

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Multilevel factors influencing contraceptive use and childbearing among adolescent girls in Bara district of Nepal: a qualitative study using the socio-ecological model
AUTHORS	Sekine, Kazutaka; Khadka, Nirajan; Carandang, Rogie Royce; Ong, Ken; Tamang, Anand; Jimba, Masamine

VERSION 1 – REVIEW

REVIEWER	Delvaux, Thérèse Instituut voor Tropische Geneeskunde, Public Health
REVIEW RETURNED	20-Jan-2021

GENERAL COMMENTS	<p>This paper deals with an unresolved question to date that is the low use of contraception among adolescents in many countries including in Nepal. Although no new factor related to contraceptive use is actually presented. The interest of the paper as highlighted by the authors resides in the attempt to show how they are intertwined and inter-related in a well written discussion, adapted to the context. This work can contribute finding ways to better address this complicated issue.</p> <p>Major compulsory revisions</p> <p>Introduction :</p> <p>1) Page 2 lines 67-76: Updating your global references with more recent data (e.g. Guttmacher Institute report Adding up 2020 report; more recent WHO data than 2008?) is recommended.</p> <p>2) Page 3 line 108 : 15% married adolescents girls use contraception</p> <ul style="list-style-type: none">- Adolescents aged 15-19?- using modern contraception or any? <p>3) Page 2 lines 78: “Researchers have noted a number of barriers” : actually they are also called factors related to contraception use. These different types of barriers introduced here somewhat differ from the SEM later used: could you link both or clarify why you used barriers here and then another classification later on?</p> <p>Methods</p> <p>4) Study design: what kind of study was conducted? Cross-sectional? Using qualitative methods.</p> <p>5) Theoretical framework - SEM: I would introduce it in a separate paragraph (instead of introducing it only later in data collection), at the beginning of methods or before data collection.</p> <p>Study participants :</p> <p>6) Page 4 line 147: 4+4+ 3 equals 11 (not 10 as mentioned in the abstract) : could you check?</p> <p>7) Page 4 line 152: Recruitment, door to door: could you be more precise on how you proceeded? Did you recruit them in one single neighbourhood? Or used several of them?</p>
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	<p>Ethical considerations: 9) Page 6 line 246: what do you mean when “parents were inaccessible”? another carer was not possible either? Minor comments Figures: Figure 1: the content of Intra- and inter- personal factors is not entirely readable (in white on white paper): please adapt that. Figure 2: Policy factors highlighted in Leroy SEM (Figure 1) don't appear in this figure: it is mentioned in the analysis that these factors were not reported by participants : I would put it as comment in the legend of the figure Table 2: This table can be better formatted in order to fit on one single page. Figure 2: while, as shown by the diagram, limited autonomy among married adolescents results of several interpersonal factors, I am not sure that autonomy should be identified as a interpersonal factor as well. In my view it remains an intrapersonal factor (influenced by interpersonal ones).</p>
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REVIEWER	Jonas, Kim South African Medical Research Council, Health Systems Research
REVIEW RETURNED	10-Jun-2021

GENERAL COMMENTS	<p>Thank you for the opportunity to review this very important, critical paper. the paper is well-written, well formulated with sound methodology and processes followed in documenting the processes is exceptional! I must congratulate the authors for such incredible efforts in putting together this manuscript- I am very impressed with the writing, and thorough methodology followed by the authors. well done team! I have absolutely nothing further to comment on/correct on this paper- it is of exceptional standards. Congratulations to the authors!!!</p>
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REVIEWER	Dulal, Komal Purbanchal University, Population
REVIEW RETURNED	31-Jul-2021

