

## Scholarly Article Critique

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Case & Diagnosis: Case 7 Chronic Back

Summary and Critique of Scholarly Articles.

Title of Article: Classroom posture and self-reported back and neck pain in schoolchildren

<http://www.ncbi.nlm.nih.gov/pubmed/15105072>

1. Article title information.

Murphy, S., Buckle, P., & Stubbs, D. (2004). Classroom posture and self-reported back and neck pain in schoolchildren. *Applied ergonomics*, 35(2), 113-120.

2. Describe how this article is pertinent for your topic. Does it provide proof of a clinical concept? Does it explain a procedure that is needed for your topic? What are the implications for your topic?

This article relates to my topic because it is focused on neck and back pain which is exactly what Dr. Stephanie is struggling with. Dr. Stephanie is struggling with chronic back pain as well as neck tension (as discussed in our interview). Furthermore, the study is done in an educational context which is similar to where Dr. Stephanie started to ache. Her pain began after sitting on the desk typing and doing work for too long. Apart from being directly related to our case, this study is also directly related to my specific focus on posture and body positioning. The focus of this study is to evaluate the posture of 66 children during normal lessons and evaluate how this static posture can be related to musculoskeletal disorders like back and neck pain.

The study does a very good job in explaining the procedures and the angles used to identify correct and incorrect sitting posture. This study has many implications on my topic. First, this study informs me and our client about a possible cause for her back pain and shoulder tension. Furthermore, this study indicates a number of techniques (e.g. avoiding certain angles when sitting) to reduce the back pain and the tension in the shoulders.

3. Write a précis of the article, including:
  - a. Purpose of the study
  - b. Research design of the study
  - c. Outcomes of the study
  - d. Did the author explain why the work was important to, in relation to the work of other researchers?
  - e. What are the conclusions?
  - f. If you found issues with the article, explain what your concerns are and how that will affect your reliance in the article as a source of good evidence for your topic.

The purpose of the article is to identify the extent of pain (neck, upper back, and lower back) experienced by school children as a result of sitting in a static posture. The research design is quantitative which involves an observation of the students sitting posture and an evaluation of their posture angles. The observational method used is one that has been previously established which is Portable Ergonomic Observation Method (PEO). The sample was taken from a larger pool of kids (n= 679) and the sample used in the study were simply the ones available on that day (opportunistic sample). The final sample was 66 children consisting of 34 males and 32 females. The children were directly observed and their posture was recorded in real-time in the classroom. A number of parameters were recorded for the study including the frequency, magnitude

and duration was recorded. The data collection took between 45 minutes and 1 hour 15 minutes which was the length of the class. Following observation, a self-reported pain questionnaire was conducted. Finally, statistical analysis including Mann-Whitney U-test was performed.

Some of the relevant outcomes of the study include:

- Taller children reported significantly more neck pain in the last week.
- Long lesson length was significantly associated with self-reported low back pain.
- Trunk flex more than 20 degrees was associated with self-reported low back pain
- High percentage of time spent on a work desk was also associated with self-reported back pain

The researcher discussed why the work is important in relation to other researchers like Troussier et al (1994) and Brattberg and Wickman (1992). This study helps paint a full picture because it looks at school children, other studies have looked at adults and older adults. This study has many implications for schools, some of those discussed include the design of school furniture. Furthermore, information is highly relevant for the future work force which may have many young people entering the workforce.