Author's response to reviews

Title: Patient Self-Appraisal of Change and Minimal Clinically Important Difference on the EORTC QLQ-C30 Before and During Cancer Therapy

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Version: 2 Date: 23 January 2013

Author's response to reviews: see over
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We thank the reviewers for constructive comments and suggestions. We have addressed the comments point by point, and revised the manuscript accordingly.
Reviewer's report

Title: Patient Self-Appraisal of Change and Minimal Clinically Important Difference on the EORTC QLQ-C30 Before and During Cancer Therapy

Version: 1 Date: 8 September 2012

Reviewer: Kim Cocks

Major compulsory revisions

1) Anchor-based methods for interpreting QOL scores are only useful if the anchor is at least moderately correlated with QOL (Guyatt et al). In this study, the SSQ correlations with the QLQ domains were weak (from 0.25 to 0.4) which would imply it is not a suitable anchor on which to interpret the QLQ scores. The reliability of patients’ estimates of previous health status is also an issue (Kamper et al).

Multiple anchors and methods that combine anchor and distribution-based methods are currently recommended for obtaining the MID of a QOL instrument. This paper shows results from only one anchor (and this is a weak anchor as discussed previously) therefore this approach is not adding to the current body of literature on this topic. More recent guidelines are based on multiple anchors and already provide tables for interpretation of the QLQ-C30 (separately for each subscale and for improving/deteriorating) (Cocks et al 2011 and 2012). These are much more likely to be robust than the study as presented here.

Authors’ response: The SSQ instrument was designed and has been used as a calibration instrument to assess QOL changes perceived and deemed meaningful to patients, while the change was measured by validated HRQOL instruments such as the QLQ-C30 (Osoba et al, 1998, 1999; Rodrigues et al, 2004). The correlations between the HRQOL instrument and the anchor observed in our study were in similar magnitudes as correlations in other reports for similar purposes (Rodrigues et al, 2004, Margingwa et. al, 2011). On page 17 of the discussion, we acknowledged the limitation of using only one anchor in the study and the potential issue for stability (Kamper et al), and checked the robustness of the identified MCID by comparing with previous reports in the literature.

The QOL results themselves would be of interest in their own right and I would encourage the authors to rewrite the paper and use the existing guidelines (Cocks et al) to interpret their QOL results and discuss the issue of QOL pre and during treatment. This would be more publishable and add to the current body of knowledge.

Authors’ response: As suggested, we have added interpretation (page 10, 15, table 2) on our QOL findings based on the existing guidelines (Cocks et al, 2012) and revised the discussion section (page 14, 15) accordingly.
References


Level of interest: An article of limited interest
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests: I declare I have no competing interests.
Reviewer's report

Title: Patient Self-Appraisal of Change and Minimal Clinically Important Difference on the EORTC QLQ-C30 Before and During Cancer Therapy

Version: 1  Date: 21 October 2012

Reviewer: Fu-Min Fang

Reviewer's report:

This is a longitudinal study to investigate health related quality of life (HRQOL) scores change and identify minimal clinically important differences (MCID) on the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (QLQ-C30) before and during cancer treatment. The paper is well written about the relationship between QLQ-C30 score changes and SSQ rating. The findings of MCID in SCT and MED/RAD patients can provide clinical workers a useful tool to determine patients’ HRQOL.

Specific comment
1. A brief statement for the components of “Study Group” in Table 1 is suggested.

   Authors’ response: We have added a footnote to Table 1 that briefly describes the components used in the intervention group compared and the control group.

2. In page 11. The result of QLQ-C30 score change among MED/RAD and SCT patients in the PF domain are inconsistent with those in Table 4(SCT: 5.7, MED/RAD: 7.2).

   Authors’ response: We thank the reviewer for the careful review and we have corrected this error in the revised manuscript.

3. This study shows inconsistency between QLQ-C30 score and SSQ rating in HRQOL improvement. The authors might try to use the item response theory (IRT) to explain this phenomenon in the discussion or in the future investigation.

   Authors’ response: We thank the review for the thoughtful suggestion. Item response theory (IRT) assumes the probability of a correct/keyed response to an item is a mathematical function of person and personal parameters, such as general intelligence. It could be a potential explanation of the observed inconsistency between QLQ-C30 score change and SSQ rating. The exploration in this direction would be conducted in future investigation.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

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

Title: Patient Self-Appraisal of Change and Minimal Clinically Important Difference on the EORTC QLQ-C30 Before and During Cancer Therapy

Version: 1 Date: 11 December 2012

Reviewer: Andreas Dinkel

Reviewer's report:

Manuscript "Patient self-appraisal of change and minimal clinically important differences on the European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire Core 30 before and during cancer therapy" by Hong F et al.

