

Bivariate correlations were conducted to determine whether the volumes of these structures correlate significantly with learning and memory measures on the ANB.

Results: Results will be determined by the methods described previously.

Conclusions: Results from this study will demonstrate whether structural brain changes commonly seen in individuals with dementia living in western and educated countries also are observed in the DRC. Results will also demonstrate whether these brain changes coincide with the degree of impairments on tasks of memory, and whether these structures can be used to aid in clinical diagnosis of patients with dementia and support the use of the ANB and neuroimaging in clinical detection of dementias in the DRC.

Categories: Neuroimaging

Keyword 1: cross-cultural issues

Correspondence:

sabrina.diana.na@emory.edu

95 Examining the Utility of Demographically Adjusted Scores on the Community Screening Instrument for Dementia in Congolese Older Adults

Anny Reyes¹, Liselotte De Wit^{2,3}, Molly R. Winston^{4,5}, Dustin B. Hammers⁶, Alvaro Alonso⁷, Jean Ikanga^{2,8}

¹Center for Multimodal Imaging and Genetics & Department of Radiation Medicine and Applied Sciences, University of California, San Diego, San Diego, CA, USA. ²Department of Rehabilitation Medicine, Emory University School of Medicine, Atlanta, GA, USA. ³Shaffer Cognitive Empowerment Program Department of Neurology, Emory University, Atlanta, GA, USA. ⁴Children's Healthcare of Atlanta, Atlanta, GA, USA. ⁵Emory School of Medicine, Atlanta, GA, USA. ⁶Department of Neurology, Center for Alzheimer's Care, Imaging, and Research & Center on Aging, University of Utah, Salt Lake City, Utah, USA. ⁷Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA, USA. ⁸Department of Psychiatry, University of Kinshasa and Catholic University of Congo, Kinshasa, the Democratic Republic of the Congo

Objective: Given the lack of comprehensive neuropsychological tools and neuropsychological services in Sub-Saharan Africa (SSA), cognitive screeners for dementia can be useful tools to screen for suspected dementia at the population level. However, most available screeners have not been developed or validated in SSA populations. The Community Screening Instrument for Dementia (CSID) was developed for cross-cultural use, and it has a cognitive testing component and informant interview. We have previously demonstrated that lower years of education and female sex are associated with lower scores on the CSID. Here, we examine the utility of demographically adjusted CSID scores in a community sample of Congolese older adults.

Participants and Methods: 354 participants (mean age=73.6±6.7, mean education (years) =7.3±4.7; 50% female) were randomly recruited in Kinshasa, Democratic Republic of the Congo, and completed the CSID and the Alzheimer's Questionnaire (AQ) to examine functional abilities. Raw scores were demographically adjusted for education and sex by adding 1 point for ≤12 years of education and 1 point for female. Cognitive impairment was classified as a total score below 25.5. Rates of impairment were compared between raw scores and demographically-adjusted scores. Demographic profiles were examined between both classifications

Results: Average raw CSID scores were 25.23 (SD=4.19) and average demographically-adjusted scores were 26.59 (SD= 4.09). Approximately 43.1% of the sample was impaired based on the raw CSID scores compared to 30.4% with the demographically-adjusted scores ($\chi^2= 12.334$, $p<.001$). There was a higher proportion of females (n=95; 26.8%) classified as impaired with the raw SCID scores compared to the demographically-adjusted scores (n=62; 17.5%; $\chi^2= 8.87$, $p=0.003$). Approximately 27.4% (n=97) of the participants classified as impaired with the raw SCID scores had primary education or less (i.e., 1-6 years) compared to 18.9% with the demographically-adjusted scores (n=67; ($\chi^2= 107.77$, $p<.001$). Forty-five participants were re-classified as not impaired with the demographically-adjusted scores with the majority of these participants being female (73.3%), having primary education (66.7%), and being functionally unimpaired on the AQ (91.1% unimpaired).