GENERAL COMMENTS	<ol style="list-style-type: none"> 1. check in page 1 line no 26, the number of Klls it should be 11 instead of 10. 2. check the grammer in age 2 line no 88. 3. clealy mentioned that Mahagadhi Municipality has 11 wards and Prasauni Rural Municipality has 7 wards in page no 3 line no 122-123. 4. Page 3 line no 125 6.33 members; better omit "people". 5. See Table 2, check the number of adolescent following religion and ethnicity which is different than their husband's number; need to clarify. 6. More clear to the readers if you have included data collection process. You collected data from adolescents, their husband and mother-in law on the same day or different. 7. page no 6 line no 169- Intrapersonal factors, here you may also include others backgound characteristcs of adolescents married women along with age.
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VERSION 1 – AUTHOR RESPONSE

Reviewer #1		
<p>Page 2 lines 67-76: Updating your global references with more recent data (e.g. Guttmacher Institute report Adding up 2020 report; more recent WHO data than 2008?) is recommended.</p>	<p>We updated the global references as well as global figures using more recent research. The following references are used to provide more recent data.</p> <p>Guttmacher Institute. Investing in Adolescents' Sexual and Reproductive Health in Low- and Middle-Income Countries. New York: Guttmacher Institute; 2020.</p> <p>Sully E, Biddlecom A, Darroch JE, Riley T, Ashford LS, Lince-Deroche N, et al. Adding It Up: Investing in Sexual and Reproductive Health 2019. New York: Guttmacher Institute; 2020.</p>	<p>See the Introduction section.</p>
<p>Page 3 line 108: 15% married adolescents girls use contraception</p> <ul style="list-style-type: none"> - Adolescents aged 15-19? - using modern contraception or any? 	<p>We address the comment by providing clarification in the revision.</p>	<p>Page 3 Line 118: Only 15 % of married adolescent girls <u>aged 15 to 19</u> use <u>any modern</u> contraception</p>
<p>Page 2 lines 78: "Researchers have noted a number of barriers" : actually they are also called factors related to contraception use. These different types of barriers introduced here somewhat differ from the SEM later used: could you link both or clarify why you used barriers here and then another classification later on?</p>	<p>We wanted to provide more specific classification of factors that hinder contraceptive use in the reference to the literature, rather than using the same category of five layers of the SEM. We thought it would help readers to understand more detailed factors. However, use of the word 'barriers' might have sent an unintended message; therefore, we rephased it to 'factors' in the revision.</p>	<p>Line 89-91: Researchers have noted a number of <u>factors</u> that hinder married adolescent girls from using contraceptive methods and postponing childbearing. These <u>factors</u> can be classified into five categories</p>
<p>Study design: what kind of study was conducted? Cross-sectional? Using qualitative methods.</p>	<p>As the title of the manuscript and the abstract state, it is a qualitative study in which data were collected through in-depth interviews and key informant interviews.</p>	<p>N/A</p>
<p>Theoretical framework - SEM: I would introduce it in a separate paragraph (instead of introducing it only later in data collection), at the</p>	<p>SEM is adopted as the framework to understand the dynamic interaction and interrelations of multilevel factors that determine health behaviors. In this study, SEM is primarily used to guide data collection and analysis. We explored a way</p>	<p>N/A</p>

