

Correlating Depression, Anxiety, and Stress with Spatial Navigation



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Assessment:

The DASS 21 is a self-report questionnaire consisting of 21 items, crafted to assess the intensity of various symptoms commonly associated with depression and anxiety. Some example statements include:

"I found it difficult to relax"

"I felt I wasn't worth much as a person"

"I felt that life was meaningless"

Background

Depression, anxiety, and stress can significantly impair cognitive functioning, leading to difficulties in concentration, memory retrieval, decision-making, spatial navigation, and overall mental clarity. Existing literature suggests that individuals diagnosed with depression exhibit compromised navigational abilities, while children experiencing anxiety demonstrate impaired spatial orientation. This points to a potential association between clinically diagnosed anxiety and depression and deficits in spatial navigation and orientation (Zafar et al., 2023).

Results:

Around 45 students completed the 2 sessions, and we intend on recruiting about 45 adults from the institute for successful longevity. We expect those who report high levels of depression to perform worse on spatial orientation assessments.



Mrs. Jones is at the intersection of 8th Street and 1st Avenue with a church on her right. She drives the following route: straight on 8th Street, left on 3rd Avenue, right on 6th Street and stops at the first intersection. Which of these places is closest to her new position?

Hypothesis:

This study is currently ongoing, with an anticipated conclusion in April 2024. We hypothesize that individuals with higher scores on the DASS21 will perform less effectively on spatial navigation tests, irrespective of age and gender.

Methodology:

The present study aims to investigate correlation between spatial navigation skills and scores on the DASS21, a self-report questionnaire designed to gauge the severity of core symptoms related to Depression, Anxiety, and Stress. Spatial skills will be assessed using the Spatial Orientation Test (SOT) and Directions & Orienting Assessment (DORA). We plan to recruit 45 younger and 45 older adults.

References:

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Zafar, I., Burles, F., Berger, L., McLaren-Gradinaru, M., David, A. L., Dhillon, I., & Iaria, G. (2023, November 26). Anxiety and depressive traits in the healthy population does not affect spatial orientation and navigation. *MDPI*. <https://www.mdpi.com/2076-3425/13/12/1638#:~:text=In%20summary%2C%20individuals%20diagnosed%20with,satial%20navigation%20and%20orientation%20deficits>

