Response to Reviewer 1 Comments

Dear Reviewer,

We really appreciate your constructive comments that have helped us to improve this manuscript. We appreciate the chance to revise the manuscript. Enclosed please find our revised manuscript that addressed all the comments made by the reviewers. Below we provide point-by-point responses to all the comments.

Thanks so much
Best regards,

Xiaorong Hou, Yong Zhao

The main corrections in the paper and the response to the reviewer’s comments are as follows:

Reviewer 1

Point 1: The introduction is too long. I recommend to some part of introduction to move the discussion section. (eg. results of previous studies)

Response 1: Thank you so much for your comments. As you suggested, we have deleted and merged certain contents in the fifth and sixth paragraphs of the introduction to make this part more concise. We have moved some previous findings to the discussion section.


Response 2: We are sorry for this oversight. We have now added references to the concepts mentioned in line 43-44. Please, see page 1-2, lines 43-46.

Point 3: In Method. The item questionnaire was developed by investigators based on literature. Did the authors check the validation of new-developed questionnaire? Was the questionnaire used in this study validated? (for example. Chronbach Alpha Coefficient for test-retest)

Response 3: Thanks for your comments. We refer to the review articles [1,2] and research papers [3–5] of framing effects to determine the questionnaire content of demographic characteristics. The content of prevention messages of simple obesity in preschool children were derived from clinical research [6,7], epidemiological studies [8] and clinical practice guidelines [9–11]. We processed these prevention messages into health framing messages according to the prospect theory and construal level theory. We used expert judgment to ensure the validity of the questionnaire. The content of the questionnaire was finalized after several discussions by an expert group.

In March 2019, the pre-survey investigated 31 caregivers to test the reliability of the questionnaire. The Cronbach’s alpha of the questionnaire (demographic characteristics and framing messages) was found to be 0.817. The Cronbach’s alpha for the framing messages materials was 0.893. The Cronbach’s alpha of this questionnaire > 0.8 indicate that the newly-developed questionnaire had good reliability.

We have added these to the section 2.3. Please, see page 3-4, lines 120-128.


Point 4: In Result. The participants were survey by both online and offline. I recommend to compare the demographic characteristic between the two groups. Were there differences between two groups? This means the method of survey could affect the study's result.

Response 4: Thanks for your comments. We agree with your opinion. We have revised this section as below:

We compared the demographic characteristics between the online and offline groups, and found that there were differences between the two groups, but these differences did not have any significant impact on our results.

Firstly, we have compared the demographic characteristics between the online and offline groups by chi square test and found that there were differences between the two groups. ($p < 0.05$) The specific performance is as follows: In the online group, the number of caregivers who are grandparents is a little less than the offline group, and the number of caregivers who are female, high education background and pay high expenses for children's dietary are more than the offline group. The career category of the online group is dominated by administrative organs, soldiers, teachers, medical staff, scientist and commerce, while the career category of the offline group is dominated by workers and commerce. We thought these differences are inevitable due to the differences in investigation methods. According to the 43rd (2019) report released by the China Internet network information center (CNNIC), China's elderly population has 54,714 million netizens, accounting for 6.6 percent[12]. As a result, grandparents were more likely to participate in our survey when conducted offline surveys. Stern et al.(2012) found that social groups in which women are home health caretakers are more likely than men to consult the Internet and health professionals[13]. Our research also shows that women are more active than men in online surveys. McCleary et al. found that people with higher education levels were more likely to use the Internet to access health information[14]. Our results also support this conclusion. Career category, income, and education background are closely related and people with higher education are more likely to get good job opportunities and high income[15].

In order to explore whether the survey method would affect our results, we took the survey method as a variable to compare the caregivers' acceptance choices to framing messages again. First, we have divided the choices made by caregivers under each theme into two groups, 283 in the online group and 222 in the offline group. We used chi square
test to compare whether there were differences in framing message selection between these two groups. The results are shown in Table 1, In Dh, $\chi^2 = 28.489$, $p < 0.000$. In Db, $\chi^2 = 2.913$, $p = 0.405$. In Pa, $\chi^2 = 0.932$, $p = 0.818$. In Sf, $\chi^2 = 3.204$, $p = 0.361$. Only under the theme of Dh, there were statistical differences in the choices of online and offline groups. GP is the most acceptable option for both online and offline groups, and gain-framed message and present-oriented message are also dominant. We thought that $N = 505$ as the whole is reasonable and applicable to show the selection results of framing message.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Framing Type</th>
<th>GP Message</th>
<th>GF Message</th>
<th>LP Message</th>
<th>LF Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary habits (Dh)</td>
<td>Online</td>
<td>385 (76.2%)</td>
<td>43 (8.5%)</td>
<td>63 (12.5%)</td>
<td>14 (2.8%)</td>
</tr>
<tr>
<td></td>
<td>Offline</td>
<td>204</td>
<td>16</td>
<td>52</td>
<td>11</td>
</tr>
<tr>
<td>Dietary behaviors (Db)</td>
<td>Online</td>
<td>182 (35.8%)</td>
<td>11 (2.4%)</td>
<td>253 (50.1%)</td>
<td>59 (11.7%)</td>
</tr>
<tr>
<td></td>
<td>Offline</td>
<td>107</td>
<td>4</td>
<td>137</td>
<td>35</td>
</tr>
<tr>
<td>Physical activities (Pa)</td>
<td>Online</td>
<td>304 (60.2%)</td>
<td>125 (24.8%)</td>
<td>38 (7.5%)</td>
<td>38 (7.5%)</td>
</tr>
<tr>
<td></td>
<td>Offline</td>
<td>172</td>
<td>66</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Sleep factors (Sf)</td>
<td>Online</td>
<td>276 (54.7%)</td>
<td>177 (35.0%)</td>
<td>30 (5.9%)</td>
<td>22 (4.4%)</td>
</tr>
<tr>
<td></td>
<td>Offline</td>
<td>151</td>
<td>101</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

In Dh, $x^2 = 28.489$, $p < 0.000$. In Db, $x^2 = 2.913$, $p = 0.405$. In Pa, $x^2 = 0.932$, $p = 0.818$. In Sf, $x^2 = 3.204$, $p = 0.361$.

Second, we added the variable of survey method into the binary logistic regression model for goal framing. Results showed that SE = 0.205, Wald = 71.492, OR = 3.205, $p = 0.154$. (p > 0.05) The variable of survey method has no statistically significant effect on goal framing. Third, we added the variable of survey method into the binary logistic regression model for temporal framing. Results showed: SE = 0.188, Wald = 2.474, OR = 0.744, $p = 0.116$. (p > 0.05) The variable of survey method has no statistically significant effect on temporal framing. Please, see page 7-8, table 4-5.

We found that the conclusions of online group and offline group are the same as our previous conclusions in the selection of framing message among characteristics. We showed the differences of demographic characteristics between online and offline groups in the results section. Please, see page 5, lines 180-186.

Although the survey method had no effect on the results, there exist differences in demographic characteristics. We highlighted this deficiency in our discussion of limitations. Please, see page10, lines 302-305.

(Ref 12.) Center, C.I.N.I. Statistical report on the development of Internet in China Available online:

