Reviewer’s report

Title: Association of lack of reproductive rights with depression among females. A hospital based case control study

Version: 2 Date: 6 June 2009

Reviewer: Hyungjin Kim

Reviewer’s report:

The question is well defined, methods appropriate, and discussions and conclusions are also generally appropriate.

Major compulsory revisions:

DSM-IV and SRQ20 were first used without being defined or described properly in Methods. SRQ20 is described later, but it would help the understanding of the methods if the paragraph starting at the bottom of page 4 where SRQ20 is described (“Cases diagnosed by ..”) is incorporated with earlier paragraphs describing cases and controls.

A variable called family history is included, but it is not defined what family history this refers to. Not being able to read or write Urdu or English may be a risk factor of depression, but it was not considered in the analysis. Though being able to read or write Urdu or English may be highly correlated with education, this may be an independent predictor of depression.

First paragraph of page 6 says, “Variables with the most significant p values were included in the final model”, and no definition is given as to what is meant by variables with the most significant p-values or what method was used to include or exclude the variables in the final model. Sample size of 304 is not large enough for the number of variables considered in this study. There are at least 13 socio-demographic variables under Table 1 and 21 variables under Table 2. Though the authors state that variables that showed strong bivariate associations such as number of family members or relations did not stay in multivariate analysis, the sheer number of predictors and the potential high correlation of them make the validity of including or excluding more than 30 variables based on any method (though none is described here) questionable. It is strongly recommended that reduction in variables be considered before fitting the logistic regression model, especially for reproductive right variables. Discussion includes a mention of an attempt at this, but the results of it should be included in Results for the benefit of the readers.

In bivariate analysis, some variables such as education and income show trends. For example, increasing education level is associated with decreasing odds of depression. This strongly suggests modeling education as an ordinal variable, rather than to ignore it in multivariable analysis after not finding a significant association upon evaluating it as categorical variables, if that is what has been
Second paragraph of page 7 says there was no interaction found in the model, but it doesn’t make sense to test for all possible combinations of interactions, and it doesn’t state which interactions are tested for.

They found 19% of the potential controls screened positive for depression and stated that it reflects that women in their population of interest do not even know that they are suffering from depression. Part of this is true, but it is not clear if the percentage is reflective of women in Pakistan because a certain unknown proportion of controls came from those who accompanied the cases. It would be interesting to know the percent of controls screened positive among those who accompanied the cases versus others.

The authors conclude that knowledge and appreciation of lack of autonomy in reproductive matters and its association with depression could make a difference in reducing the incidence of depression. But the variables included in the final models are who made the decision to marry, age at marriage, abuse by in-laws, number of hours spent with husband, frequency of sexual intercourse/week, and marital rape. It is unclear if some of these variables (e.g., abuse by in-laws, number of hours spent with husband, frequency of sexual intercourse/week) represent autonomy in reproductive rights in the way they are measured.

Minor Essential Revisions:

Spelling and grammatical errors need to be corrected throughout. For example, “relation ship” should be one word, and “co-morbids” is better as co-morbid illnesses.

What the authors refer to as univariate analysis should be described as bivariate analysis since Tables 1 and 2 describe the bivariate relationships between case versus control status and each of the potential risk factors.

Bottom of page 6 says, “The descriptive and univariate analysis results are described in Table 1”, but both Tables 1 and 2 have such results. The last paragraph of page 6 also says Table 2 gives the final logistic regression, but Table 3 displays the final results.

Selecting control patients from among attendants accompanying the cases may mean that those controls are more likely correlated with the cases in various exposure statuses or potential risk factors of depression because they are likely to share similar family background or socio-demographic background in a subset of the participants. This can introduce bias, though in this case, it is likely to give an underestimation of the association. This should be at least acknowledged in limitation, and it would be informative to provide the percent of controls from among attendants accompanying the cases.

It would be informative also to learn the number of participants who fell in the category of those whose responses needed to be taken verbally to understand
the extent of potential interviewer bias.

Second line of page 10 says, “This could have lead to imprecise measure of some outcome variables”, but it should be, “This could have led to imprecise measure of some exposure variables,” since abuse is not their outcome of interest.

Title and abstract convey the findings appropriately, but it would also be more appropriate if the title reflected the study population specifically as women in Pakistan.

**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.