Author's response to reviews

Title: From disease to desire, pleasure to the pill: A qualitative study of adolescent learning about sexual health and sexuality in Chile.

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Author's response to reviews: see over
To the BMC Public Health Editorial Team

Thank you for considering our article for publication and for sending the article to peer review. We wish to thank the peer-reviewers Heather McCauley and Karen Phillips for their helpful comments and constructive criticism.

The two reports have been reviewed and changes have been made to the manuscript (see tracked changes in word document). These changes and responses to reviewer comments are presented below.

As requested by the editor, the RATS guidelines have been reviewed and the authors believe that the current manuscript adheres to these guidelines. A discussion of the manuscript in relation to these guidelines follows the responses to the reviewers.

1. **Response to First Reviewer Heather L McCauley**

**Minor Revisions:**

1. Line 40: Please include your sample size of focus group participants across the four groups.
   
   The focus group sample size has been added (line 36)

2. Lines 141-142: Again, in your methods, please be clear about sample size across focus groups. I see that you mention it later (lines 223), but I think it should be stated earlier in the manuscript.
   
   The focus group sample size has been added (line 218)

3. Line 189: Please be as clear as you can be about your response rate. How many people volunteered to take home informed consent forms? How many over age 18 volunteered to participate and how many followed through and actually participated?
   
   The number of volunteers and actual participants over 18 years has been added (line 311). The number of parental consent forms handed out and number returned by those under 18 years. (line 313)

4. General question about results section: Were there any developmental differences between the focus groups? In other words, were there noticeable differences in the themes explored by high school vs. college-age youth?

   Yes, developmental differences between the high school and university participants were observed, however there were also differences in the purposes of the high school and university focus group discussions.

   The primary purpose of the two high school discussions was to discuss sources of sexual health and sexuality information in the Chilean context, in order to confirm that the sources indicated in the literature review prior to fieldwork were relevant to the Chilean context, and thus adjust the interview guide. In this sense the high school discussions were more descriptive than exploratory.
In contrast, the primary purpose of the two university focus groups was to feed back preliminary results to the adolescents to stimulate a discussion of the themes emerging from the high school interviews and focus group discussions. Therefore the university discussions were more exploratory than descriptive.

To conclude, the university students were more reflective and more inclined to social criticism, however the university focus group thematic guide was also designed in a way that encouraged them to reflect more than the high school groups. Therefore, given the difference in purpose, the authors do not deem it appropriate to describe in detail the observations of developmental differences between the two focus group samples.

Discretionary Revisions
1. Lines 106-on : To me, your “study context” seems better suited for the introduction. It is also a bit too detailed for the needs of the paper. I would consider reorganizing and streamlining this section.
   The section on study context has been moved to the “Background” section (lines 164-212). The section has been reorganized and streamlined as suggested. Approximately 50 words have been removed.

2. Response to Second Reviewer Karen Phillips

Abstract
1. line 37-“ and internet, adolescents are increasingly exposed to [this information] from a myriad of” UNCLEAR- THIS INFORMATION REFER TO SEXUAL RIGHTS? SEXUAL HEALTH, OR INFORMED DECISIONS
   Changed to "information about sexual health and sexuality" (line 32)

2. line 44: “primary sources of information” AGAIN, CLARIFY WHAT TYPE INFORMATION
   Added "sexual health and sexuality information" (line 41)

3. line 55-57: “With the goal of improving life long sexual and reproductive health, this paper recommends expanding the understanding of what adolescent sexual health and sexuality information needs are.” –THIS WOULD MAKE A NICER INTRO SENTENCE IN BACKGROUND
   The conclusion has been reformulated (see next comment) and this statement has been removed

4. CONCLUSION- seems to describe results that could not be related to data collection, perhaps overreaching. Unclear that ‘trusted sources’, including parents and friends, can be mandated to ‘move beyond providing narrow heteronormative biological and theoretical information’. This recommendation must only apply to individuals in healthcare, education or community sectors mandated to promote sexual health information. Change ‘trusted sources’ wording as this is previously defined in RESULTS as parents and friends etc.
   The conclusion has been reformulated to focus more on summarizing the study results/discussion, rather than focusing on the concluding recommendations of the
The authors believe that parents can also be encouraged to move beyond biological and theoretical aspects of sexual health when talking with their children, opening up for discussion about emotional and relational aspects of sexual health and sexuality. Teachers, healthcare professionals, public health workers, religious leaders etc. may play key roles in encouraging/facilitating this parent-child communication. We acknowledge there may be differing opinions on this.

"Trusted sources" has been changed to "parents, teachers and health professionals".

Given the requirement that the abstract be under 350 words, minor changes have been made to the structure/wording of the abstract to limit the word count.

