

Document Cover Page

Full Analysis Plan

Study Title:

Enhancing COVID-19 Vaccination Intentions by Eliciting Prosocial Altruistic Motives:
Evaluating the Efficacy of a Brief Video-Based Intervention

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Analysis Plan

Sociodemographics

For baseline sociodemographics we calculated proportions, means (and standard deviation, SD) and used the Pearson Chi-Squared Test and the Welch two sample t-test to evaluate if the two study groups differed significantly.

Objectives 1 and 2.

At baseline and post-intervention and for each of the study groups we calculated the proportion of participants in each of the four PAPM intention stage i.e., *unengaged*, *undecided*, *decided not*, and *decided to*. For each study group we calculated the pre-to post transitions in intentions to receive the COVID-19 vaccine. To estimate the pre-to-post intervention change in vaccine intentions we used a binary outcome (i.e., Vaccine intenders corresponding to the stage *decided to*; and Vaccine non-intenders that included stages *unengaged*, *undecided*, and *decided not*) and the McNemar's Chi-squared test. Post intervention, we estimated the between group difference in vaccine intentions using the four-stage PAPM outcome and the Pearson Chi-Squared Test.

Exploratory Analyses with PAPM stages

To estimate pre to post changes in PAPM intention stages we conducted exact tests of symmetry (4x4 contingency tables) that comprise pairwise McNemar tests (using the “nominalSymmetryTest” function available in the R package “rcompanion”) (1). For each study group we used the significant transitions between vaccine intention stage pairs for calculating the total number of participants that changed towards increased vaccination intentions (e.g., from *undecided* to *decided to*) and estimated the between-group difference using the Chi-squared two-sample test for equality of proportions.

All statistical analyses were conducted using the R software v. 4.0.5.(2).

References

1. Mangiafico S. Package 'rcompanion' 2022 [Available from: <https://cran.r-project.org/web/packages/rcompanion/rcompanion.pdf>].
2. R Development Core Team. R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing Vienna, Austria 2005 [Available from: <http://www.R-project.org/>].