Reviewer's report

Title: To predict factors associated with Breast Self-Examination behavior in a sample of Iranian women: An Application of Health Belief Model

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Reviewer: Paul Norman

Reviewer's report:

The manuscript reports an interesting study applying the Health Belief Model (HBM) to the prediction of breast self-examination among Iranian women. The manuscript is likely to make a positive contribution to the literature given that are no other HBM studies on BSE in Iran. In addition, the relatively large sample and the use of Champion’s HBM scale are positive features of the study. Nevertheless, there are a number of ways in which the manuscript could be improved especially regarding the description of the BSE measures and the data analysis where a logistic regression analysis is likely to be more appropriate.

Major Compulsory Revisions:

1. The manuscript would benefit from thorough copy editing by a native English speaker.

2. Page 4. More information is needed on the BSE measures. How many questions were asked? What was the wording of these questions and what were the response categories? Such information is needed to be able to interpret the results.

3. Page 5. It is necessary for the reader to know what the response options to the BSE questions were to be able to fully interpret the results (see point 6). The results for each BSE question need to be reported.

4. Page 5. Given that the authors have compared women who do versus do not perform BSE (Table 1), I was surprised that they didn’t then report a logistic regression analysis to examine the independent contributions of the HBM variables to the prediction of BSE performance. This analysis should also control for the effects of any sociodemographic variables that are associated with BSE performance. The regression analysis should employ a hierarchical (or direct entry) procedure whereby any sociodemographic variables that are associated with BSE performance are entered in block 1, followed by all of the HBM variables in block 2.

5. Page 5. The use of stepwise regression analysis should be avoided as it is atheoretical. The ability of the HBM to explain variance in BSE should be considered as a whole followed by an examination the unique contribution of each construct. All of the HBM variables should be entered into the regression model (after first controlling for the effects of sociodemographic variables that are
associated with BSE). In addition, the frequency measure (which forms the DV in the current analysis) is likely to be highly skewed, given that most women didn’t perform BSE. As a result, the use of a linear regression analysis might be inappropriate. A logistic regression analysis using performance versus non-performance as the DV might be more appropriate (see previous point). If the linear regression analysis is retained, then it would be necessary to report the correlations between the HBM variables and BSE performance.

6. The practical implications of the results need to be expanded. How would one increase self-efficacy. The authors should refer to Bandura’s work on the sources of self-efficacy.

Minor Essential Revisions:

1. The title could be more concise – e.g., An application of health belief model to the prediction of breast self-examination in Iranian women

2. The abstract is clear, but (i) there’s no need to include information on the response choices and (ii) the R-square value from the regression analysis should be reported.


4. Page 4. The description of the HBM should be deleted from the method section as it is already described in the introduction.

5. Table 1. Include details of the n's for each group. Report the t values in the table.

6. Page 4. It would be useful to include example items of the HBM measures.

7. Page 4. It is questionable whether it is necessary to include a data analysis section.

8. Page 6. The results of the study should be compared more closely with other Iranian (or Asian) studies than with studies that have examined migrant ethnic groups.

9. Page 6. Is there any evidence for the conclusion that the low rate of BSE is due to low perceived susceptibility? Perceived susceptibility failed to distinguished between the two groups in Table 1.

10. Page 6. How do the ratings of the perceived seriousness of BSE compare to those reported in other studies?

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests