

CAHE JC Critically Appraised Article Summary

Journal Club Details

Date of submission August 2008

Journal Club location Masonic Homes

JC Facilitator Sally Cropper

Clinical Scenario

What are the effects of different types of pillows on waking neck pain and stiffness on adults?

Review Question/PICO/PACO

- P Adult patients with neck pain and/or stiffness
- I neck pillows
- C 4 types of pillows
- O neck pain and/or stiffness

Article/Paper

Persson L. Neck pain and pillows – A blinded study of the effect of pillows in non-specific neck pain, headache and sleep. *Advances in Physiotherapy* 2006; 8: 122-127.

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Article Methodology: Clinical Trial

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By CAHE staff member: Lucylynn M. Lizarondo



Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The study has a clearly focused question:</p> <p><i>Population:</i> Patients with chronic neck pain (more than three months)</p> <p><i>Intervention:</i></p> <ul style="list-style-type: none"> • Pillow 1 Kron Kudden • Pillow 2 Grand Comforel • Pillow 3 Royal Rest, • Pillow 4 Tempur <p>Outcomes: Pain score using the visual analogue scale; properties of the pillows like height, filling and washing properties. Patients also reported any effect of the pillow on neck pain, headache or night sleep.</p>
2			✓	<p>This study was not a randomised controlled trial. It was a trial where each patient had to test all types of pillows. A randomised controlled trial would have been the best research design to test independently the effects of each pillow. However, with the research method used, the author was still able to address the aims of the study.</p> <p>Is it worth continuing? YES</p>
3		✓		<p>Allocation was not an issue in this study because each of the patients tested all the pillows. What would have been an ideal method is to have 5 different sets of patients, with the same baseline characteristics, and each set would be randomly allocated with a different type of pillow. With this research design, the best and the least effective pillow can be determined with less confounding variables that may affect the validity of results.</p>
4		✓		<p>Patients were blinded to the type of pillow they were given. The labels and trademarks of the pillows were removed and were all placed in white cotton cases and coded as Pillows 1, 2, 3 & 4. It was unclear though whether the one who did the analysis was blinded as to which pillow corresponds to the codes (pillow1, 2, 3, 4).</p>
5	✓			<p>All the initial 52 patients who were included in the study submitted their self reported questionnaires.</p>
6	✓			<p>All the participants were assessed in the same way through the use of self reported questionnaires which were then submitted to the department after the test.</p>
7			✓	<p>There was no power calculation done. Hence, it would be difficult to determine whether the sample size was adequate.</p>



Ques No.	Yes	Can't Tell	No	Comments
8				<p>The results were presented using percentages, means, ranges and median scores. Frequency counts were noted for each type of pillow. Of the 52 patients, 40 (77%) reported a positive effect on the neck pain. In terms of comfort, there was no significant difference between pillows 1, 2 & 3. Pillow 4 was the least comfortable. Seventy seven percent (24/31) of the participants found a positive effect on night's sleep and 61% (19/31) a positive effect on headache. The paper also presented a table enumerating patients' comments about the pillows used.</p> <p>Bottom line result: A pillow with good shape, comfort and support to the neck lordosis can reduce neck pain and headache and give better sleep quality.</p>
9	✓			<p>Results were based from statistical computations and comments from the patients. Percentages were presented and p value was computed to check for differences among the four pillows in terms of comfort</p>
10	✓			<p>There are significant flaws in the study design to make any decisions based on this article alone. Further methodologically sound research should be sought before any decisions on the use of each pillow type can be considered. However, findings from this study may still serve as guide to practitioners when giving information to patients regarding the characteristics of a good pillow.</p>