Author's response to reviews

Title: Predictors of consistent condom use based on the Information-Motivation-Behavior Skill (IMB) model among senior high school students in three coastal cities in China

Authors:

Yong Cai (caiyong202028@163.com)
Xiuxia Ye (xiuxiaye@gmail.com)
Rong Shi (shirong61@yahoo.com.cn)
Gang Xu (smile567@sohu.com)
Lixiao Shen (kcb096@163.com)
Jia Ren (Jessica4869@hotmail.com)
Hong Huang (huanghong096@hotmail.com)

Version: 2 Date: 1 April 2013

Author's response to reviews: see over
Dear Editor,

Thank you very much for your attention and the reviewers’ evaluation and comments on our manuscript-- “Predictors of consistent condom use based on the Information-Motivation-Behavior Skill (IMB) model among senior high school students in three coastal cities of China.”

We have revised the manuscript according to your kind advices and reviewers’ detailed suggestions. Before enrollment in the study, all students and their parents or guardians provided written informed consent, which included the study objectives and procedures, and potential risks and benefits of participation. We used a professional language editing service from Edanz to edit the English grammar.

Enclosed please find the responses to the reviewers. We sincerely hope this manuscript will be finally acceptable to be published on BMC Infectious Disease.

Thank you very much for all your help and looking forward to hearing from you soon.

Best regards

Sincerely yours

Hong Huang

School of Public Health, Shanghai Jiaotong University

Responses to the reviewers

Point to Point Reply To Reviewer: Dr. J Rao

We appreciate your kindly evaluations and suggestions to our manuscript. We used a professional language editing service to correct the grammatical or presentation errors in the revised manuscript.

It is a good suggestion to compare the difference among three cities. We have already reported these results such as the knowledge, attitude and behavior difference among the three cities in some published papers in Chinese. And there were no significant difference among the three cities.

Of the 12313 participants, only 4.5% of the students reported having had premarital sex. This manuscript is mainly to estimate the factor structure and relationships of the all IMB variables among the participants who reported having had premarital sex. It is hard to set up the IMB model...
for each city since the sample (students reported having had premarital sex) is not big enough.

Thank you very much.

Point to Point Reply To Reviewer: Dr. Jami Leichliter

1. Thank you very much for your advice. You are right. We used a complex sampling method in our research. The design effect should be adjusted in our research. We re-analyzed the data by using the Complex Statistical analyses were performed using the Complex Samples procedure from Statistical Package for Social Sciences (SPSS vision 20.0) for Windows. A weighting factor was applied to each student record to adjust for non response (by school, class and student) and variation in the probability of selection at the school and class levels. By using Complex Samples procedure, we calculated the percentages and 95% confidence interval (CI).

Here is the method of complex sampling and the main results of the percentages and 95% confidence interval, means and 95%CI. We updated the database and re-analyzed it in the revised manuscript.
2. Similarly, the authors calculate the sample size needed using a higher percentage of sexually experienced than they have in their sample.

We checked the database again and found the percentage of premarital sexual experience was 4.5% (95%CI: 4.1-5.0) by using the complex samples procedure which was very close to the rate of 4.8% in the reference.

Assuming a prevalence of premarital sexual behaviors of 4.8% among senior high school
students, an α of 0.05, and a relative sampling error of 0.1P, we calculated a required sample size of approximately 13,000 to allow for the larger sampling error of the complex samples procedure and an non-response rate of 10%.

3. Thank you for your suggestion. We check the reference and revise the sentence accordingly.

4. Thanks. As you mentioned, the measure in the model should be defined more clearly. So we add the “Measure” in the manuscript. (IMB model is a causal model with latent variables represents a mix of path analysis and confirmatory factor analysis which has been called a hybrid model. The latent variables include information, motivation and behavioral skills which are hypothesized to reflect key constructs of the IMB model. Preventive behavior is used as the main outcome and the dependent variable in the model. Each latent variable is constructed with several observable variables which can be observed and directly measured. Structural equation modeling program is used to estimate the structural coefficients between constructs or latent variables. Each measure of the IMB model construct is described below.)

5. Yes, you are right. Thanks. Information is an important but insufficient precursor. We revised it in the manuscript.

6. Thank you for your remind. You are right that STDs are more common than HIV/AIDS in nearly all countries. Correct and consistent condom use has been found to be greater than 90% effective in preventing transmission of HIV and other sexually transmitted infections. (http://www.unaids.org/documents/20101123_GlobalReport_Chorp3_em.pdf).

   In this manuscript, we mainly focus on HIV/AIDS because China has experienced a rapid increase in HIV/AIDS cases in the recent years and heterosexual and homosexual transmission accounted for most of the newly infected cases. And more and more young people begin to pay close attention to HIV/AIDS now in China. We know it is important for young people to focus on not only AIDS but also STDs prevention. However, the impact of HIV/AIDS is more profound in China now. Thanks.