

Author's response to reviews

Title: Sexual behavior and drug consumption among young adults in a shantytown in Lima, Peru

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Version: 3 **Date:** 11 December 2008

Author's response to reviews: see over

Dear Editor
BMC Public Health

Ref: MS: 1080295042205410 - Sexual behavior and drug consumption among young adults in a shantytown in Lima, Peru

Thank you for the comments from the three reviewers on the above manuscript. The new comments were very helpful in re-shaping and re-sizing the paper. We believe the paper now is much more concise in bringing forward the main findings related to sexual behavior and drug consumption among young adults in a shantytown in Lima, as compared to the original version.

Enclosed please find the revised version formatted for *BMC Public Health*. We hope you will concur that it responds fully and appropriately to all reviewers' comments. Attached also are notes as to how we have addressed the reviewers' comments.

We look forward to hearing the results from the re-review. Thank you in advance for considering this paper for publication.

Sincerely,

Juan Antonio Galvez-Buccollini MD

Response for reviewer's report 1

Title: Sexual behavior and drug consumption among young adults in a shantytown in Lima, Peru

Version: 2 Date: 29 October 2008

Reviewer: Catherine S Todd

Reviewer's report:

Major Compulsory Revisions: None

Minor Essential Revisions:

1. The authors have addressed the majority of the points raised in the first review. However, please change the term "sexual workers", which is still present in the Results section, to "sex workers."

Modified as requested.

Discretionary Revisions: None

Response for reviewer's report 2

Title: Sexual behavior and drug consumption among young adults in a shantytown in Lima, Peru

Version: 2 Date: 7 November 2008

Reviewer: Sheri Lippman

Reviewer's report:

Major Compulsory Revisions: None

Minor Essential Revisions: None

Discretionary Revisions:

1. I still believe that the writing can be tightened up, in terms of grammar, flow, and repetition. There are a fair few awkward sentences and typos, as well as missing punctuation. For example, in the Variables section: "In addition, individuals were asked about ever having STI symptoms, specifically urethral discharge, vaginal discharge and ulcers or anogenital lesions, were asked."

Thanks for your comment. We have reviewed and improved the article as suggested.

Response for reviewer's report 3

Title: Sexual behavior and drug consumption among young adults in a shantytown in Lima, Peru

Version: 2 **Date:** 11 November 2008

Reviewer: Maureen D Reynolds

Reviewer's report:

Major Compulsory Revisions: None

Minor Essential Revisions:

1. Alignment of Age variable in Table 1 with other columns

Modified as suggested.

2. Discretionary Revisions: Discussion of programmatic implications for HIV/STI prevention efforts should also include taking advantage of the "machismo" attitude as men being protective of the woman, whether a casual partner or a stable partner, by using condoms.

Added as suggested.

Response to reviewer's report 1

Title: Sexual behavior and drug consumption among young adults in a Latin American shantytown

Version: 1 **Date:** 15 October 2008

Reviewer: Catherine S Todd

Reviewer's report:

Reviewer's report

- Major Compulsory Revisions

None.

- Minor Essential Revisions

1. Methods section, paragraph one, last sentence: is AB PRISMA the Peruvian NGO? If not, please provide the name of the Peruvian NGO. If so, please clarify the sentence.

Clarified as suggested. A.B. PRISMA is the Peruvian NGO.

2. Methods section, paragraph two, third sentence: It seems AB PRISMA is the local NGO. After correcting the statement identified in the immediately preceding comment, please remove the description of AB PRISMA as a local NGO as this should be stated at its first mention.

Removed as suggested.

3. Methods section, paragraph 3: The authors state that the questionnaire was delivered in two portions: one interviewer-administered and one section on sexual behavior that was self-administered. However, the limitations section of the Discussion does not mention this division when discussing self-reported behaviors, and this seems important. Admissions of alcohol and illicit drug use may be just as sensitive, but because they were elicited by an interviewer, may have been more likely to be under-reported. Further, the authors make no mention of whether lack of or low literacy may have impacted reporting of sexual behaviors as this section was completed by the participant. Could this have been a contributing factor to the 7 respondents removed from the study due to incomplete questionnaire?

Addressed as suggested in limitations section.

