Reviewer's report

Title: Health professionals’ provision of evidence-based physical activity advice: A theory-based multiple behaviours approach

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Reviewer: Gaston Godin

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The aim of this project was to test if goal conflict and goal facilitation add to the Theory of Planned Behaviour in predicting goal directed behaviours among health professionals. In fact, this is a test of the assumptions of the TPB. This is an interesting research project, and I was looking forward to reading the paper. However, I found several methodological problems that have lowered my enthusiasm.

Major points:

There are three main major methodological problems: too low sample size; absence of information on the reliability of the theoretical variables tested; absence of information on the validity of the self-reported dependent variable.

1- Regarding sample size: It is well known that tests of the TPB (especially if based on multiple regression) would require a much larger sample size. Moreover, if the aim is to test the theory, structural equation modeling is now the acknowledged approach. A sample size of 44 respondents cannot be accepted for this type of theory testing.

2- Regarding the reliability aspect: The authors have used “one” item each to assess each theoretical variable. Again, test of a theory should be based on “known” psychometric qualities of the variables. One cannot accept as granted that the construct were correctly measured without this information.

3- Regarding the validity of the dependent variable: Given that it is a self-reported measure, we should at least be provided with its reliability value.

I have noted the arguments listed by the authors in the discussion to support their methodological approach. However, these have not convinced me of their relevance in the present context. For instance, when only one item per construct is used, this should at least be controlled by using a large sample size and providing test-retest reliability. Also, it is not because others have published studies based on small sample sizes that it is justified to continue this practice nor to accept this practice. In summary, the authors have an interesting theoretical idea, but the present study is not methodologically acceptable.

Level of interest: An article whose findings are important to those with closely related research interests
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'