Author's response to reviews

Title: Sex knowledge, attitudes, and high-risk sexual behaviors among unmarried youth in Hong Kong

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Author's response to reviews: see over
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**Version:** 3  **Date:** 2 May 2013

**Author’s response to reviews:** see over
Reviewer's report

Title: Sex knowledge, attitudes, and high-risk sexual behaviors among unmarried youth in Hong Kong

Version: 3 Date: 3 March 2013
Reviewer: Ronald Thomas

Reviewer's report:
Authors investigated the sex knowledge, attitudes, and high-risk sexual behaviors among unmarried youth in Hong Kong, given its effect on public health importance, education, policymaking, prevention and intervention programs. Based on the Youth Sexuality Survey conducted by Hong Kong Family Planning Association (FPAHK) in 2011, the study explored the characteristics of sexual knowledge, attitudes, and high-risk sexual behaviors among 1,126 unmarried youth. Multiple logistic regressions were performed to examine factors associated with unmarried youth’s premarital sex, casual relationships, multiple sex partners, and premarital pregnancy. Results revealed that unmarried youth in Hong Kong had adequate sex knowledge, but contraceptive knowledge was deficient. The majority of unmarried youth (63.8%) held liberal attitudes toward premarital sex and about half held liberal attitudes toward any form of sexual activity and premarital pregnancy. Around 60% held conservative attitudes toward casual sex relationships and multiple sex partners. Males tended to hold more liberal attitudes toward high-risk sex behaviors than female youth. Approximately 41.5% of unmarried youth reported having engaged in premarital sex, whereas less than 10% engaged in high-risk sexual behaviors. Males also reported higher amounts of premarital sex, casual sex relationships, and multiple sex partners. Females reported higher levels of sexual coercion. Logistic regressions indicated that age, parents’ marital status, study status, and liberal attitudes towards sex were positively associated with premarital sex or high-risk sex behaviors, and gender, education and immigration status was negatively associated with premarital sex or high-risk sex behaviors. However, immigration status was positively associated with high-risk sex behaviors. Authors concluded that premarital sex is becoming prevalent among unmarried youth in Hong Kong, and a small proportion of young adults are engaging in high-risk sexual behaviors. Sex education and HIV prevention programs should equip them with adequate knowledge on contraception and condom use.
Intervention programs can start with their attitudes toward sex.

Overall comments:
1. The research question posed by the authors is well defined and clear.
2. Methods are very well defined and defensible.
3. Data analyses and procedures selected are correct and extremely well presented. Software selected has well tested algorithms.
4. The manuscript certainly more than adheres to relevant standards for reporting and data deposition using the t-tests, Chi-square tests, and logistic regressions.
5. Discussion and conclusions are very well balanced and adequately supported by the data.
6. Authors clearly acknowledge any work upon which they are building, both published and unpublished.
8. Both the title and abstract accurately convey results.
9. Writing is very clear and flows with the primary and secondary aims of the study.

Judgment:
In my opinion this is an extremely well designed, executed and reported study. The manuscript is very well written and the statistical procedures selected and their reporting of results is extremely well done. I cannot find anything of major importance that would necessitate a revision. I would suggest that the authors do put in “N” numbers in Tables 2 and 3 for both males and females, as well as for each variable examined in the LR in table 5. The n numbers are variable and it makes it easier to keep track of the changing numbers when so many regressions are conducted and explored.

As suggested, we have added the number of youth for different variables in Tables 2, 3 and 5.

Level of interest: An article of outstanding merit and interest in its field
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests: I declare that I have no competing interests.
Reviewer's report

Title: Sex knowledge, attitudes, and high-risk sexual behaviors among unmarried youth in Hong Kong

Version: 3 Date: 17 March 2013

Reviewer: qiaojin ma

Reviewer's report:

Major Compulsory Revisions

1. in the “result” of abstract section, “Logistic regressions indicated that age, parents’ marital status, study status, and liberal attitudes towards sex were positively associated with premarital sex or high-risk sex behaviors, and gender, education and immigration status was negatively associated with premarital sex or high-risk sex behaviors”, some words should be more clearer, for example, age, is it younger or older”, likely, parents’ marital status, study status, gender, education, etc.

As suggested, we have clarified our results in the abstract section on page 2 as follow:

“Logistic regressions indicated that being older, coming from a divorced family, out of school status and liberal attitudes toward risky sex behavior were more likely to engage in premarital sex or high-risk sex behaviors, and being female, being better educated and being immigrants were less likely to engage in premarital sex. However, being immigrants was more likely to engage in casual relationship and to have multiple partners.”

2. In the “participant and procedure” of method section, some household may have over one young people, the author may need to describe how many household have one young people, and how many have over one, and the total number of the participants contacted and completed the survey?

To address your concern about the process of the data collection, the interview procedure has been performed in the following way: First, visit the selected household; Second, ask whether the household had 18-27 years old youths; Third, if the household
have youths that satisfied then ask whether the youths are available or not. If the household have youths but are not present then re-visit. If only one youth is present, then ask the youth to participate the interview even the household have more than one youth. If more than one youth are present, then use the nearest birthday method to pick one, which has been described in the participants and procedure section on page 6. Unfortunately, the number of youths in a household is not recorded and the households have more than one youths present are not marked, which should be carefully addressed in future surveys as you suggested.