4. Methods section, paragraph 8, last sentence: The authors state that STI

symptoms were queried. It should be specified whether individual symptoms were assessed (e.g. penile discharge, external sores on genitals, etc), as asking this population whether they had STI symptoms could result in misunderstanding the question. This becomes clear in the Results but should be made clear in the Methods section also.

Modified as suggested.

5. Results, paragraph 1: Provide percentages for unemployment for the comparison between male and female participants.

Added as suggested.

6. Results, paragraph 5: Please insert the percentages or mean numbers to provide perspective on reported figures of “men had four times as many lifetime partners as women.” 80 vs. 20 is far different than 8 vs. 2.

Taking into account Reviewer 2’s comment as well as this reviewer, we mentioned in text that the high standard deviation warranted careful interpretation, but inserted the numbers with the standard deviation.

7. Results, paragraph 7: The authors mention that the analysis was adjusted for sociodemographic variables; however, only odds ratios are reported. These should be denoted as Adjusted Odds Ratios.

Edited as suggested.

8. Results, paragraph 10: Same issue regarding reporting adjusted odds ratios.

Edited as suggested.

9. Discussion, paragraph 5: “Sexual workers” should be changed to “sex workers”.

Edited as suggested.

10. The “Author Contributions” section is written in a different voice than the rest of the manuscript. Please change statements like “main responsible for the data collection was JAGB” to “JAGB was responsible for data collection” and other awkward phrases in this section.

Modified as suggested.

11. In Table 3, though the text explains the differences between the two models, it would be wise to define Model 2 as the analysis adjusted for HED in the title of with an asterisk by the term the first time it is used.

We have clarified in the text and added letters in the table and text to clarified the difference among the models.

12. General comment: “High risk sexual behaviors” is not defined and readers assumptions of the meaning may vary. Please define what you are referring to in your manuscript.

Added as suggested.

- Discretionary Revisions

1. Results, paragraphs 8: The authors mention few women reported either illicit drug use or multiple casual partners in the last year. Please provide numbers to define “few”.

Numbers were added for precision.

Response to reviewer's report 2

Title: Sexual behavior and drug consumption among young adults in a Latin American shantytown

Version: 1 **Date:** 15 October 2008

Reviewer: Sheri Lippman

Major Compulsory Revisions:

1. It is unclear which of the many sexual risk behaviors listed in Table 2 are the behaviors that were hypothesized to be related to the exposure of interest (illicit drug use) when this analysis was planned. In the methods section, condom use at last intercourse; number of partners in various time frames; and sex with a high-risk partner in the last year were listed as sexual behavior questions of interest. However, in the multivariate models in Table 3, data is provided on intercourse with a casual partner in the last year and sex with a high risk partner while under the influence in the past 3 months (for men only). Condom use results are in the text but not the tables: if condom use was the behavior of interest (as is understood in the abstract and methods) why isn't this presented in table 3? It would help the reader if the authors can identify which of the many sexual risk behaviors is(are) the focus of this analysis and to include those variables consistently throughout the paper and the tables. Overall there is a bit of a disconnect between the objectives, as understood in the introduction, the variables highlighted in the methods section, and the tables.

We strongly agree with this observation. Table 3 was modified to include condom use as the outcome variable of interest, for both men and women. Table 4 focused on the additional 2 risky sex behaviors and reported STI symptoms, among men. Text was also modified and clarified to ensure consistency.

2. There is no discussion regarding whether the sociodemographic variables that are controlled for in the analysis were, in fact, confounding variables. If these variables were not associated with illicit drug use and the sexual risk factors of interest in this data, then they should not be included in multivariable analyses

unless there is ample literature to indicate otherwise. For example, both lower and higher education and income levels have been associated with various sexual risk behaviors and drug consumption; I do not believe that there is a consistent pattern concerning education or perhaps employment and behaviors or drug use, and thus, they are not necessarily confounders of the relationship of interest. Confounding in this data set should be fully explored and described in the text.

Although some sociodemographic variables such as education, employment and marital status were not associated with our targeted risky sexual behaviors and illicit drug use, we included them in the analysis because several studies have shown a relationship between socioeconomic status and increased prevalence of HIV/AIDS. Hence, we use education and employment as proxies for socioeconomic status.

