Author’s response to reviews

Title: Poor Social Support as a risk factor for Antenatal Depressive Symptoms among Women attending Public Antenatal Clinics in Penang, Malaysia.

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Reviewer 1

Methodology

What is the formula used to define sample size? They mentioned studies from Pakistan and Thailand to define sample size but this is not an adequate motif. For example, a study with a 90% power should define the prevalence of AD expected to be detected

Re worded to

“Stata was used to calculate the sample size. Using studies from Pakistan (25.0%) and Thailand (20.5%) [1, 2] as a reference for sample size calculation, a sample size of 2928 expecting mothers was required for the study to have 90% power to determine 20% prevalence.”

The analysis paragraph needs to be improved. The main exposure variable is social support obtained from OSS-3 although other measurements of social support was used. There is no explanation about the adjustment used (what are the confoundings variable?)

Re written as

“Prevalence of antenatal depression is reported along with the risk of depressive symptoms due to poor social support which was reported as odds ratio and attributable risk. Poor social support, family and husbands support on the pregnancy were used in the logistics regression analysis to account for confounders and results were reported as adjusted odds ratio.”

Results
Could you clarify some of the results presented? According to the data 2% of husbands are classified as "Not, less and fairly supportive" but 22% of participants were classified as having PSS?. It is reasonable to say that "these pregnant women have nice husbands and bad families and friends?". Usually social support comes mainly from husbands/partners. In this sample with almost 70% of married pregnant women it is hard to understand the results.

In Asian communities, the main source of social support is usually family members, as an example most women in Malaysia stay with their parents during the confinement period (usually 40 days).

We have moved the last paragraph in the discussion relating to migration patterns in Malaysia into the introduction section as requested by the second reviewer and have added the explanation above in the paragraph.

Adjusted OR for other social support measurements were not showed. In table 2 that are only Crude OR for 2 types of social support (from husband and from family). I would like to see adjusted estimates for this variables. We have replaced table 3 with a regression analysis table. Narrative to the table is also changed in the results section of the paper.

The social support variables in Table 2 should be presented in a different ways. The reference should be placed in the first line. I would respect the order: very supportive, supportive and not supportive for husbands attitude - Changes made as suggested

Discussions

There is no discussion of possible limitations for explaining the main results; - Strength & Limitation added

This section is too long with several repetitions of data (presented in results section). For several topics there is a lack of comparison with data from other countries (and cultures) and possible explanations for the findings. For example in one previous publication (Faisal-Cury et al. Temporal Relationship Between Intimate Partner Violence and Postpartum Depression in a Sample of Low Income Women. Maternal and Child Health Journal v. 16, p. 122-128, 2012) we found that social support was a confounding in the the association of postpartum depression and intimate partner violence. The discussion should focus on the main findings - Paragraph 3 in the discussion section has been removed and the last paragraph in discussion placed in introduction as suggested by the second reviewer.
To strengthen the discussion section reference has been made to the paper by Faisal-Cury on how social support is an independent protective factor (paragraph 3 subsection social support in discussion)

The author stated that women with AD are at higher risk of obstetric complications. It should be wise to say that not all authors agree with this statement. (Faisal-Cury et al. Common mental disorders during pregnancy and adverse obstetric outcomes. Journal of Psychosomatic Obstetrics and Gynaecology, p. 1-7, 2010.) 3. There is no discussion about possible limitations - The statement on a study by Faisal Cury et al not finding an association between the adverse obstetrics outcomes has been added in paragraph 3 in background section

The authors used an old citation (Bennet, 2004) to justify the use of screening instruments for AD. There are recent publications defining (not suggesting) the benefits of perinatal depression screening (Siu. Screening for Depression in AdultsUS Preventive Services Task Force Recommendation Statement. JAMA. 2016;315(4):380-387. doi:10.1001/jama.2015.18392) - Reference from Siu added

Reviewer 2

General Comments

Throughout the paper, the authors refer both to "antenatal depression" and "depressive symptoms". These are two different conditions and the authors should be clear and consistent throughout the paper as to what they are measuring and about what they are drawing conclusions (since they use the EPDS as the measurement tool- it really is about detecting depressive symptoms, since the EPDS is not a clinical instrument) - Changes made throughout the manuscript as suggested, however articles which used the term ‘depression’ have been maintained.

