Reviewer’s report

Title: Designing questionnaires: Healthcare survey to compare two different response scales

Version: 2 Date: 28 December 2013

Reviewer: Sunghee Lee

Reviewer’s report:

Major Compulsory Revisions

1. Literature review
I find the paper lacking in setting up the importance of the topic, such as what floor/ceiling effects are, why they matter for patient satisfaction studies, why response scales are relevant for these effects and what the current literature suggests. Until the Discussion section where much of the relevance is provided, readers are left wondering why this paper matters and what is known about this topic. The Background section can benefit by including much of the content of the Discussion section.

2. Statistical tests
I find it uneasy that the paper did not conduct any statistical tests to detect significance in their analyses. For example, Table 2 can benefit from chi-square tests to check comparability between predefined subgroups. In fact, the authors say that the groups are comparable with respect to gender. I find that not correct: 53% of the Emergency Admission group is male, whereas 45% if the Elective admission group is. The graphical displays using figures are great but can be misleading without statistical tests. I encourage the authors to give a serious consideration in conducting the tests so that the results can be taken with scientific significance.

Minor Compulsory Revisions

1. Numeric vs. Labeled scale
Although presented as numeric vs. labeled scales, these two scales are different in another aspect: the numeric scale uses 10 point scale whereas labeled scale uses 3 or 4 points. Hence, the differences in outcome between these two scales that this paper addresses are a product of the scale being fully vs. partially labeled and having 3-4 points or 10 points. In other words, the numeric vs. labeled scales are confounded with the number of response points. In order it to qualify as the numeric vs. labeled scales, the number of response points should have kept the same between the two. This nature should be explained.

2. Figure Numbering and Titling
I find the labels of the figures confusing. According to the text, there should be Figures 4a, 4b 5a, 5b, 6a and 6b but I don’t find these. Figure 7 is included in the
file but not referred to in the text. Combined with the fact the figures are not titled, it is difficult to follow the paper.

Discretionary Revisions
1. Redundant Measurement
As the authors acknowledge, that the same questions were asked twice. As question orders matter, it may be helpful to include in which order these questions were asked.

2. Subgroups
I am not clear why predefined subgroups based on the length of hospital stay and the admission type were used. Either the authors need to address the reason behind it or perhaps extend this to other groups, such as those based on age, gender, and nationality.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

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