

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club location	Hampstead Rehabilitation Centre
JC Facilitator	Michael Snigg
JC Discipline	Occupational Therapy

Question

Review Question/PICO/PACO

P TBI/ABI – subacute/ community

Measure fatigue – (including cognitive, mental and physical)

I Client accurately rate fatigue

C *I have used the BNI fatigue scale or just a non standardised 1-5 scale (1= no fatigue, 2 = some fatigue, 3 = fatigue, 4=quite fatigued and 5 = very fatigued). Because our clients have difficulty sometimes getting their heads around numbers we have this drawn on line with simple happy to unhappy faces.*

O *To have an accurate measure of fatigue that can be used with brain injured clients that may have cognitive and expressive/receptive language difficulties*

Article/Paper

LaChapelle D, & Finlayson M, 'An Evaluation of Subjective and Objective Measures of Fatigue in Patients with Brain Injury and Health Controls', *Brain Injury*, vol. 12, no. 8, pp. 649-659

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: Case Control

Click [here](#) to access critical appraisal tool



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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Did the study address a clearly focused issue?</p> <p>Yes – the study addressed the utility of fatigue scales in obtaining valid and accurate measurements of fatigue experienced by patients with brain injury</p>
2	✓			<p>Did the authors use an appropriate method to answer their question?</p> <p>Yes – authors used a case control study design to answer their question</p> <p>Is it worth continuing?</p> <p>Yes</p>
3	✓			<p>Were the cases recruited in an acceptable way?</p> <p>Yes – The cases were representative of a defined population. Cases were recruited from a Canadian outpatient clinic which runs the 'Acquired Brain Injury Program of Chedoke-McMaster Hospitals'</p>
4	✓			<p>Were the controls selected in an acceptable way?</p> <p>Yes – Controls were selected on a volunteer basis with no history of brain injury, medical conditions or serious fatigue.</p>
5	✓			<p>Was the exposure accurately measured to minimise bias?</p> <p>Yes – The study used three subjective measures and one objective measures relating to fatigue (VAS-F, FIS, FSS and Objective Measure: Thumb Pressing) and both groups completed all four scales.</p> <p>Each scale was completed by the groups in the same order so that a level of control was maintained, reducing bias. 'The VAS-F was completed first, followed by the FSS and finally the FIS because the VAS-F can be completed most quickly and the FIS is the longest of the scales.'</p>

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6	✓		<p>What confounding factors have the authors accounted for?</p> <p>Authors have accounted for confounding factors relating to age, education level, and gender. Both groups were kept similar as much as possible to eliminate differences based on these factors.</p> <p>Authors noted that some participants had difficulty understanding the concept of a continuum but this was cleared up to ensure more comprehensive results. From this it was also made clear that the hand each participant used for the duration of testing had to remain the same.</p> <p>Have the authors taken account of the potential confounding factors in the design and/or in their analysis?</p> <p>Yes - "Although the subjective scales provided a broad assessment of the fatigue experience, the ambiguity of the term fatigue makes comparisons between individuals with pathological fatigue and healthy control subjects difficult. Control subjects tend to examine specific instances of fatigue when responding to questionnaires while patients tend to assess the overall impact of daily fatigue. This is supported by the fact that the healthy controls reported experiencing significantly less daily fatigue than patients with brain injury Fatigue and brain injury yet were still reporting high levels of fatigue on the subjective measures."</p>
7	✓		<p>What are the results of this study?</p> <p>"Patients scored higher on all fatigue measures than did participants without brain injury. Significant group differences were found on the FIS, the vigour subscale of the VAS-F, and the FSS. The FIS provided a comprehensive assessment of patients' fatigue experience. The FSS, although differentiating between groups, did not provide as comprehensive an examination of fatigue as the FIS and the scale's internal consistency requires review. No significant group differences in fatigue ratings were found on the VAS-F, possibly due to the scale's failure to differentiate between fatigue and sleepiness. The objective measure of fatigue found patients with brain injury fatigued more quickly than participants without brain injury."</p>
8	✓		<p>How precise are the results?</p> <p>Results are presented with SD and p values (p<0.001)</p>
9	✓		<p>Do you believe the results?</p> <p>Yes - The results are believable and do not appear to be affected by any confounding factors which might influence any outcomes.</p>

10	Journal Club to discuss	<p>Can the results be applied to the local population?</p> <p>CONTEXT ASSESSMENT (please refer to attached document)</p> <ul style="list-style-type: none"> - Infrastructure - Available workforce (? Need for substitute workforce?) - Patient characteristics - Training and upskilling, accreditation, recognition - Ready access to information sources - Legislative, financial & systems support - Health service system, referral processes and decision-makers - Communication - Best ways of presenting information to different end-users - Availability of relevant equipment - Cultural acceptability of recommendations - Others
11		Were all important outcomes considered?
12		Are the benefits worth the harms and costs?
13		What do the study findings mean to practice (i.e. clinical practice, systems or processes)?
14		<p>What are your next steps?</p> <p>ADOPT, CONTEXTUALISE, ADAPT</p> <p>And then (e.g. evaluate clinical practice against evidence-based recommendations; organise the next four journal club meetings around this topic to build the evidence base; organize training for staff, etc.)</p>
15		What is required to implement these next steps?

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