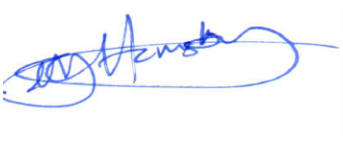
7 May 2021

To: Prof Rebecca Xing
Editor: Brain Sciences

RE: Response to Reviewer 1 (Manuscript ID: brainsci-1179335)

The authors wish to thank Editor for the opportunity to resubmit and the reviewer for the very valuable comments and suggestions. We provide a point-by-point response to each comment (highlighted in yellow) below. We also indicate where revisions were made in the manuscript and attach the revised manuscript titled, "The use of magnetic resonance imaging techniques in assessing the effects of alcohol consumption and heavy drinking on the adolescent brain: a scoping review protocol".

Sincere regards



Ms. Nancy Hornsby
On behalf of co-authors

Reviewer 1 Comments:

This study presents a scoping review protocol on the use of MRI in assessing alcohol consumption effects on the adolescent brain. Heavy drinking during adolescence has been shown to induce adverse structural brain changes. The aim of the study is quantifying and evaluating the quality of the studies in which MRI techniques are used to estimate regional brain deficits among heavy drinking adolescents.

The authors present a protocol following the guidelines in (Arksey and O'Malley 2005) scoping review methodology framework. They will present the results using Preferred Re-porting Items for Systematic Reviews and Meta-Analyses [PRISMA] extension for Scoping Reviews (PRISMA-ScR) guidelines. In order to assess the trustworthiness and the relevance of published papers, they use the critical appraisal tools provided by Joanna Briggs Institute.

The study relevant important in the sense where the effects of alcohol consumption on adolescents' brain have been studied intensively but not many reviews have been published to highlight the findings especially that adolescence is a critical period for brain development. This study will summarize the scope of evidence and synthetize the findings of this problematic through the quantification and the evaluation of existing studies.

The paper is well written but it is not sufficiently substantial to be published. The study needs to be supplemented with the results. The authors should provide the statistics of the literature findings (number of papers, included and excluded papers…), present the extracted variables, perform the analysis and draw their conclusions. They can resubmit their paper then.

RESPONSE: The authors thank the reviewer for the valuable comments. The current submission is a protocol/blueprint for the methods that will be used to conduct a scoping review on the proposed topic. The actual scoping review that will follow from this protocol will present the findings (PRISMA flow diagram, papers included, characteristics of included papers, qualitative analysis, quality appraisal of included studies), discussion and conclusions will be reported. At this point the data searches have been conducted. The protocol provides the plan for the review and results are not yet available. It is now considered best practice to publish the detailed methods for scoping reviews prior to conducting the literature searches and extracting the data.

Additionally, there are some issues that need to be resolved.

- The paper is not very well organized. The authors should review the structure of the paper and improve it.

RESPONSE: We thank the reviewer for this comment and realise that the protocol headings and stages of the review process were somewhat unclear- we have restructured the headings for clarity. The protocol is structured according to guidelines for reporting systematic and scoping reviews of the literature (including Cochrane). We followed the structure template of previous published systematic review protocols-

The protocol stages are not very well highlighted. They are embedded in the sections' paragraphs and are not very well highlighted. The authors should follow a logical structure like in () to facilitate the reading and the comprehension of the protocol.

RESPONSE: The headings in the original submission were not numbered; this was perhaps an artefact of the journal formatting? We have removed the numbering of the headings.

- The sections titles are not very informative. Please improve and extend the titles so that they are more meaningful. (replace method with methodology, database as a title is not very informative…)

RESPONSE: The heading 'Method/ was changed to /Methodology' (pg. 3); heading 'Database' was changed to 'Search strategy and data sources' (pg. 4)

-The main question is stated very broadly. The authors should give more details and decompose it into sub-questions so that the reader understands all the steps of the study.

RESPONSE: We have deconstructed the broad research question into two separate parts:

a) To what extent have magnetic resonance imaging techniques been used to assess regional brain region associated with adolescent alcohol use and HED? and;

b) What is the strength of the evidence on magnetic resonance imaging of regional brain deficits in adolescents with alcohol use and HED?

(See pg. 4)

Minor issues

- The authors should not number the introduction section

RESPONSE: See previous response; the sections/headings were not numbered in the original submission. We think this may have been due to the journal formatting. Numbering have been removed.

-Section method Stage 2: Identifying and searching relevant studies: the authors should start by searching and then identifying

RESPONSE: This heading has been changed accordingly (pg. 4)