Author's response to reviews

Title: Steering Teens Safe: A Randomized Trial of a Parent-Based Intervention to Improve Safe Teen Driving

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Author's response to reviews: see over
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Victorino Silvestre
Journal Editorial Office
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Dear Dr. Silvestre,

Thank you for the thoughtful review of the manuscript “Steering Teens Safe: A Randomized Trial of a Parent-Based Intervention to Improve Safe Teen Driving”. We have revised the manuscript based on reviewer comments and re-submit for your consideration. Based on comments from Reviewer 1, we have revised our analytic strategy to examine interaction between the intervention and parent communication, which is a stronger conceptual approach than applied in our first analysis. This strategy has made the results clearer to report (and, lucky for us, led to stronger findings). We appreciate the reviewer’s insightful comment. A detailed summary of our responses to reviewer comments is below. We appreciate the opportunity to revise.

RESPONSES TO REVIEWERS (responses in bold)

Editorial Requests:
1. We have added the date of registration to the trial registration number.
2. We have entered information into the webconsort website.
3. The abstract heading has been edited to “Methods”

REVIEWER 1
Major Compulsory Revisions: The analysis is not aligned with the conceptual/logic model and should examine the interaction of the intervention and communication [summary from review sheet].

Based on this comment, we have revised our analytic approach to examine the interaction of the intervention with communication through a stratified analysis. We agree this is a stronger conceptual approach. Based on these new results, we find that both the intervention and high communication are related to lower risky driving. Intervention groups with both high and low communication scores, for example, had a lower risky driving score than the reference group. And, control parents with a higher communication score had lower risky driving when compared with control parents with low communication.

Minor Essential Revision:
1. Risky driving behavior was not “reduced” (which implies a change over time) although it was lower in the intervention group.
Response: We have edited the language comparing risky driving behavior to include statements such as “intervention risky driving was lower than control risky driving” throughout.

2. Rather than reporting a range of confidence intervals, it would be more efficient to note the observed effect size.
Response: We have removed the majority of the multiple confidence intervals and report only the confidence limits up to the point of reaching significance. We have maintained the confidence limit ratio
because we believe this provides helpful information about the precision of the study estimates and because Reviewer 2 commented that these were helpful. See associated comment below. We believe the comparison of different confidence limits help assess the precision of the findings and are helpful to the reader. Furthermore, we hope to leave these in to demonstrate that the arbitrary choice of a 95% confidence interval (alpha level of 0.05) is not the only approach to describe study findings (and is not an appropriate choice when power is low).

REVIEWER 2
Major Compulsory Revisions: “Because the study was underpowered, the authors estimated 95% CI, 90% CI and 85% CI. The presentation of these confidence intervals puts too much focus on statistical significance. It is not traditional to present 85% CI. I would suggest that the authors simply present the point estimate and 95% CI. The authors do not need to mention alpha level at all. For example, the ratio comparing intervention with control is 0.79 for Risky Driving Score, and the 95% CI is 0.55 to 1.15. The width of CI is 0.60 (0.45 is < 1 and 0.15 is > 1), and CI is more compatible with a protective effect for intervention (Modern Epidemiology, Rothman, Greenland, Lash, 3rd Edition, page 156-163). The imprecision of estimate can be demonstrated by the ratio of upper confidence limit to lower confidence limit: 1.15/0.55 = 2.09.”

Response: In response to this comment as well as comments from Reviewer 1, we have removed most of the confidence intervals. As stated in response to Reviewer 1, we report only the confidence limits up to the point of reaching significance. We have maintained the confidence limit ratio because we believe this provides helpful information about the precision of the study estimates and because Reviewer 2 commented that these were helpful. See associated comment below. We believe the comparison of different confidence limits help assess the precision of the findings and are helpful to the reader. Furthermore, we hope to leave these in to demonstrate that the arbitrary choice of a 95% confidence interval (alpha level of 0.05) is not the only approach to describe study findings (and is not an appropriate choice when power is low).

Thank you for the thoughtful comments on this manuscript.

Sincerely,

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