Author's response to reviews

Title: Psychometric Properties of the Chinese Version of the Fatigue Scale-Adolescent

Authors:

William H.C. Li (william3@hku.hk)
Ka Yan Ho (eva19841226@yahoo.com.hk)
Ka Wai Katherine Lam (kathins@gmail.com)
S.Y. Chui (dieselfrankie@yahoo.com.hk)
Chi-Fung Godfrey Chan (devilbb@hku.hk)

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Author's response to reviews: see over
Dear Editor and reviewers,

Thanks for your insightful and constructive comments on my manuscript (MS: 1378078626165418) entitled “Psychometric Properties of the Chinese Version of the Fatigue Scale–Adolescent” I have made changes accordingly, which are highlighted in Red in the text. Please also refer to the following point-by-point responses to the comments from all reviewers and editor. Also, let me know in case any responses are not clear or the information is not adequate to clarify concerns. Thanks for giving us an opportunity to revise the manuscript.

Sincerely,

Authors
Reviewer’s comment (Reference 1)

Thanks for your positive comments and support for our manuscript to be published in the Journal.

Reviewer’s comment (Reference 2)

<table>
<thead>
<tr>
<th>Comment 1</th>
<th>Please report the demographic information of these 50 patients receiving treatment and the 50 health counterparts.</th>
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</thead>
<tbody>
<tr>
<td>Response 1</td>
<td>Demographic characteristics of the children hospitalized with cancer and their healthy counterparts were added into Table 1.</td>
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<tr>
<td>Comment 2</td>
<td>This scale uses a 5-point Likert Scale: 1 indicates not at all, and 5 indicates a lot. However, from the figure 1, I found that the item (able to do usual activities) was worded differently from the other items in the scale. Was this item reverse-coded? If it was, could you please clarify this in the Method section?</td>
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<tr>
<td>Response 2</td>
<td>Thank you for pointing this out. The item “able to do usual activities” was a reverse-coded item. This has been clarified in the Method section.</td>
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<tr>
<td>Comment 3</td>
<td>I understand that the investigators used the psychometric results to take out the original item 6 (It’s harder to keep up with school work). However, I am not sure if it is appropriate to take out this item. In the study conducted by Hinds et al. (2007), they found a high mean score on this item. This research paper also reported the same pattern. The majority of the participants in this study gave a high score on this item. There seems to be some similarity between these two studies. Maybe this item catches some important information in the population of the cancer survivor adolescents. Plus, school is one of the important settings for the adolescents.</td>
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<tr>
<td>Response 3</td>
<td>Thanks for your observation and comments. Nevertheless, we have reservations of keeping the item 6 of the scale that to be used in Hong</td>
</tr>
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</table>
Kong Chinese adolescents who have survived cancer. The reasons are as follow:

(1) The results of content equivalence indicated that the item 6 was rated by the expert panel as **not relevant** to the concept of cancer-related fatigue for adolescent cancer survivors.

(2) The results of Corrected Item-Total Correlation indicated that the item-total correlation value for item 6 was only 0.10, much lower than the recommend value of ≥ 0.3, indicating that the item is measuring something different from the scale as a whole.

(3) The overall fits of the 14-, 13- and 12-item of the Chinese version of the FS-A was tested by a variety of fit indices based on the proposed 4-factor model. The results revealed that the 12-item (taking out the items 6 & 10) 4-factor model was the best fit across all fit indices (please refer to Table 3). The results of RMSEA for the 13- and 14-item (including item 6) were above 0.05. The RMSEA is an indication of model fit and is based on the population discrepancy function, which is a standardized measure of error of approximation and an important measure of lack of fit per degree of freedom. In general, the RMSEA values ≤ 0.05 indicate superior model fit.

(4) We have explained the possible reasons of why item 6 is not appropriate for Hong Kong Chinese adolescent who have survived cancer in the text (reported in line 354-361). To add, in our previous study examined the impact of cancer and its treatment on childhood cancer survivors (reference 9) revealed that many informants were anxious about their academic performance, which they claimed was significantly affected by the cancer and its treatment. As a result of suspension from school during the course of treatment, they had to make extra efforts to catch up with their studies.

(5) We have further consulted a local biostatistician and a pediatric oncologist for whether we should delete or retain the item 6 for
Based on the above reasons, the research team decided to take out the item 6 from the Hong Kong Chinese version of FS-A.

| Comment 4 | It may not be appropriate to state that this validated instrument is applicable to the Chinese in the other parts of the world. As what the authors discussed earlier in this paper, there are some cultural differences between Western Countries, Taiwan and Hong Kong. There may also be some cultural difference between Hong Kong and China. This newly added statement seems to be a bit overstated to me. Maybe consider rewriting it or taking it out? |
| Response 4 | Thank you for your suggestion. This sentence has been removed from the manuscript. |