Pilot & Feasibility Study for Understanding Cognition and Mental Health in Older Adults Living with Human Immunodeficiency Virus

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Background: Approximately 6 million older adults are living with Human Immunodeficiency Virus (HIV), a population that is expected to grow. HIV-associated neurocognitive disorders (HAND) symptomatically affect approximately 20% of people living with HIV (PWH), and prevalence rates are even higher in older PWH. Valid and reliable instruments that are feasible to routinely administer are needed to assess well-being, including objective and subjective cognition, to inform person-centered support for healthy aging and mental health among persons aging with HIV.

Methods: This pilot study assessed the feasibility, acceptability and performance of the Subjective Cognition Across Lived Experiences (SCALE) assessment and its correlate measures in a sample of PWH who are age 50 and older. Recruitment was conducted via flyer advertisement in local HIV support groups, referral from healthcare workers in the Philadelphia area, and outreach to patients. After participants provided written informed consent, the in-person study visit began with a neurological exam conducted by a board-certified neurologist. Then, the SCALE assessment (30 min) was completed to measure objective, subjective and metacognitive performances, followed by the Penn Life Experiences Survey (20 min) to capture experiences with SSDOH, and a blood draw (15 min) to assess biological markers of brain atrophy.

Results: All 35 participants completed the SCALE. Most individuals (n=21) completed a blood draw prior to the SCALE assessment (Protocol 1) while 4 completed the SCALE assessment prior to the blood draw (Protocol 2) and 10 had an unsuccessful blood draw (Protocol 3). Some participants had problems engaging with the SCALE interface to complete the portion pertaining to the dot matrix task. Six participants experienced challenges with using the desktop computer peripheral equipment. Unsuccessful blood draws were largely due to inaccessibility of phlebotomy equipment and venous access due to dehydration.

Conclusion: Implementation of the SCALE in combination with a neurological examination in older PWH is feasible in the outpatient clinical setting. Combined computerized measures, neurological examination, and blood collection may benefit from incorporating technology orientation and structured phlebotomy support to enhance the implementation and acceptability of multidomain assessment protocols. Future analyses will measure performance and order effects associated with differing protocols.