

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club Location	Flinders Medical Centre
JC Facilitator	Kate Viner
JC Discipline	Occupational Therapy

Review Question/PICO/PACO

- P – Adults with upper limb injuries
- I – Use of meaningful activity / occupation
- C – Exercise program
- O - Improving function/AROM/pain

Article/Paper

Che Daud, Ahmad Zamir; Yau, Matthew K; Barnett, Fiona; Judd, Jenni; Jones, Rhondda E; et al. 2016 'Integration of occupation based intervention in hand injury rehabilitation: A Randomized Controlled Trial ', *Journal of Hand Therapy*, vol. 29, no 1, pp. 30-40.

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Article Methodology: Randomised Controlled Trial

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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Did the trial address a clearly focused issue?</p> <p>Given the uncertainty of outcomes and limited studies on the effectiveness of occupation and purposeful activities as a therapeutic agent, the purpose of this study was to investigate the efficacy of a combination of Occupation Based Intervention (OBI) + TE in comparison to TE alone in hand injury rehabilitation practice. It was hypothesized that the group that received combined treatment would improve to a greater extent compared to the group that received TE only. In contrast with previous studies,18,20e22 this study used both purposeful activities and occupations as a therapeutic agent to rehabilitate function of the injured hand.</p>
2	✓			<p>Was the assignment of patients to treatments randomised?</p> <p>Before enrollment of the first participant, those who consented to take part in the study were randomly allocated into the intervention (OBI + TE) group and the control (TE) group using a computer generated random number table, which was prepared in advance. One large permuted-block method was used to balance the number of participants between the groups.25 The assistant was also responsible for allocating the participants consecutively into either the OBI + TE or TE group by using the random number table.</p>
3	✓			<p>Were all of the patients who entered the trial properly accounted for at its conclusion?</p> <p>Participants were accounted for at all stages of this this study. The number who dropped out in each group is reported and shown in Figure 1 (p34) - the flow of participants throughout the study.</p> <p>Is it worth continuing? YES</p>

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4	✓		<p>Were patients, health workers and study personnel 'blind' to treatment?</p> <p>Both participants and evaluators were blinded to the interventions. However, the occupational therapists that provided the treatment to the participants were not blinded and randomly allocated.</p> <p>The participants did not know which intervention they received as both groups were treated in different therapy rooms. Two qualified occupational therapists, as blinded evaluators, assessed the participants at baseline, post six weeks of Supervised Hand Therapy (SHT) and post four weeks of Home-Based Hand Therapy (HBHT).</p>
5	✓		<p>Were the groups similar at the start of the trial?</p> <p>Table two (p35) presents participant characteristics according to groups.</p> <p>The two treatment groups were comparable in terms of age, gender, occupation, injured hand, cause of injury, type of injury, duration of injury and number of digits affected.</p>
6	✓		<p>Aside from the experimental intervention, were the groups treated equally?</p> <p><i>Intervention protocol</i></p> <p>Both groups received six weeks of SHT, followed by four weeks of HBHT. The OBI + TE group received 30 min of TE, and 30 min of OBI while the TE group received 60 min of TE in one therapy session, twice a week during the six weeks of SHT. In addition, all participants were provided with a paraffin bath treatment to prepare the injured hands for active mobilization. Application of a paraffin bath, followed by active mobilization, has been found to be effective for reducing pain and joint stiffness, and improving grip function. The intervention was then followed by four weeks of HBHT, 2 h per week. The participants in the OBI + TE group completed a home program based on OBI while participants in the TE group completed a home program based on TE. All participants were provided with a checklist diary to remind them to complete the home program.</p>
7			<p>What are the results?</p> <p>Following a ten-week intervention program, statistical significance differences were found in DASH score; total active motion; neuropathic; COPM performance; and COPM satisfaction in favour of OBI + TE group.</p>
8			<p>How precise was the estimate of the treatment effect?</p> <p>Precision of the study results cannot be determined based on the analysis. P-Values are computed to show significance; to determine precision confidence intervals need to be calculated.</p>

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9	Journal Club to discuss	<p>Can the results be applied in your context? (or to the local population?)</p> <p><i>Consider whether</i></p> <p><input type="checkbox"/> Do you think that the patients covered by the trial are similar enough to the patients to whom you will apply this?, if not how to they differ?</p>
10		<p>Were all clinically important outcomes considered?</p> <p><i>Consider</i></p> <p><input type="checkbox"/> Is there other information you would like to have seen?</p> <p><input type="checkbox"/> If not, does this affect the decision?</p>
11		<p>Are the benefits worth the harms and costs?</p> <p><i>Consider</i></p> <p><input type="checkbox"/> Even if this is not addressed by the review, what do you think?</p>
12		<p>What do the study findings mean to practice (i.e. clinical practice, systems or processes)?</p>
13		<p>What are your next steps? (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>
14		<p>What is required to implement these next steps?</p>

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