What this research is about

Cognitive distortions are untrue beliefs that people have about something. Many people who gamble have cognitive distortions about gambling that keep them addicted to playing. People who gamble often make decisions quickly and based on their gut feeling. They may develop cognitive distortions from making quick decisions and make poor gambling choices.

Some evidence suggests that strengthening people’s analytical thinking skills may reduce their cognitive distortions. However, other studies suggest that people who gamble use analytical thinking to create cognitive distortions that support their gambling. Teaching people who gamble about probability and odds may not change their gambling choices either.

Public health programs may reduce gamblers’ cognitive distortions if they show people who gamble how games trick them into making poor gambling choices. In this study, the researchers investigated whether training people who gamble to use analytical thinking reduces their cognitive distortions.

What the researchers did

The researchers sent out an online survey through Mechanical Turk, an online marketplace to recruit people for tasks. Participants were 94 adults between 19 and 65 years old who lived in the United States. They gambled at least once a week on any type of gambling. Participants completed the Short Gambling Harms Screen (SGHS). Based on the SGHS, all participants had suffered some harm from gambling.

At the beginning of the study, participants completed the SGHS and the Problem Gambling Severity Index (PGSI). Based on the PGSI, 46% met the criteria for problem gambling, and 29% for moderate risk. Participants completed the Consumption Screen of Problem Gambling (CSPG). The CSPG assessed how often participants gambled and the amount of time they spent gambling. Participants completed the Gambling Related Cognition Scale (GRCS) and the Protective Gambling Beliefs Scale (PGBS). The GRCS assessed participants for five cognitive distortions. The PGBS assessed participants for protective beliefs that might reduce their chances of developing gambling problems. Participants also reported the amount of time and money they spent gambling.

The researchers randomly assigned participants to a treatment or control group. The treatment group received an online program that taught them how to use analytical thinking to overcome their cognitive distortions. The control group did not receive the program. The online program seemed to encourage people to have more accurate thoughts about gambling outcomes and to make safer gambling choices. More research is needed to explore whether this online program reduces gamblers’ cognitive distortions for a long time.

What you need to know

In this study, the researchers investigated whether training gamblers to use analytical thinking reduces their cognitive distortions about gambling. The researchers recruited 94 people who regularly gambled and had suffered gambling harm. The researchers randomly assigned participants to a treatment or control group. The treatment group received an online program that taught them how to use analytical thinking to overcome their cognitive distortions. The control group did not receive the program. The online program seemed to encourage people to have more accurate thoughts about gambling outcomes and to make safer gambling choices. More research is needed to explore whether this online program reduces gamblers’ cognitive distortions for a long time.
distortions. The program was based on the Gamblers Fallacy Questionnaire. Every week for four weeks, participants in the treatment group completed a task with 10 questions where they had to select a correct response from a list of options. They got feedback about whether they chose the correct answer. The control group did not receive the program. Instead, they completed 10 questions about gambling trivia and did not get feedback on their answers. Both groups of participants also reported the amount of time and money they spent gambling every week.

After the study ended, participants completed a survey that assessed their cognitive distortions and the amount of time and money they spent gambling.

**What the researchers found**

Participants in the treatment group had fewer cognitive distortions and more protective beliefs after they completed the study. However, the control group also had less predictive and illusionary control after the study. Predictive control is a cognitive distortion where gamblers think they can predict the outcomes of their gambling game. Illusionary control is a cognitive distortion where gamblers think they can control when they will win. Participants in the treatment group had a greater decrease in predictive control than those in the control group.

Participants in the treatment group reported spending less time gambling after completing the study than before. But there were no differences between the two groups in the amount of time and money they spent gambling. These findings suggest that the online training may encourage people to have more accurate thoughts about gambling and to make safer gambling choices. However, self-report surveys may not be the best way to assess people’s gambling behaviour.

**How you can use this research**

Treatment service providers can use this research to create programs that encourage people to rethink their beliefs about gambling. Researchers can explore how service providers may deliver this online program alongside other treatments. More research is needed to explore whether this online program reduces gamblers’ cognitive distortions for a long time.

**About the researchers**

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**About Gambling Research Exchange (GREO)**

Gambling Research Exchange (GREO) has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. GREO is an independent knowledge translation and exchange organization that aims to eliminate harm from gambling. Our goal is to support evidence-informed decision making in safer gambling policies, standards, and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

Learn more about GREO by visiting [greo.ca](http://greo.ca) or emailing [info@greo.ca](mailto:info@greo.ca).