The authors also refer to "maternal depression" throughout the paper. It is not clear whether this refers to antenatal depression, postpartum depression, or both. The literature cited when using the different terms needs to be consistent in terms of what previous studies actually measured. - Maternal depression was changed to antenatal depression

The title should include an indication that the research was carried out in Malaysia - Title changed to

“Poor Social Support as a risk factor for Antenatal Depressive Symptoms among Women attending Public Antennal Clinics in Penang, Malaysia”
Introduction

The authors note that poor social support as a risk factor for depression during pregnancy is well-documented in the literature. However, no such studies have been carried out in Malaysia. The authors need to clarify why conducting this study specifically in Malaysia is important, including points such as: the need for research carried out in different contexts so as not to assume certain patterns based on studies carried out only in certain parts of the world, usually the US and/or European countries; the need to develop locally appropriate solutions to locally conducted research.

- Sentence changed to “Although research on antenatal depressive symptoms has been studied in other countries especially in the west but the differences in cultures may show different patterns giving an under or over estimation of prevalence’s and the associated factors”

Many terms are used in relation to social support: emotional, practical, perceived, received, subjective. The authors should use only those terms that are relevant to their research. Overall, none of these terms is defined, which causes confusion for the reader in terms of understanding precisely what social support means to the authors (and how it is measured- an issue for the Methods section)

- There is a mention of the definition of social support in the methods section, however we have added the sentence below into the introduction

“In this study social support is defined as perceived support received from family members, husband/partner and friends”

Methods

It seems that the EPDS has been tested and verified as appropriate for use in the Malaysian context (and among Malaysia's different populations). The authors need to clarify whether this is actually the case. No such statement is made about the Oslo-3 tool, nor does it seem that a translation into Malay or other languages spoken in Malaysia has been carried out and tested prior to this current study. - We have mentioned that a validated Malay version of the EPDS was used in the methods section.

We have added the following sentence

“OSS-3 has never been used to study association with antenatal depression although it has been used for studies on the elderly in Malaysia. The OSS was translated into the Malay language.”
Were women recruited to participate in the study at any gestational age or was a range of weeks selected so that the sample would be homogenous in terms of how far along the pregnancy was for women? Hormonal, social, and other changes take place throughout pregnancy, and variations across pregnancy could have an impact on results. Were any limitations put on women's age; parity (women experiencing pregnancy for the first time might have very different outcomes and factors associated with antenatal depressive symptoms, as compared to women with five previous pregnancies). If all women were included, how was the variation taken into consideration or controlled for in the analysis? - We have added this sentence in the methods

“All expecting mothers irrespective of their gestational period and parity were included in the study.”

And added this sentence in the limitations section

“However the authors are cognizant of the limitations of this study, importantly the sampling method. Sampling all expecting mothers irrespective of their gestational period and parity failed to take into consideration the variation in the hormonal and social levels, and other changes which may impact on the depressive symptoms during the different stages of pregnancy.”

Please change the term "manned" to "staffed" (since many at the clinics are not men). - Changed as suggested

Why were the 20 clinics staffed by family medicine specialists selected for inclusion? Why were the community clinics excluded from the sample? - Sentence explaining the reason was added

“Due to the limitation in terms of costs and time and considering that not all community clinics and health clinics provide all levels of antenatal services, only 20 health clinics in the state which had Family Medicine specialist were used for the study.”

Please comment about how consent was obtained and what the response rate was (ie how many women stated that they did not want to participate in the study)? - More information is added to the methods

“All respondents were provided with a patient information sheet which provided information concerning the study including the reason, benefits and the participant’s rights not to participate or to withdraw from the study at any time. Only after the participant had read the information sheet was she asked to give a written informed consent before starting the interview.”
The following sentence was included in the results section

“Out of the 3270 patients approached in the health clinics, 3,000 agreed to participate and were screened using EPDS. A total of 600 (20%) pregnant women had depressive symptoms”

Why was 90% power needed? What was or were the differences that the authors wanted to detect that made the 90% power (vs some other level) necessary? - The following sentence added

“Power of 90% was chosen to ensure higher probably of finding the estimated prevalence.”

Were any interviews conducted with Chinese-speaking women or was the study restricted to women speaking either Malay or English (the languages for which the EPDS was available)? - The following sentence added

“Only those who could read and understand Malay and English were included in the study.”

