

and Category Fluency from the MCCB were administered in the same order at 2 different sites and studies from 2016-2022. The autocorrelation between t-scores for task scores within each participant was computed and then compared between control and outpatient participants to determine if there are differences between groups. Group mean t-scores for each task were also compared between groups.

**Results:** We found no significant difference in autocorrelations across MCCB tasks between healthy comparison participants and outpatients. However, mean performance in all tasks was lower for the outpatient group than for the healthy comparison group. None of the tasks used stood out as having significantly lower mean scores than other tasks for either group.

**Conclusions:** Our findings suggest that performance on individual MCCB tasks do not affect performance throughout the battery differently between the healthy comparison group and outpatients. This suggests that participants with schizophrenia are not particularly reactive to past performance on MCCB tasks. Additionally, this finding further supports use of the MCCB in this population. Further research is needed to determine whether subgroups of patients and/or different batteries of measures show different patterns of reactivity.

**Categories:** Schizophrenia/Psychosis

**Keyword 1:** schizophrenia

**Keyword 2:** psychometrics

**Keyword 3:** motivation

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## 71 Examining the Psychometric Validity of NeuroScreen to Assess Neurocognition in Hospitalized Psychosis Patients in Uganda

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**Objective:** People with psychotic disorders often experience neurocognitive deficits, such as neurocognitive impairment (NCI), which can negatively affect their daily activities (e.g., performing independent tasks) and recovery. Because of this, the American Psychology Association advocates integrating neurocognitive testing into routine care for people living with psychotic disorders, especially those in their first episode, to inform treatment and improve clinical outcomes. However, in low-and-middle income countries (LMICs), such as Uganda where the current study took place, administering neurocognitive tests in healthcare settings presents numerous challenges. In Uganda there are few resources (e.g., trained clinical staff, and culturally relevant and normed tests) to routinely offer testing in healthcare settings. *NeuroScreen* is a brief, highly automated, tablet-based neurocognitive testing tool that can be administered by all levels of healthcare staff and has been translated into indigenous Ugandan languages. To examine the psychometric properties of *NeuroScreen*, we measured convergent and criterion validity of the *NeuroScreen* tests by comparing performance on them to performance on a traditional battery of neurocognitive tests widely used to assess neurocognition in people with psychotic disorders, the Matric Consensus Cognitive Battery (MCCB).

**Participants and Methods:** Sixty-five patients admitted into Butabika Mental Referral Hospital in Uganda after experiencing a psychotic episode and forty-seven demographically similar control participants completed two neurocognitive test batteries: the MCCB and *NeuroScreen*. Both batteries include tests measuring the neurocognitive domains of executive functioning, working memory, verbal learning, and processing speed. Prior to completing each battery, patients were medically stabilized and could not exhibit any positive symptoms on the day of testing. On the day of testing, medication dosages were scheduled so

that patients would not experience sedative effects while testing. To examine convergent validity, we examined correlations between overall performance on *NeuroScreen* and the MCCB, as well as tests that measured the same neurocognitive domains. To examine criterion validity, an ROC curve was computed to examine the sensitivity and specificity of *NeuroScreen* to detect NCI as defined by the MCCB.

**Results:** There was a large correlation between overall performance on *NeuroScreen* and the MCCB battery of tests,  $r(110) = .65$ ,  $p < .001$ . Correlations of various strengths were found among tests measuring the same neurocognitive domains in each battery: executive functioning [ $r(110) = .56$ ,  $p < .001$ ], processing speed [ $r(110) = .44$ ,  $p < .001$ ], working memory [ $r(110) = .29$ ,  $p < .01$ ], and verbal learning [ $r(110) = .22$ ,  $p < .01$ ]. ROC analysis of the ability of *NeuroScreen* to detect MCCB defined NCI showed an area under curve of .798 and optimal sensitivity and specificity of 83% and 60%, respectively.

**Conclusions:** Overall test performance between the *NeuroScreen* and MCCB test batteries was similar in this sample of Ugandans with and without a psychotic disorder, with the strongest correlations in tests of executive functioning and processing speed. ROC analysis provided criterion validity evidence of *NeuroScreen* to detect MCCB defined NCI. These results provide support for use of *NeuroScreen* to assess neurocognitive functioning among patients with psychotic disorders in Uganda, however more work needs to be done to determine how well it can be implemented in this setting. Future directions include assessing cultural acceptability of *NeuroScreen* and generating normative data from a larger population of Ugandan test-takers.

**Categories:** Schizophrenia/Psychosis

**Keyword 1:** neuropsychological assessment

**Keyword 2:** validity (performance or symptom)

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## 72 Investigating Handedness and Cognitive Functions in People with Severe Mental Disorders

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**Objective:** Our objective is to investigate whether handedness is associated with performance on verbal and visual neuropsychological tests in people with severe mental disorders. A recent study, applying a continuous scale of hand preference, reports that handedness is not associated with test performance in people with schizophrenia disorders. Conversely, in a recent large meta-analysis where handedness was applied as a dichotomous variable, right-handers had better performance in spatial ability (but not verbal ability) compared to left-handers, irrespective of gender or health status. We hypothesize that a dichotomous classification of handedness will reveal an advantage of right-handedness on tests of visuospatial functions—but not verbal functions—in people with severe mental disorders. We expect that gender will not be associated with the neuropsychological test results.

**Participants and Methods:** Data from a sample of 385 patients with severe mental disorders, mainly within the schizophrenia spectrum, were analyzed. All participants had Norwegian as their first language. Their mean age was 24.8 years ( $SD=6.2$ ) and 153 (39.7%) were women. Handedness was evaluated by observation of preferred hand in writing and drawing during neuropsychological assessment. Chi-square tests were used to compare proportions of cases with reported frequencies of handedness in the general population and comparable clinical samples. Raw scores on Semantic Fluency and Line Orientation from the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) were analyzed using Mann-Whitney U tests, and possible effects of gender with two-way ANOVA. Frequencies of low scores were analyzed using frequency analyses.

**Results:** Overall prevalence of left-handers was 10.4% compared to 10.6% in the general population ( $\chi^2=.018$ ,  $p=.893$ ). Observed