

Gender differences in gambling-related irrational beliefs and gambling severity among adolescents

What this research is about

Cognitive distortions refer to thinking errors or irrational beliefs about chance, skill, and control. These beliefs can lead people to misinterpret gambling outcomes and drive them to continue gambling despite the losses. Cognitive distortions are considered a risk factor for problem gambling.

Past studies have found that males and females prefer different types of gambling activities and have different gambling motives. Males are more likely to develop problem gambling than females. Cognitive distortions may also differ between genders. However, most studies have focused on adult populations. There is not much known about gender differences in cognitive distortions in adolescents.

The purpose of this study was to examine how cognitive distortions might be related to gambling severity, gambling modality (offline gambling, online gambling, or both), and type of gambling in male and female adolescents.

What the researchers did

The researchers recruited participants from various secondary schools and vocational training centres in Spain. Survey data were collected during regular class periods between February and March 2025. A total of 209 adolescents (aged 14–18 years) who reported gambling in the previous year were included in the study. Around two-thirds (69%) were males and one-third (31%) were females. Among those who provided information about nationality, the majority (93%) were of Spanish nationality.

The survey asked questions about the following:

What you need to know

This study examined the link between gambling-related cognitive distortions, gambling severity, gambling modality, and type of gambling among adolescents. A total of 209 adolescents (aged 14–18 years) who gambled in the past year and were enrolled in secondary education completed a survey. Gender-specific analyses found that, for males, cognitive distortions increased with more severe problem gambling. For females, cognitive distortions were higher among those who gambled online. For males, online gambling was linked to having more severe problem gambling directly as well as indirectly through cognitive distortions. Among females, online gambling was related to having more cognitive distortions. In turn, these cognitive distortions led to more severe problem gambling. But online gambling was not directly associated with more severe problem gambling.

- (1) Gambling behaviour (lifetime and past year).
- (2) Types of gambling, such as card games, betting on horse races or sports, and lotteries.
- (3) Gambling modality (offline, online, or both).
- (4) Severity of gambling, measured using the South Oaks Gambling Screen-Revised for Adolescents. Participants were classified as having non-gambling if they scored 0–1 points, at-risk gambling if they scored 2–3 points, or problem gambling if they scored 4 points or higher.
- (5) Gambling-related cognitive distortions, measured using the Gamblers' Beliefs Questionnaire.

Participants were classified into three groups based on the types of gambling that they engaged in: (1) strategic gambling (i.e., participated only in games that emphasize skill and decision making), non-strategic gambling (i.e., participated only in games of chance), and mixed gambling.

What the researchers found

Cognitive distortions increased with more severe problem gambling. Adolescents experiencing problem gambling had more cognitive distortions than those with non-problem gambling. Cognitive distortions were also linked to online gambling. Adolescents who only gambled online had more cognitive distortions than those who only gambled offline.

The researchers also examined gender-specific pathways. Among male adolescents, cognitive distortions increased with more severe problem gambling. Among female adolescents, cognitive distortions did not vary by gambling severity. But cognitive distortions were higher among girls who gambled online than those who gambled offline.

Only small differences were seen in terms of gambling type. This suggests that cognitive distortions were not strongly associated with engaging in strategic vs. non-strategic games among adolescents.

The researchers then examined whether cognitive distortions explained the link between gambling modality, gambling type, and gambling severity. For both genders, adolescents who had more cognitive distortions had more severe problem gambling.

For boys, online gambling was directly linked to having more severe problem gambling. This relationship was also partially explained by cognitive distortions. In other words, boys who gambled online had more cognitive distortions, leading to more severe problem gambling. The direct effect of online gambling and indirect effect through cognitive distortions suggest that while cognitive distortions are linked to more severe problem gambling in boys, there are other factors that might contribute to problem gambling.

For girls, those who gambled online had more cognitive distortions, leading to more severe problem gambling. But online gambling was not directly associated with more severe problem gambling.

How you can use this research

Policy makers and practitioners can use this research to inform gender-sensitive prevention and intervention strategies for adolescents. For example, for boys, interventions may need to consider risk factors beyond cognitive distortions. For girls, interventions may want to target beliefs related to online gambling environments.

About the researchers

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