Reviewer’s report

**Title:** The effect of family members’ psycho-educational intervention on burden of caregivers and psychiatric symptoms of patients with schizophrenia in Shiraz, Southern of Iran

**Version:** 2  **Date:** 30 August 2011

**Reviewer:** Nicholas Breitborde

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**Major Compulsory Revisions**

1) In the introduction, the authors’ state “Despite the current emphasis on community-based care and family psycho-education for these patients (2,20,21), these approaches have not been attempted in Iran yet. “ However, there are multiple published manuscripts on family psychoeducation in Iran (e.g., Mottaghipour et al., Iran J Psychiatry 2010;5:7-10; Kooalee et al., Int J Soc Psychiatry 2010;54:534-646). Why are these studies not discussed? Also, there is little description with regard to why it would be important to study the applicability of family psycho-education for schizophrenia in Iran. This is, of course, many important reasons to do so--however, the introduction would be strengthened if the authors outlined what these reasons are.

2) How was fidelity to the psychoeducation model assessed for the four psychoeducation groups?

3) The authors’ appear to demonstrate the reliability of the Family Burden Questionnaire by reporting that Cronbach’s alpha from the study in which this measure was developed. Providing the alpha for this measure as applied in the current study would be more informative with regard to the internal consistency of this measure in the current sample.

4) How was reliability for the BPRS ratings assessed?

5) The authors report that there was no statistically significant difference between BPRS and burden scores at baseline. However, when I ran t-test using the means and SDs reported in Table 3, I found that there was a statistically significant difference for positive symptoms, negative symptoms, depressive/anxiety symptoms, BPRS global score, and family burden. For examine, for BPRS positive symptoms, the results of my unpaired t-test was $t (63) = 4.0991; p = 0.0001$. Conversely, the authors report a p-value of 0.502. What accounts for this difference?

Additionally, assuming that these baseline characteristics are correct, this raises concerns about the randomization procedure (i.e., it would be surprising to see so many differences between the two groups of subjects if subjects were
randomly allocated to each condition).

6) When describing the differences between the experimental and control groups at baseline, Time 1, and Time 2 in the results section, the authors do not specify what conclusions are based on t-tests versus ANOVA. This makes it difficult to evaluate the accuracy of the conclusions. Although p-values are reported in Table 3, it is unclear whether these p-values are associated with a t-test or ANOVA.

7) The authors state in the discussion section that “few studies [of psychoeducation] have been carried out in Asian populations, including the Iranian population.” As noted earlier, several studies have already been completed in Iran, and many others have been completed in Asia (e.g., Shimodera et al., 2000 Psychiatry Res.; Mino et al., 2007 Psychiatry Clin Neurosci; Yamaguchi et al., 2006 Psychiatry Clin Neurosci; Sota et al., 2008 Psychiatry Clin Neurosci; Kazumi et al., 2000 Chiba Med J.)

8) Throughout the manuscripts, the authors cite several articles in support of their conclusions that do not appear to actually support their conclusions. For example, in the discussion section, the authors report that “Iranian families report a low level of formal support services as compared with their Western peers.” In support of this conclusion, the reference two studies of family support groups in the United States which do not discuss family services in Iran.

Similarly, the authors reference an article by Magliano and colleagues in support of the conclusion “According to this model [i.e., the stress-vulnerability model of schizophrenia], improvements in the patient’s clinical status and decreases in family burden may be related to the family’s awareness of strategies for dealing with daily problematic situations.” However, this paper by Magliano and colleagues makes no reference to the “stress-diathesis model of schizophrenia.”

Minor Essential Revisions

1) There is inconsistent reporting in the results section. For example, the age of the patients and caregivers in the experimental condition is reported, but the age for patients and caregivers in control condition is not. Similarly, although the authors report p-values for the course of BPRS global scores in the experimental group, they do not report this information for the control group.

2) The clarity of Figure 1 could be improved by connecting the points with lines.

Level of interest: An article of limited interest

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 declared that I have no competing interests