Reviewer’s report

Title: The Buffering Effect of Relationship Satisfaction on Emotional Distress in Couples

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Reviewer: Steven Beach

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The Buffering effect of Relationship Satisfaction on Emotional Distress in Couples

This interesting report on a large sample of pregnant women and their partners will make an important contribution to the literature on marital processes and depression/well-being/anxiety. I particularly appreciated the attention to a number of potential risk factors and the examination of main effects as well as interaction effects involving relationship satisfaction. The findings are consistent with the available literature but also substantially extend it. I have some observations that may contribute to further strengthening the manuscript.

Major Compulsory revisions - none

Minor essential revisions:

First, the description of the sample size and how it ultimately results in the effective sample used in the analyses is somewhat unclear despite substantial attention to describing missing data and the number of data points available. I believe this could be presented in a straightforward way by recapping all steps in the process of creating the final sample on page 14. That is, the authors might say that "90,190 women and 71,648 men were initially recruited to participate in the study, representing XXXXX complete couples. However, for 6542 women and 6586 men it was not possible to impute one or more key study variables resulting in a final, usable sample of 83,648 women and 65,062 men who comprised 62,956 usable couples. " As a side note, it appears that the percentages given at the top of page 14 are incorrect (reversed for men and women). The percentage missing should be larger for men than for women because the denominator is smaller and numerators are similar.

Second, the analyses reported in tables 1 and 2 would probably be more informative if the one of the columns reported a standardized Beta weight for each variable, allowing direct comparisons across predictors. Currently the authors do not clearly define what they mean by "crude b" and "adjusted b" and this makes the table less clear than it could be. Prior to the current table 1 and table 2 it would be appropriate to provide a correlation table for all major variables in the analyses as well as the means and standard deviations for non-dichotomous variables.

Third, I would recommend against calling out the tables 3-6 all at once on page 16. The simplest solution may be to simply drop the section with the sub-heading
"Interaction effects" and move on to the next section.

Fourth, on page 18 I would recommend against including RS as one of the risk factors included in the calculation of overall impact of partner relationship satisfaction. Including own RS makes the results presented in the two figures non-comparable.

Discretionary revisions:

On page 7 - use "buffering hypothesis" and "buffering effect" rather than "buffer hypothesis" and "buffer effect." Likewise on page 19, use "buffering effect" rather than "buffer effect."

On page 13, the description of the use of mean substitution is either not adequately described or is not persuasive. It is not customary to use mean substitution to replace missing values because of its effect on reducing standard deviations around the resulting grand mean. The authors should explain why this was not a problem in this case.

On page 17, the sentence "All, except from one, significant effects...." should be "All except one of the significant effects...."

Level of interest: An article of outstanding merit and interest 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'