3. The author used the 2 methods to collect information in this survey, face to face, or self-administered, the characteristics of the 2 groups may be different, it might be better to explain why some participants adopt face-to-face, and the other not, and compare the difference of them.

To address your concern about the methods of data collection, the research fieldworkers were instructed to ask the respondents to do the face-to-face interview first unless the respondents requested to do the questionnaire by themselves. Regarding this point, we have clarified it on page 7. However, they didn’t fill in the information in the questionnaire whether it is a face to face or self-administrated interview. We were told the number of self administrated is not many. Indeed it is a thoughtful suggestion which shall be incorporated in our next survey.

4. In the ‘Measure’ of method section, the author should describe of the 12 questions for knowledge in detail, the readers don’t know the exact questions in the current text.

As suggested, we have described the 12 questions of sex knowledge on page 7 as follow:

“Three composite scores were created by adding the number of correct answers to the four questions on contraception (1 = the chances of pregnancy is slim two weeks before menses; 2 = change of pregnancy is slim in first intercourse; 3 = no pregnancy if there is no orgasm; 4 = pregnancy can occur with extravaginal ejaculation), four
questions on STD (1 = condom reduces the chance of getting venereal disease; 2 = multiple sex partners increases chances of venereal disease; 3 = venereal disease affects only sexual organs; 4 = venereal disease can be unknown to its carriers), and four questions on HIV/STD transmission (1 = only homosexuals can get AIDS, 2 = AIDS can be unknown to its carriers; 3 = multiple sexual partners increases chances of AIDS; 4 = one can get AIDS by sharing drug needles).

5. In the first paragraph of discussion section, “Half of the sexually active youth who did not use contraceptive methods indicated that sexual intercourse happened unexpectedly, so they had never thought of contraception issues”, this statement may not be correctly enough, we can not exclude the possibility that some participants did not use contraception deliberately. As well, “The fact that one quarter of our unmarried youth used the rhythm method and were not afraid of pregnancy also demonstrated that contraception should be appropriately addressed ……”, I think that these youth who used rhythm as contraception, they should be afraid of pregnancy.

Regarding the finding that half of the sexually active youth who did not use contraceptive methods indicated that sexual intercourse happened unexpectedly, so they had no time to plan the contraception issues. We agreed that it is possible that some participants did not use contraception deliberately, which should be listed as one of the reasons in future surveys.

In addition, to clarify your concern about the two kinds of reasons for not using the contraceptive method, we have paraphrased them as follow:

“The fact that over twelve percent of our unmarried youth who did not use contraception reported they engaged in sexual intercourse only within the rhythm and over twelve percent of them were not afraid of getting pregnant demonstrated that contraception should be appropriately addressed in the development of sex education and HIV prevention programs. In sum, it is important to focus contraception efforts on unmarried youth.”

6. In the second paragraph, the author compare the result with other findings, then
concluded that despite the long history of Western influence, Hong Kong youth still maintain some conservative attitudes toward sex. However, through these comparisons, we can not get such impression that their sexual attitude is conservative to some extent. As well, why reference 26 is introduced in this paragraph, it seems that it is inappropriate to be put here because it describes the number of sexual partner in USA.

To address your concern about the discussion of the second paragraph, we paraphrased them as follow:

“However, over 83% of these unmarried Hong Kong youth had unfavorable attitudes towards compensated dating and over 76% had unfavorable attitudes towards multiple sex partners, consistent with the low prevalence of multiple sex partners among female college students in China [25]. In contrast, one study on young people in the United States, 31.1% of sexually experienced females and 45.0% of sexually experienced males reported that they had six or more sex partners by age 21 [26]. It seems that despite the long history of Western influence, Hong Kong youth still maintain some conservative attitudes toward sex.”

7. In the fourth paragraph of the discussion, “immigrant youth were less likely to engage in premarital sex, but more likely to have casual relationships and have multiple sex partners ……” the discussion for this result is very weak, and unrelated to some extent. Is it possible that immigrant youth have different sexual attitude toward premarital sex, and multiple sexual partnerships? They may be conservative for premarital sex, and liberal for casual sex?

We have deleted our original discussion on the role of immigration status and add the possibility as suggested on page 15:

“One plausible explanation is that immigrant youth may be conservative for premarital sex, and liberal attitudes for casual sex and multiple sex partners, which should be explored in future studies.”

Further, “Second, family life satisfaction showed no association with any high-risk sex
behaviors. It may be that only one global measurement item fails to capture the full dimensionality of family life, so multiple items could be used in future studies.” this discussion does not sound strong, the author may add the contra results from other research.

As suggested, we have added more references to discuss the finding of the nonsignificant association between family life satisfaction and risky sex behaviors as follow:

“Second, family life satisfaction showed no association with any high-risk sex behaviors, which is inconsistent with the previous findings [29]. However, one study on college students in India showed that family environment had no significant influence on their sexual experience [30]. It may suggest that eastern family is losing its traditional control over young adults’ sexual behavior. Meanwhile, it should be noted that only one global measurement item fails to capture the full dimensionality of family life, so multiple items could be used in future studies.”

8. Table 3, the number of youth (denominators) for different variables should be added in the reference at the lowest part of the table and relevant part of the text.

As suggested, we have added the number of youth for different variables in Table 3.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests.