

research snapshot

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Differences in decision-making and impulsiveness in gambling disorder patients may be related to the type of gambling they prefer

What this research is about

Disordered gambling (GD) refers to people who are suffering harm because of their gambling addiction. Many people with GD make risky decisions and have impulsive behaviour. Impulsive behaviour is when people make choices without thinking about the consequences. Some research suggests that gamblers' decision-making ability and impulsiveness may be related to the type of gambling they prefer.

Researchers and clinicians determine a gambler's decision-making ability using a test called the Cambridge Gambling Task (CGT). They determine a gambler's impulsiveness using tests such as the stop-signal task (SST). Unfortunately, most studies do not consider the types of gambling that a gambler prefers.

Research suggests that gamblers who prefer gambling on fixed-odds betting terminals (FOBTs) have a more severe gambling addiction. FOBTs are a type of electronic gaming machine (EGM) that are very popular in the United Kingdom (UK). In this study, the researchers investigated if the decision-making ability and impulsiveness of gamblers with GD is related to the type of gambling they prefer.

What the researchers did

The researchers recruited people from the National Problem Gambling Clinic in London, UK. Participants were 101 adults who were diagnosed with a gambling disorder using the Massachusetts Gambling Screen (MAGS) and the Problem Gambling Severity Index (PGSI). They were waiting to start treatment, were receiving treatment, or had completed a round of cognitive behavioural therapy (CBT).

What you need to know

The researchers investigated if decision-making ability and impulsiveness of gamblers with gambling disorder (GD) is related to the type of gambling they prefer. Participants were 101 adults who were waiting to start or were in treatment for GD. Participants completed a series of neuropsychological assessments and questionnaires. Fixed-odds betting terminals (FOBT) gamblers showed poorer decision-making compared to non-FOBT gamblers. But, FOBT gamblers showed more cognitive flexibility, as they were more able to change their behaviour when the rules were changed.

Participants completed a general questionnaire that collected their demographic information such as their age, gender, and ethnicity. This questionnaire also asked participants what type of gambling they preferred. The researchers placed participants who preferred FOBTs into a FOBT gambler group. They placed participants who preferred to types of gambling into a non-FOBT gambler group.

Participants completed the Fagerstrom Test for Nicotine Dependence (FTND) to determine their smoking status. They completed the National Adult Reading Test (NART) and Matrix Reasoning and Vocabulary tests on the Wechsler Abbreviated Scale of Intelligence to estimate their IQ.

The researchers used neuropsychological assessments and questionnaires to assess participants' decision-making ability and impulsiveness. Neuropsychological assessments included: 1) the Kirby Monetary Choice Questionnaire (Kirby MCQ) to assess participants'

delay discounting (i.e., prefer small, immediate rewards or larger, delayed ones); 2) the Cambridge Gamble Task (CGT) to assess their risky decision-making; 3) the Stop-Signal Task to assess participants' impulsiveness; and 4) the Probabilistic Reversal Learning Task (PRLT) to assess their perseverative responding (i.e., repeat a behaviour or response even though the rules have changed). Questionnaires included: 1) the Beck Anxiety Inventory to assess participants for anxiety; 2) the Beck Depression Inventory to assess depression; 3) the Impulsive Behaviour Scale (UPPS-S) to measure impulsiveness; and 4) the Gambling-Related Cognitions Scale (GRCS) to assess false beliefs about gambling.

What the researchers found

Of the 101 participants, 43 preferred FOBTs. Most non-FOBT gamblers preferred to gamble on fruit machines, bet on sports or horses, or play poker.

Compared to non-FOBT gamblers, FOBT gamblers made more risky decisions and fewer beneficial choices on the CGT, especially when the outcomes were more uncertain. FOBT gamblers took longer to make decisions on the CGT when the outcomes were more certain. These results may mean that FOBT gamblers were more likely to have false beliefs about gambling outcomes. Anticipatory regret might have also affected participants' decisions since they may have been hesitant to make decision for fear of regretting it.

FOBT gamblers showed less perseveration on the PRLT than non-FOBT gamblers. This suggests that FOBT gamblers had more cognitive flexibility. They were better able to change their behaviour as the rules of the assessment changed. There were no differences between the two groups on the Kirby MCQ and SST. In conclusion, gamblers with GD may show differences in their decision-making ability and impulsiveness based on the type of gambling they prefer.

How you can use this research

Researchers can consider this research when comparing gamblers to non-gamblers, since gamblers' preferred type of gambling may affect their results. More research is needed to explore whether gamblers

who have more cognitive flexibility are attracted to FOBTs or if they develop cognitive flexibility as a result of gambling on them.

About the researchers

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Citation

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