

knowledge snapshot



A systematic review of the links between autism and gambling with respect to cognitive tasks

What this article is about

People with autism spectrum disorder (“autism”) may find it challenging to socially interact with others. They may also have trouble with nonverbal communication behaviour, as well as with developing and maintaining relationships. Previous research has found that people with autism often report difficulties with neurocognitive tasks. These are tasks used to assess brain functions, such as decision making. Also, people with autism may display different tendencies with respect to gambling-related behaviours when compared to people without autism.

This article is a systematic review of studies that examined the links between autism and gambling. The authors specifically focused on findings related to neurocognitive tasks.

What was done?

The authors conducted a literature search in June 2021 and again in June 2022. They used the database PubMed to search for relevant articles. Initially, they found 343 articles.

The authors screened the title and abstract of each article. Then, the authors read each of the articles that might be relevant in full. A total of nine studies were included in the final review.

Articles were included in the review if they met the following criteria: (1) examined the overlap between autism (or autistic traits) and gambling, and (2) had a primary focus on validated neurocognitive tasks or related metrics (e.g., impulsive or compulsive personality traits).

What you need to know

Why is this article important?

People with autism spectrum disorders (“autism”) may find it challenging to socially interact with others, engage in nonverbal communication behaviour, and develop and maintain relationships. Previous research has found that people with autism often report difficulties with neurocognitive tasks. These are tasks used to assess brain functions, such as decision making. People with autism may display different tendencies with respect to gambling-related behaviours compared to people without autism.

This article is a systematic review of studies that examined the links between autism and gambling. The authors specifically focused on neurocognitive tasks. The authors identified a lack of research on the links between autism and gambling with respect to neurocognitive tasks. Findings reported in previous studies are inconsistent. The authors provided direction for future research, including recommendations to use large enough samples and validated tools to assess problem gambling.

The authors noted that there is not much research on the links between autism and gambling. The nine studies that were included in the review mostly came from the United Kingdom (44%) or the United States (44%). One study was conducted in China.

Most studies examined aspects of decision making. These studies often compared people with autism to people without autism on decision-making cognitive tasks, such as the Iowa Gambling Task or the Cambridge Gamble Task.

The authors noted that the included studies reported conflicting results on these types of cognitive tasks. For example, one study by Vella et al. (2018) found that, compared to people without autism, people with autism performed better on the Iowa Gambling Task but worse on the Cambridge Gambling Task. In addition, people with autism had slower response times (i.e., took longer to make a decision).

Another study (Hosozawa et al., 2021) examined decision making in adolescents using data from a cohort study in the UK. They found that children with autism had slower deliberation times than those without autism. This finding was supported even after taking into account possible influencing factors, such as age, sex, and socioeconomic status.

A third study (Grant & Chamberlain, 2021) examined young adults who were aged 18 to 29 years old and who gambled occasionally. They did not find a link between autism scores and performance on the Cambridge Gambling Task. But people with higher autism scores reported more problem gambling symptoms.

Only four studies (44.4%) had samples with at least 26 people per group of interest. The authors noted that this is the minimum number of participants needed in each group to be able to statistically detect whether there are differences among the groups. The authors further discussed how small sample sizes might be one of the reasons that the findings were inconsistent across the studies.

Overall, the authors found some support for a link between autistic traits and higher levels of problem gambling. But only one study examined this using a validated tool to assess problem gambling.

Who is it intended for?

Researchers can use this review to guide future research efforts related to the links between autism and gambling.

About the researchers

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