Cognitive Functioning among Aging HIV-positive Gay and Bisexual Men: Norms for Those Age 50 and Older

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Background

Despite known cognitive decline, HIV-specific norms for neuropsychological tests are absent from the literature. In this New York City cross-sectional study, neuropsychological tests were conducted on HIV-positive gay and bisexual men ages 50-69 (N = 169). Working memory and verbal abstract reasoning were relatively intact at all ages. After age 55, the attention abilities were impaired. Executive function impairment was present regardless of age, educational attainment and age-education interaction. Results suggest a need for HIV-specific norms, and regular neuropsychological assessments (i.e. baseline, over time) to screen for cognitive decline and assist with intervention.

Methods

• Cross-sectional design
• Self-reported, computer-administered survey
• Researcher-administered neuropsychological measures

Measures

Mini-Mental State Examination (MMSE)
Measure assesses global cognitive functioning (Folstein, Folstein, & McHugh, 1975).

Trails-Making A
Found to be a valid and reliable measure of attention ability (Reitan & Wolfson, 1985; Tombaugh, 2004)

Trails-Making B
Measures executive functioning (i.e. ability to shift attention, sequence) (Reitan & Wolfson, 1985; Tombaugh, 2004)

WAIS-III Subtests
Digit-Span: Assessing working memory (Wechsler, 1997)

Similitudes-Evaluates verbal abstract reasoning (Wechsler, 1997)

Results

• All men regardless of age and educational attainment had slower times than those in the general population, which suggests difficulty with executive functioning
• Difficulty with executive functioning may impact ability to adhere to HIV medication, plan and track medical appointments, as well as increase impulsive behavior
• Gaining additional education beyond a high school education appears to be a protective factor against cognitive decline

Conclusions

• Neuropsychological assessments should be part of a comprehensive baseline evaluation at time of seroconversion along with CD-4 counts and viral loads
• Neuropsychological evaluation can be a cost effective way to screen for cognitive decline among aging HIV+ people
• HIV-specific neuropsychological norms should be developed
• Early detection could include treatment and intervention planning including cognitive rehabilitation

References


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