Reviewer's report

Title: Health Beliefs and Carer Burden in First Episode Psychosis

Version: 2 Date: 27 March 2014

Reviewer: Irwin Rosenfarb

Reviewer's report:

The factors that predict caregiver burden are important as caregivers play a significant role in determining outcome for individuals with serious mental illness. This study attempts to examine the relationship between a measure of caregiver burden, the Caregiver Burden Inventory, and the Multidimensional Health Locus of Control scale. The authors found significant correlations between some dimensions of caregiver burden and some dimensions of health beliefs that varied by caregiver ethnicity and gender. Overall, however, in a regression analysis after controlling for patients' symptoms and duration of untreated psychosis, only the belief that health outcomes are controlled by chance correlated with total caregiver burden scores.

My biggest problem with the study is the absence of a significant theoretical formulation that guides the questions asked and helps us interpret the findings. Moreover, the investigators seem to be capitalizing on small differences in the findings comparing the ethnic and gender groups. It is unclear whether any of the differences in correlations are statistically significant. More specific comments are listed below:

1. I would like to know more about the patients, other than that they are in recovery after experiencing an FEP. I would like to know how the authors defined an FEP and how they defined "in recovery."

2. There seems to have been a high rate of refusal to participate in the study. How do the authors explain this? Please also clarify whether the sample may be biased because of this.

3. The only analysis that controlled for patients' symptoms and duration of untreated psychosis was the final regression analysis. I would recommend that the authors also control for these factors when examining the correlations between the CBI and MHLC in each ethnic and gender group.

4. The authors conclude that beliefs and illness perceptions influence caregiver burden. It seems equally plausible that caregiver burden influences illness beliefs and perceptions.

5. p. 10. The authors state that their findings on gender differences do not replicate previous findings, yet no explanation is given for this discrepancy.

6. p. 10. What do the authors mean when they state, "burden seems to correlate in those with an external locus of control"?

7. I do not understand why the authors state that "the results support findings that
women are adapting a more external locus of control in line with men” (p. 10). What, in the results supports this?

8. Finally, although the authors state that "the results suggest that differences in ethnicity, gender, and health belief models can alter perceived burden of care…” (p. 10) no data are presented to support such a conclusion.

I commend the authors for trying to investigate correlates of burden based on gender and ethnicity. In general, however, the authors seem to be capitalizing on chance in interpreting differences based on gender and ethnicity. I think a more theoretically driven paper that examines a few questions, determined a priori, and that controls for patient symptoms and duration of untreated psychosis, would make a contribution to the literature.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.