Author's response to reviews

Title: Investigating the complementary value of discrete choice experiments for the evaluation of barriers and facilitators in implementation research: a questionnaire survey

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Author's response to reviews:

Dear Martin Eccles,

Thank you for giving us the opportunity to submit a revised version of the manuscript entitled: “Investigating the complementary value of discrete choice experimentation for the evaluation of barriers and facilitators in implementation research: a questionnaire survey” (MS: 2886129091844234). We greatly appreciate the comments of the reviewers and made changes to the manuscript as described below. On your request, we can provide the revised manuscript edited with the track changes feature.

One of the reviewers suggested to you that s/he had seen the data in another article. That is correct. We present hierarchical information integration (HII), which is a more complex alternative to standard DCE, in a paper that is accepted for publication in Health Economics. The paper has recently been published online (October 30 2008). In the Health Economics paper we describe in detail the first application of HII in health care research, including a step-by-step plan to demonstrate how a typical HII choice experiment is carried out. The objective of the Health Economics paper was to introduce hierarchical information integration in the domain of health care as a promising method to deal with the typical complexity of multi-faceted health care management decisions. In the Health Economics paper we present the results of our HII discrete choice experiment and the focus is on the novelty and introduction of the HII method in health care research. The objective of the present paper is to compare DCE/HII with a well-known method in implementation research that is often applied in practice. We refer to this method as the traditional questionnaire in the paper. We present the results of both methods and the focus of the paper is on the comparison between DCE and the traditional questionnaire approach. Thus, the current paper investigates the value of DCE for the evaluation of barriers and facilitators.
in implementation research. So, the objectives of the two papers are very
different as well as the target readers. A copy of the Health Economics paper is
attached for your information.

Reviewer 1: Verity Watson

1. Reviewer remarks that the term “experimentation” is unusual. Therefore, in the
revised version of our paper, we have replaced the term “experimentation” with
experiment(s) throughout the paper.

2. Abstract: Reviewer suggests dropping the word “to” in the sentence
“Respondents answered to 17 statements”. We have followed this suggestion.

3. Background: Reviewer suggests stating “compensate for barriers” instead of
“compensate barriers”. We have followed this suggestion.

4. Methods: Reviewer suggests stating “has not published” instead of “did not
publish”. We have followed this suggestion.

5. Methods: Reviewer suggests that the information about the pilot study is too
detailed. In the revised version of our paper, we have omitted a large part of the
information about the pilot study.

6. Methods: Reviewer asks whether references 12, 13, 14, 15 are all necessary?
In the revised version of our paper, we refer to one seminal paper.

7. Results: Reviewer asks whether the response rates are significantly different
across the groups of respondents. We tested the effect of professional discipline
on the response rate using the Chi-Square test of independency. The test yielded
a Chi-Square statistic of 14.89 (p < 0.001). This means that there was a
statistically significant difference in response rates between anesthesiologists,
surgical oncologists and breast care nurses. We added this information in the
Results section.

8. Results: Reviewer asks why 18 respondents did not complete the DCE.
Although we did not systematically investigate why 18 respondents did not
complete the DCE questions, we suppose that this was due to the complexity of
the discrete choice tasks and the length of the questionnaire. We do not expect
that these respondents would have completed the discrete choice tasks if the
choices were presented before the traditional questions. In the revised version of
our paper, we have clarified this in the Discussion section.

9. Results: Traditional questionnaire. Reviewer asks whether it is possible to test
for significant differences in distribution of responses across categories for each
of the statements. We tested this using Chi-Square tests. The p-values were <
0.0001 for all 17 statements, indicating that the responses were not equally
distributed across the categories.

10. Discussion: Reviewer suggests that the authors should discuss what is
underpinning the DCE responses. The authors must state a convincing argument
for why the constructs and attributes are a source of utility for respondents. The
independent variables in our model are the 17 attributes that contribute to
respondents’ utility. These attributes - categorized into constructs because we
used HII - are sources of utility for health care professionals since the attributes
may be more (or less) important for successful implementation of the guideline for breast cancer surgery in day care. For example, in our experiment, respondents’ utility was influenced most strongly by the attribute “cooperation of colleagues”. This means that whether or not colleagues would assist in implementing the guideline most strongly influenced respondents’ choice between “circumstances A” and “circumstances B”. The overall utility may therefore be described as an evaluation of how attractive it is to implement the guideline for breast cancer surgery in day care given the circumstances as described by the attributes. In the revised version of our paper, we have clarified this in the Discussion section.

11. Discussion: Reviewer suggests leaving out the sentence “Second, we used two methods that did not measure quite the same”. We have left out this sentence.

12. Reviewer suggests that forcing people to make choices and trade-offs is crucial and should be a stronger motivation for the whole paper. In the revised version of our paper, we have emphasized this point in the Background section.

13. Discussion: Reviewer suggests replacing “suboptimal” by “suboptimally”. We have followed this suggestion.

Reviewer 2: Célia Berchi

1. Thank you for your positive evaluation of the manuscript.

2. Reviewer remarks that the low response rate is a limitation but that this issue is correctly discussed. Thank you for your compliment on our discussion about the response rate. Our discussion about the response is relatively lengthy because, in our opinion, the response rate is an important indicator of the feasibility and acceptance of any method. Therefore we give some recommendations that may increase the response rates in future applications. In the revised version of our paper, we have added a paragraph in the Discussion section about using online surveys as an alternative to mail surveys.

3. Reviewer notices that the DCE/HII method is described in detail in another paper that is not yet available. The paper is now accepted for publication in Health Economics and has been published online on October 30 2008. Following the reviewer’s request, in the revised version of our paper, we more elaborately present the DCE method. For details about HII we refer to our earlier Health Economics paper.

Reviewer 3: Sherry Pagoto

1+2: Reviewer remarks that the guideline for breast cancer surgery in day care itself and the role of anesthesiologists, surgical oncologists and breast care nurses in implementing the guideline is not clear. In the revised version of our paper, we have clarified this in the Methods section (subheading Clinical subject).

3. Reviewer suggests that our sample was not random and suffers from selection bias. Actually, we anticipated beforehand that health care professionals
(especially physicians) would be difficult respondents to recruit for surveys. Therefore, we approached all anesthesiologists, all surgical oncologists and all breast care nurses in the Netherlands. We cannot assess whether selection bias has occurred because we lack information on the non-responders. In the revised version of our paper, we have clarified this in the Results section (subheading Response).

4. Reviewer is concerned about the term “traditional”. We use this term to refer to common, well-known research methodologies that are usually used in implementation research. DCE, in contrast to these traditional instruments, is new in the field of implementation research. In the revised version of our paper, we have clarified this in the Background section.

5. Reviewer remarks that we do not compare the feasibility of DCE and the “traditional” method. The traditional questions are well-known, easy to administer and take little time to complete. Furthermore, the traditional method is often applied in implementation research, which is a strong indicator of its feasibility. DCE, on the other hand is new in implementation research, so we decided to evaluate only the feasibility and acceptance of this novel development. We have clarified this in the Background section of our paper.