SPARK Summary Report

SPARK Research Match

How Do Sleep and Some Medications Affect Heart Disease Risks in Autistic Adults?

Summary Reports describe results from newly published research using data from SPARK participants.

Study title

Cardiovascular Disease Risk Factors in Autistic Adults: The Impact of Sleep Quality and Antipsychotic Medication Use

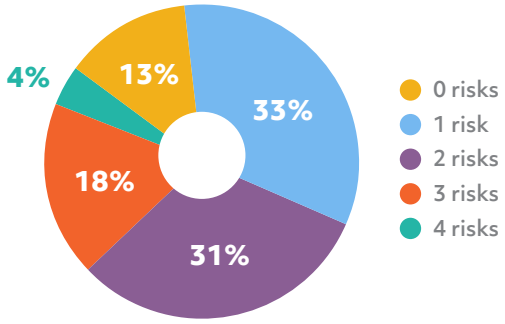
What was the study about?

Cardiovascular (heart) disease, which includes heart problems and strokes, is a major preventable cause of illness. Risks for heart disease include obesity, high blood pressure, high cholesterol, and diabetes. Those risks may be reduced by losing any extra weight, taking medication, or other actions. Research suggests that autistic adults may have more risks for heart disease than the general population. Researchers studied the number and type of risk factors they have, and possible links to stress and sleep problems.

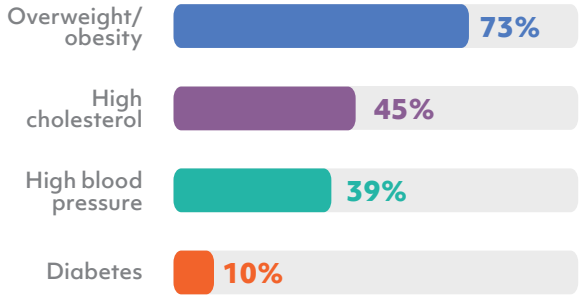
How was the research done?

Researchers enrolled 545 independent autistic adults ages 18 to 77 who were in the SPARK study. Almost two-thirds were assigned female at birth. Participants completed online surveys about their stress levels, medical conditions, sleep, height, weight, and medication use.

PERCENTAGE OF ADULTS WITH 0 TO 4 RISK FACTORS FOR HEART DISEASE [1]



PERCENTAGE OF ADULTS WITH EACH RISK FACTOR [1]



What did the researchers learn?

- About 75 percent of adults reported at least one risk factor for heart disease. This is higher than the general population. Overweight or obesity was the most common risk, followed by high cholesterol, high blood pressure, and diabetes, in that order.
- Being older, being assigned male at birth, and having poor sleep were linked to having a higher number of risk factors for heart disease.
- People with poor sleep were more likely to experience overweight or obesity, and to have more risk factors for heart disease.

- Autistic adults reported feeling more stress and having greater problems sleeping than the general population. Sleep and stress problems were greater for women than for men in this study.
- People who use antipsychotic medication were more likely to have diabetes. Researchers found no link between antipsychotics and the other three risk factors for heart disease in this study.
- About 15 percent of the adults took antipsychotic medicine, which is used to treat mood disorders, irritability, and difficulty with managing emotions. Women were more likely to take this medicine. "The level of use was pretty noteworthy," says Goldie A. McQuaid, Ph.D., a study researcher.

What was new and innovative about the study?

This study looked at the effect of sleep and people's perceptions of their stress on the risk factors for heart disease.

What do the findings mean?

Autistic people have more risks for heart disease than other people. Their stress levels did not affect those risks, but sleeping poorly did. Improving sleep could help lower those risks. Monitoring risk factors among people taking antipsychotic medication could also lower the risks. The study concludes that "both have the potential to improve the quality of autistic adults' health and lives."[1]

What are people saying?

STUDY PARTICIPANTS:

- "Thank you for looking at the needs of older adults with autism."
- "Thank you helping older adults on the spectrum, we are mostly forgotten about in many regards."
- "Very interesting questions. I am always surprised that I don't think about all those things by myself."

STUDY RESEARCHER:

- **Gregory L. Wallace, Ph.D., associate professor, The George Washington University:** "Our broader mission is to understand all adult outcomes in autism and what the contributing factors are, both mental health and, as this paper examines, physical health."

What's next?

Wallace and his research team are examining aspects of physical and mental health, stress, sleep, and medication use among autistic adults, to better understand the health risks and concerns of people as they age.

References

1. Bishop L. *et al. Autism Res.* **16**, 569-579 (2023) PubMed

About SPARK Research Match

This SPARK program matches participants with research studies that they may want to join. These studies have been evaluated for scientific merit and approved by a scientific committee at SPARK. The program is free to researchers and participants. SPARK does not endorse or conduct these studies. Participants choose if they want to take part in a particular study.