Reviewer’s report

Title: Limits of the social-benefit motive among high-risk patients: A field experiment on influenza vaccination behaviour

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Reviewer: Lynne Sturm

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The authors are to be commended for probing further into the possible role of altruistic/prosocial intentions in decisions to vaccinate, and better yet, actual vaccination behavior. They target an important subject group of adults considered at medical risk for flu-related complications.

Conceptualization

1. What is meant by the flu vaccine being "…a reliable…solution" (p.3)?

2. The altruistic vaccination hypothesis is conceptualized as an emphasis on the "added social benefit" of vaccination above that accrued by benefit to self" (p.5). The current wording of the social benefit message does not seem to reflect "added value" per se. It implies that the benefit to self is secondary and in the service of benefit of society. "By getting the flu vaccine you can gain immunity against flu. You will thus lower the odds of transmitting flu to others around you." In turn, the visual portrays solely "Protect those around you" rather than "Protect yourself and protect those around you." I would argue that a more balanced message about protecting others links the two, with protection of others as a true added value. For example, "By getting the flu vaccine you can gain immunity against the flu and can also lower the odds of transmitting flu to others around you. So, protect yourself and protect those around you." Please address.

Methods

1. Why were subjective risk perceptions measures after the pamphlet intervention rather than prior to it? The authors wanted to test whether self- risk perceptions moderate the effect of the prosocial message on vaccination behavior, in which case measuring risk perception should have occurred prior to the intervention, not after. Please address.

2. Strengths of the methodology include using a clinical sample with actual vaccination behavior, and limiting extraneous verbal interaction between the researcher and the patients (p.8).

3. Where did the vaccination rate for the prior year of 16% (p.10) come from?

4. Offering a free vaccination ticket to share with friends or families is an intriguing outcome measure of prosocial attitudes. However, a follow-up contact with patients in which they report whether they distributed the ticket might be a better measure than measuring whether anyone returned to the hospital or not. Patients can distribute tickets without the recipients making their way back to the hospital.
5. Please indicate the relationship between medical assessment of risk and the patient self-assessments of risk.

Results

1. Presenting qualitative data in the supplementary information section does not seem appropriate and should be omitted. If patient descriptions of reasons for and against vaccination was part of the study, it should, in my opinion, be included in the Introduction of study aims (p.5), methodology described in Methods, findings summarized in the Results, and discussed in the Discussion.

2. In the Abstract, please rewrite to clarify non-significant findings (e.g., "42% of the patients in the self-benefit frame chose to receive vaccination as compared with 34% of the patients in the social benefits frame but the difference was not statistically significant (aOR=...").

   a. On page 12, the following statement is misleading: "Inconsistent with the hypothesis of altruistic vaccination, the social benefit message was not found to increase vaccination as compared to the self-benefit message. Instead, vaccination was 8 percentage points higher among those who received the self-benefit message than those who received the social benefit message, which was not statistically significant." Please rewrite.

3. Might another way to think about the findings be that addition of the altruism message did not depress acceptance of the vaccine? If part of our public health mission is to educate the public about community immunity (although not referred to as such in this paper), this is actually an encouraging finding.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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