



University of South Australia

International Centre for Allied Health Evidence

iCAHE

A member of the Sansom Institute

## iCAHE JC Critical Appraisal Summary

### Article/Paper

Jull G, Trott P, Potter H, et al (2002) "A randomized controlled trial of exercise and manipulative therapy for cervicogenic headache" SPINE, 27(17):1835-1843.

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p><b>Did the study ask a clearly focused question?</b></p> <p><i>Participants:</i> Adults 18-60 years old; with cervicogenic headache (unilateral or unilateral dominant side-consistent headache associated with neck pain and aggravated by neck postures or movement; joint tenderness; headache frequency of at least one per week over a period of 2months to 10 years</p> <p><i>Intervention:</i> I: manipulative therapy; II: therapeutic exercise; III: combination of both; IV: control group</p> <p><i>Outcomes:</i> headache frequency (primary); headache and neck pain intensity and duration (secondary)</p>
2	✓			<p><b>Was this a randomised controlled trial and was it appropriately so?</b></p> <p>This study was a randomised controlled trial which was an appropriate study design given the objectives of the study. Is it worth continuing: YES</p>
3	✓			<p><b>Were participants appropriately allocated to intervention and control groups?</b></p> <p>Participants were randomly allocated into one of four groups (with stratification to account for differences in length of headache history) by an independent body. The authors however, did not report how randomisation was undertaken.</p> <p>Baseline characteristics across groups were similar except for the distribution of females, which was accounted for in the analysis.</p>

4	✓		<p><b>Were participants, staff and study personnel 'blind' to participants study group?</b></p> <p>Outcome assessors were blinded to the treatment allocation of participants. However, because of the nature of the intervention, it was not possible to blind the participants and therapists who administered the treatment.</p>
5	✓		<p><b>Were all of the participants who entered the trial accounted for at its conclusion?</b></p> <p>Only a small number of participants dropped out of the study (3.5%), and analysis was undertaken using the intention-to-treat principle.</p>
6	✓		<p><b>Were the participants in all groups followed and data collected in the same way?</b></p> <p>Outcomes were measured and collected in the same way for all participants. All participants were examined at baseline, immediately after the treatment, then at 3, 6 and 12 months.</p>
7	✓		<p><b>Did the study have enough participants to minimise the play of chance?</b></p> <p>Power calculation was carried out ---details outlined in the methods section ('Design').</p>
8			<p><b>How are the results presented and what is the main result?</b></p> <p>Results were presented using graphs, mean changes and p-values.</p> <p><i>Results</i></p> <p>Manipulative therapy and a specific exercise program are effective in reducing the symptoms of chronic and moderate-intensity cervicogenic headache. Effects are maintained in the long term.</p>
9			<p><b>How precise are these results?</b></p> <p>Differences between groups were determined based on p-value computation alone. P-values fail to provide clinicians with the range of values within which the true effect is likely to reside (confidence intervals).</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

A member of the Sansom Institute

10				<p><b><i>Were all important outcomes considered so the results can be applied?</i></b></p> <p>Consumer to answer based on their interpretation of the paper.</p>
----	--	--	--	--

**CONTACTS**

[www.unisa.edu.au/cahe](http://www.unisa.edu.au/cahe)  
[iCAHE@unisa.edu.au](mailto: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*

# International Centre for Allied Health Evidence (iCAHE)

## CONTACTS

[www.unisa.edu.au/cahe](http://www.unisa.edu.au/cahe)

[iCAHE@unisa.edu.au](mailto: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*

**The International Centre for Allied Health Evidence (iCAHE)**  
For more information on CAHE Journal Clubs email [Lucylynn.Lizarondo@unisa.edu.au](mailto:Lucylynn.Lizarondo@unisa.edu.au)  
To receive CAHE updates register online at [www.unisa.edu.au/cahe](http://www.unisa.edu.au/cahe)