Background
5. Objective line 101- “where Chilean adolescents learn about sexual health and sexuality” rephrase, not WHERE, but ‘information sources’
   "where "changed to "sources of information Chilean adolescents use to learn about". (line 159)

6. Line 102- (3) how this information is communicated; ‘HOW’? unclear, information channels? E.g. discussion, internet, tv, media, etc?
   "how" changed to "the techniques used" (line 160)

7. Line 102-3- (4) “how they judge the trustworthiness of the information” again, clarify ‘HOW’ (mechanisms?) and clarify ‘THEY’ (Chilean adolescents?)
   "how they judge" changed to "the strategies Chilean adolescents adopt to judge...."
   The word "they" replaced by "Chilean adolescents". (line 161)

Methods
8. “Study context” – this entire section should appear earlier in BACKGROUND
   "Study context" - has been moved to the "Background" section. (lines 164-212)

9. Line 184- deviant case sampling; rephrase, prejudicial, perhaps purposeful sampling
   "deviant case" replaced by "purposeful sampling of adolescent parents". (line 304)

10. This section has no mention of boys vs. girls. Race. Age stratification, What was the goal regarding sampling? Heterogeneous yes, but equivalent boys and girls?
    Sampling: gender - the aim was homogenous sampling with a gender balance. A total of 10 female and 10 male adolescents were interviewed. The words "gender balanced sample" have been added to the text. (line 302)

    Sampling: race - race/ethnicity was not taken into account in sampling. Given Chile’s unique history, the population is not as ethnically diverse as countries such as the United States or United Kingdom. In Chile a majority of the population fall into a large umbrella category "mestizo". The 2012 census estimates that 11% of the population belongs to an indigenous group with, only 9% of these individuals residing in Santiago. The census also estimates an immigrant population of only 2%,
predominantly from Peru, Argentina and Colombia, many of whom may also define themselves ethnically as "mestizo". Therefore, race/ethnicity was not included as a variable in sampling.

Sampling: age stratification. High school interview participants ranged from 16-19 years, with fewer in the older age bracket as many Chilean youth finish high school when they are 17 or 18 years old. Given this, the age group 19 years was more represented in the university focus group discussions. Since that the age bracket 16-19 years is small and the number of participants under and over 18 years of age is described in the manuscript, the authors do not deem it necessary to describe in more detail the age stratification

11. Line 200- so 20 students across 3 schools, small sample; justification,
For a qualitative study with the objectives described earlier, the authors do not consider 20 interviews across three schools to be a small sample. Furthermore, pre-analysis in the field allowed for determining sufficient data saturation on the specific research objectives. The authors acknowledge that time and practical constraints of interviewing high school students meant that potentially valuable follow-up interviews with adolescents were not feasible. (line 947)

12. DEMOGRAPHICS table- for interviews, focus groups (race, age, sex, school type/career)
Demographics - as described earlier, race/ethnicity was not taken into account with sampling. Since age and gender are described in the text, the authors do not deem it necessary to have a demographics table only to describe school distribution.

13. Line 281-282- “observation that these adults role modeled healthy sexuality”- this is fascinating, what did ‘healthy sexuality' mean to these participants? Married, heteronormative couples? How could participants have insight into the sexualities of healthcare providers?

There is an error in the formulation of this sentence and the words "role modelling healthy sexuality" have been removed. (line 425)

"Role modelling healthy sexuality" was referring solely to a parent, not teachers or healthcare professionals. This comment/response came from a female participant describing why she trusted sexual health information provided by her mother. Regrettably what "healthy sexuality" meant to this participant was not probed, however in the context of the remainder of the participant's response it was assumed she meant planned parenthood inside a committed/married relationship.

Given that this comment relates only to a parent, was not probed on during the interview and the interpretation described above relies on researcher assumptions as to what the participant meant by "healthy sexuality", this has been removed.

14. Line 552- “different triangulation techniques for assessing critically the trustworthiness”- what were these approaches?
These triangulation approaches were a) crosschecking information on various websites to assess the congruency of the information, b) double-checking the information found on the internet with a trusted adult or friend. These triangulation techniques have been inserted into the text. (lines 721-723 )
15. Limitations- expand Small samples across 3 schools, heterogeneity of samples

As mentioned earlier, the authors do not consider the sample size to be a limitation given the objectives of the study. Heterogeneity of the sample is seen as a strength to the study, rather than a limitation.

