Author’s response to reviews

Title: Personal social networks and organizational affiliation of South Asians in the United States

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Author’s response to reviews:

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Re: Revision of Manuscript Number PUBH-D-17-02659 for BMC Health

Dear Editors,

Thank you very much for the opportunity to revise and resubmit our paper for consideration of publication in BMC Public Health. We appreciate the important comments regarding the potential value of additional analyses related to social network characteristics and health outcomes, social media use, and clarifying methods and tables.
Below, we detail the changes we made in the manuscript based on the comments. The reviewers’ comments are in italics and our responses in bold. Please let me know if you have any questions about our responses or the changes we made to the manuscript. This manuscript is not under consideration in any other journal.

We sincerely appreciate your time and consideration of our work and would be happy to make further refinements if necessary.

Best wishes,

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Editor Comments:
In your revisions please respond to the points around lines of argument and reduction of descriptive elements raised by Reviewer 1, points of social media consideration and health issue breakdown by Reviewer 2 and all those raised by Reviewer 3.

We appreciate the Editor’s guidance on the main points for revision and have addressed all of these areas. Below, we provide detail on specific revisions, organized by Reviewer. Our changes to the text are marked with an underline. Deleted text has been removed from the manuscript.
Reviewer 1

1) I think the current version of the paper only offers a very descriptive level analysis of the data and reads more like a project report. One way of potentially revising the paper might be to substantially reduce the length of the descriptive material presented in the current version and adding a second part, starting from where the paper finishes at present, and then explore associations between social network characteristics and health or behaviour outcomes.

We have reduced the descriptive content by cutting text that is redundant with what is in the Tables, and we have eliminated the original Table 4, which was purely descriptive.

We have also added a paragraph on the results of adjusted linear regression analyses examining associations between social network characteristics and two health outcomes: self-rated health and the likelihood of discussing health with network members. We have added information about this analysis to the abstract, methods (p. 11 and 13), results (p.18) and what is a new Table 5. We also added a paragraph in the discussion about these findings (Lines 407-20).

Reviewer 2

1) A few thoughts moving forward. Has there been any discussion to include social media as part of the network analysis? Did people communicate largely via phone or in person? Were there any differences?

This is an important comment. We have added a sentences to the paper describing how participants communicated with alters in the network (Line 294). We added the following sentence: “Egos said they mostly communicated with over half (54%) of their network in-person, and with 41% by telephone.”

Texting/Instant messaging was slightly more common if the alter was a child (7%) compared with other types of alters (like siblings or friends), but we decided not to add this information to the current paper. Very few reported using social media, email, or video to communicate with their network members.
We also asked participants if they used any type of social media in general and 54% said that they did. Not surprisingly, there were differences by age, sex, education, and income. While we agree that these finding are interesting, we have decided not to add this information to the current paper since our focus on the personal social network of South Asians, rather than on websites or applications that can enable social network communication.

3) When asking people to assess their likelihood egos discussing health issues, where there any differences associated between the type of health issue. I suspect the discussion of certain health issues (e.g., violence, STI’s, etc.) would decrease due to social/cultural stigma.

We did not ask about specific health topics. The question we used referred to a “health problem or decision.” We have added a sentence to the discussion about this (Line 418).

4) It would also be interesting to see if there would have been greater difference has 98% of the study population been immigrants.

We have added a sentence to the limitations stating that these results apply to an immigrant population and that US-born South Asians may have different network structures.

Reviewer 3

1) Introduction: The rationale for the study of social networks among South Asian Americans is well written, as is the majority of the paper. However, the introduction of this paper focuses heavily on the role of networks on health, so I was somewhat disappointed to discover that this paper does not actually look at associations between network characteristics and health outcomes. While the author provides a clear purpose statement for the paper, which is to describe network characteristics of SAs known to be associated with health, including the discussion of health with alters (which is valuable and important information), I would remove some of the more explicit language that might confuse readers, such as "the linkages between social networks and health" (line 107), since you do not actually look at these associations.
We have modified some of the explicit language as suggested by the reviewer. For example, in line 110 we now state, “This study provides the unique opportunity to advance research on the cultural patterning of social connections in South Asian immigrants and begins to explore the linkages between social networks and health.” We have also conducted additional analyses examining health outcomes (self-rated health and health discussions with network members), as suggested by Reviewer 1. We hope these additional analyses will also address the reviewer’s concern.

3) Methods: In the methods, you mention the use of multiple name generators, but then only describe one: discuss important matters. Later, in the results, we discover that organizational ties were recorded from perhaps another name generator? It is unclear. Or were organizational ties/roles part of the interpreter questions from the discussant question? Please clarify within the text.

This has been clarified in lines 131-39 and 152-165.

