risk gambling limits have been developed, mostly using self-reported data. The aim of this study was to develop similar limits using behavioural tracking data provided by the Norwegian gambling provider, Norsk Tipping. Data came from 35,753 people. The suggested limits were gambling less than 8.7 days per month, spending less than €54, duration less than 72–83 minutes, gambling on less than 3 gambling forms, and wager size of less than €118–140. The limits for young people aged 18 to 25 years were lower. A significant number of people experienced harm even when gambling at levels below the limits. The results showed that people could be at risk of harm at all gambling levels.

The researchers used eight items of the GamTest to determine four harm indicators: (1) monetary; (2) social; (3) emotional; and (4) “Two plus” (scoring positive on two or more of the eight items). The behavioural tracking data provided information on people’s gambling participation three months prior to taking the GamTest. The researchers used this dataset to calculate five gambling indicators: (1) gambling frequency; (2) gambling spending in euro; (3) duration in minutes; (4) number of gambling forms engaged in; and (5) wager size in euro. The monthly average across the three months was calculated, except for number of gambling forms.

To estimate the lower-risk gambling limits, the researchers performed receiver operating characteristics (ROC) curves. The ROC curves were used to find the optimal cut-offs that would identify...
experience of harm versus no harm across the four harm indicators.

What the researchers found
For frequency, the optimal cut-off was 8.7 days or less per month. The optimal cut-off for young people aged 18 to 25 years was 5 to 5.7 days. Between 11% to 18% of people who gambled below the cut-off reported experiencing harm across the four harm indicators. The risk of harm was 1.4–1.8 times higher if gambling above the cut-off.

For spending, the optimal cut-off was €53.8 or less per month. The cut-off for 18 to 25-year-olds was €32.6. Between 11% to 18% of people who gambled below the cut-off reported harm. The risk of harm was 1.6–1.8 times higher if gambling above the cut-off.

For duration, the optimal cut-off was less than 72–83 minutes per month. The cut-off for 18 to 25-year-olds was 45–57 minutes. Between 9% to 15% of people who gambled below the cut-off reported harm. The risk of harm was 2.3–2.7 times higher if gambling above the cut-off.

For number of gambling forms, the optimal cut-off was less than three. Between 11% to 18% of people who gambled below the cut-off reported harm. The risk of harm was 2.5–2.7 times higher if gambling above the cut-off.

For wager size, the optimal cut-off was less than €118-140. The cut-off for 18 to 25-year-olds was €81.5. Between 9% to 15% of people who gambled below the cut-off reported harm. The risk of harm was 2.4–2.9 times higher if gambling above the cut-off.

The limits identified in this study were higher than the limits reported in the Young et al (2022) study. The results of this study also showed that people could be at risk of harm at all gambling levels. People who experienced harm even when gambling at below the limits tended to be younger, male, and more likely to engage in betting and online casino than in lotteries.

How you can use this research
This study could inform people who gamble, gambling regulators, policy makers, and gambling interventions.

About the researchers
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