

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club location Queen Elizabeth

JC Facilitator Selena Brady

JC Discipline Multi-D

CAT completed by: Holly

Question

N/A

Clinical Scenario

N/A

Review Question

What is the ideal frequency/ intensity of therapy in home based/ community rehabilitation?

PICO/PACO

P: we do see people of all ages over 18 years but if needing to narrow down our most common conditions are orthopaedic and stroke as well as general medical conditions. If needing to be more specific can we choose stroke as the population?

I: our team is multi-d including physio, OT, speech, social work, dietetics, nursing, exercise physiology, medical and pharmacy which makes it hard to narrow down to specific therapies I know! Perhaps if we can look at physio, OT and speech therapies in particular as this is the bulk of the rehab that we do?

C: either no comparison or comparison with inpatient rehabilitation

O: this is the frequency and intensity that you're looking for

Article/Paper

Liu H, Lou VW. Functional recovery of older stroke patients discharged from hospital to home: The effects of cognitive status and different levels of therapy intensity. Journal of clinical nursing. 2018 Jul 10.

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:

Prospective Evaluation (Cohort)



University of
South Australia

International Centre for
Allied Health Evidence

iCAHE

A member of the Sansom Institute

CONTACTS

www.unisa.edu.au/cahe
 iCAHE@unisa.edu.au
 Telephone: +61 8 830 22099
 Fax: +61 8 830 22853

University of South Australia
 GPO Box 2471
 Adelaide SA 5001
 Australia

CRICOS Provider Number
 00121B



University of
 South Australia

International Centre for
 Allied Health Evidence

iCAHE

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Did the study address a clearly focused issue?</p> <p>To determine whether and how cognitive impairment interacts with therapy intensity to affect functional improvements in older stroke patients over an 8-week post-discharge intervention delivered in a community setting</p>
2	✓			<p>Did the authors use an appropriate method to answer their question?</p> <p>This study was a prospective follow-up evaluation of older stroke patients (n = 384) who were admitted to an 8-week home-based rehabilitation intervention after discharge in Hong Kong between 2012–2014</p> <p>Is it worth continuing? YES</p>
3	✓			<p>Was the cohort recruited in an acceptable way?</p> <p>The IDSP recruited community-dwelling participants using the following criteria: (a) aged 60 or older, (b) having been discharged from a public hospital and (c) was identified by the hospital discharge planning team as having high readmission risk if they scored over 0.2 for the index of Hospital Admission Risk Reduction Program for the Elderly (HARRPE), a validated index in Hong Kong of the predicted probability of emergency admission to acute medical ward within 28 days after discharged that was estimated in the basis of 14 clinical factors covering patients' socio-demographics, prior service utilisation, presence and number of comorbidities and types of current hospital discharge (for more details, see Chan et al., 2007). Under the IDSP scheme, all eligible participants (N = 1,978) received an 8-week intervention immediately after their hospitalisation (no within-hospital rehabilitation services were provided)</p>
4	✓			<p>Was the exposure accurately measured to minimize bias?</p> <p>The used sample of this study was a subset of patients originally admitted to IDSP who met the following criteria: (a) admitted to hospital, (b) no prior stroke history, (c) absence of comorbid neurological disorders past history, (d) no language comprehension problems for completing the cognitive screening tool, (e) no recorded baseline Barthel ADL index score of 20, which was established for removing those patients who would be likely to have a ceiling effect as indicated in the literature</p>
5	✓			<p>Was the outcome accurately measured to minimize bias?</p> <p>Three key measurements were taken: Cognitive status, functional ability, and therapy intensity. Cognitive status was measured using the 10-item version of Abbreviated Mental Test (AMT) which had been validated in Hong Kong, and Functional Ability was measured at baseline and after intervention using the 10-item Barthel ADL index. Therapy intensity was recorded by the treating therapists. Treating therapists recorded data on therapy time for each patient during each physical and/or occupational therapy (PT/OT) session across the entire programme. It only included time for direct treatment (e.g., patient was instructed to do a therapeutic activity) and/or evaluation of patients but excluding meeting or documentation time. The average number of therapy hours each patient received (total therapy hours divided by total number of therapy sessions) was calculated as his or her intensity scores. Three categories were created for analysis: low intensity (<1 hr); moderate intensity (1–3 hr);</p>

CONTACTS

www.unisa.edu.au/cahe
 iCAHE@unisa.edu.au
 Telephone: +61 8 830 22099
 Fax: +61 8 830 22853

University of South Australia
 GPO Box 2471
 Adelaide SA 5001
 Australia

CRICOS Provider Number
 00121B



University of
 South Australia

International Centre for
 Allied Health Evidence

iCAHE

			high intensity (3 hr or more). This categorisation was used considering the almost identical distribution of patients in each group, and the consistency with previous studies concerning the distinctiveness between low/moderate and high-intensity treatment
6	✓		<p>Have the authors identified all important confounding factors? Have they taken account of the confounding factors in the design and/or analysis?</p> <p>The authors identified and took into account many confounding factors (such as other conditions, baseline ADL scores), ensuring that the results of the study were adjusted for counfounders. The authors used absolute difference score to measure the effect of the intervention and followed previous studies to address the possible “ceiling effect” by removing patients with a baseline score of 20 on Barthel ADL index and including a relatively comprehensive set of confounders as covariates in their multivariate analysis.</p>
7	✓		<p>Was the follow up of subjects complete enough?</p> <p>This study was a follow-up study of individuals who participated in the 8-week trial, with this follow up being collected two weeks after the intervention. While this is shorter than most cohort studies, the focus of the study (being cognition and treatment intensity) allows for a shortened timeline. An additional follow-up at a later timepoint would be ideal for this sort of study, to examine the longer term effects – it should be noted that as this follow-up is two weeks post-intervention, any results must be considered ‘short term’ in effect.</p>
8			<p>What are the results of this study?</p> <p>Therapy intensity significantly moderated the relationship between cognitive impairment and functional recovery. Cognitively impaired stroke patients with moderate-intensity rehabilitation reported significantly higher increase in functional performance than that of patients with low- and high-intensity rehabilitation. In patients with no cognitive impairment, those who received high-intensity treatment showed significantly more functional gains than that of patients being treated with less intensive rehabilitation. Cognitive impairment affected functional outcomes through its interaction with different levels of therapy intensity among poststroke older patients.</p>
9			<p>How precise are the results?</p> <p>Both 95% Confidence Intervals and P Values were reported.</p>
10			<p>Do you believe the results?</p>
11		Journal Club to discuss	<p>Can the results be applied to the local population? Choose relevant context issues. The following are only suggestions to prompt discussion.</p> <p>CONTEXT ASSESSMENT</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

12	Were all important outcomes considered?
13	Are the benefits worth the harms and costs?
14	What do the study findings mean to practice (i.e. clinical practice, systems or processes)?
15	<p>What are your next steps? 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>
16	What is required to implement these next steps?

CONTACTS

www.unisa.edu.au/cahe
iCAHE@unisa.edu.au
Telephone: +61 8 830 22099
Fax: +61 8 830 22853

University of South Australia
GPO Box 2471
Adelaide SA 5001
Australia

CRICOS Provider Number
00121B



University of
South Australia

International Centre for
Allied Health Evidence

iCAHE

A member of the Sansom Institute