Reviewer's report

Title: A comparison of course-related stressors in undergraduate problem-based learning (PBL) versus non-PBL medical programmes

Version: 3 Date: 24 April 2009

Reviewer: Carl J Lombard

Reviewer's report:

The authors state in the discussion of the limitations of the study that the validity and reliability of the newly constructed 16-item self reporting questionnaire has not been evaluated. Some reliability measure such as Chronback's alpha could be reported. It is also not clear if an overall stressor score is envisaged since analysis only uses individual items. If individual questions were the objective then the validity and reliability concerns are less. Calling them items then does not make sense.

The other limitation that is well presented is the fact that only two school were included and some non-response was observed as well. The two selected and stratified schools seemed to be close to true BPL and non-BPL as you can get. There is however a continent between these two extremes which have not been covered.

Since the comparison is between the two states of BPL learning the method and validity of this classification is important. In the analysis presented in Tables 1 and 2 this can actually be considered teh outcome of the analysis. For the logistic regression this IS the outcome. The amount of information given on the self-reported facility questionnaire is limited and its validity is of great importance since a change in classification could reverse the interpretation of the study!

In the discussion p10 it is mentioned that there was no relationship between any of the demographic variables and the stressor questions. This has not been presented in the results.

The crude odds ratios and confidence intervals could also be presented for the questions in Table 2

Multiple logistic regression

The stepwise procedure used given the screening for individual significant association of each question is one approach and the purpose is really to develop a predictive model - classifying students given there stressor information as been exposed to PBL or non-PBL. The 'adjusted' odds ratios is difficult to interpret since other predictive models can be developed. The predictive nature of the model should be mentioned in the limitations

The data of this study lends itself well to a multiple correspondence analysis.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

declare that I have no competing interests'