Author's response to reviews

Title: Proxy Response Bias in Assessing Health and Functional Status among Medicare Beneficiaries

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Author's response to reviews: see over
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Arlene Pura
Journal Editorial Office
BioMed Central

Dear Arlene Pura,

We are pleased to resubmit the manuscript “Proxy Response Bias in Assessing Health and Functional Status among Medicare Beneficiaries” for publication in BMC Medical Research Methodology. We have revised the manuscript having taken the requested comments into consideration and made required.

Comments

The tables do not clearly identify what is and is not significant this needs to be addressed.

RE: We have added a “**” after the significant RR to indicate the significance of each RR.

Second a simple summary table should be added in which they identify the number of items which the number of significant differences in each domain (ADL x of y items significantly different) are identified and the general direction of the effect is indicated.
(e.g. proxy report better function/proxy report worse function).

RE: A summary table (table 3) has been added in the revised manuscript.

Analysis and discussion needs to clearly address how socio-demographic differences associated with the higher probability of proxy response are confounding with the findings.

RE: How differences in socio-demographic characteristics and chronic conditions can serve as confounding variables have been added in analysis and discussion sections, respectively.

Analysis section:

“Socio-demographic characteristics and chronic conditions may confound the association between types of responses and health and functional limitations.”

Discussion section:

“The study successfully controlled for major confounding variables of proxy response bias. The distributions of socio-demographic characteristics and chronic conditions between two types of responses were not even in the study. The presence of proxy response bias observed in the unadjusted analysis might be attributed to socio-demographic characteristics and chronic conditions differences. For example, survey respondents older than 85 years were more likely to respond to the survey via proxies. They were also more likely to have health and functional limitations. Another example was dementia patients. They were more likely to use proxies to respond and have more health and functional limitations. Existing studies also found that socio-demographic characteristics confounded the association between proxy response and
health and functional limitations. [3, 8, 9] So unevenly distributed socio-demographic characteristics and chronic conditions might serve as confounding variables in the study. Major confounders were controlled using the propensity score matching approach.”

It is written under the belief that propensity matching adequately simulates random assignment - under these conditions discussion of the limitation of propensity scores needs to be expanded.

RE: We have added limitations to talk about the situation when the simulation of random allocation was not achieved.

“First, even though we included some unobservable variables identified in previous studies, it is highly possible that we did not include other unobservable confounding variables in the conditioning variables. If that is the case, we were not able to simulate random allocation of all confounding variables. As a result, the study may be subject to omitted variable bias and will lead to type 1 error.”

Finally - conclusions need to address whether or not we should accept proxy reports based on this data.

RE: We have revised the manuscript to address when we should accept proxy reports. “Researchers should accept proxy reports for sensory status and objective, observable, or easy questions. For physical, affective, cognitive, or social status and private, unobservable, or complex questions, proxy reports should be used with caution.”

If they address these - plus re-write the paper using survey methods language - e.g.
there are respondents or proxy respondents - there are not 'survey persons.' I think that it would be viable to send it out for review.

RE: The paper has been re-written using survey methods language.

Thank you for your time and consideration. Please let me know if further revisions are needed.

Yours sincerely,

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