Conclusions: We demonstrate that raw scores on the CSID can lead to misclassification of impairment in females and in individuals with lower years of education. Demographically-adjusted scores on the CSID can help properly capture those with suspected dementia while reducing false positives. Given the effects of education and sex on performance, future studies should examine if demographically adjusted scores improve the sensitivity and specificity of the CSID in Congolese populations and compare its performance to other screening tools to determine the most appropriate screener for this population.

Categories: Cross Cultural Neuropsychology/
Clinical Cultural Neuroscience

Keyword 1: assessment

Keyword 2: dementia - Alzheimer's disease

Correspondence: Anny Reyes, Ph.D.,
University of California, San Diego,
nr086@health.ucsd.edu

96 Health Factors and Psychosocial Factors as Predictors of Depressive Symptoms and the Association of Depressive Symptoms and Cognitive Functioning in Congolese Older Adults

Liselotte De Wit^{1,2}, Molly R. Winston^{3,4}, Anny Reyes⁵, Sabrina Hickie¹, Suzanne Penna¹, Jean Ikanga^{1,6}

¹Department of Rehabilitation Medicine, Emory University School of Medicine, Atlanta, GA, USA. ²Shaffer Cognitive Empowerment Program Department of Neurology, Emory University, Atlanta, GA, USA. ³Children's Healthcare of Atlanta, Atlanta, GA, USA. ⁴Emory School of Medicine, Atlanta, GA, USA. ⁵Center for Multimodal Imaging and Genetics & Department of Radiation Medicine and Applied Sciences, University of California, San Diego, San Diego, CA, USA. ⁶Department of Psychiatry, University of Kinshasa and Catholic University of Congo, Kinshasa, the Democratic Republic of the Congo

Objective: Late-life depression is a complex condition impacted by both mental and physical health outcomes and psychosocial factors. Psychosocial predictors of depression are reliant on cultural factors including socioeconomic variables, stigmas, and cultural values. Most

research on late-life depression and its effect on cognitive functioning has been completed in so-called Western, Educated, Industrialized, Rich, and Democratic (WEIRD) populations and findings may not generalize to older adults living in other areas of the world. The current study explored predictors of depressive symptoms as well as the association between depressive symptoms and neuropsychological functioning in Congolese older adults.

Participants and Methods: A total of 319 participants (mean age=72.7±6.15, mean education in years=7.6±4.56; 47% female) were randomly recruited. Depressive symptoms were assessed with the Geriatric Depression Scale. Given the exploratory nature of the current study, forward stepwise linear regression models were run to assess predictors of depressive symptoms. The independent variables assessed as potential predictors included age, years of education, gender, participant income, parental income, living arrangement (i.e., alone or with others), functional abilities (FAQ), fragility, and self-rated overall health. Analyses were run in the overall sample as well as stratified by gender. The association between depressive symptoms and performance on the Community Screening Instrument for Dementia (SCID) was also explored.

Results: Higher depressive symptoms were found in women ($\beta=.228$, $p=0.036$), those with lower parental income ($\beta=-.156$, $p=.005$), higher fragility ($\beta=-.237$, $p<.001$), and worse overall health ($\beta=-.311$, $p=.020$). Among women, lower parental income, ($\beta=-.230$, $p=.002$), higher fragility ($\beta=-.312$, $p<.001$), and lower overall health ($\beta=-.235$, $p=.004$) predicted higher depressive symptoms, while in men only higher fragility ($\beta=-.164$, $p=.041$) and living alone ($\beta=-.184$, $p=.022$) predicted higher depressive symptoms. There was also a significant association between depressive symptoms and lower scores on the CSID ($\beta=-.189$, $p=.001$)

Conclusions: Similar to results in WEIRD populations, general health and fragility predicted depressive symptoms in Congolese older adults. However, parental income (more so than participant income) also predicted depressive symptoms in Congolese older adults, particularly in women, while living alone was a predictor in Congolese older men. It is possible that the difference in depressive symptoms between men and women is driven by underreporting of depressive symptoms among men. Our results also showed that there was an