Reviewer's report

Title: Comparison of knowledge levels of medical students in problem-based learning and traditional curriculum on public health topics

Version: 2 Date: 4 December 2004

Reviewer: Michele Groves

Reviewer's report:

General

Although many studies have compared PBL and conventional curricula in medical education, most have focussed on the curriculum as a whole rather than a particular aspect, in this case the teaching of public health. As such, this study provides a useful addition to the PBL literature.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

None

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

In the Introduction, there is very little information about the nature and structure of the new curriculum and none at all of the superseded one. A brief description of both, including particularly the differences with regard to the teaching of Public Health content would be very helpful.

Additionally, the first four paragraphs in the Discussion should be moved to the Introduction as these relate to the literature rather than the results of the study.

Results: It is not clear whether the first sentence refers to the PBL group, the 'old curriculum' group or both.

Secondly, the assessment comprised only 25 MCQs to cover five years' learning and nine topics which suggests that there may have been inadequate sampling of content. Calculation of the reliability of the assessment should be provided in order to give some indication, at least, as to the strength of the findings.

In the Conclusion, it is stated that a possible reason for the PBL group's better performance on two of the topics is that the PBL cases are supported by more learning opportunities than the traditional group (last para, page 10 and again in the last para, page 11). This suggests that this not true for the other topics; and also that the traditional group had fewer learning opportunities than the PBL group overall. This needs to be clarified as it has a direct impact on the significance of the findings. If, for instance, all the topics in the PBL course are supported by a similar number and type of resources, then this does not account for difference in the two groups on the two topics, "Health Management" and "Chronic Diseases".
Discretionary Revisions (which the author can choose to ignore)

Much of the Introduction relating to the history of the change to a PBL curriculum (pages 4-5) is repetitive and could be substantially shortened.

Virtually all the information in Table 1 is also included in Table 2. I would suggest deleting Table 1 and reporting the data on effect size and Cohen's d in the text.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.