Author's response to reviews

Title: The prevalence and correlates of alcohol use and alcohol use disorders: a population based study in Colombo, Sri Lanka

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Author's response to reviews: see over
Dear Dr. Hesse,

Thank you for reviewing our manuscript (MS: 1472429255142873) entitled “The prevalence and correlates of alcohol use and alcohol use disorders: a population based study in Colombo, Sri Lanka”, for consideration of publication in the Journal of affective disorders. We have addressed the recommendations suggested by the reviewers below and we hope that these are sufficient to address their concerns.

The manuscript contains 4 Tables.

Thank you for re-considering this work.

Yours sincerely,

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Response to Editor

1. Please add a statement to say that the ethics committee waived the need for parental consent.

We did not gain explicit approval from the ethics committee allowing us to waive parental consent. Instead, when the protocol violation was discovered, we disclosed this to the ethics committee who thought there was no need for any further action. Given that we did not have parental consent for those participants, we now submit a manuscript which has removed those individuals from all analyses. This makes no substantial difference to our findings. We hope this is acceptable.

Response to reviewers:

Reviewer 1: Aravind Pillai

1) Reviewer 1 raises concern over the representativeness of the current sample ‘To estimate the prevalence and correlates of AUD in the general population, an important assumption has been made, i.e. twins included in the study are representative of the general population. Yet, the mean of age of twin were significantly higher and they were less likely to be alcohol users (58.3% twins vs. 72.3% singleton.) This difference in alcohol use was significant even after controlling for age, thus it looks like singletons were about 40% more likely to be alcohol users compared to twins. Hence, I am not convinced that the sample used in the study to estimate the prevalence is true to the general population. Nevertheless, the findings are broadly in agreement with other studies from the region and the authors may want to explain this discrepancy or mention this as a limitation of the study.’

We note the reviewers concern over the representativeness of the current sample due to differences in alcohol use between twins and singletons. Although significant, the difference, 15%, is relatively modest (58.3% of twins use alcohol compared to 73.7% of twins). We have, however, added a sentence to the discussion to address this issue.

‘Our sample consisted of both twins and singletons and whilst they were matched in terms of locality there were some differences between them on relevant variables including alcohol use which may affect the generalisability of the results.’ p14

2) The study population is limited to urban and semi urban regions of Colombo and is not be nationally representative. Though this is mentioned in the discussion, I would suggest modifying part of the title to “a population based study in Colombo, Sri Lanka”

Thank you for this suggestion. We have now modified the title to include ‘Colombo’. The title is now:
‘The prevalence and correlates of alcohol use and alcohol use disorders: a population based study in Colombo, Sri Lanka’ p1

3) Please include the number of participants from each group (twins and singletons) and refusals in the results. Add the number of participants (n) to the prevalence and symptom profile described in the results.
We have provided participation rates in the methods section of the manuscript:

‘Of these, 4,387 twins were randomly selected to take part in the CoTASS project, a total of 4,024 (91.7%) agreed to participate. A parallel singleton population was randomly selected from the same local area from which the twins were recruited. Of those contacted (N=2,311), 2,019 (87.4%) agreed to participate.’ p5

The number of male participants is given in results tables 1 and 2. However, we have now added the total N (including females) to the results section. Thank you for the suggestion.

‘The 12-month prevalence of alcohol use was 22.7% (95%CI: 21.6-23.7) in the current sample (N=6012). ’ p8

4) Missing reference: Introduction 2nd paragraph, line 65

We have now included the reference (Line 66, p3). We thank the reviewer for highlighting this omission.

5) Suggest updating the prevalence figures from Sri Lanka reported in the introduction, 2nd paragraph with latest version of WHO global status report (2014)

We have now updated the information to include results from the latest WHO global report status (2014).

The WHO global status report on alcohol and health [6] which used data from the WHO global survey on Alcohol & Health (2012) in addition to other surveys conducted in the respective countries estimated the prevalence of lifetime ever alcohol use in Sri Lanka at 43.1% of men and 19.5% of women. However, frequency of past year abstinence (person not having drunk in previous 12 months) were as high as 72.8% in men and 90.1% of women. The 12-month prevalence of AUD has been estimated at 5.6% in men and 0.6% in women [3]. Previous research suggests the low rates of alcohol use are largely explained by cultural influences [7]. p 3-4

6) Describe the PAF and its interpretation from table 3 in the result.

We have now added this to the results section.

Please see:

‘The population attributable fraction which indexes the proportional reduction of population alcohol use/AUD if exposure to low standard of living was eliminated, ranged between 0.1 for alcohol abuse and 0.4 for alcohol dependence.’ p10

Reviewer 2: Thilini Rajapakse

1. Method: The study sample consists of twins identified via an annual census in Colombo, and a parallel, singleton population selected from same areas as the twins were located (lines
112-119). Given this participant selection, is not clear how these findings could be generalized to the overall urban population/population in Colombo. Could the authors please clarify this issue further? – particularly since one objective of the study is to describe the epidemiology of AUD in a representative sample of the Colombo district (line 93)

All 13 divisional secretariat divisions (DSDs) of the Colombo district (Colombo, Thimbirigasyaya, Rathmalana, Dehiwala, Hanwella, Maharagama, Kaduwela, Kolonnawa, Homagama, Kesbewa, Padukka and Kotte) were surveyed. The return rate was lowest in the most densely populated areas (Colombo (49.6%) and Thimbirigasyaye (32.6%)) and highest in the semi-urban areas to the East of the capital (Padukka (82.8%) and Hanwella (88.0%). A random sample of twins were selected from this database. We therefore believe our sample to be broadly representative of the Colombo district. We have included this information in the methods section. Please see below:

‘Twins were identified by adding a question to the annual census which asked whether the householder knew of any twins. All 13 divisional secretariat divisions of the Colombo district were surveyed. Using this method, 19,302 twins were identified. The return rate was lowest in the most densely populated areas (Colombo (49.6%) and Thimbirigasyaye (32.6%)) and highest in the semi-urban areas to the East of the capital (Padukka (82.8%) and Hanwella (88.0%). Of these, 4,387 twins were randomly selected to take part in the CoTASS project, a total of 4,024 (91.7%) agreed to participate.’ P5

2. Line 245-247: “Second, women may show higher adherence to the religious guidelines, such as strong opposition to the use of any addictive substance in Buddhism, the major religion in Sri Lanka” – is there any data to support this surmise?

We thank the reviewer for bringing our attention to this omission. We have now added a reference for this statement.

‘Second, women may show higher adherence to the religious guidelines, such as strong opposition to the use of any addictive substance in Buddhism, the major religion in Sri Lanka [22].’ p11