Reviewer's report

Title: Is undergraduate physiotherapy study a risk factor for low back pain? A prevalence study of LBP in physiotherapy students

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Reviewer: Jean E Cromie

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

1. Is the question posed by the authors new and well defined?
The question is well defined, and has not been answered in the literature, although a couple of authors 1, 2, have alluded to the issues that are raised in the manuscript.

2. Are the methods appropriate and well controlled?
Methods appear to be appropriate and well controlled. The authors acknowledge in their discussion limitations (and possible bias) imposed on the study by timetable issues, and suggest a strategy for improving this in any further studies.

3. Are the data sound and well controlled?
I am a bit concerned about the "Occupation" data. It is not at all clear to me how the occupation figures were calculated, and what the meaning of the tertiles, as reported, are. Do they represent hours per some unit of time? Do they represent a purely theoretical index of some sort? The authors do not make it clear how or why they divided their data in this way. Were subjects deemed to have been occupied mainly in sitting, standing or multiple tasks? I am unclear about the basis for this decision.
Also, 2087 hours of sport is a lot of sport if it refers to the number of hours in the last year, ie it matters if the sport has been played since the age of 10 vs a sport that has been taken up in the last year. It is not clear over what period the sport was played. A raw number of hours does not give that information.
Does the manuscript adhere to the relevant standards for reporting and data deposition?
The section on Interpretation and application of predictive variables was a little confusing. Perhaps putting this information into a table might make it easier to understand.

4. Are the discussion and conclusions well balanced and adequately supported by the data?
It is not clear that the factors that were examined in this study as predictive variables were exposures that were unique to physiotherapy students. Many of them (including the variable that was found to be significantly associated with an increased prevalence of low back pain (LBP), ie "sitting looking down") are factors to which tertiary students in general might expect to be exposed. In the clinical sciences, practicing and being practiced on might be expected to be included as educational activities, and these are the exposures that the authors use. However, they did not consider moving
and handling patients. Jackson and Liles 2, and Ellis 1 both suggest that moving and handling of patients are risk factors contributing to LBP in physiotherapy students.

Given the suggestion that moving and handling of patients is a possible causal factor for LBP in physiotherapy students 1,2, and that this study did not ask about this risk factor, the finding that "LBP is a reality for many physiotherapy students" should be tempered with some comment that it may be an artefact of student life in general, rather than a situation specific to physiotherapy students.

This manuscript compares the findings of the study with studies conducted in Canada and Britain. Given that the study was conducted in an Australian university, it would have been meaningful to compare prevalence with recent Australian data 3, 4. For example, the authors note that their reported prevalence is higher than the studies they reviewed. However, the 12 month prevalence reported in this study is similar to that in the Victorian study, suggesting that there may be an alternative explanation to the one offered in this manuscript.

The implication that physiotherapy students have an increased risk of LBP would be considerably strengthened if another group of students were used for comparative purposes.

5. Do the title and abstract accurately convey what has been found? Yes

6. Is the writing acceptable? Yes. There a couple of minor typographical errors:

P12 para 3- reference Scholey and Hair bracket misplaced
P20 column 1 of the table- Hypothesised is wrapped over 2 lines (this may be an artefact of the word processor)
P20 column 3- spacing is a bit odd for the final item in the column "Total educational exposure"


Compulsory revisions

Include the data on the prevalence of LBP among Australian physiotherapists for comparison. Acknowledge that the findings may not be exclusive to physiotherapy students. Please clarify the way the predictive variables’ indices were calculated, and how the exposures were divided into low, average and high. Clarify the period of time over which the hours of sport were calculated. Make sure the Appendix is published with the paper. This helps clarify some of the issues.

Discretionary revisions

The section on Interpretation and application of predictive variables was a little confusing. Perhaps putting this information into a table might make it easier to understand.

Competing interests:
None declared.