Author's response to reviews

Title: Determinants of unintended pregnancies in rural Ghana

Authors:

Sebastian Eliason (sakeliason@yahoo.co.uk)
Frank Baiden (baidenf@yahoo.co.uk)
Barbara A Yankey (hellobabs8@yahoo.com)
Kofi Awusabo-Asare (awusabo_asare@yahoo.co.uk)

Version: 5 Date: 23 May 2014

Author's response to reviews:

The Editor-In-Chief
BMC Pregnancy and Childbirth
UK.

MS: 1103988124117735 :Research article: Determinants of unplanned pregnancies in rural Ghana

Dear EIC,

Thanks for the initial review of the above article. The article has been revised based on the editorial comments received. below are responses to the comments.

Reviewer: Easmon Otupiri

Discretionary revisions:
The study title suggests that it was conducted in a rural setting in Ghana. However, the study area (Mfantseman municipality) has equal proportions of urban and rural populations. Additionally, Saltpond and Mankessim are described as semi-urban by the authors. The authors may want to have a second look at the study title.

RE: The Central Region of Ghana, where this study was conducted, is 70% rural. The Mfantseman Municipal itself is predominantly rural in that all the major towns have populations over and above 2000. However, the economic sectoral component is predominantly (over 80%) agro-based whilst the socio-psychological characteristics (values, attitudes, tastes and behaviours are also rural in nature. There is only one hospital located at Saltpond. All other areas in the municipality including Mankessim are served by Health Centres.
Minor essential revisions:

1. Abstract

Method: please replace the word ‘district’ with ‘municipality.’ Change ‘regression analysis’ to read ‘regression analyses.’ Change ‘socio-demographic characteristics’ to read ‘factors’ since not only socio-demographic characteristics are listed. Please replace ‘present pregnancy’ with ‘current pregnancy.’

RE: Changes have been done (see text)

Results: when making comparisons to show how good or bad one thing is in relation to another, it is preferable to use the term ‘compared with’ rather than ‘compared to.’ Please replace all crude ORs with AORs. ‘No past experience’ should read ‘no past experience.’ Please write ‘PPFP’ in full.

Conclusion: ‘Living with partner in the same house’ was not shown to be a risk factor for unintended pregnancies. The final statement appears to have been adopted from a previous study, and should be modified to reflect a key recommendation from the current study.

RE: Corrections effected. Living arrangements with partner was shown to be a risk factor (“partner not living with woman is a strong determinant of unintended pregnancy”). It has been revised in conclusion to correctly reflect it.

2. Background

Paragraph 1 – ‘Low and Middle Income’ should read ‘Low- and Middle-Income.’ UNPFA should be written in full. The last statement of the paragraph is not reader-friendly, please rephrase.

RE: Changes done (see text)

Paragraph 2 – ‘physical abuse and violence of women’ should read ‘physical abuse and violence against women.’ ‘Available data suggests’ should read ‘Available data suggest.’ Please provide a reference for the statement on induced abortions and related complications as most common outcomes of unintended pregnancies.

RE: Changes done (see text). Reference provided

3. Methods and materials

Paragraph 1 – Mfantseman is described as a district rather than a municipality. A few lines on the maternal health profile of the municipality will help readers appreciate the context.

RE: district changed to municipal. A brief maternal health profile of the Municipality was provided (ref. 20)

Paragraph 2 – please provide a sentence to explain the term ‘semi-urban.’

RE: Sentence provided in text
4. Results
Paragraph 1 – why is the term ‘semi-rural’ used for Mankessim and Saltpond.
RE: Should have read ‘semi-urban’ instead of ‘semi-rural’. Correction done

1. Methods and materials
Please explain how the 1914 sample size was achieved. Were all the women approached, and 1914 agreed to participate? What was the refusal rate?
RE: Explanation has been provided in text

Tables
Table 1 – the sample size for the various variables varies from 1,769 to 1,904 even though the study sample size is given as 1914. No explanation is offered for this discrepancy. What type of #2 test was performed?
RE: Table reviewed and errors corrected. Explanations for discrepancies have been provided in table. Pearson#2 test was performed

Table 2 – please provide the data for all variables in addition to the reference variable. Why is the age variable grouped into 15-19 years versus >19 years? Is the age variable treated as a continuous or categorical variable? There are asterisks in the table but no explanation is provided.

Table 3 – odds ratio should be reported as adjusted odds ratio (AOR). Figures for the variables ‘past experience with PPFP’ ‘Exclusive breast feeding’ and ‘Rhythm’ do not appear in the table. There appears to be a mix up in the figures reported for the variable ‘period of wait before next pregnancy’ – the reference variable has data.

RE: New tables provided based on Reviewer 2 comments

The study did not identify any limitations, a section on limitations should be provided.
RE: limitations provided

Is there any reason why the study was conducted between January and April?
RE: Reason given in Limitations

Reviewer: Cheryl Moyer
Reviewer’s report:

Major Essential Revisions
1) The manuscript includes 32 individual variables that were examined in
bivariate analysis, with no mention of Bonferroni correction or other adjustment for conducting so many tests. p<.05 is likely not appropriately robust to determine which associations were real vs. which were by chance given so many tests.

RE: Bonferroni’s corrections have been applied with derivation of new results. See table 2.

2) Of the 32 variables tested for bivariate associations, I am willing to bet that many of them are correlated with one another. Age, parity, gravidity, single status, previous history with contraception, previous history with abortion, etc. are all likely to be correlated. It does not appear that the authors explored this potential covariance nor accounted for it in the final analysis. I suggest further analysis exploring covariation and adjusting multivariate analysis appropriately.

RE: Further analyses carried out. Tests of covariation carried out and variables like age of respondent and partner’s age dropped from the model. See table 2

3) The inclusion of each type of family planning method individually likely masks a greater contribution than if they were to be lumped together as "any contraception." Or "modern" vs "traditional" contraception. However, why is it surprising that no exposure to contraception is linked to higher rates of unplanned pregnancy? This is to be expected.

RE: Revisions done accordingly. See table 2

4) The final multivariate model contains so many variables - many of which I posit are correlated - that it did not seem to me to be particularly informative. This is perhaps my biggest concern about this paper. I didn't feel like I learned anything new. Yes, younger women who were not married and did not know about contraception were more likely to have unintended pregnancies. Perhaps I missed a more nuanced interpretation of the value of this finding - so perhaps the authors could expand upon the implications.

RE: Issues addressed in table 2 and discussion section

5) In the conclusion, the authors say that 'women who undergo abortion can be targeted for post-abortion family planning' - yet in the previous paragraph the authors remind the reader that past experiences with abortion were actually associated with a LOWER odds of unintended pregnancies. These two concepts conflict with one another.

RE: This finding is no more relevant after revising the table based on first
comments 1 and 2

Thank You
Yours Sincerely
Dr S Eliason