Reviewer’s report

Title: Dual Contraception Method Utilization and Associated Factors among Sexually Active Women on Antiretroviral Therapy in Gondar City, northwest, Ethiopia: a cross sectional study

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Reviewer: Hadii M Mamudu

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Title

Dual Contraception method utilization and associated factors among sexually active women on antiretroviral therapy in Gondar City, northwest, Ethiopia: A cross sectional study

Summary

This paper attempts to evaluate the use of hormonal, intrauterine device or permanent modern contraceptive methods along with condoms among HIV positive women of reproductive age on antiretroviral therapy in selected hospitals within Gondar City, Ethiopia, as well as possible factors associated with the study outcome. The methodology of the paper consists of a cross-sectional study with the use of systematic random sampling to select 563 participants. The major findings of the study were the low rate of women who used dual contraceptive methods and the factors linked to the study outcome were older women, urban residents, educational status and HIV disclosure.

Overall Comment

This is an important research, which was well conceived that can inform the literature and target programming efforts and the methodology was clearly explained. The contributions to theory and practice would appear to be the increase in knowledge and evidence on the use of dual contraception method in the country setting. The results would be helpful to public health practitioners and policy makers to create programs and restructure the system to reach the target audience.
While reading the background section, for a reader who is unfamiliar with concepts such as dual contraception, the authors do not present any helpful explanation of dual contraception or justification for why dual contraception is included in the study in the first place. At first glance, my definition of dual contraception would have been two different types of contraceptive methods without paying much attention to which specific method. The author should have discussed the effectiveness and reliability of such methods as well as the emphasis on dual methods and not just highly effective methods for women who are on antiretroviral therapy. I cannot judge how well this paper builds on past research, in other words are there other research studies that have reported low utilization of dual contraceptive methods which need to be cited? However, I suggest that the following concerns should be addressed in a revision. My major concerns are addressed below:

1. The literature review is quite brief and does not provide sufficient background for the study for the emphasis on dual contraceptive methods or its efficacy.

2. Acronyms should be well defined at the beginning before being used and when they are already defined, there is no need to re-define them.

3. There is no consistency in the way citations are credited. It is not clear which citation style is being used.

4. There are numerous grammatical errors

Specific Comments

Abstract

1. Within the background section, Human Immune Deficiency Virus (HIV) acronym should be defined before being used elsewhere within the abstract.

2. Within the conclusion section, rather than using 'older age group',… were associated with dual contraceptive use, this should be replaced with 'age'.

Background

1. The acronym HIV/AIDS was already defined in the first paragraph so just use the acronym in the second paragraph.

2. The fourth sentence in the second paragraph should be written as Ethiopia is one of the 'countries' severely affected by the disease, 'with' over 100,000…
3. The third paragraph should be 'show' not showed. What do you mean by 'appropriate care taken for desire for children'? on page 1.

4. Within the fourth paragraph, we already know what HIV stands for, so there is no need to redefine it.

5. Within the last paragraph on p.2, there should be a comma after virtual elimination.

Methods
1. Is there a conceptual framework that was used for the variables being studied?
2. The authors did not provide any ethical review considerations within the methods section.
3. The acronym ART should be defined.
4. The reference on p.3 referring to Gondar City Administration Report should be cited under references.
5. Within the study population paragraph, it should state all 'randomly selected sexually active HIV women of reproductive age (15-49), who had follow up in the ART clinics were included in the study'.
6. What do you mean by five and two degree graduate nurses on p.4?
7. The definition of dual contraception should have been provided in the introduction section where it was first mentioned.
8. The sexually active variable on p.4 should be defined as a client who engaged in sexual activity within one month prior to the survey.
9. IQR on p.5 was not defined

Results
1. There was no title given to all the tables in the document. For table 1, there should be a total N=563 across the heading.
2. Were there any assumptions testing or regression diagnostics conducted for the multivariate logistic regression model?
3. The second sentence under the socio-demographic section should read thus: 'The remaining participants provided incomplete responses and were rejected from the analyses'.
4. For the income results that were reported, is this referring to income per day or per month? In addition, the presentation of that sentence is not grammatically correct.

5. The last sentence of the socio-demographic section on p.5 should read as 'Majority of the participants belong to'.

6. Within the sexual and reproductive characteristics section on p.5, the word 'to' after regarding should be deleted.

7. Within the clinical factors section on p.6, the last words 'were get treatment' should be replaced with 'got treatment'.

8. p.8 lines 7-9, delete 'were ever' and delete 'ever'.

9. IUCD on p.6 should be defined.

10. p.8 line 15, replace computed with conducted.

11. p.8 line 17, replace 'knowing of partner's HIV status' to 'knowledge of partner's HIV status'.

12. p.8 line 18, replace crudely associated with positively associated.

13. p.8 line 24&25, the words 'Urban and Rural' should not be capitalized.

14. On page 5, 6 and 7, why are there table titles without the tables included?

Discussion

1. On page 7, replace 'the current study finding is higher compared to' with 'the percentage of women using dual methods is higher in our study compared to…'.

2. I could not understand this sentence and I believe it needs to be rewritten: The observed variation between the current and previous local studies might be due to the difference in place of residence and marital status as majority, (85%, 86%) of our study participants were from Urban areas and married respectively.

3. The wording of this sentence needs to be changed and a period added at the end: Our study finding was lower than …

4. There is a grammatical error in this sentence on p.7: this high level of maturity helps them to understood…

5. There is no need to capitalize Urban in several sentences.
6. On page 8, I was intrigued by the paper's findings that disclosing one's HIV status is important to the use of dual contraceptive, so I decided to look up the other studies that were stated to support their findings. My interpretation of these findings is that these women may be in committed relationships and have more freedom to negotiate the use of safe practices.

Limitations

1. Are there other variables associated with dual contraceptive use that could not be studied such as financial support, availability of services/supplies, etc.?

2. The limitations to a cross-sectional research study should have been mentioned.

3. The bias should be more specific e.g. is this a recall bias, sampling bias, social desirability, etc?

4. Why is it impossible to provide a generalization about those in the community? Is this due to the study area? This needs a little more explanation.

5. The last sentence has a grammatical error: 'Plus, that, it is impossible to provide a generalization about those who are in the community'.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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