Author's response to reviews

Title: Sensation seeking as a potential screening tool for suicidality in adolescence

Authors:

Won-Kyung Lee (bluewhale65@inha.ac.kr)
Dohee Lim (elinoer@hanmail.net)
Hye Ah Lee (khyeah@naver.com)
Hyesook Park (hpark@ewha.ac.kr)

Version: 8 Date: 23 November 2015

Author's response to reviews: see over
Sensation seeking as a potential screening tool for suicidality in adolescence

BMC Public Health

We appreciate your careful review and thoughtful comments.

We did our best to prepare our response to reflect reviewer’s comments and revise the manuscript. We hope that this revised paper will be accepted for publication in your distinguished journal, *BMC Public Health*.

**Response to comments from reviewer #1:**

Reviewers’ comments:

[Page 4, Line 6] The author described the sample of the survey. Readers want to know the number of the total students in the seven schools included in the investigation and the selection methods how the authors selected the samples from the total population. I recommend the authors to describe the above process concisely.

☞ I appreciate your review and advices that made the manuscript clear. I added the explanation on the sampling and survey process in the method section as below:

“This study was a cross-sectional survey of students in middle and high schools located in urban, suburban, and rural areas (Seoul, Uijeongbu, and Nonsan) in Korea. We sampled a variety of seven feasible schools including girls’ and boys’ high schools and both standard- and advanced-curriculum schools. The target population was the adolescent of middle and high school in Korea and the survey population of seven feasible schools was 5,439 which were all the students in seven schools. Among them, the sample population was 2,100 which came from 100 students per strata multiplied by 21 strata (3 grade X 7 schools). The classes were selected in a grade to survey at least 100 students and however the 3rd grade in high school was often impractical due to university admission schedule. The number of participants was 2,019 with overall response rate of 96.1%”

[Page 5, Line 8] The author explained that the cut-off point of the Sensation-Seeking Scale is 3.0, which corresponded to the 75th percentile in the author’s study. Is this in accord with the definition of Slater. If it is not so, describe the reason they adopted that definition. The author reported that
changing cut-off point to median did not change the overall result (Page 7, Line 4). What does it mean regarding the cut-off point of the screening scale?
☞ Sensation-seeking scale was suggested as a continuous and also used as a categorical variable. For categorization, the cutoff depended on research including the median, tertile and quartile. I reanalyzed the logistic regression using sensation-seeking scale as a continuous variable and suggested mediation analysis using categorized scale for interpretation. The 3rd quartile value was selected for best model fitting among the median, 2nd tertile, 3rd quartile and 90th percentile. I added it in the method section as below:

“We used sensation-seeking scale as a continuous variable in the logistic regression model and evaluated the odds ratio per a scale. For interpretation, the participants were divided into two group (high and low sensation seeker) in mediation analysis. High sensation seeking was defined as sensation seeking scores of 3.0 or greater, which corresponded to the 75th percentile in our study. Lower scores were considered indicative of low sensation seeking. The cutoff was chosen as the model using the 3rd quartile had lower AIC (Akaike Information Criterion) compared to those with the median, the 2nd tertile, and the 90th percentile [12-14].”

[Page 8, Line 2] The author concluded that “no significant interactions between demographic variables and sensation seeking or between depressive symptom and sensation seeking”. If they want to do so, they should report the results of analysis adding an interaction term between sensation seeking and depression.
☞ I added the results for interaction between sensation seeking and other covariate in the result section as below:

“There were no significant interactions between demographic variables and sensation seeking or between depressive symptom and sensation seeking. Interactions between demographic variables and sensation seeking were not significant when the demographic variable was gender (p-value=.656), grade (p-value=.379), family income (p-value=.450) and sibling number (p-value=.531). When it came to the relationship between depressive symptom and sensation seeking, the significant interaction was not found (p-value=.338).”

[Page 9, Line 1] The author suggested that “sensation seeking is not only related to suicide attempts but also suicide ideation and planning”. They should demonstrate the findings including suicide ideation in addition to suicide planning and attempts in the Result section.
☞ I changed the table 1 and 2 to add the column including the result for the suicidal ideation.
Moreover, I described the results for suicidal ideation and attempt in the result section as below:

“The effects of sensation seeking and depressive symptoms on suicide ideation and planning are summarized in Table 2. As sensation seeking score increased by 1, students were 13% more likely to have engaged in suicide planning. After controlling for demographics and depressive symptom, the risk of suicidal planning increased by 10% as one sensation-seeking score rose. When it came to suicidal ideation and attempt, the adjusted odds ratios became 1.06 (95% CI: 1.02-1.11) and 1.12 (95% CI: 1.04-1.20), respectively.”

Response to comments from reviewer #2:

Reviewers' comments:
The purpose of this paper is to evaluate the relationship between sensation seeking and a suicide plan among adolescents. The authors of this paper concluded that sensation seeking could be used to identify high-risk adolescents and provide proper interventions. However, this paper is cross-sectional design and the causal relationship is not clarified between sensation seeking and a suicide plan, and the detailed information on sensation seeking and other psychosocial problem was not available. The title of this paper should include a possibility to use sensation seeking for identifying high-risk adolescents. For example; the possibility to use sensation seeking as part of a screening tool to identify high-risk adolescents.

☞ I appreciate your review and advices. This study was performed as a cross-sectional survey and it explored the relationship between sensation seeking and suicidality and suggested the possibility to use sensation seeking as a possible screening tool for suicidality in adolescent as you mentioned. Therefore, I clarified it in the discussion section (“study design was a cross-sectional survey and therefore further study is needed for causality.”) and changed the title as “Sensation seeking as a potential screening tool for suicidality in adolescence” to remove the misunderstanding of causality.