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An experiment on the use of fear-based pop-up messages to facilitate safer gambling in online roulette

What this research is about

Online gambling can pose a greater risk than land-based gambling. Many online gambling operators offer pop-up messaging as part of their responsible gambling strategy. Pop-up messages can be general, such as to educate about the odds of winning. They can also be tailored, such as to warn players that they have reached their time or monetary limits. Pop-up messages direct attention away from the gambling activity. They can interrupt the trance-like state that people may experience while playing fast-paced games and potentially reduce gambling behaviour.

Most studies have investigated pop-up messages in the context of electronic gaming machines (EGMs). Less attention has been paid to other types of gambling. It is also unclear if the impact differs for different types of messaging. Evidence suggests that strong, fear-based messages can motivate people to quit smoking and change their health risk beliefs.

This experimental study examined the effectiveness of fear-based messages in an online roulette game. It also explored if messages about the social or financial consequences had different impact. In addition, the researchers used eye-tracking technology as an objective measure of attention to the messages.

What the researchers did

The researchers recruited adults between the ages of 18 to 65 years who had gambled online in the past six months. Participants first completed a questionnaire about their demographics and the Problem Gambling Severity Index (PGSI).

Participants then viewed a video of an online roulette play. The roulette game was designed to mimic

What you need to know

Pop-up messages have the potential to reduce gambling behaviour. This experimental study examined the effectiveness of fear-based messages. Participants were 59 adults who had gambled online in the past six months. They viewed a video of an online roulette play. During the course of the video, participants saw two pop-up messages about either the social or financial consequences of gambling. One message was high threat and the other was low threat. Overall, message content about the social or financial consequences did not make a difference. But, the threat level did for the messages about the social consequences. In this condition, the high-threat message was more effective than the low-threat message. Eye-tracking revealed that participants attended to each message for a similar amount of time, regardless of the content or threat level.

commercially available games. Participants saw two pop-up messages while watching the video. The messages were randomly assigned to be either about the social or financial consequences of gambling. One message was low threat and the other was high threat. Each message was displayed in the middle of the screen for 10 seconds.

Participants' eye movements were tracked while they were watching the video. Eye tracking was used to determine whether they attended to the pop-up messages, for how long, and their preference for one message type over the other.

After watching the video, participants rated each message on its effectiveness in facilitating safer

gambling. Ratings included if the message made them more concerned about the social/financial consequences, made them want to stop gambling, made them want to gamble less, and the message's overall effectiveness. Participants also rated each message on its emotional and cognitive aspects, including if the message grabbed their attention, was believable, was relevant, and was frightening.

What the researchers found

There were 59 participants, with 19 women and 40 men. Twenty-seven participants saw the messages about the financial consequences, and 32 participants saw the messages about the social consequences. Based on the PGSI, almost all participants had some risk of problem gambling. Around 61% of participants scored as low-risk gambling (score of 1 to 4). Another 13.6% scored as moderate-risk (score of 5 to 7), and 22.2% scored as problem gambling (score of 8 or more).

The researchers looked at the following outcomes to determine message effectiveness: 1) attention; 2) believability; 3) relevance; 4) fear; 5) concern about the social/financial consequences of gambling; 6) make one want to stop gambling; 7) make one want to gamble less; and 8) overall effectiveness.

Overall, message content about the social or financial consequences did not make a difference. But, the threat level within the messages about the social consequences did. For participants who saw the messages about the social consequences, they rated the high-threat message as more believable, more effective overall, and making them more concerned about the social consequences. These results were not found for the messages about the financial consequences. Eye-tracking revealed that participants attended to each message for a similar amount of time, regardless of the content or threat level.

How you can use this research

This study can inform research and intervention. The researchers suggested that future studies look at the use of personally relevant, fear-based messages, and a combination of text and graphic images. Studies

with larger samples of participants in more naturalistic settings are also needed.

About the researchers

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