Comments To authors

Changing attitudes to health compliance through repetition of persuasive messages in the COVID-19 pandemic

Thank you for the opportunity to review this manuscript. Overall, the manuscript is good in its idea and authors tried to explain attitudes to health compliance through repetition of persuasive messages in COVID, which needs urgent evidence to act upon it. I have major issues in the hypothesis and method sections, particularly, the sample size and analysis plan. Specific comments are below.

Abstract

1. Line 2 - 4: Your abstract needs modification. How you relate fear with health messages is not clear. Health messages are not necessarily be fearful I suggest that you improve the description at lines 2-4 to provide more description for rationale.
2. Line 5 - 6: The title doesn't tell about the first aim ("EPPM in naturalistic context…")...rather it focuses only on the second objective.
3. Line 12-13: The study aimed to compare one vs two-time messages. However, the description in line 12-13 ('the times of exposure') and also in the main manuscript looks as you have multiple exposure times. It is not possible to assess the association of the 'times' of exposure with response efficacy. The difference between one vs two messages might not be necessarily equal to the difference in two vs three messages. Your interpretation seems continuous exposure variable but it is binary.
4. You described the association between health proposal on Susceptibility. However, it is not clear what kind of susceptibility you referring for, physiological or perceived. I think you mean perceived susceptibility. Be explicit in description.

Research question

5. In your research question, line 28-29 you described "to examine how people health compliance intention is influenced by various factors…….". This research question is not reflected in the title. Your title needs modification to accommodate most of the research aims.
6. Your description of the rationale in Line 35-36, you mentioned as there are inconsistent findings. It needs more elaboration on the inconsistent findings by providing necessary studies.
7. In line 84-85 of the introduction, you mentioned that "*Even though the degree to which one is influenced by the pandemic may vary, the cognition of its perceived threat can*

be developed spontaneously." However, the cognition of perceived threat also vary to a large extent as the influence varies.

Hypothesis

8. In this study, a number of hypotheses are being tested. Multiple comparison is still an issue. As you are evaluating the statistical significance of multiple parameters in a model, the type I error is expected to inflate. You should describe how to control the multiplicity issues. What type of statistical adjustment will you use?
9. The way you write the hypothesis needs modification. It looks, in any way the hypothesis is true regardless of the data.

I suggest to formulate it like;

H1: Perceived efficacy has a positive/negative/ (depending on whether one- or two-sided test) effect on self-efficacy.

H0: Perceived efficacy has no effect on self-efficacy.

Sample size

10. In line 197-199 you described how you determine sample size. However, the sample size calculation is not clear. The '***findRMSEAsamplesize'*** function of R requires a degree of freedom to calculate sample size and the sample size varies accordingly. What degree of freedom did you used? How much is the expected dropout rate and you need to adjust for it as well.

Inclusion criteria

11. In you inclusion criteria, in line 222-224: Will you use the nationality as screening or they will fill out the questionnaire regardless of their nationality?

Data exclusion

12. The data exclusion and sample size adjustment is not clear. Needs more elaboration.
13. In line 246-247 of the data exclusion section you mentioned that participants with SD of 0 will be excluded. I didn't get the reason to exclude the participants with SD of 0. The measurement is only twice, it is highly possible to have same score i.e. SD of 0. Why you exclude them?

Quality check

14. The quality check and control needs descriptions in detail what quality checks will be performed during the design, data collection, and management.

Analysis plan

15. It is recommended to use Tucker–Lewis index in addition to RMSEA and CFI to assess the model fit.
16. Table: you frequently mentioned “Based on a preliminary experiment….”. Could you cite the results of the preliminary experiment or upload as supplementary material?
17. The interpretation column of the table need to be revised. The one written here is a general rule not specific to your study and context. It is also a redundancy from the hypothesis section.
18. The table in the analysis plan is not relevant. All are redundancy from the hypothesis section and sampling. You can summarize it using a single paragraph or simple table provided that there is no specific analysis for each hypothesis.

Questionnaire

19. Page 24: The items looks similar. Any validity test for these items? How is the inter-item correlation of the questionnaire? In general, the psychometric validity of all the tools to be used need to be described in detail.

Validity of the findings

20. As a protocol, I couldn’t assess the validity of the findings comparing with the data.
21. You mentioned about the preliminary experiment, however, neither the data nor the results are provided.

Minor comments

- Line 11-12: It says “SEM is used to....” As it is a protocol, it needs to be corrected to “SEM will be used….”
- You repeatedly used the phrase “we predicted” for instance line 12, 15… You mean hypothesized? These two terms are different.
- Line 108-111: Put the direct translation of the message in English.
- Line 254-256: This sentence should be part of the exclusion not the quality control
- The description written in the “Sampling plan” column of the Table is repetition. You should remove it.
- RMSEA, CFI – Put the long form at first instance - root mean square error of approximation (RMSEA), comparative fit index (CFI).

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