Reviewer's report

**Title:** 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

**Version:** 1  **Date:** 4 March 2013

**Reviewer:** Jami Leichliter

Reviewer's report:

This manuscript uses structural equation modeling (SEM) to assess the utility of the IMB, information-motivation-behavioral skills model, in predicting condom use among sexually experienced adolescents attending senior high school in 3 areas of China. The study uses a complex sampling design to select school districts and classes in areas with a varying AIDS prevalence (low, medium, high). The manuscript is interesting and adds to the literature that shows that education or provision of HIV information is not typically sufficient to elicit behavioral change. The introduction makes a case for the study and the study findings are placed into context in the discussion section.

I have two major comments followed by a few minor comments.

Major Compulsory Revisions

1. The authors appropriately use a complex sampling method; however, they do not appropriately adjust for this clustering in data analyses. SPSS cannot adequately handle clustering. The authors should use a software program that can be used for complex sampling such as Mplus.

2. Similarly, the authors calculate the sample size needed using a higher percentage of sexually experienced than they have in their sample. Also, larger sample sizes are needed for complex sampling methods; thus, it is essential that the correct software package is used to calculate estimates.

Minor Essential Revisions

3. In the first paragraph to the introduction, the text focusing on reference 6 is incorrect. Reference 6 cited another study to estimate that half of new HIV infections were in adolescents and young adults. This turned out to be inaccurate when using advanced estimates (see Prejean et al., Plos One 2011). The authors should revise this sentence accordingly.

4. The authors should include more information on the paths they chose for each of the two models in the methods or results section. Too much burden is placed on the reader to see the differences in the models.

5. In the discussion, the authors state that “information is an important but unnecessary precursor.” This isn’t correct. I think that it should read, “information is an important but insufficient precursor.”

Discretionary Revisions
6. In the introduction, it was surprising that the authors focused mostly on HIV when STDs are more common in nearly all countries.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I have no competing interests.