Conclusion
16. Line 775- not sure that the study reflects removal of homosexual/abortion taboo, seems to reflect prejudices, misinformation and ‘deviance’

The "taboo" referred to here is in relation to the taboo of talking about the topics of homosexuality and abortion, not the taboo of being homosexual or having an abortion. To clarify this, the words "taboos restricting dialogue" have been added. (line 953)

Minor Essential Revisions
Title
17. The ‘pill’ referenced here would seem to refer to emergency contraception, however the typical usage for ‘the pill’ is oral contraceptives, not mentioned in the article. Suggest remove “From disease to desire, pleasure to the pill” from title

The authors also understand the term "the pill" as a colloquial term for oral contraceptives and not the emergency contraceptive pill. Oral contraceptives are referred to implicitly throughout the article under the umbrella term "contraception", however, to make this explicit, a list of the most common contraceptives discussed by participants (oral and injectable contraceptives and condoms) have been included under the section "Findings - Biological Teachings". Thus, the authors wish to maintain the words "From disease to desire, pleasure to the pill" in the title.

Background
18. line 68- ‘exponential’ sexual development- hyperbole, reword

"Exponential" replaced by "considerable". (line 88)

19. line 72-74- would expand beyond coercion to include sexual violence

The word "violence" has been added. (line 92)

20. line 76- “Exactly what this sex education should look like” rephrase; Designing effective sex education …. One of the challenges of such sex education designs, and relevant for current study, may be the setting or culture of the education. American sex ed studies have specific American-culture (religion etc) challenges, perhaps allude to specific South American, or Chilean challenges that must be considered with design of sex ed (culture, religion, multicultural, new immigrants) (perhaps put in section line 86-96)

"Designing effective sex education" inserted. (line 121) A sentence highlighting the importance of sex education programs taking into account challenges and opportunities specific to the setting has been added at the end of this paragraph. Key issues for Chile are named (Legal rights (or the lack thereof), religion, indigenous worldviews, immigration, societal and cultural norms and gender roles). (lines 129-133)

21. line 95-98- cumbersome sentence, perhaps break into shorter sentences “It remains unclear what information is provided from these sources, how it is communicated and in which context, whether the adolescents trust the information and what sociocultural
factors influence this..”

This paragraph has been divided up and shorted to make it clearer. (lines 143-155)

**Methods**

22. Line 111- “During the past five years however, advances have been” I would avoid references to time, once paper is published the ‘past five years’ can no longer apply with the passage of time. State specific dates (2010-2015). Do not create paragraph break … use this sentence to link to “In 2010, a law was passed ensuring the right to sex” in same paragraph

*Inserted expanded timeframe "From the mid 2000s onwards". This time frame has been expanded to recognize the historical impact of earlier legislation on sexual and reproductive rights in Chile (for example legalization of divorce in 2004 and the legal decree stipulating explicitly the rights of pregnant and mothering students issued in March 2005). (line 170)*

*Paragraphing changed as suggested. (line 170)*

*An adjustment of the date of the return to democracy has been made. (line 167) In available literature, both dates 1989 and 1990 can be found, the first representing the date of the first post-dictatorship general elections and the second indicating the year the democratic presidency actually started. This later date 1990 has been chosen since no post-dictatorship legislative change could be made until the new presidency started.*

23. Line 118-119- rather than “sexual minorities”, consider LGBTQ community?

*The authors originally chose the term "sexual minorities" as they believe it is a more inclusive term than LGBTQ and more accessible for readers given that this is not a journal specifically focused on LGBTQ issues. The term has been replaced in the text by "other sexual orientations or non-heterosexual orientations".*

24. Line 123- here could be a new paragraph, the epidemiological evidence

*This is already in a new paragraph (line 203)*

25. Line 127 “When it comes to sexually” rephrase, ‘when it comes to’…

*Replaced "when it comes to" with "regarding". (line 206)*

26. Line 128- “condiloma” more commonly in English- “genital warts”

"condiloma "changed to "genital warts". (line 207)

27. Line 134-136- move back to Law paragraph

*This has been relocated as suggested (lines 176-179)*

38. STUDY DESIGN- this should be the beginning of Methods section

*Study setting has been moved to the background section, therefore "Study Design" now follows directly under the heading "Methods".*

29. Line 139- specify data collection year

*The year 2013 has been inserted. (line 216)*

30. Line 145- “to clear up” – translate, explain, rephrase
"clear up" replaced by "resolve". (line 280)

31. Line 146- ‘trial the wording’…. Test the wording? Not trial- reword
"trial the wording" replaced by "test the interview questions". (line 224)

32. Line 148- reword ‘tweak’; modify, adjust
"tweak" replaced by "adjust". (line 263)

33. Line 149- “opening up for discussion” again, colloquialism, rephrase
"opening up for" replaced by "encouraging". (line 264)

34. Line 152- 20 adolescents recruited from each school?
Inserted the words a "total of 20 adolescents" to clarify that it was not 20 participants from each school but 20 participants in total. (line 267)

35. Line 156, 162- Catholic (capitalize)
"catholic" changed to "Catholic" in five places in the text

36. Line 163- unnecessary paragraph break
Paragraph break removed (line 277)

37. Line 169- space "under18"
Space added. (line 286)

38. Line 245-2 consecutive sentences beginning ‘During’, and replace ‘tweak’
"During" replaced by "throughout the data collection process" (line 384). "Tweak replaced by "adjusted". (line 385)

