Author's response to reviews

Title: Determination of the social risk factors related to suicide attempts in Iran: A meta-analysis

Authors:

- Milad Nazarzadeh Mr (nazarzadeh_milad@yahoo.com)
- Zeinab Bidel Miss (Zeinab.bidel@yahoo.com)
- Erfan Ayubi Mr (Aubi65@gmail.com)
- Asadollahi Khirollah Dr (masoud_1241@yahoo.co.uk)
- Kourosh Sayehmiri Dr (kouresh_sayehmiri@yahoo.com)

Version: 4 Date: 12 September 2012

Author's response to reviews: see over
Reviewer's report

Reviewer 1

Title: Determination of the social risk factors related to suicide attempts in Iran: A meta-analysis

Changes in the article after dear reviewer comments, highlited using word software “comment“ in the text.

Version: 1 Date: 7 August 2012

Reviewer: Seena Fazel

Reviewer's report:
Major Compulsory Revisions

1. My main concerns relate to the scope of the paper. I am not convinced that an international readership would be interested in one set of risk factors in relation to one country. This is not sufficiently justified in my view. Is Iran a special case or does it share features with many low income countries or middle eastern countries. Furthermore, the isolation of one set of risk factors need more justification.

Answer: A meta-analysis study that limited to one country and a set of risk factors has less International appeal in glance. But, in the answer to why the study limited only to the social factors, we must say that because of various reasons, usually paid less attention to social risk factors of suicide. For example via search in PubMed, there is little probability to find an article that focused on a specific social factor such as family conflict. On the other hand, conducted a meta-analysis with wide range aims does not have theoretical justification. More specific meta-analysis is more acceptable. Therefore, we preferred to focused on limited areas of the social risk factor (related factors).

Why the study was limited to the Iran. In study protocol we aimed to evaluate social risk factors in international scope and results analyzed separately based on developing and developed country and other related factors. But, after initial literature review, we found that our considered social variables definition are very different between countries. So, combining their results will be obscured. Though, assessment of social related factors in international level through a review article by experts may be more attractive, but there was no justification in the form of a meta-analysis. Therefore, since the authors of this article had a
better understanding of the cultural variables in Iran as well as availability of research conducted in Persian via domestic database, it was decided to limit the study to Iran. Also, Lack of precise and reliable information on the social related factor of suicide among Iranian population, in conjunction with the considerable climate variety in each province in Iran (Such climate diversity is rare in other parts of the world), necessitated a more comprehensive study on the subject to sum up the available findings in the literature. Consequently, this meta-analysis can be used for cross-cultural comparison with other countries and can be used to developing of hypotheses for future analytical studies especially about effect of climates.

Introduction section fundamentally revised.

2. The language is imprecise and there are many errors.

Answer: It is corrected. This paper edited by an academic language professor again. Then frequently revised by KA and MN.

3. I see that the I squared statistics presented were all over 80%, and mostly over 95% and therefore the authors should consider presenting ranges rather than summary prevalences.

Answer: Our experiences in the field of prevalence (observational studies) meta-analysis have shown that high heterogeneity in these conditions are common. This may be due to variety in place, time and population that cross-sectional studies conducted in it. This situation did not be correct (or less likely) even after subgroup analysis. This condition is more likely in country such as Iran with diverse cultures and various ethnic groups. In such circumstances, it is said that reporting of pooled prevalence should be avoided. But in our opinion, reporting of pooled prevalence along with point prevalence and confidence interval of individual studies will assist the readers to get an improved perspective. So we prefer presenting of pooled prevalence in forest plots in addition to the text.

4. The number of factors included in the meta regression is too limited considering the various possible explanations for the heterogeneity. Justification for the included variables should be included.

Answer: Your comment is acceptable and we added two other variables in the model (STROBE checklist score (quality index) and characteristics of the evaluated suicide subjects with regards to attempting results (died people, improved and both one). However, it should be kept in mind that adding large number of variables in the model will lead to a reduced statistical power. We suggest that for every two to three article entered in the meta-analysis, one variable entered into the meta-regression model.

Justification for entrance of each variable added to article text.
5. The graphs are difficult to interpret.

Answer: Further explanation added to the text as well as graphs were modified.

6. Can an explanation for the differences presented simply be due to reporting biases?

Answer: Yes. We added Egger test for publication bias after your comment. Almost, all of them were significant.

- Family conflicts was significant (Egger’s test $\beta_0$: 0.40; $p<0.001$).
- Marriage problems was significant (Egger’s test $\beta_0$: 0.32; $p=0.005$).
- There was no evidence for significant publication bias for educational failures (Egger’s test $\beta_0$: 0.009; $p=0.17$).
- We saw significant publication bias for economical constrains (Egger’s test $\beta_0$: 0.04; $p=0.001$).

7. The results of the multivariate metaregression seem odd to me. The univariate findings change for the first two factors dramatically from circa 0.4-0.5 to less than 0.05.

Answer: In many regression models, the results of univariate and multivariate models are not same. Degree of freedom and the power of multivariate and univariate regression models are not same and the strange of correlation between independent variables have effect on significance of independent variables in multivariate models.