

University of Louisville

ThinkIR: The University of Louisville's Institutional Repository

Faculty Scholarship

12-21-2023

Assessment of deficits in specific cognitive domains in older adults living with HIV.

Andrea Reyes-Vega

University of Louisville, andrea.reyesvega@louisville.edu

Harideep Samanapally

University of Louisville

Rishikesh Rijal

University of Louisville

Stephen P. Furmanek

University of Louisville, stephen.furmanek@louisville.edu

Follow this and additional works at: <https://ir.library.louisville.edu/faculty>



Christopher B. Shields

Part of the Cognition and Perception Commons, Epidemiology Commons, Geriatrics Commons,

University of Louisville

Health Psychology Commons, Immune System Diseases Commons, and the Other Medical Sciences

Commons

See next page for additional authors

Original Publication Information

© The Author(s) 2023. Published by Oxford University Press on behalf of The Gerontological Society of America. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited. *Innovation in Aging*, Volume 7, Issue Supplement_1, December 2023, Page 991,

ThinkIR Citation

Reyes-Vega, Andrea; Samanapally, Harideep; Rijal, Rishikesh; Furmanek, Stephen P.; Shields, Christopher B.; Dennis, Brandon C.; Ghare, Smita; and Barve, Shirish, "Assessment of deficits in specific cognitive domains in older adults living with HIV." (2023). *Faculty Scholarship*. 952.

<https://ir.library.louisville.edu/faculty/952>

This Article is brought to you for free and open access by ThinkIR: The University of Louisville's Institutional Repository. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of ThinkIR: The University of Louisville's Institutional Repository. For more information, please contact thinkir@louisville.edu.

Authors

Andrea Reyes-Vega, Harideep Samanapally, Rishikesh Rijal, Stephen P. Furmanek, Christopher B. Shields, Brandon C. Dennis, Smita Ghare, and Shirish Barve

decline in verbal skills, semantic knowledge, or retrieval. Overall, the observed deficits in different cognitive domains support early neurocognitive screening even when OALWH do not show overt signs of neurocognitive impairment.

Abstract citation ID: igad104.3185

ASSESSMENT OF DEFICITS IN SPECIFIC COGNITIVE DOMAINS IN OLDER ADULTS LIVING WITH HIV (OALWH)

Andrea Reyes-Vega¹, Harideep Samanapally¹, Rishikesh Rijal¹, Stephen Furmanek², Christopher B. Shields³, Brandon C. Dennis³, Smita Ghare³, and Shirish Barve³, 1. *University of Louisville, Louisville, Kentucky, United States*, 2. *Norton Infectious Diseases Institute, Louisville, Kentucky, United States*, 3. *Norton Neuroscience Institute, Louisville, Kentucky, United States*

A significant proportion of people living with HIV (PLWH) have cognitive impairment. Moreover, approximately 70% of PLWH in the United States will be ≥ 50 years old by 2030, raising concerns of a higher incidence of dementia as they age. Accordingly, there is a clinical need to monitor their cognitive status. The aim of this study was to delineate specific cognition areas impacted in OALWH with a clinical diagnosis of neurocognitive impairment. We used a comprehensive set of tests (paper and NIH Toolbox Cognition Battery), to assess different cognitive domains in a total of 25 OALWH ≥ 50 years. 64% were diagnosed with neurocognitive impairment and 36% were non-impaired. T-scores were compared using t-tests of means. Differences in means and 95% confidence intervals (CI) were reported. Impaired patients scored on average 18.35 T-score points lower on Hopkins Verbal Learning Test (HVLT) retention trial (p 0.016, CI:6.74-29.97) and 9.19 T-score points lower on the NIH Picture Vocabulary Test (PVT) (p 0.033, CI:1.12-17.26). Stroop color word, NIH Card Sort and NIH Picture sequence memory test were trending to be significantly lower in impaired patients ($p < 0.07$). In impaired OALWH, the HVLT data demonstrated a decreased capacity to learn and an early memory loss, suggesting frontal executive and attention type deficits. Moreover, the decreased PVT scores demonstrated an impact on crystallized intelligence, indicating