This is an interesting and well-written manuscript. It provides additional evidence on clinically relevant improvement and deterioration as assessed with the EORTC QLQ-C30 in different groups of cancer patients. Methods and results are properly presented. However, I would like to suggest some refinements to the manuscript.

Major revisions:

1. The authors provide two justifications for their research. First, they cite Cocks et al (2011), a "meta-analysis of 911 cross-sectional" studies, and argue that these studies have been conducted with European patients. The authors state that the current work represents the first study among American patients with cancer. Second, they state that there are only few analyses that assess potential differences in MCID between improvement and deterioration. I would like to comment as follows: The study of Cocks et al did include longitudinal studies, however, Cocks et al focused on cross-sectional contrasts in their analyses. Furthermore, Cocks et al based their analyses on 152 studies, not on 911. Moreover, Cocks et al did include studies from USA/Canada (14.5 % of the studies). Thus, the authors should correct their statements relating to the work of Cocks et al.

Authors' response: We thank the reviewer for the careful review and apologize for inaccurately stating the work of Cocks et al (2011). We have corrected the statements, and cited and discussed a recent publication by Cocks et al. (2012) on 118 longitudinal studies.

Moreover, as they justify their research using a cultural argument, the authors should provide empirical evidence or theoretical arguments on possible differences in MCID evaluation between Americans and Europeans or any other cultural group.

Authors' response: The statement about possible differences in MCID among cultural groups was removed. We have revised the text on page 15-16 to compare our findings with those focused on European samples (please see comment #2 below).
With regard to the second argument justifying this research, I would recommend to comment on the shortcomings of the previous studies (Maringwa et al., Kvam et al) in order to underline the potential strengths of the current research.

Authors' response: As reviewer has suggested, we added the potential limitation (page 5) of the existing literature (Maringwa et al., Kvam et al, Cocks et al) in assessing the potential differences in MCID between improvement and deterioration. Given the varied findings in the literature, we think our study would add an important piece of evidence of using different magnitudes of MCID in QLQ-C30 as clinically meaningful benchmark for improvement and deterioration.

2. Furthermore, as the authors justify their work as being one of the few studies that used the EORTC QLQ-C30 with an US-American sample, they should discuss their results in comparison to results obtained with European (or any other) samples.

Authors' response: As the reviewer suggested, we have added text to the discussion section on page 15-16 that compares our results with the findings reported among European samples.

3. In the first paragraph of the discussion section, the authors summarize their main results and state that the "transplant patients reported change for the better on the SSQ for PF, SF, CF and global QOL". This is contradictory to the authors' statement in the results section (page 10, figure 1), where the authors point out that most SCT patients perceived deterioration. Apart from that, it may be worthwhile to stress that the largest group of patients belonged to the category "about the same", indicating perceived stability of HRQOL throughout treatment.

Authors' response: We apologize that statement was not clearly delivered as intended. We intended to describe the observation of decreasing QLQ-C30 score for SCT patients who perceived change for the better on the SSQ rating for PF, SF, CF and global CF. We have deleted that statement and rewritten the paragraph on page 13 for clarity. In addition, we added a statement on page 11 of the result section and page 13 of the discussion regarding the observation of largest group reporting “about the same”.

4. Finally, the authors should include a statement on the limitations of their work in the discussion section.

Authors' response: As suggested, we have added a paragraph to the page 17 of the discussion section covering the major limitations.

Minor revisions:
5. There are some typing errors in authors' names in the discussion section (Osobo, Maringwa).
Corrected

6. Figure 1: This figure shows percentages, thus, the y-axis should read 10, 20, 30 and so forth.
7. Figure 2: The column "EF" is lacking in the category "very much worse" in the upper part of the figure.

Authors' response: None of the SCT patients reported “very much worse” for EF on the SSQ rating; thus the EF column was not produced in Figure 2.

Discretionary revisions (which the author can choose to ignore)
8. The authors discuss the phenomenon of response shift as a possible explanation for reporting better health condition despite deterioration, especially in SCT patients. Maybe it would be helpful to analyze differences in initial HRQOL between SCT and MED/RAD patients. Maybe there are some differences in baseline scores that impact on the meaning of subsequent change.

Authors' response: We have examined the initial (T1) HRQOL score between SCT and MED/RAD patients, as the reviewer suggested. There is so significantly difference, except SF (social function), in baseline scores between SCT and MED/RAD patients, based on two-sample t-test and Wilcoxon Rank Sum test. It appears that SCT patients had significantly lower social function compared with MED/RAD patients (mean: 56 vs. 70) at T1, which is not unexpected.

9. Furthermore, there might be other psychological processes operating in SCT patients who perceive improvement despite HRQOL-deterioration, such as denial.
Authors' response: This is an interesting point, and would potential be one factor contributing to the observed discrepancy. Further investigation with validated instruments would be done in future studies.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests: I declare that I have no competing interests.