

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club	Hampstead
JC Facilitator	Danielle Gyss
JC Discipline	Occupational Therapy

Clinical Scenario

Is there evidence for the effectiveness of stretching for the treatment and prevention of contracture?

Review Question/PICO/PECO

- P** adults with, or are at-risk of developing contractures
- E** stretching
- C** no stretch
- O** joint mobility

Article/Paper

Katalinic OM, Harvey L, Herbert RD, Moseley A, Lannin N, Schurr K 2010 'Stretch for the treatment and prevention of contractures' *Cochrane Database of Systematic Reviews*, Issue 9. Art.: CD007455.

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: systematic review

Journal Club Meeting on: 7 February 2012



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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Did the review ask a clearly-focused question?</p> <p>This systematic review was conducted to determine the impact of stretching on contractures in people with, or at risk of developing contractures.</p>
2	✓			<p>Did the review include the right type of study?</p> <p>The review included different types of experimental studies including randomised controlled trial, controlled clinical trials, cross-over study, within-subject design and parallel group design.</p> <p>Is it worth continuing? YES</p>
3	✓			<p>Did the reviewers try to identify all relevant studies?</p> <p>The reviewers searched the following electronic databases: Cochrane, MEDLINE, CINAHL, EMBASE, SCI-EXPANDED, PEDro. Reference lists of included studies and relevant systematic reviews were also reviewed. Authors of included studies were contacted for additional studies and unpublished data. Clinical trial registers were likewise searched for unpublished and ongoing trials.</p>
4	✓			<p>Did the reviewers assess the quality of the included studies?</p> <p>Two reviewers independently assessed the risk of bias for individual studies. The following methodological domains were examined: sequence generation, allocation, sequence concealment, blinding, incomplete outcome data, and selective outcome reporting and other threats to validity.</p>
5	✓			<p>If the results of the studies have been combined, was it reasonable to do so?</p> <p>Only homogenous studies (studies looking at similar interventions administered on similar populations and reported similar outcomes) were analysed quantitatively using meta-analysis.</p>
6				<p>How are the results presented and what is the main result?</p> <p>The results were presented using forest plots which show mean differences between intervention and control groups, along with the confidence intervals.</p> <p><i>Bottom line results</i></p> <ul style="list-style-type: none"> • There is moderate to high quality evidence to suggest that stretch does not have a clinically important effect on joint mobility in people with neurological conditions. • The evidence for other conditions is either low quality or inconclusive.

CONTACTS

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

University of South Australia
GOP Box 2471
Adelaide SA 5001
Australia

CRICOS Provider Number
00121B



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7			<p>How precise are these results?</p> <p>Precision of results is determined by the width of the confidence intervals. The longer the lines, the wider the CI, the less precise the study results.</p>
8		Journal Club to answer	<p>Can the results be applied to the local population?</p> <p>Yes, at HRC we treat and promote independence for clients with neurological impairments e.g. stroke, TBI and SCI. Spasticity and contractures impact on the everyday function of our clients and are therefore managed with strategies such as passive stretching, splinting and joint positioning in OT. The JC felt that the review did not summarise the frequency, intensity, what muscles specifically worked on in regard to stretch to know if our current protocols are ineffective (without going back to individual appendices). The review articles looked primarily at joint mobility rather than outcome measures that we work on in therapy such as <i>maintenance of range (not an improvement on tissue length) and comfort</i>. The study also did not look at <i>long term effects</i> (i.e. greater than 7months) of stretch modalities on joint mobility, pain, function and quality of life which is very important for us as clinicians planning care in the community for our clients e.g. stretching programs. Additionally, many high level SCI clients are at HRC for greater than 6 months.</p> <p>Were all important outcomes considered?</p> <p>Quality of life measures used but ? If they captured goal centred issues for patient's e.g GAS goals which look at functions individually relevant to the client such as being able to use a computer for an hour more than they could normally if they weren't stretched. The FIM was used as a secondary outcomes measure however they did not appear to break down the FIM scores into functional areas e.g. dressing, showering, and feeding to see if sub scores improved as this is not how FIM is scored.</p> <p>Should policy or practice change as a result of the evidence contained in this review?</p> <p>Each unit feels that more collaboration is required between rehab units interstate and their policy and practices in regard to stretch to ensure that there is consistency across Australia. Due to the reasons outlined above the JC does not feel there is sufficient evidence to change our policies e.g. SCI clients with spasticity and contracture risk are stretched 3 x per week to daily sessions on the muscle areas affected. Maintenance of range is also managed with resting splints and positioning.</p>

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