39. Header FINDINGS- replace RESULTS
Header changed from "Findings" to "Results". (line 402)

40. Line 266- ‘one of [ the] their parents’ delete THE
"the" removed. (line 405)

41. Line 405- ‘sexual orientation’ I think the term ‘sexual identities’ is better
The authors acknowledge that "sexual orientation" may not be the most appropriate sub-heading, however prefer to change the name to "sexual diversity" rather than "sexual identity". (line 552)

In light of the critique of the term "sexual minority youth" and the subtitle "sexual orientation", the authors have also reflected on the use of the word "homosexuality" in the article. Subsequently, word "homosexuality" has been replaced by "sexual diversity" and where appropriate, the term "homosexual" has been replaced by "homosexual, lesbian or bisexual".

42. Line 436-438; interesting, the health professional uses concept of sexual identity as a choice? “when he has decided on his sexual” was this challenged?
There is a linguistic misunderstanding here in the translation from Spanish to English of the words "decided on" and the quote has been reworded. (lines 593-595)
During this interview the key informant shared her opinion that development of sexual orientation/sexual identity is a process, and she described her role in accompanying adolescents through this process.

In this quote, the key informant shares her opinion that when an adolescent reaches the point in this process when he/she is ready to share his/her sexuality with family or friends, they may face a hostile social network, and thus are in need of support. Here she describes her role in supporting the adolescent in sharing with their family and friends about their sexual identity/orientation. The interviewer did not interpret it to be the key informant's opinion that sexual identity is a choice, rather that development of sexual identity is a process.

The original interview and transcript in Spanish have been reviewed and the translation to English has been reworded and shortened to avoid misinterpretation of the key informant's opinion.

Discussion
43. Line 660- biologicalization; reword
   "biologicalization" replaced by "biological focus". (line 836)

44. Line 755- “It is a reproductive right to have a sexual life free…”; not reproductive right, but human right
   "reproductive right" replaced by "human right". (line 934)

3. Response to Additional Editorial Request - RATS Guidelines

Relevance of study question
This manuscript describes the current gap in research related to sources of information and adolescent learning about sexual health and sexuality in Chile. The study questions are formulated as four specific study objectives described in the introduction.

Appropriateness of qualitative methods
Given that this study is both descriptive and exploratory, the utilization of semi-structured interviews and focus group discussions with thematic guides are deemed appropriate. This justification has been added into the section Methods: Study Design.

Transparency of procedures
- Sampling - Sampling techniques and their justification in relation to maximum variation (interviews) and homogeneity (focus group discussions) are presented in the study. Practical constraints in sampling adolescents in high schools are also discussed.
- Recruitment - The recruitment process conducted is described in the manuscript and information about who conducted the recruitment (the first author) has been added. No explanation can be given as to why some adolescents volunteered and others did not, nor can the non-return of parental consent forms be explained. The authors deem it as both unnecessary and unethical to approach adolescents to ask why they did not volunteer or why they did not return their consent form when it was made clear to them during the
recruitment process that participation was completely voluntary and no reason needed to be given for not wishing to participate or for withdrawing from the study.

- **Data Collection** - The content of interview guides and focus group thematic guides are described in detail. The setting and study group is described. The role of pre-analysis sessions in the field in determining appropriate data saturation, and thus the end of data collection, is also explained.

- **Role of Researchers** - None of the researchers fulfilled the dual role researcher-clinician with the study population. The potential biases/misunderstandings resulting from the first author conducting research in Spanish when it is not her mother tongue language is discussed, as well as the role of the local research assistant employed to reduce this bias.

- **Ethics** - The informed consent process is presented in detail and the ethical approval from the Board of Ethics at the University of Chile and the Norwegian Social Science Data Service is cited. For brevity, reference to the preliminary review by the Norwegian Regional Ethics Board has been removed, as well as the inclusion of the University of Chile Board of Ethics in the acknowledgments.

**Soundness of interpretative approach**

- **Analysis** - The content analysis techniques utilized have been described in detail, with examples of coding. The analysis was abductive (both inductive and deductive) as described by the combination of descriptive and analytical coding. Semi-quantification is used occasionally when there was significant similarity or disparity between adolescent responses, and the most representative quotes are presented. The participation of local research assistant during interviews, group discussion and pre-analysis is described in the text. In addition, assistance from a native Spanish speaker in translating quotes to English to reduce translation errors is specified.

- **Discussion and Presentation** - Findings are discussed in relation to current literature in the field, both empirical research and relevant theories. The manuscript is written with a broad public health/health science audience in mind with limited use of acronyms and avoiding jargon.