Please cite literature that justifies the author's decision to set a score of > 12 for the EPDS as the point for defining a women as experiencing depressive symptoms - Reference added


How was privacy during the interview guaranteed? How were confidentiality and security of the data guaranteed? - The following sentence added in the methods section

“The interviews were conducted by trained nurses in private in the nurse’s room to ensure privacy.”

“The data is stored in the researcher’s office with access to the data only available to the principal investigator. A non-identifiable code was used to ensure the confidentiality of the respondents.”
Is social support received from husband and family one construct or two? Support from husband and family are not measured through the Oslo-3. Separate questions were asked concerning perceived support from husband and family whereas OSLO was used to measure social support in general.

How were the questions framed and were they tested before the interviews were conducted? Why were these added to the interview? The questionnaire was tested in a maternal and health clinic by nurses and was finalized after receiving feedback from the nurses. This explanation has now been added to the manuscript.

Were the questions from the Oslo-3 even useful in the study and relevant to the Malaysian context? Yes. It has been used in studies relating to older adults. As mentioned now in the introduction, social support from family, husband and friends is very important.

Were only married women included in the study? If not, what questions were asked of partners or boyfriends? It seems that questions only referred to husbands. This study did not exclude those who were not married. We have added ‘partner’ throughout the manuscript.

Results

Is "race" the appropriate term to be used in this paper; footnote how "race" is defined in the Malaysian context - The information on races was added in the methods section.

The authors refer to "baseline" variables. This is not a longitudinal study and no baseline (vs post-intervention) exists for the study. - Changed to demographic information.

When describing table 3, there is no need to report both in terms of odds and percentages. In this same paragraph, the first two sentences basically state the same result. And the third restates it but in terms of a percentage instead of odds. - Table 3 has been changed into a regression analysis table using all the social support variables and hence the narrative to the table has also changed.
How did the authors calculate the 15% risk in the population? Which population? - Stata was used to calculate the attributable risks, this is now stated in the methods section.

Discussion

Examining social support alone can not be the sole explanatory factor for antenatal depressive symptoms. The authors need to acknowledge more explicitly why this is such an important factor in the Malay context and to state their recognition that there are certainly other important factors that, in combination with social support, can lend to a deeper understanding of antenatal depressive symptoms (see below, although the research is focused on postpartum depressive symptoms) o E.g de Castro F1, Place JM, Billings DL, Rivera L, Frongillo EA. Risk profiles associated with postnatal depressive symptoms among women in a public sector hospital in Mexico: the role of sociodemographic and psychosocial factors. Arch Womens Ment Health. 2015 Jun;18(3):463-71. doi: 10.1007/s00737-014-0472-1. Epub 2014 Nov 22. - We have added a sentence in the limitations part of the manuscript

“There are many other factors which are involved in antenatal depression, shown by the Nagelkerke R square value in the regression analysis model, social support only explains a small fraction of the factors involved in the development of antenatal depressive symptoms. However understanding the role of social support is important in the Asian context which is taken for granted.”

The authors examined the association between depressive symptomatology and psychosocial factors: low social support, unplanned pregnancies, history of depression, and exposure to moderate or severe intimate partner violence (IPV) during pregnancy - Lastly the authors need to explain the links between antenatal and postpartum depression more clearly. If antenatal depression were addressed, what would be the impact on postpartum depression (prevalence, intensity). While this might involve speculation, it would be a good area to highlight for future research that is needed. - The possible link to the post-natal depression is mentioned in the introduction

“Depression during pregnancy has been shown to be a predicator for postpartum depression [3-5]”

And a sentence added in the conclusion
“The authors suggest a cohort study design involving pregnant women at different gestational ages followed through postnatally to determine the association of antenatal depressive symptoms with post-natal depression.”

The first two paragraphs belong in the Background/Literature Review section of the paper. The Discussion section should focus on discussing the actual results reported from the data garnered in the study - The observations that rural to urban migration has been taking place and that this changes how social support is offered and is available are important to understanding the importance of social support during pregnancy in Malaysia. This information should be provided in the background section of the paper, not the Discussion - We have moved this section into the introduction.

"A simple screening for all pregnant women…” is recommended. The authors need to provide greater detail- what screening tool should be used? When should it be applied? By which personnel? Please provide more detail about how exactly this could be integrated into prenatal care in health clinics throughout Malaysia. - The following sentence was added to the conclusion

“All pregnant women attending the maternal and child health clinics should be screened for antenatal depressive symptoms by the nursing staff using the validated translated version of the EPDS.”