3. There is no information regarding the presence of effect modification in this data set. Was analysis to identify potential effect modifiers performed? If so, this should be stated. If not, this must be included. Most importantly, was effect modification of alcohol use explored? It might be interesting to look at four user groups: no alcohol/no drugs, alcohol and drugs, etc, as opposed to looking at the association of one while controlling for the other (i.e. looking at the effects of illicit drug use only among non drinkers)

Added in text as suggested. Before conducting the multivariate analysis, we performed an exploratory analysis to identify potential effect modifiers. We tested the interaction between illicit drugs and sex, and heavy episodic drinking and sex. None of the interaction terms were significant ($p > 0.2$)

Also, we had tried to conduct an analysis with each of the four user groups as suggested. However, we did not have enough power for this analysis, and hence, decided to keep the original analysis.

4. In the introduction, please discuss why controlling for alcohol use is of particular interest; there should be some justification for this emphasis.

Added as suggested.

5. At present, the conclusions are very vague. The authors state that the results “provide useful information for the development of more appropriate prevention programs...” The authors mention a wide array of general approaches to prevention, i.e. delaying debut, education and information, access to condoms, and negotiation skills – these are old tools that prevention programmers will include in most programs. What specific contribution is this study making to prevention programming? I hope the authors can be more explicit in their offerings of how these findings can be translated into recommendations.

We appreciate the opportunity to strengthen the section on programmatic implications of our study by providing more focused recommendations, as suggested.

Minor Essential Revisions:

6. Please state that the study took place in Lima, Peru in both the title and the abstract. “Latin America” is a broad category and the reader will want to know the location studied before the end of the introduction.

Modified as suggested.

7. Introduction: the end of the second paragraph in the background section includes a vague statement about cultural and environmental factors influencing sexual behaviors and drug consumption. I agree that context plays a role in consumption patterns. Addressing this issue requires more specifics (i.e. what factors are the authors referring to and how does that shape this analysis).

Modified as suggested.

8. Methods – the last sentence of the “study site” section needs clarification. The authors mention the Peruvian non-governmental organization and A.B. PRISMA – neither of these groups (or is it only 1 entity?) has been sufficiently described. (I recognize that in the following paragraph A.B. PRISMA is defined as a local nonprofit).

Clarified as requested.

9. Methods – the authors refer to “casual” partners in the methods section and “occasional” partners in table 2 and in the results section, and then again “casual” partners in table 3. Please be consistent about references to this partner group in the text and tables and define this term in the methods (i.e. what makes a casual partner, is it anyone who isn’t a boyfriend/girlfriend or spouse?).

Modified and added as suggested.

10. Methods – please describe how “any STI symptom” is defined? Was a check list of potential symptoms provided or was interpretation of “any symptom” left up to the respondent? Additionally, please indicate the time frame used on the STI symptom questions in the methods section and on table 2.

Added as suggested.

11. Please be specific about what information was gathered by self-administered questionnaires and what information was gathered by interviewer. This has implications for the discussion section where it is stated that training of interviewers should have reduced bias in reporting of sexual behaviors: this is only the case if the sensitive questions were administered by the interviewers as opposed to self-administered.

Added as suggested.

12. Methods (analysis): Please state that models were run controlling only for Sociodemographic confounders and for Sociodemographic confounders plus heavy episodic alcohol consumption. Additionally, please state plainly why you present your data in this way.

Added as suggested.

13. Methods (or discussion) – please state why injection drugs were not included in this study.

Added as suggested.

14. Table 1 has more than Sociodemographic data. Please change the title of the table to “Sociodemographic, behavioral, and reproductive characteristics of the study sample by gender,” or a title which is more inclusive.

Changed as suggested.

15. Results: please revise the statements about the number of sex partners among men and women in the sexual behavior section to indicate that these are mean numbers. The standard deviations are quite large and statements like “men had more than four times the lifetime number of sexual partners than women” are misleading when there is so much variation in responses (i.e. the standard deviation is very large).

Strongly agree with the comment. We added additional information clarifying this point.

16. Results: in the last sentence “no found” should be “not found.”

Changed as suggested

17. Results: I am uncomfortable with the analysis where the authors control for heavy drinking with the outcome of “sex with a risky partner under the influence of alcohol.” Who are the people included and excluded from this model (i.e. what is your denominator here?)

