Reviewer's report

Title: Using conjoint analysis to develop a system to score research engagement actions by health decision makers

Version: 2 Date: 24 February 2015

Reviewer: Jonathan SICSIC

Reviewer's report:

Dear Editor and authors,

The topic of this article is very interesting and the authors’ approach (using conjoint analysis) to score research engagement actions by health decision makers is relevant given the scarcity of (quantitative) data in relation to this question. In addition, the English is good and the paper is well written in general. Despite these strengths, the paper suffers from some weaknesses that should be addressed to improve its quality for the journal.

Minor essential revisions

-p11: “there were problems with convergence due to singularity on all conjoint analyses (...).” Please better explain the notion of singularity as non expert could not understand it. Yet, this has strong consequences on the convergence of the GEE estimators. Secondly, the authors should better justify why they used the estimates from the first iteration of the GENLIN procedure. Is this practice specific to the GENLIN procedure? One would be very sceptical about both model identification and the convergence of the algorithm if no further indications are given.

p12: “SPSS Conjoint was used to identify respondents that exhibited highly inconsistent responses (...).” The authors suggest that the identified respondents are candidate for deletion from the analyses, but they do not mention in the Results section how many of them were identified and whether or not they were deleted. Please complete.

p13: “the importance values [are displayed in Table 3]”: please provide the formulas to compute these values based on the model estimates.

p19-20 - Limitations : The authors do not discuss one important limitation of the study, i.e. that respondents self-selected into the conjoint tasks, so there might be a selection bias. This bias may influence the results because only 19% (69/366) responded to the study. The authors should at least discuss why they think that the relatively low response rate may not impact the results of the study in a particular way.

Discretionary revisions

-p11 : “an exchangeable working correlation structure was used (...).” If it is appropriate, please specify that the GEE algorithm was used to take into account the panel nature of data. As this procedure lead to estimation problems, have the
authors tested other strategies to take into account the repeated nature of data such as fixed or random effects estimation procedures? (see for instance “Greene W. 2001. Fixed and random effects in nonlinear models. Working paper”).

-p12: “Out of 366 respondents invited (...) 69 respondents completed at least the first conjoint analysis”: please provide the response rate.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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.