Reviewer's report

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

Authors:
Leah J Nyland (eahnyland@hotmail.com)
Prof Karen A Grimmer (karen.grimmer@unisa.edu.au)

Version: 4 Date: 7 Jul 2003
Reviewer: Jean E Cromie

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

Advice on publication: Accept after discretionary revisions

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

Second review (J Cromie)
Re: the revisions:

The inclusion of the Australian data has been beneficial in contextualising the study.

Some of the reworking of the analysis has resulted in numbers that I can't quite make add up. For example, in the prevalence of LBP section (p13-14) the authors combine the prevalence categories. However, I can't seem to make the numbers work. I can understand the 30.8% of subjects who have never reported LBP, but I make the 5.2% who have reported LBP prior to the previous 12 months, but not since, actually 6.0%. The following prevalence figures are similarly inaccurate by my reckoning. Or I have misunderstood how they arrived at the prevalences they report. This should be clarified or rectified. (The inaccuracies don't appear to be substantial or to really make a significant difference, but they do diminish the overall credibility of the paper.)

Top of Page 18- readers are referred to Table 5. Should read Table 6.

Table 5- 95% CL is used here, I think it should be Confidence Interval- ie 95% CI. (This is particularly confusing as on p15 the authors use CL as the confidence limit to denote the range of ages.) On page 16, CL and CI are both used, apparently interchangably. My understanding is that the confidence limits are the outer boundaries of the interval.

I would also argue that the finding regarding "treating patients" reported on p16 as being significant for males is borderline, as it has a 95% CI of 1.0-8.8. As the CI includes 1.0, it seems to me to have marginal significance at best.

This is repeated a number of times in Table 4- many of the "significant" results include 1.0. I am unclear why in this table some results, which include a CI with one of the limits as 1.0, are considered significant, while others are not. A consistent approach would be helpful, and make the overall credibility stronger.
And for several of the results that are denoted as significant, the confidence interval clearly spans 1.0. These might simply be typographical errors, but must be fixed.

Table 6 is inaccurate in at least one regard (this is the one which of I am aware). Cromie et al's study is reported as finding a lifetime prevalence of LBP of 48%. In fact in that paper, 91% of therapists were reported as having work related musculoskeletal disorders (WMSDs) of some sort, and 48% (of the 91%) reported LBP as the most significant WMSD. That is not to say that only 48% ever had LBP. Just that of the WMSDs that they did have, LBP was the most serious. (For example, some may have had LBP and thumb pain; thumb pain was reported as most serious, but LBP was definitely present). Lifetime prevalence of LBP per se, was not reported in that paper.

Compulsory revisions:

Please fix the inconsistencies in use of CL and CI, and decide whether a 95% CI of 1.0-something is significant. Then apply this consistently. I would argue that a CI that includes 1.0 as one of its limits should not be considered significant, and this is supported by Portney and Watkins (Foundations of Clinical Research), but if you decide otherwise you must be consistent. It would be helpful to the reader to explain why you think a CI with one of its limits as 1.0 should be considered significant, if that is the position you are taking.

Explain or change the prevalence figures on p 13-14 so they add up. The numbers in text should match those in the table.

Discretionary revisions:

I would be careful in the use of the term "clinically significant" in this context (see p16). I think you can say the finding is significant, but I am not sure that you can say it is clinically significant. It may be important to students, but I don't know that it really can be deemed clinically significant.

Competing interests:

None declared.