This analysis includes the 38 men that had sex with a risky partner under the influence of alcohol during the last 3 months.

18. Discussion: please provide a citation for the National Survey of STI and HIV Prevalence in Peru when referring to data from that study.

Added as suggested.

19. Discussion: The sample is a random sample of young adults from a census of the area; having a representative sample is a strength. However, 152 of 968 selected subjects were not available for interviews. While not particularly high, 16% non-response can still bias estimates. The authors should address this issue in the limitations section. At the same time, I disagree that an important limitation in this study is that results cannot be generalized to wealthy populations. Because participants were randomly selected, results may be representative of this resource poor population, about whom (the authors argue) there is too little information. I do not think the authors need to apologize for not being able to generalize results to other regions or SES groups.

Modified as suggested.

Discretionary Revisions:

20. Generally, the paper can be shortened and the writing can be tightened up, in terms of grammar, flow, and repetition. There is no word count on the document, but I believe these findings can be presented easily with 3,000 words or less. For example, in the “Data Analysis” section the first two sentences repeat what was already stated and should be deleted. Also, there is a fair amount of text comparing behavioral characteristics between men and women in this study, much of which is already included in Table 2 – a good portion of this text can be deleted.

Modified as suggested.

21. Introduction – the authors state that risky sexual behaviors of young adults have received increasing attention during the last decade. I would argue that adolescent and young adult sexual behaviors have been a research priority for much more than a decade. I would modify this statement.

Modifies as suggested.

22. The discussion is somewhat disjointed because there are so many findings the authors want to discuss. This approach to touching on all of the findings in the discussion prevents a more nuanced and deep discussion of any one finding. I would suggest that instead of touching on a number of issues that could be explored more profoundly (like machismo and gender norms in Latin America, underlying personality traits that predict both sexual behaviors and drug use, the intersection of alcohol and drug use), that the authors focus on the findings they find most poignant and discuss those in depth.

We agree and appreciate the opportunity to tighten and focus our recommendations. Modified and strengthened as suggested.

Response to reviewer's report 3

Title: Sexual behavior and drug consumption among young adults in a Latin American shantytown

Version: 1 **Date:** 15 October 2008

Reviewer: Maureen D Reynolds

Major Compulsory Revisions

- None

Minor Essential Revisions

1. Background, page 1, need to define acronym "MSM".

Added as suggested.

2. Methods, Study Site, last sentence "...from the Peruvian non-governmental organization and A.B. PRISMA." If the agency's name is A.B. PRISMA, the "and"

is incorrect. Also there is a little more description in the following paragraph. It would be more clear if the description of the agency was provided with the first mention of it. Also in paragraph 1 of Sample section, there are no . after the A.B. - which is it? With periods or without?

Modified as suggested.

3. Sample, first paragraph, what computer program was used to generate the random sample? Please reference it.

Added as suggested.

4. Sample - how were the subjects contacted? Did someone just knock on their door? Was there prior knowledge that workers were conducting surveys or were these cold calls?

Added as suggested.

5. Variables - last word in first paragraph should be plural - symptoms.

Modified as suggested.

6. Variables, fourth paragraph. Educational level comparison groups - the presentation of this looks as though there are two groups but in Table 1 it is clear there are three. Please label consistently as in Table 1.

Modified as suggested.

7. Results, Illicit drug use, heavy episodic drinking and risky sexual behaviors section. When referring to Table 3 the authors reference model 1 and model 2 in the text, when in the table there are actually three model 1's and three model 2's. Perhaps it would be clearer to the reader to label them models 1 through 6 or do separate tables for the three sets of models tested.

We added letters (a, b, c, d) to identify models 1 and 2 in the table and text for the fourth set of models tested.

8. Results, last paragraph, last sentence "...HED effect was not found..." (t is missing).

Modified as suggested.

Discretionary Revisions

In the discussion reference is made to to a National Study of STI and HIV Prevalence in young adults in Peru. The current study would have been a lot more interesting if the authors had been able to make comparisons between this sample from the shantytown versus the national sample, for both men and women.

We compared similar variables in both studies. Unfortunately, many variables were asked differently in both studies. In addition, many of the results of the other study are not published yet.