Spatial Navigation in Schizophrenia – A Meta-Analysis

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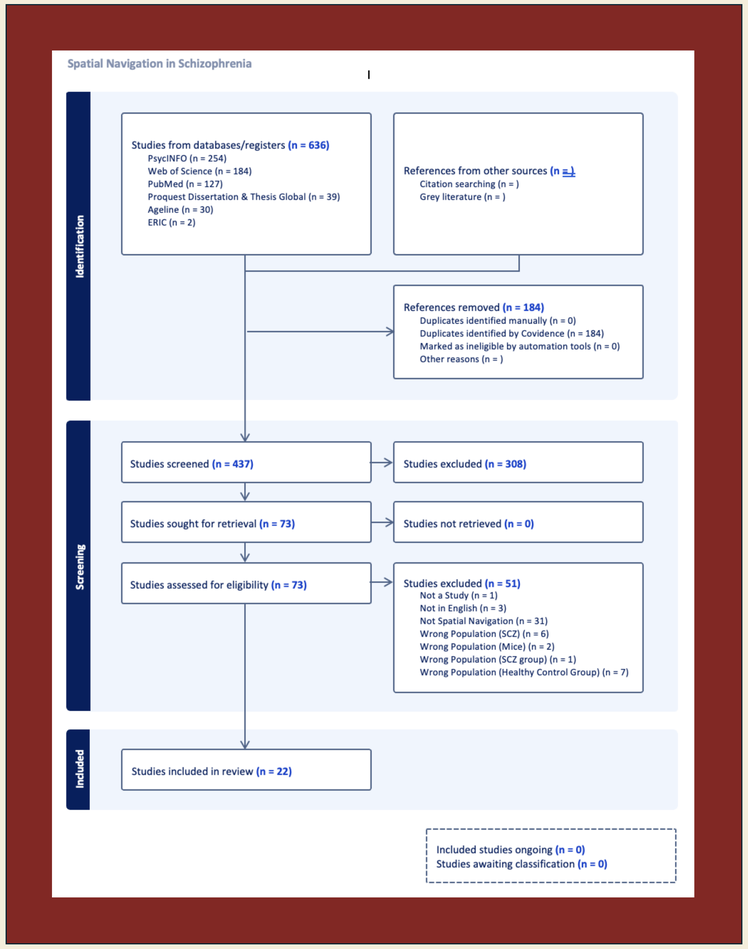
Introduction

Around 2.8 million adults in the United States suffer from schizophrenia. Schizophrenia is a complex neuropsychiatric disorder categorized by a variety of cognitive impairments, including deficits in spatial navigation. Spatial navigation is the ability to create or recreate a route. These deficits are shown to stem from disruptions in neural systems that formulate sensory, motor, and cognitive information.

Methods

- This meta-analysis investigates the differences in spatial navigation performance between cognitively healthy adults and adults with schizophrenia.
- The effect size will be measured using the standardized mean difference (Hedge's g).
- Basic study characteristics (such as publication year, country, participant age, gender, and education level).
- Examining various moderators, including the format of test administration (real-world vs. virtual reality), the type of measure used (time vs. accuracy), and any additional spatial tasks associated with the main spatial navigation test.
- So far, personally my tasks have consisted of mostly Title and Abstract/Full Text screenings to provide my mentor with useful materials to carry out more research.

Covidence Data



Results

- Initially, we imported 452 studies related to schizophrenia/spatial navigation into Covidence software.
- After the Title and Abstract screening, 144 studies were retained.
- 51 studies of that 144 were excluded during the Full Text review.
- A total of 58 studies are now ready for data extraction.

Conclusion

The existing literature indicates a distinction between cognitively healthy adults and those with schizophrenia in terms of spatial navigation performance. However, to draw definitive conclusions and address our research of this study, further quantitative evidence is needed.

We are in the process of currently obtaining the further quantitative evidence needed. We are doing this by combing through previous studies that relate to our topic and relating them to our research. We use the Covidence data base to carry out our literature-based research, as seen in the visuals on the poster.

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