

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club	Royal Adelaide Hospital
JC Facilitator	Tania Shearer
JC Discipline	Occupational Therapy

Clinical Scenario

In adults with acquired brain injury, is the MOCA (Montreal Cognitive Assessment) a valid and sensitive tool for identifying cognitive deficits?

Review Question/PICO/PECO

- P** Adults with acquired brain injury
- E** Montreal Cognitive Assessment
- C** other instruments/tools
- O** accurate identification of cognitive deficits

Article/Paper

Toglia J, Fitzgerald K, O'Dell M, et al 2011 'The Mini-Mental State Examination and Montreal Cognitive Assessment in Persons with Mild Subacute Stroke: Relationship to Functional Outcome' *Arch Phys Med Rehabil*, 92:792-798.

Please note: due to copyright regulations CAHE is unable to supply a copy of the critically appraised paper/article. If you are an employee of the South Australian government you can obtain a copy of articles from the [DOHSA librarian](#).

Article Methodology: Retrospective analysis

Journal Club Meeting on: 1 November 2011



Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Was the purpose stated clearly?</p> <p>The aim of the study was clearly stated in the abstract and introduction section of the article.</p> <p>Aim: To compare the Montreal Cognitive Assessment (MoCA) and Mini-Mental State Examination (MMSE) global sub scores in classifying cognitive impairment in persons with mild stroke and to explore the relationship between admission and discharge functional status and improvement</p>
2	✓			<p>Was relevant background literature reviewed?</p> <p>The authors have sourced previous researches about cognitive impairments in stroke, MMSE and MoCA to justify the need for this study. They have identified gaps in knowledge, such as the need for a consensus about the best screening approach for cognitive dysfunction, and lack of information about the psychometric properties of MoCA in sub-acute stroke.</p>
3	✓			<p>Describe the study design. Was the design appropriate for the study question?</p> <p>The study used a retrospective analysis approach, and is a correlational type of observational research. This approach is appropriate because the aim of the study was to look for relationships between a variable (i.e. functional outcome) and scores in MMSE & MoCA. It is also useful in comparing the assessment tools for their ability to classify cognitive impairment.</p>
4	✓		✓	<p>Was the sample described in detail?</p> <p>The characteristics of participants were described in detail in Table 1. Eligibility criteria were likewise reported.</p> <p>Was the sample size justified?</p> <p>A total of 72 patients met the inclusion criteria. It is not clear whether this sample size is sufficiently powered.</p> <p>Was informed consent obtained?</p> <p>The study was approved by the Institutional Review Board for Human Subject Research (of the university-based medical centre).</p>
5			✓	<p>Were the outcome measures reliable? Were the outcome measures valid?</p> <p>Functional outcome was measured using mFIM and mRFE scores. The psychometric properties of these instruments were not reported in the article.</p>

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7	✓		<p>Results were presented in terms of statistical significance? Were the analysis methods appropriate?</p> <p>P-values were provided to determine if significant correlation exists between:</p> <ul style="list-style-type: none"> • MMSE and MoCA • MMSE & MoCA and scores for mFIM & mRFE (function). <p>Frequency distributions, percentages, means, medians and standard deviations were used as appropriate. Correlation coefficients were used to explore associations between: MMSE and MoCA, and MMSE & MoCA and scores for mFIM & mRFE.</p> <p>Multivariate linear regression was used to analyse the relationship between different variables (age, severity, baseline functional status, baseline cognitive status) and mFIM score.</p> <p>Clinical importance was reported?</p> <p>Journal club to answer</p>
8		NA	<p>Drop-outs were reported?</p> <p>This is not applicable because no follow up measurements were involved.</p>
9	✓		<p>Conclusions were appropriate given study methods and results?</p> <p><i>Bottom line result</i></p> <ul style="list-style-type: none"> • MoCA is a promising tool for cognitive screening in rehabilitation settings, particularly in persons with mild stroke and cognitive function. • MoCA has higher internal reliability, less ceiling effect, and at least as strong relationship to rehabilitation functional outcome and improvement as the MMSE.
<p><u>Summary of search strategy</u></p> <p>Key words</p> <ul style="list-style-type: none"> • Concept 1: 'acquired brain injury' OR stroke OR 'cerebrovascular accident' • Concept 2: Montreal Cognitive Assessment <p>Databases</p> <p>Medline, EMBASE, CINAHL, Academic Search Premiere, PubMed, Ageline, Allied and Complementary medicine, BioMed Central Gateway, ProQuest family health, Health and Medical Complete, Web of Science and Google</p> <p>Limiters</p> <p>English articles only; published in the past ten years</p>			

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