Author's response to reviews

Title: Depression in the Elderly in Karachi, Pakistan: A Cross Sectional Study

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Cover Letter

Dear Sir/Madam,

With reference to email received from Journal Editorial Office dated January 29, 2013 I am resubmitting my revised manuscript titled “Depression in the Elderly in Karachi, Pakistan: A Cross Sectional Study”. Following are the responses to reviewers’ comments that are incorporated in the revised manuscript:

Comments of Reviewer 1:

1. Introduction may be more specific in some sections. Last sentence of the first paragraph comments about the estimates of aging rate, please specify year of these predictions.
   Year of predictions about the estimates of aging rate has been specified in last sentence of the first paragraph of “Introduction” which is 2008.

2. I should suggest to include in the second paragraph (introduction) Pakistan dependence rate and some additional data regarding burden of chronic disease and health services utilization rates.
   Pakistan dependency ratio and data regarding burden of chronic disease and health workforce per 10,000 population has been added in the second paragraph of Introduction along with the references as given below: “Pakistan, a South Asian Islamic developing country with a current population of 180 million [1] and a dependency ratio of 0.75 [10] is already facing a challenge of high burden of chronic disease that are projected to account for 42% of all deaths [11]. On the other hand as per WHO report, health workforce per 10,000 population is quite low in Pakistan than the regional average [12]”.

3. In Material and methods section please specify if there is a more recent population census, instead of 1998 data.
   There has been no population census after 1998. All population figures after 1998 are estimates based on estimated growth rates.

4. Regarding exclusion criteria please include how serious co-morbid medical conditions were evaluated and please comment why you decide to exclude these participants.
   This has been included in the last part of Study Participants section as:
   “Participants with serious co-morbid conditions were excluded. This was based on their current medical reports, physical conditions and their response to specific questions about their ability to interact with an interviewer for more than half an hour”.
   This clarifies that such participants were excluded due to their inability to respond or to interact for more than half an hour.

5. In study sample and recruitment, please comment why 46 blocks were selected and what do you mean by systematic sampling of households.
   Details about systematic sampling have been added in the Study Sample and Recruitment section as follows:
“The systematic sampling involves a random selection of a house and then sampling every $K^{th}$ house where $K$ represents the constant sampling interval based on the number of households to be sampled from total households in each block. Only one elderly person from each household was enrolled in the study.”

The number of blocks to be sampled was finalized after detailed discussion with the experienced demographer (also Co-PI of the study). Based on his research and estimation about the minimum number of households with elderly in each block, we sampled 46 blocks through simple random sampling for our study. Thus, the blocks numbers were finalized based on the approximate number of households with elderly in each block (information provided by the experienced demographer).

6. It is also important to comment in the discussion section the effect of calculating a sample size based on a prevalence of 20%.

Comment well taken and is addressed in the Discussion section as follows:

“We calculated our sample size based on prevalence of 20% reported by these two studies which might had resulted in underestimated sample size however, our final sample size after incorporating the proportion of family support was much higher than what had been required at prevalence of 50% and thus sample size was adequate to fulfill the objectives of the study.”

7. Exclusion criteria are presented in the participants section and it is not necessary to repeat them in the last paragraph of recruitment. Instead, it is important to expand the screening and data collection process.

Repetition of exclusion criteria is removed and data collection details have been expanded as given below:

“The elderly once located was introduced to the study, its objectives, procedures and the possible consequences. They were then screened for the eligibility criteria and those meeting the criteria and agreed to participate were enrolled in the study. All study subjects were interviewed by trained interviewers. The data collection team consisted of six interviewers and two field supervisors, all of whom were fluent in Urdu and were well-trained for the purpose. Confidentiality was assured at the time of data collection and random spot checks were performed by the principal investigator to ensure data quality.”

8. Variables studied should be included, how each one was measured and cut off points. As an example, what physical active means, what it was considered as risk, how children as future security” was defined.

The whole section of Study Variables has been added to define the variables and their measurement.

9. In questionnaire section, please clarify if the GDS Urdu and English version was the one validated by Taqui et al or authors validated again the instrument.

No, the scale has not been validated. Details are provided in the Study Variable section as follows:

“The scale has not been validated in our elderly population however, it has been used in two previous health centre-based studies on elderly in Karachi [22, 23]. GDS-15 has been validated in many different languages though not in Urdu.”

10. In statistical analysis, about the weights, please comment if cluster means blocks.
11. About Results, prevalence results are not presented and they are only mentioned in the abstract, discussion and in the regression analysis.

   Prevalence results are added in the Result section as follows:
   “Prevalence of depression was found to be 40.6%, with a higher preponderance in women (50%) as compared to men (32%).”

12. It is very important to present the bivariate analysis in order to clarify further results. A table where columns represent depressed and no depressed people and lines associated variables should be included. It may be combined with the first section of table 3, called univariate analysis.

   As suggested, columns with depressed and not depressed figures for associated variables have been added in combination with table demonstrating univariate analysis.

13. Also, it is not clear if weights were or were not applied.

   Weights were applied and in order to clarify it we added word “Weighted” in the tables for proportions and means. Also, we added a sentence in the Result section as follows:
   “All means and standard deviations for continuous variables and frequencies for categorical variables illustrated in the tables are weighted.”

14. Discussion is weak and it may start with a paragraph presenting the main results and it may continue with one or two paragraphs discussing the study limitations. A very strong explanation has to be done regarding the prevalence figure that contradicts very similar reports which used the same instrument and the same cutoff point. This is a main issue in the paper. The innovative data about family support, gender perspective and future security should support better.

   All comments regarding Discussion section have been incorporated. The flow has been changed as suggested by the reviewer. The literature to support family data, future security and gender perspective has been added. Explanations for different prevalence figure are also added.

15. Conclusion is not supported because prevalence data are not well explained

   Prevalence data has been added and explained as suggested.

Comments of Reviewer 3:

The manuscript reports similar studies from Pakistan, but in my opinion there is lack of referral to similar studies worldwide. In the discussion section there should be a comparison with reports from other countries. The high prevalence of depression in Pakistan should be discussed in contradiction to lower percentages of other countries (of low or high income).
Literature from other countries related to the study findings has been added in the discussion section as suggested. Moreover, the overall flow of the Discussion section has been changed based on the comments from both reviewers.

Thanks and Kind Regards

Mehreen Bhamani