Reviewer's report

Title: An Asian Study on Clinical and Psychological Factors Associated with Personal Recovery in People with Psychosis

Version: 0 Date: 26 Oct 2018

Reviewer: Randolph Chan

Reviewer's report:

Thank you for the opportunity to review and comment on this paper entitled: "Clinical and Psychological Factors Associated with Personal Recovery in People with Psychosis using the QPR-15". The study fills in a significant gap by conducting a psychometric validation of the QPR-15 in people with psychotic disorders in an Asian setting. Recovery is an important and emerging area of research, and given that one might expect cultural differences between Asian and Western understandings of mental illness and recovery, it is essential that these differences are explored, and that the measures used to explore such differences are appropriately validated in the samples that they are to be used. While the manuscript investigates important issues in the field, there are some theoretical and methodological concerns in the study.

Major recommendations:

1. The sample size of the study is inadequate for performing factor analysis. A commonly used rule-of-thumb for exploratory factor analysis is having a participant-to-item ratio of 10:1 (Costello & Osborne, 2005). Without a sufficiently large sample size, the analysis is likely to be underpowered and the results are thus highly unreliable and non-generalizable. The researchers are suggested to increase the existing sample size in order to yield robust and valid results.

2. It is theoretically arguable to identify clinical factors for personal recovery. By definition, personal recovery is "a way of living a satisfying, hopeful, and contributing life even with limitations caused by illness" (Anthony, 1993). It involves the development of new meaning and purpose in life with or without the presence of clinical symptoms. The implication of having clinical factors for personal recovery is the need for clinical stability (i.e., lower level of psychotic symptoms) to achieve personal recovery. This goes against the essence of personal recovery. Instead of suggesting that there are clinical factors, these constructs (e.g., PANSS, CDSS) should be considered as indicators of clinical recovery, which is a separate but related domain of recovery. Although they should not be seen as factors of personal recovery, they can still be used for evaluating the convergent validity of the QPR-15.
3. Some of the psychological factors (e.g., hope, empowerment) examined in the study are the defining criteria of personal recovery. For example, hope has been identified as a key component of personal recovery in many recovery frameworks and studies (e.g., SAMHSA, 2012). Also, empowerment was one of the elements of CHIME (Leamy et al., 2011). This means that constructs like hope, empowerment, and personal recovery are actually overlapping constructs, which are evidenced by high correlations shown in the study ($r = .62$ and $r = -.53$). Therefore, hope and empowerment should not be considered as factors of personal recovery. Instead, they are parts of personal recovery.

4. While the validation of the QPR-15 in an Asian socio-cultural setting was the main purpose of the study, the applicability and relevance of the QPR-15 to Asian cultures have not been sufficiently discussed. It is suggested to elaborate more on this point to speak to the potential cultural issues.

Other specific recommendations:

1. The introduction section can be enriched by describing more about the background of the QPR, for example its psychometric properties (e.g., how QPR was related to other clinical and psychological constructs in the previous studies) and original factor structure (e.g., the 2-factor solution: intrapersonal and interpersonal subscales, and what do they represent).

2. The paper raises an interesting question on how culture shapes the "conception and needs of recovery" on p. 4. This question is important and relevant to the recovery literature. It is suggested to elaborate more on (1) how personal recovery is conceptualized and understood in the Asian/Singaporean context, and (2) how the Asian conception of recovery may affect the validity and application of QPR-15 in local settings.

3. A total 66 participants were recruited in the study. Did all of them complete both baseline and two-week follow-up? Please describe the attrition rate of the study.

4. For the empowerment scale, it is stated that higher scores represent lower endorsement of empowerment. It is suggested to recode the score for empowerment, with higher scores representing high level of empowerment. This can enhance the readability of the results.

5. While the scree plot indicates one-factor solution, it is suggested to use multiple methods (including eigenvalue and parallel analysis) to determine the appropriate number of factors to retain.
6. Item 4 and 15 show a relatively low factor loading, compared with other items. What are the criteria for retaining an item? In other words, under what circumstance will the item be removed from the scale? Please elaborate the criteria that are employed to determine item retention.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable
**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal