Reviewer's report

Title: Social, behavioral, and sleep characteristics associated with depression symptoms among undergraduate students at a women's college: A cross-sectional depression survey, 2012

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Reviewer: Liisa Hantsoo

Reviewer's report:

1. In the Background, the authors mention that “Studies among female undergraduate students have identified sleep deficit [12], lack of certain types of exercise [22], and binge eating [23] as predictors of depression.” Do these factors predict depression in a prospective / longitudinal manner, or are they simply associated with depression?

   a. The authors did respond to this item, that now states “Prospective observational studies among female undergraduate students have identified sleep deficit [12], lack of certain types of exercise [22], and binge eating [23] as predictors of depression.” They here state that the three studies cited (12, 22, 23) are prospective. However, it appears that only the third citation (23) is truly a prospective study.

2. In the Methods section, the authors state “The survey instrument collected self-reported information on students' demographics, individual behaviors,…” What were these behaviors? How were they assessed? Were these single-item questions? Were they drawn from established instruments? If students were merely asked to rate their sleep quality (E.g. poor, good, excellent), were the students provided metrics / definitions for what constitutes “good” sleep quality? The authors do not mention use of a well-validated measure, such as the PQSI. How was "overall health" measured / operationalized? Similarly, the results/data refer to "social support group" - how was this defined?

   a. The authors removed reference to surveying “individual behaviors.” However, they still rely on single-item questions, devised by the authors themselves and not included in the manuscript, to assess sleep quality and social support. Sleep quality and social support are two of the main outcomes in the study, and the authors focus greatly on the sleep and social support findings in their Results and Discussion. (e.g. Discussion: “Previous history of a mental disorder and the absence of a self-reported strong social support group remained significant predictors of depression … students with poor sleep quality had approximately 2.8 times the odds of depression (by both CES-D and DASS-21) compared to that of students who reported higher quality sleep.” However, these findings are based only on two single-item questions devised by the authors. In fact, it is difficult to evaluate these results as the single-item questions are not even included in the Methods.
3. In the Discussion, the authors describe their findings on sleep and depressive symptoms in the context of previous research. However, the same is not done for their findings on social support or mental health history. Why is this? The fact that strong social support was associated with depressive symptoms is surprising in the context of previous research, and the authors should explain their results further. Previously, they mention that it is ABSENCE OF strong social support that’s associated w depression - which is it?

a. The authors have added one sentence to the Discussion on the association between social support and depression. There should be further description – in general, the Discussion would benefit from more detail and development.

Level of interest: An article of limited interest

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.