beginning of methods or before data collection.	of introducing the framework earlier or in a separate paragraph but found that it ended up making the flow of description of the methods less smooth.	
Page 4 line 147: 4+4+ 3 equals 11 (not 10 as mentioned in the abstract) : could you check?	We corrected the number of respondents of health coordinators.	health coordinators working in the district health office or municipality office (n=3)
Page 4 line 152: Recruitment, door to door: could you be more precise on how you proceeded? Did you recruit them in one single neighbourhood? Or used several of them?	As explained in the subsection of study setting, to recruit the participants, we selected one ward out of nine wards in each selected municipality; two municipalities were selected for recruitment. A ward is the smallest unit of local government in Nepal. We recruited the participants in two wards. In the revision, we clarified the number of wards selected for recruitment.	Page 5 Line 166: <u>In the selected two wards</u> , we purposively recruited those who met the aforementioned inclusion criteria
Page 6 line 246: what do you mean when “parents were inaccessible”? another carer was not possible either?	We actually checked whether or not the carer was accessible in the neighborhood during recruitment. The manuscript is revised accordingly.	Page 7 Line 259: If the parent <u>or carer</u> was inaccessible <u>in the neighborhood</u> , we obtained it from minor participants.
Figure 1: the content of Intra- and inter- personal factors is not entirely readable (in white on white paper): please adapt that.	We adjusted the colors in Figure 1 for better readability.	See Figure 1 in the revision.
Figure 2: Policy factors highlighted in Leroy SEM (Figure 1) don't appear in this figure: it is mentioned in the analysis that these factors were not reported by participants: I would put it as comment in the legend of the figure	We added a note in Figure 2 reporting that there was no relevant finding on policy-level factors.	See Figure 2 in the revision.
Table 2: This table can be better formatted in order to fit on one single page.	We formatted Table 2 to fit on one single page, and it became smaller. Despite the attempt, we could not make it to one page.	See Table 2 in the revision.
Figure 2: while, as shown by the diagram, limited autonomy among married adolescents results of several interpersonal factors, I am not sure that autonomy should be identified as a interpersonal factor as well. In my view it remains an	We agree. Women's limited autonomy is now identified as an intrapersonal factor in the revision.	See Figure 2 in the revision. Page 11 Line 487-491: Barriers at the intrapersonal level were reluctance to seek

intrapersonal factor (influenced by interpersonal ones).		family planning information and services, the fear of and misconceptions about side effects of contraceptives, low awareness about the risks involved in adolescent pregnancy, a lack of access to information, and <u>limited autonomy in making decisions about family planning</u> .
Reviewer #2		
No comment for revision		
Reviewer #3		
Check in page 1 line no 26, the number of KIs it should be 11 instead of 10.	We corrected the number of respondents of health coordinators.	Page 4 Line 159-160: health coordinators working in the district health office or municipality office (n=3)
Check the grammar in page 2 line no 88.	Could you please be more specific in your comment? I did not notice anything wrong in the sentence.	N/A
Clearly mentioned that Mahagadhi Municipality has 11 wards and Prasauni Rural Municipality has 7 wards in page no 3 line no 122-123.	The two sources below indicate that Mahagadimai urban municipality has 12 wards, instead of 11. http://www.mahagadimaimun.gov.np/en https://en.wikipedia.org/wiki/Mahagadhimai_Municipality Prasauni rural municipality has 7 wards according to this source (https://en.wikipedia.org/wiki/Prasauni_Rural_Municipality). We made revisions accordingly.	We conducted this study in an urban municipality (Mahagadimai Nagarpalika <u>composed of 12 wards</u>) and a rural municipality (Prasauni Gaunpalika <u>composed of six wards</u>) in Bara district in Province 2 of Southern Nepal.
Page 3 line no 125 6.33 members; better omit "people".	We corrected it.	Page 3 Line 139: an average of 6.3 members per household
See Table 2, check the number of adolescent following religion and	Page 4 Line 155: "We did not match IDs participants by family for recruitment or	N/A

ethnicity which is different than their husband's number; need to clarify.	analysis". In other words, the adolescents and the husbands who took part in the study may not be from the same household. This explains the reason why religion and ethnicity do not necessarily match between the women and the husbands.	
More clear to the readers if you have included data collection process. You collected data from adolescents, their husband and mother-in law on the same day or different.	The in-depth interviews were conducted on different days during the period from July 5-15, 2019.	N/A
Page no 6 line no 169- Intrapersonal factors, here you may also include others background characteristics of adolescents married women along with age.	We should be careful not to reveal much personal information to protect the identity of the participants. We think presenting the group and age of each participant would be enough for quotations.	N/A

VERSION 2 – REVIEW

REVIEWER	Delvaux, Thérèse Instituut voor Tropische Geneeskunde, Public Health
REVIEW RETURNED	16-Sep-2021

GENERAL COMMENTS	no additional comment.
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REVIEWER	Dulal, Komal Purbanchal University, Population
REVIEW RETURNED	19-Sep-2021

GENERAL COMMENTS	Congratulations for highlight the issues.
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