

A Systematic Review: Evaluating the Effectiveness of Cognitive Standardized Assessments Following Stroke in Acute Care

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Objectives of Presentation: Upon conclusion of this presentation, participants will be able to:

- Identify valid, reliable, and sensitive standardized cognitive assessments found within our systematic review that can be utilized within the acute care setting with adults following stroke.
- Describe how the current literature presented from this systematic search of standardized cognitive assessments influences safe discharge planning in acute care.
- Discuss the feasibility of implementing standardized assessments into daily practice.

Clinical Question: What is the evidence supporting the use of standardized cognitive assessments in acute care for patients who have experienced a stroke?

Methods:

- Databases: CINAHL and PubMed; Searched completed with population and outcome terms (i.e. cognitive, stroke, CVA)
- The PRISMA diagram was used and 9 out of the 153 articles were used for our systematic review based off of our inclusion/exclusion criteria
- Appraisal of articles: Quality Appraisal for Clinical Measurement Research Evaluation¹¹
- Appraisal of assessments: Adapted Outcome Measure Rating¹¹

Psychometrics Properties Defined:

- Reliability: the overall consistency of a measure
- Inter-rater reliability: assesses the degree of agreement between two or more raters in their appraisals
- Internal consistency reliability: assesses the consistency of results across items within a test
- Test- retest: is a measure of how consistent the results of a test are over time
- Validity: refers to the extent to which a study actually captures or measures what it claims to examine
- Sensitivity: refers to the ability of a tool to detect a disease or condition when it is actually present
- Specificity: refers to the ability of a tool to exclude a condition when it is not present¹⁶

Results:

Theme #1- Psychometric Properties: Sensitivity, Specificity, Validity & Reliability 4,5,6,9,10,15,18,21,22	<ul style="list-style-type: none"> • MoCA & TCT have large sensitivity and small specificity • MoCA is more sensitive than MMSE with published norms, MoCA and MMSE similar sensitivity with educationally adjusted cut off scores. • MoCA valid for detection of cognitive impairment, MMSE has adequate construct validity • MoCA has high internal consistency & excellent test-retest, MMSE has excellent inter-rater reliability
Theme #2- Client Factors Measured by Assessments 4,5,6,9,10,15,18,21,22	<ul style="list-style-type: none"> • MoCA measures the most client factors. Executive function is unique to the MoCA • The Clock test main focus is on visuospatial planning skills <p><i>*The chart below provides client factors measured through respected assessments, as identified per the literature.</i></p>
Theme #3- Feasibility 4,5,9,18,21,22	<ul style="list-style-type: none"> • MoCA: Free, ~ 8 mins, address most client factors • MMSE: Costs \$155, addresses variety of client factors • The Clock Test: Free, ~ 5 mins, looks at only one client factors (visuospatial)
Theme #4- Identify and Predict Outcomes 5,9,10,22	<ul style="list-style-type: none"> • MoCA: effective measure of cognitive outcome for examining impact of safe discharge after stroke • FIB: identified standardized cognitive assessments are effective in detecting cognitive impairments when compared to skilled observations • TCT: effective screening tool before making treatment recommendations and identifies if patient needs comprehensive evaluation

Cognitive Client Factors	Montreal Cognitive Assessment (MoCA)	Mini Mental State Examination (MMSE)	Three Cities Test (TCT)	Clock Test	Functional Impairment Battery (FIB)	Lownstein's Occupational Therapy Cognitive Assessment (LOTCA)
Visuospatial	X			X	X	X
Executive function	X					
Delayed recall	X		X			
Orientation	X	X				X
Attention	X	X				
Short-term memory		X	X		X	

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