Reviewer's report

Title: Detecting depression among adolescents in Santiago, Chile: gender differences

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Reviewer: ROBERTO NUEVO

Reviewer’s report:

This is an analysis of gender differences in the BDI-II psychometric properties in a sample of Chilean adolescents. Given the relevance of depression and the marked differences between men and women appearing in the adolescence, this is a very relevant work. And, as explicitly stated by the authors, there is a lack of such analyses, while use of questionnaires for assessment, and specially as screening tools, should involve specific studies of its psychometric properties with samples so similar as possible to the target population. The manuscript is well structured, and the statistical analyses seem sound and adequate. There are, however, several issues that could be considered in order to improve the quality of the paper:

Major Compulsory Revisions:

1) Number of cases with depression is reported at table 4. It should be interesting having this information explicitly in the text too, additionally reporting standard errors, and tests of differences between groups.

2) Given the focus of the work in differences in depression according to gender, it should be very interesting to analyze measurement invariance of the BDI-II between men and women, for instance through multi-group confirmatory factor analysis. If you cannot assume such invariance, the rest of comparisons do not make sense, so if sample size allows performing that type of analyses they could be very informative.

3) In table 3, instead of communalities (which can be easily calculated from factor loadings) you should provide standard errors.

4) If they are available, it should be useful knowing other fit indices, such as chi-square (with DFs) or RMSEA (with CIs). Likewise, updated cut-off criteria for fit indices should be considered.

5) Information regarding sample size adequacy would be helpful, such as Hoelter's index.

6) Chronbach’s alpha is not considered an adequate estimator of reliability. Raykov’s rho, for example, could be a good alternative. See Bentler (2009), Alpha dimension-free, and model based internal consistency reliability, Psychometrika, 74, 137-143, for alternatives (full text available in: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786226/).
7) Clinical diagnosis was performed for only one person. This limitation should be explicitly included in the discussion.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.