Reviewer's report

**Title:** Demographic, socio-economic, and cultural fertility differentials in Nepal

**Version:** 2  **Date:** 2 December 2009

**Reviewer:** Gagan Gurung

**Reviewer's report:**

Major Compulsory Revisions

This article needs very close revision in the following areas:

1. Title is not suitable according to the study contents. It does not say about fertility since it is dependent variable in this research. Main important word is wrongly placed. Title should be modified. It can be 'Demographic, socio-economic and cultural factors for fertility differentials in Nepal'. Similarly, study design if reflected in the title would be better. Author need to go through BMC author guideline thoroughly, and look in to the other articles of BMC series to have a clear idea of how to write title.

2. Background is very short, issue is ill defined and lack of adequate literature review to raise the issues.

   Literatures should support study background to clearly show what has been already known, and what need to be done.

   The significance of the problem is not well supported by sufficient literatures. Too few literatures for raising issues. (look at the paragraph in parenthesis)

   [Differentials in fertility behavior and levels in different areas, and among population strata or characteristics, have been one of the most pervasive findings in demography (Cochrane, 1979). Analysis of fertility level, thus remain one of the most important components.]

   Citation of references are missing throughout the article. For example, in the article, it has been written 'High fertility has been a major public health problem in Nepal': where is the reference?

   In the following paragraph of the article (refer to the paragraph in parenthesis), neither reference is cited nor it is expressed in quantitative form. It seems just a general statement. [Although over the past few decades, Nepal has seen substantial improvements on its reproductive health outcomes, total fertility is still very high compared with other developing countries. The level of fertility affects not only its current size, but also has a significant impact on its future rate of growth, as well as the current and future age structure of the population.]

3. In Methodology part, the major methodological problem is the measurement of dependent variable, and selection of independent variables. Author has chosen mean CEB to measure fertility in the study, and tried to correlate with the
independent variables like age of women. With the increase in age of the women, her exposure for fertility is also increased, and so as CEB. Therefore it is not suitable to see the correlation/association between CEB and age of women. Alternatively, author can use mean CEB for age 40-49 (completed fertility) as a measure of fertility.

Similarly, the reference in methodology part is also missing. Methodology part should be written in such a way that other researcher can repeat the process. Author needs to clearly mention about the data and its source, measurement of dependent variables, and independent variables, criteria of selection of independent variables from already conducted survey, statistical test used and statistical analysis done. No clear explanation on how variables for multivariate analysis were selected. It is not necessary to keep all variables in multivariate analysis. Only variables with p-value less than 0.10 can be used. However, it is not explained here.

4. Similarly, author has to consider about how he categorized the independent variables: for example Hindu and others. Instead, categorization can be done as Hindu, Muslim and others. Similarly, author has to think critically other categorization like occupation and media exposure. Author categorized occupation as not working/agricultural sector in a single category. But, if we look in to the DHS 2006 report, not working women is mostly urban, and economically well off; whereas agricultural women is mostly rural (91%) and economically in poor category. So, author need to review these factors. Mass media exposure also need to be defined properly.

5. Write-up of result section need serious improvement. Details of the table explanation should be avoided. Only important points need to be written i.e. it should be made short and sweet. Why p-value is not given while comparing CEB?

6. Following sentence in the article has wrong meaning. It should mean 'rich women were likely to have low number of children than....' instead of 'Our analysis showed that the rich women were less likely to have children (b= -0.120) than those who were poorest.'

7. Author needs to go through number of articles of BMC series on how to present the result section. Author needs to improve how to present his results of bivariate and multivariate analysis. There are some blunders in result section like 'Similarly, women who worked in non-agricultural sectors were significantly higher CEB (3.1) than women who worked in non-agricultural sectors (2.6)' which should be corrected.

8. Interpretation in discussion part is very poor with poor literature support. For example, the sentence 'In Nepal, where contraception is not widely used' (in page 3, 2nd paragraph) may not be correct because CPR of 44% is not low in comparison with other South Asian counterpart. More literature review in context of Nepal and abroad need to be done, and included to support the interpretation of the result.
9. Limitation of the study is not mentioned in the discussion part.

10. Conclusion is not based on the findings/results. It is just a very general statement.

11. Data quality: In table 3, I think your 'N' should be 7809 rather than 8644??

12. Over all write up is poor. But, if properly reviewed it would be worth publishing for its idea.

Minor Essentials Revisions

1. In whole article, reference citation is wrong. For example author cited the reference like this “Similarly, educated women are more likely to postpone marriage, have smaller family size and use contraception than uneducated women (Martin, 1995)” which should be otherwise like ‘Similarly, educated women are more likely to postpone marriage, have smaller family size and use contraception than uneducated women [7]’. And numbering of reference need to be done in reference section.

2. Author needs to follow the BMC references style. Most of the references do not adhere the prescribed format. For example; Author has written the reference as below:


   It should be written like below as per BMC style:


   Every space and full stop counts while we follow a particular reference style.

Discretionary Revisions

1. Author can add on more independent variables like ethnicity/ caste category, ecological zone, development region, and others to make the study more strong. Because, this independent variable might be the strong predictors/confounder for the fertility differentials.

2. Author can divide his write-up in smaller, but logical sub-heading in methodology and result section. Author tried to do it in the result section; however further work out is necessary.

   Level of interest: An article whose findings are important to those with closely related research interests

   Quality of written English: Needs some language corrections before being published
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.