Reviewer's report

Title: Computer Adaptive Assessment of Individual Mental Perceptions of Job Contents on a Website for Workplace Employees

Version: 1 Date: 15 June 2010

Reviewer: Cynthia Leung

Reviewer's report:

Major compulsory revisions:
1. The authors described two research questions. The first one was on the feasibility of applying skewness coefficient analyses, instead of traditional t test, ANOVA or correlation to compare perception changes between groups across items over years. While the authors have described in details the skewness coefficient results, it will also be useful to compare the results with the t test, ANOVA and correlation results, and to discuss the similarities and discrepancies, and explain the discrepancies. This will enable the reader to appreciate the advantages of using skewness coefficients in analysis. While it is understandable to identify worker concerns, the rationale or significance of perception change over time should also be explained.
2. The second research question was whether a CAT based self-evaluation questionnaire can facilitate a more useful and faster response from institutional services. This manuscript has not addressed this research question.
3. The authors used infit and outfit statistics to examine unidimensionality. Another commonly used procedure to assess dimensionality is principal component analysis of the residuals. These results should also be reported.
4. The questionnaire is a 4-point likert type scale. Category functioning should be examined to see whether the participants could meaningfully distinguish between the categories. These results should also be reported.
5. The authors described a cut-off point of -0.37 logits but gave the impression that this was based on item 14. If the JCQ-37 is a unidimensional measure and the individual items scores can be added up to form a total score, it would make sense to use the total score to form a cut-off, instead of one item.
6. Normally, in the calculation of sensitivity and specificity, one compares the test results with some external “gold standard”. In this particular case, it is not clear what the external gold standard is.
7. Though the authors described differences in job satisfaction among various groups in the results section, these points were not discussed in the discussion section.

Level of interest: An article of limited interest
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests.