Reviewer’s report

Title: Psychological and social consequences among mothers suffering from perinatal loss: perspective from a low income country.

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Reviewer: Kathleen Pajer

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The purpose of this study was to describe the psychological and social impact of perinatal deaths in a rural area of Bangladesh. It was designed to fill the gap in the perinatal loss literature about effects of this problem on low income mothers in third world countries. It is likely that the impact may be different or worse for these mothers than those in first world countries who comprise most of the research subjects. This new vantage point may give us more information on the post-loss condition of mothers and may shed new light on treatment. Thus, the topic is an important one. There are also several important strengths of the study that are described below. However, several critical problems undermine the usefulness of the work.

ABSTRACT: Clarification is needed re: the sample. Although described later in the paper, the following questions about the sample need to be answered for the Abstract: On what basis were these women recruited? How many of them had a perinatal loss? Given that the authors measured perinatal loss (within the first 7 postnatal days) and 6 week/6 month data, they are really analyzing acute and long-term responses to loss. These are strengths and need to be highlighted. As discussed below, their data analytic approach is sub-optimal for the design and the Abstract results would need to be changed based on different analyses.

BACKGROUND: “Low income countries” needs to be defined. I used third world countries in the text above, but that may not be the correct term. If low income countries is the correct term, then just use that after giving the formal epidemiological or economic definition.

The statistics cited in the first paragraph have neither denominators nor context. Without these, the numbers are not meaningful. Are these world-wide? Are they only the “low income countries”? The authors state that 22% of mother in Bangladesh have PPD and that this is high, but actually it is not much higher than the rate cited for developed countries (15-20%).

The background needs to be developed more. Specifically, the authors need to discuss prolonged depressive symptoms, since that is what one of the things they are measuring. Not all relevant literature has been cited, e.g., Sutan, 2010; Badenhorst, 2008. Three studies have been done that seem somewhat similar to the populations targeted by the authors, one in Malyasia (Sutan) and another in
Nigeria (Adeyemi, cited), and another in India (Chandra, cited). The authors need to make it clear how their study is different.

The final paragraph should make it clear how this study contributes more than the study in reference 7 does. This paragraph also should state the hypotheses.

METHODS: The sample is a population sample with good selection for controls; this is a strength. The method of recruitment is clearly mapped out. The sample size calculation is confusing; this appears to be a matched case-control design.

The data analytic approach is the biggest problem in this study. First, even if the multiple cross-sectional approach was the best (and it is not), the McNemar test is more appropriate than a Pearson Chi-Square test. Second, the data are analyzed as if they are two separate samples, but then the 6 week data seems to have been dropped. Because repeated measurements are taken on each subject, their scores on the Edinburgh are expected to be related (and hence their categorization). Not accounting for this within-subject correlation will lead to an incorrect statistical analysis. Third, the authors have not made the most of what is really a longitudinal study. They have two choices in approach. They can use the Edinburgh scores as continuous variables and do a repeated measures analysis with perinatal loss as the dichotomous predictor. Or, if they want to use the cut-off on the Edinburgh to categorize subjects repeatedly, they could General Estimating Equation (GEE) or General Likelihood Based Methods (GLMM) approaches that would account for the within-subject correlation in category of depression. These methods will answer the primary question and also what appears to be a question that the authors have, but do not overtly state: Does depression persist in women suffering a perinatal loss?

All of these issues pertain to the social consequences variables also. However, it would be better to construct some type of summary variable for these rather than analyzing answers to multiple single items. Is there a scoring system for the instrument from which these were taken?

A final problem in the analysis is that it is hard to believe that the social outcomes and depression would not be related. A multivariable approach to modeling all of the dependent variables could significantly contribute to the literature. The sample and protocol are so well-done that this opportunity should not be missed.

RESULTS: The tables are clear and concise, but reflect a simple descriptive approach, rather than a more complex approach to answering the questions.

DISCUSSION: This section is an appropriate interpretation of the findings, but should be changed accordingly if the data analysis is re-done.

SUMMARY: 1. Major Revisions: Data analysis needs to be revised; Background needs to be re-written as above; other sections will need to be revised as necessary from the new data analyses.

2. Minor Revisions: Typographical errors and grammatical errors throughout the paper need to be corrected.
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, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.