Reviewer’s report

Title: Psychometric Properties of a Brief Measure of Autonomy Support in Breast Cancer Patients

Version: 2  Date: 11 March 2015

Reviewer: Megan Shen

Reviewer’s report:

This study examines the psychometric properties of the mHCCQ questionnaire (to measure a physician’s autonomy supportive communication) among breast cancer patient. This study takes the first steps in determining the validity and reliability of this measure in a cancer patient population and points towards potential suggestions for assessment (e.g., assessing different providers separately). This is an important measure to utilize in the cancer patient population, so this work is important to the field. There were some concerns regarding the measure and the analyses run that are addressed below.

1. It is somewhat unclear as to whether the mHCCQ is an already existing measure or if the researchers adapted it themselves? In the abstract, the authors refer to them seeking to “evaluate the psychometric properties of a modified brief version of the Health Care Climate Questionnaire (mHCCQ)…” Is the full measure represented or an adapted one? If adapted, can the authors outline how it was adapted? How were the 6 items selected? What was the process of developing a brief measure?

2. In text referring to Table 4, it is unclear that Kruskal-Wallis tests were run as they are not referred to in text in the analysis section nor the results section. It might be helpful to describe the analytic approach utilized in addition to the footnote provided in Table 4.

3. In Table 4, the Kruskal Wallis test was run, but it is unclear how variables in which there were more than 2 categories were compared. For instance, the authors note that Black patients reported significantly higher mean scores than white or Asian patients, but a Kruskal Wallis test only tests if there is a difference among ANY of the categories (similar to a one-way ANOVA). As such, were follow-up tests run to conduct pairwise contrasts? If so, can these be included?

4. It is unclear from Table 4 which categories are significantly different from one another since any group containing a (presumably significant) Kruskal Wallis test is highlighted with an asterisk. It is unclear which groups differ from one another, etc. Additionally, no Kruskal Wallis tests are provided nor are their p-values. It might be helpful to include these statistics in Table 4.

5. The authors note that there is an inverse relationship between education and the mHCCQ score, but there were no tests specified to determine if this really was a significantly incremental increase or if the overall Kruskal Wallis test was
significant, and the authors are simply referring to the increase in values (without testing if those increases are statistically significant).

6. Why were there no measures included to test convergent or divergent validity? How do we know that this measure taps into the same thing as the original HCCQ?

7. How does the modified version correlate with the original scale? It is customary to measure the full and adapted scale when creating a brief measure to ensure that it still measures the same construct. Was that done in the present study?

Minor note: A minor note, but “Table” is not capitalized in text when referring to the Tables.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.