Reviewer's report

Title: A description of physical therapist competency in musculoskeletal medicine

Version: 2  Date: 21 April 2005

Reviewer: Diane U Jette

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General
Recommended revisions

1) The use of the term “cognition” in the title and text strikes me as odd. In my opinion, the correct term is “knowledge”. My dictionary gives a definition of cognition as “the mental faculty or process of acquiring knowledge”. The definition for knowledge is “awareness or possession of information, facts, ideas, truths.” I do not believe that this study provides information on a process.

2) I also don’t think that there is a need for the term “musculoskeletal medicine.” In fact, it is somewhat misleading. Physical therapists do not practice medicine, nor do they wish to or claim to. The items on the examination, as I read them, do not necessarily test knowledge of medicine. The examination seems to include items related to the anatomy and physiology of the musculoskeletal system.

3) The question posed by the authors is an important one for the professions of physical therapy and medicine. In my opinion, the authors downplay the relevance of the question by referring to the issues of safety and effectiveness of care by physical therapists when they function as the first contact for a patient's musculoskeletal complaint late in the discussion. In my opinion, this is part of the need and justification for the study. Otherwise it is not really clear why the question is important to explore.

4) A strength of the design is the use of a well validated outcomes instrument. In my opinion, there should be some detail about the content and scoring rather than simply referring to previous studies. As a reader, I find approach this frustrating. This issue becomes important, I think, when the results differ depending on whether one looks at actual scores or pass rates. How were the pass rates established?

5) In looking at the references that describe the examination, I note that the items are open-ended. For that reason answers would be open to some interpretation. Therefore, the expertise of the raters should be described.

6) It is unclear why the score for only one rater was used when two raters evaluated each question. I imagine that the details about ICCs on page 8 might be an attempt to justify this approach, but it is not clear to the reader what the statistics refer to. This section needs to be written more clearly.

7) It is unclear why the two samples were used. The choice of two samples should be justified in light of the purpose. The purpose statement notes that knowledge among physical therapists will be described, but, in fact, there are both students and physical therapists sampled. In some places in the manuscript, the students are referred to as physical therapists. They are not; so the terms need to be carefully applied. On page 7, one sample is referred to as “patients.”

8) One sample is noted to include all physical therapists from the US military. The reader should know how many people this is so that the response rate can be determined. The response rate is unclear for this sample. Similarly, although the response rate from the schools is noted, it is fairly clear from the table that not all students who were eligible responded. The response rate is, therefore, not fully explored. Details should be provided or this issue should be explored as a limitation.

9) The PT programs are listed by name in Table 1. That makes me a bit uncomfortable. I do not think that Table 1 is particularly helpful at any rate and could be deleted.
10) Because the authors chose to report analyses for both numerical score and proportion passing, there are two different findings. In my opinion, there needs to be some justification for examining the results in both ways and help to the reader in interpreting the discrepancy in findings. What does it mean to have actual scores differ, and pass rates not differ.

11) In the manuscript, the authors note that they cannot really compare their results with those obtained from other studies because they were from unrelated studies. This statement is confusing to me. It is my understanding that the studies used the same instrument with the same scoring. One could, therefore, determine means and confidence intervals. These calculations would allow some real comparisons. The figure is helpful, but it only includes the actual scores. The narrative includes a statement that the pass rate for PT students was 24%. How does this compare with the physician groups?

12) The discussion (page 11) includes a statement that the results support the safety and effectiveness of care by PTs in an autonomous setting. The following sentence, however, does not address this issue. The issue of cost is unrelated to the results and the purpose of this study. I am also not really sure that the results do support this contention given the average score and pass rates. Help the reader to understand what the scores mean for safety and effectiveness.

13) One of the limitations that is not explored is the fact that there are no data about the students’ clinical education experiences. Because programs in PT do not have standardized curricula, the reader does not know how much clinical experience the students have or how much exposure to orthopedic curriculum (academic and clinical) they have. These potential differences could have an effect on the findings.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests