Reviewer’s report

Title: Health Belief Model based evaluation of school health education programme for injury prevention among high school students in the community context

Version: 1 Date: 8 July 2013

Reviewer: Bridie Scott-Parker

Reviewer’s report:

Major compulsory revisions.

1. Abstract: Well written, however some detail lacking.
1a. You cannot assert that your findings are 'conclusive'. Please remove any reference to this word.
1b. Information regarding participants is required, and information regarding the intervention and follow-up dates are required.
1c. Significance values are indicated by a lower case 'p' in italic font (please correct this throughout the paper).

2. Introduction: Less well written, with more detail required.
2a. Two sentences does not equal one paragraph. Please consider your paragraph structure throughout the entire paper. Some paragraphs are quite long, others are inadequate.
2b. The introduction opens with a discussion of injuries, then 'diseases' appear in the second paragraph. Are you concerned with one or both? Statistics will help to place the issue into context for the reader who may not necessarily have an indepth understanding of the issues at hand.
2c. The Health Belief Model explanation is unclear. A figure could help, and the five key components require further explanation and additional examples. Why is "cues to action" in inverted commas, when the remaining concepts are not? Also, there is a breadth of research using the HBM, and the literature receives only a cursory review. Which of the constructs have been found to be key in other literature? Also, the HBM is a tool for "investigating" behaviours as you note, but you have not cited any literature which suggests/develops/implements/evaluates any interventions based on HBM findings. Items in the questionnaire such as noted in table 1 are not 'observed variables' (such as the items in perceived barriers and cues to action). The sentence starting "In the meantime" is unclear - what are you trying to say, and what do you want the sentence to contribute to the paper?
2d. Do not use pronouns such as 'we' and 'our' in scientific writing.

3. The Method and Results sections are difficult to follow, and this appears mainly to be due to the two distinct parts of the research (developing the measurement instrument, evaluating the intervention). I recommend dividing this
section into two parts so that it flows more clearly for the reader.

3a. Table 1 could have the SUS, SER etc as sub headings on the left, with the factor loadings in the columns. Readers would be interested to compare the factor loadings across the constructs, rather than the uninformative table as it currently stands. Also, the majority of items relate to road and sports injury, with some burns/falling. How did these items develop? There was only one food safety item. Did the interventions target these domains of safety (if so, make this more clear in the text.

3b. The paragraph under ‘insert table 1’. What does “health belief would be better’ mean? Do you mean that the individual has attitudes favouring protecting themselves? the final sentence in this section is poorly written. Higher scores indicate more of the construct of interest, using a 5-point Likert.

3c. Why were there different samples for the pre- and post- intervention surveys? Given you used one school, was it possible to use matched samples? Maybe the significance in the difference between scores was due to participant-specific factors apart from gender and age (which were compared). Ideally the samples should have been matched. Is this possible? The post-intervention sample was also larger than the pre-intervention sample. This may also influence the results and the implications of the results.

3d. The intervention ran for the whole of 2010 and the whole of 2011, and then the post-intervention survey ran “early 2012”. There is too little data regarding the interventions (who targeted, how targeted, follow-up/take-home/reinforcement messages, etc). Also, how much after the interventions stopped? Was it the following week/month/three months later? It is important to know how long the effects of an intervention persist within the target population.

3e. Table 3 is unnecessary. The information can be captured in one sentence.

3f. Were the path coefficients significant? Also, do not repeat information in the figure within the text.

3g. Can you redraw the figure, rather than use a copy of the computer-generated output? Some figures are obscured, and much of it is too small to read.

3h. Table 4 requires the significance to be changed from "0.00" to "<.001". Similarly, this table is unnecessary and the information could be easily summarised in one or two key sentences within the Results.

3i. Why did you add another path from barrier to cue? Is this consistent with other applications of the HBM, particularly in CFA? There is no explanation of this extra path. Was it added to improve the goodness of fit? Paths should only be added where theoretically relevant.

4. Discussion: Discuss the implications of your findings before talking about the benefits of community and school cooperation.

4a. Rephrase how you refer to Researcher Fang Le and the associated research findings. Should this be in the Introduction instead?

4b. The benefit and severity path coefficients were so similar, I would recommend equally addressing these, rather than asserting that most important
is to target benefits.

4c. Good to see no control group is mentioned as a limitation. Another limitation is that the samples were not matched (gender/age) and were not the same students pre- and post-intervention.

Minor essential revisions.

1. You report the number of boys, then girls; then the number or girls, then boys; in section 2. Readers skimming the paper may not realise this distinction. Please place them in the same order.

2. Figure 1 should have the computer-generated output removed from the bottom of the figure (chi-square etc). This is reported elsewhere.

3. It is contemporary practice to also report the confidence intervals for RMSEA.

4. Different tenses are used in the Discussion (e.g., "carried out" followed by "cooperate". This makes the Discussion difficult to read.

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

**Declaration of competing interests:**

I declare that I have no competing interests.