4) We also happen upon this information in the results section: "After reporting all their ties, respondents were asked in more detail about the 6 places they attended most frequently (Table 5)". (line 316). Please provide more information in the methods section about the six places mentioned. How was this data collected? Were they pre-defined in the survey or were they categories determined from an open-ended question?

We have added more information about how data on organizational affiliations were collected in lines 152-72.

5) What's the difference between a 'Spiritual CBO' and a church/temple/mosque? Describe/define what you mean by the spiritual CBO. In the results you mention six places, but in the table, there are only five categories: CBO, Spiritual CBO, church, temple, mosque. Please clarify what you mean.

We have added additional information to clarify the distinction in lines 168-72. “After data collection, the organizations were coded as community-based organizations, spiritual organizations, and places of worship (i.e. temples, churches, and mosques). We used the Internal
Revenue Service definition for coding these and distinguishing spiritual organizations from places of organized worship. Spiritual organizations focused on religious and spiritual teaching, but were non-denominational, not considered places of worship, and did not provide organized religious services like a church, temple, or mosque.”

6) The high negative correlation of effective network size with density is concerning. Can you describe effective network size a little bit further? If it's just the inverse of density, what is the novelty or additional information that we are gaining by measuring this? Perhaps you can describe what a peculiar case might look like, such a network that is either high or low on both scales, if that's possible.

We removed the information on effective size to reduce the amount of descriptive data. We also agree with this reviewer’s comment that information on effective size does not add any new or novel information beyond density in this particular analysis.

7) Does the linear regression control for any demographic variables? If not, be more descriptive, that these are bivariate statistics. Why not conduct ordinal regression for ordinal variables? Provide rationale or support for using linear regression for ordinal outcomes.

We apologize for the confusion. Table 2 only includes bivariate statistics, and we have added that to the Title of the Table. We also want to clarify that the predictor variables are the participant characteristics and the network variables are the outcomes, and all network variables are modeled as continuous outcomes. Thus, there are no ordinal outcomes.

8) Did your study limit the analyses to cases/participants with complete data? How much missing data is there? Please describe.

The analysis included 700 participants for which we had social network data. As shown in Tables 1 and 2, we were missing income data on 20 people and traditional cultural beliefs for 3 people (shown in Table 2). We were also missing density data on 16 individuals, and these individuals were not included in the regression analyses where density was the main predictor. We have added this as a Note to the bottom of Table 5.
9) The main body of the text is well written and organized; however, the tables are less clear. The trend tests in Table 2 are confusing. Specifically, for the trend tests for Traditional Cultural Beliefs and How SA/American do you feel, it seems as though the trend test is assessing differences in the continuous scale, but in the table you are reporting on tertiles for Cultural Beliefs or high versus low for How SA or American do you feel. Please clarify which approach you are using and align with how the data are being reported in Table 2. For example, why not use a chi-square test to examine differences in high/low dichotomy of feelings on how SA/American?

Thank you for this comment and we apologize that our results were confusing. In Table 2, we have categorized continuous participant characteristics (like age and Traditional Cultural Beliefs) because it allows us to clearly (and parsimoniously) describe how network characteristics may differ as a function of participant characteristics. However, when analyzing whether there is a significant statistical relationship between participant (predictor) and network (outcome) characteristics, we have chosen to keep participant characteristics on their original (continuous) scale in order to better preserve relationships between participant characteristics and network characteristics and also to avoid the loss of statistical power that would be the result of collapsing continuous data into discrete categories. These are Pearson’s correlations (equivalent to simple linear regressions) that do not adjust for any covariates. In both the text (lines 237-244) and the caption/footnote to Table 2, we have attempted to provide a rationale for this discrepancy between the presentation and analysis of our data.

10) Table 5 is also somewhat confusing. The information reported in tables should always be able to stand alone (no need to read through text to understand.) Therefore, be more descriptive about what the response categories associated with the asterisks are. I would be more clear that you dichotomized the response options (right?) and state something like: "*Indicates participants who reported 'A little bit, somewhat, quite a bit or very much' versus 'Not at all'" (or whatever the other categories were). And the same for the second dichotomization.

As per the reviewer’s recommendation, we have made these changes to this table, and it is also now Table 4.

11) Discussion: The current study should not be directly compared to the NSHAP study because the methodology is different. The NSHAP places a smaller limit on the number of alters reported, and the current study allows a much higher limit (10). Therefore, you cannot say that
SA networks are larger than those reported by participants in NSHAP. Instead, you might say something like previous network studies may not have captured the full extent of the personal network, and the current study may be more reflective of the true network size.

Thank you for this important comment. We have changed the discussion to reflect the different ways in which NSHAP and other cohorts conducted the name generator and no longer make a direct comparison (lines 356-361).