Reviewer’s report

Title: Depression in Medical Students: insights from a longitudinal study

Version: 0 Date: 27 Nov 2016

Reviewer: Ricardo Coentre

Reviewer's report:

This is an interesting manuscript which is not new, however it is relatively unusual in Portugal with only few studies published in this field of knowledge. The manuscript is generally well written and the longitudinal design is very elegant.

Some minor changes should be done:

1) Abstract

   a) Methods: Authors should include more data: number of students included; response rate; and years of medical school evaluated. Also, the country (Portugal) where it was performed should be specified (for example: "Students of one medical school in Portugal were assessed …"

   b) Results: when authors say "For depression, the prevalence ranged from 21.5% to 12.7%", it should be specified what are the years of medical school for each prevalence found.

2) Background

   a) This part of the manuscript should be revised when reviewing published data. A possible sequence of the published data could be: published data on prevalence of depression in medical students, comparison with prevalence of depression in general population, evolution of prevalence of depression during years of medical school, factors associated and aims of current study.

   b) Authors should mention recent published previous studies in this field with Portuguese medical students included.
Some references:

- Evaluation of the level of depression among medical students from Poland, Portugal and Germany.
  
  Seweryn M, Tyrała K, Kolarczyk-Haczyk A, Bonk M, Bulska W, Krysta K.
  
  Psychiatr Danub. 2015 Sep;27 Suppl 1:S216-22

  - Assessment of depression and suicidal behaviour among medical students in Portugal.
  
  Coentre R, Faravelli C, Figueira ML.
  

c) Page 5: Besides aims or questions of current study, authors should also include hypotheses for the aims.

3) Methods

When authors mentioned the academic years included, 2009/2010 is many times referred to as "2009/1010". Please read all the manuscript and correct this error which exists few times.

a) Participants

Please make clear if foreign students that were studying in medical school of University of Minho were included or not.

b) Outcomes

Page 6, paragraph 3: When mention the instruments (scales/inventories) used, namely BDI, STAI and MBI-SS) please describe briefly the instruments (e.g.: number of items/questions, possible scores etc.).
Page 7, paragraph 1: Authors mention that MBI-SS is translated to Portuguese. Is this validated to Portuguese population? If not, authors should clearly refer this as a limitation of the instrument in Strengths and limitations section.

4) Analysis

a) Authors should not mention question 1 or question 2 in the manuscript and referred the aim (e.g.: prevalence of depression, prevalence of depression over time etc.). Please do this along all the manuscript (including subtitles).

Examples

Analysis, paragraph 1. "For study prevalence of depression we included all students...."

Participants, paragraph 1: "For prevalence of depression question 1 the average response rate was 86%"

Results: Prevalence of depression (question 1)

b) Page 7, paragraph 3: Authors should remove the sentence "Being depressed was defined in this study as a score of 13 or greater in BDI" in Overall approach section in Analysis, it is mentioned in Outcomes section in Methods.

5) Results

Page 8, paragraph 4, Prevalence of depression: Please specify year of medical school where referred prevalences of depression were found. Do the same with prevalence of suicidal thoughts.

6) Discussion

a) As in Background section, in Discussion section authors should compare the results found in current research with Portuguese general population data, and other previous published studies in medical students in Portugal (please see references in Background point b).

b) Page 16, paragraph 1: "Other interventions, including cognitive behavioural training, psychotherapy, counselling, adaptative and communication skills training, social support can be offered as part of the curriculum". Authors should give references that proved efficacy of all mentioned interventions.
7) Strengths and limitations

a) Page 16, paragraph 2: Authors should correct the following sentence "The major strengths of this study are its longitudinal design" for "The major strength of this study is its longitudinal design".

b) Page 17, paragraph 1: Please clarify the following sentence/idea: "Objective individual factors, such as genetic or biological (for example: salivary cortisol levels and physical examination parameters) can also be a useful tool."

8) Figures/Tables

Table 1 and figure 2 are quite redundant and so authors should remove Figure 2.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
Declaration of competing interests

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal