Author's response to reviews

Title: An Empirical Comparison of Methods for Analyzing Correlated Data from a Discrete Choice Survey to Elicit Patient Preference for Colorectal Cancer Screening

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Author's response to reviews: see over
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Anastasios Koutsos, PhD.
Senior Assistant Editor
BMC-series journals

Dear Dr Koutsos

MS: 2026795082556474-An Empirical Comparison of Methods for Analyzing Correlated Data from a Discrete Choice Survey to Elicit Patient Preference for Colorectal Cancer Screening

Thank you for your email with reviewers’ second round comments on our paper. All comments are very constructive and helpful. We have revised the paper again in accordance with the newest suggestions. Please find the attached revised version of the manuscript with all changes highlighted using a YELLOW marker. Below are point-by-point responses to the reviewers’ comments.

We hope that this newly revised version is now suitable for publication in BMC Medical Research Methodology.

We look forward to hear from you.

Sincerely

Lehana Thabane, PhD
Professor, Department of Clinical Epidemiology and Biostatistics
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Responses to reviewers’ comments
We thank the reviewers for their detailed review and further comments. Below are our responses to the specific issues raised by the reviewers.

Comments from Martina Vandebroek

Major compulsory revisions:
Although the authors claim that the text has been proofread, it still needs to be improved substantially. In most cases, the text is bad but I can understand what the authors mean, in other cases it sounds Chinese to me (for instance the following sentence in the conclusion "this combination likely indicated the FOBT test")
RESPONSE: We thank the reviewer for pointing this out. One of the co-authors has edited the paper thoroughly and we believe that the writing has been improved substantially.

Minor Essential Revisions:
1. Louviere is spelled incorrectly
RESPONSE: We have corrected this typographic error. (see page 4)

2. bottom of page 16: "the estimates from random effects model are interpreted for the individuals in the same cluster" - I thought the choices of each individual belonged to a cluster so it is totally unclear to me which individuals belong to the same cluster and how these clusters are identified.
RESPONSE: In this study, clusters were defined as the choices (observations) made by the same subject (survey participants). We have re-written this sentence to clarify the confusion. (see page 16)

3. SAS optex optimizes designs for linear models and is therefore not suited for optimizing designs for logistic or probit models
RESPONSE: We agree that SAS Optex procedure is traditional used for experimental designs and linear models. However, with additional randomizing and postprocessing steps, it can be adopted to design DCE. Warren F. Kuhfeld’s paper discussed how to use this procedure combined with other macros to construct choice experiments in details (http://support.sas.com/techsup/technote/mr2010f.pdf). We have rewritten the related sentence (see page 6) and changed Reference 23 to this paper.

4. page 9: "normally the observations in the same cluster are similar to the observations out of the cluster"??? do the authors really understand what they are doing?
RESPONSE: This is an editing error. We have corrected it. (See page 9)

5. page 19: "simple logistic regression and multiple logistic regression are recommended if the within cluster correlation is small"? as simple logistic regression and multiple logistic regression, without adjusted standard errors (!)
have not been included in the paper, I do not understand how they can be recommended based on the results of this paper (I suggested in my referee report to include those results as benchmark in the paper, but they have not been included)

RESPONSE: We have included five standard models using simple standard error as anchors for the comparison, which did not take the intra-class correlation into account for the analysis. They are the standard logistic and probit models for the binary data, the standard multinomial logistic and multinomial probit models for the nominal data and the standard bi-variate probit model for the bi-variate data. We added sentences in the method and result sections accordingly (see page 12, 14 and 15). The results from above models were also added in Table 2a, table 2b, Table 3a, Table 3b and figure6.