Reviewer's report

Title: Psychological distress among Bam earthquake survivors in Iran: a population-based study

Version: 2 Date: 7 October 2004

Reviewer: Maria Livanou

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Compared to the original version, the revised version of the manuscript is improved as it addresses the main limitations of the study and exhibits better knowledge of the relevant literature. Nevertheless, there are still some problems that require yet another round of corrections before deciding on whether the manuscript is acceptable for publication:

Method Section: The additional information that was provided by the authors on the issue of sampling is still not adequate.

- Information is needed about the pre- and post-earthquake population of Bam, the number of households from which the sample was drawn, how the authors obtained information about the number of households (listings from the authorities? some other inventory of buildings? where these listings relevant to the pre-earthquake state of the city?), and how they addressed the issue of uninhabited (or destroyed) households (or buildings) in their screenings.

- The revision reveals that stratification involved 2 strata: region and size of residence. An explanation is needed as to why stratification was used. Were people in certain regions more/less affluent, or exposed to more/less damage, or did they posses some other characteristic that raised the expectation that they may vary from the rest of the population in the city?

Results - First paragraph:

- Before stating the number of survivors screened, it is important to report the number of randomly selected households from which the screened survivors were chosen. This will give to the reader some understanding as to what proportion of city's households were screened.

- No mention is made of an important finding of the study which is mentioned in the abstract, discussion, and appears at the bottom of Table 1:
that the scores of 58% of the survivors indicated that they suffered from severe psychological distress. I suggest that more emphasis is given to that finding rather than the regression findings, given that the regression did not include many important predictors of post-trauma psychopathology.

- Replace starting sentence 'In all 999 individual.' with 'In total, 999 survivors.'

- Replace 'secondary educational level' with 'secondary school education'.

Results - Second paragraph:

Revise the whole paragraph (description of the ANOVAs) because there are both syntax and grammar errors.

Results - Third paragraph:

a. Entering into the equation only 'the significant findings from the univariate analysis' may lead to serious loss of information. A better way would be to select for inclusion in the regression all variables that correlate with the independent variable at a certain p level (e.g. p>.20).

b. Replace 'were significant independent predicting factors for perceived severe psychological symptoms' with 'were associated with more severe psychological distress'.

Discussion:

- What is meant by 'gender related health inequality' needs to be clarified and relevant references from any existing literature need to be provided to support the statements made. In addition, the use of the words 'deprived' and 'vulnerable' in relation to women and those who are less educated should either be justified and explained, or avoided.

- That female gender is a vulnerability factor for post-trauma psychopathology is accordant with many other studies based on earthquake survivors and survivors of other types of trauma. Need to cite some of these studies.

- The discussion is improved as it mentions the findings of other studies in relation of the differential predictor pattern in PTSD. However, the authors still do not consider adequately the role that findings of previous studies play when they interpret of their own results.

- After mentioning the findings on the differential predictor pattern in page 6, it is important to stress that in the present study, since the GHQ was used, there is no way of knowing which factors related to PTSD and which to depression. The GHQ has items tapping depression but little is known as to how sensitive it is to picking up PTSD (esp. when used in Iran).
The paragraph in pages 6-7 "Most notably it was found that or fear for life": The relationship between loss of relatives and psychopathology may be a reflection of the relationship between severity of trauma exposure and psychopathology. Since no other variables reflecting trauma-exposure (e.g. fear during the earthquake, level of damage to home, injury, etc) were entered in the regression equation, 'loss of relatives' is the only variable tapping that, as there is high correlation between loss of first degree relatives (with whom survivors often share the same roof) and exposure to serious damage or collapse of the house.

- Together with the lack of a PTSD scale in the study the authors should acknowledge the lack of a diagnostic depression scale; this is particularly important because the second (after PTSD) most common psychiatric condition in earthquake survivors is depression.

- The discussion should end with a brief section stating recommendations for future research. The authors have explained in the Methods section that currently there is no validated PTSD measure in Iran. Given that Iran is a country that suffers catastrophic earthquakes relatively frequently, one recommendation could relate to the validation of PTSD measures.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Still many spelling and grammatical errors (e.g. introduction 'on 26 December' should be 'on the 26th of December', or in page 4 'The higher values indicated more psychological symptoms' should be 'Higher values indicated more psychological symptoms' or page 7 first paragraph 'exposure to treat' should be 'exposure to threat', and many others). The authors should consider getting some help from a fluent English speaker.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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: No

Declaration of competing interests:

NONE