Reviewer's report

**Title:** Validation of the Turkish version of the Centre for Epidemiologic Studies Depression Scale (CES-D) in patients with Type 2 diabetes mellitus.

**Version:** 1  **Date:** 20 April 2011

**Reviewer:** S S Kazarian

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1. **Is the question posed by the authors well defined?**

The authors state that the purpose of the study was to examine the psychometric properties of ‘the Turkish version of the CES-D.’ In the Abstract, they erroneously state that Radloff had proposed a five-factor solution to the English version of the CES-D. While the article is empirically rather than theoretically driven, the authors nevertheless should have advanced specific hypotheses or predictions concerning the factor structure they expected for the Turkish version of the CES-D (1, 2, 3, or 4) and supported their prediction perhaps on the unique characteristics of Turkish culture. Also even if the factor structure of CES-D was culture universal, was there reason to suspect that the expression of depression as measured by the CES-D among Type 2 diabetics would be different from depressive expressions in other medical conditions. A similar limitation concerns specific hypotheses in relation to the correlations of CES-D scores with scores of the other measures, and the potential correlates listed in Table 1.

2. **Are the methods appropriate and well described?**

It is not clear which Turkish version of the CES-D was used in the study as there are seemingly more than one Turkish version of the scale (e.g., Spijker et al., 2004; Tatar & Salukoglu, 2010). Details concerning the factor analysis are missing: what were the KMO and the Bartlett’s Test of Sphericity; what did the scree plot suggest in terms of retention of number of factors; should it be supported by parallel analysis. Of most significance from a theoretical perspective was the absence of reporting of the correlation between the two empirically derived factors.

3. **Are the data sound?**

It is not clear if all the measures used in the study were in the Turkish language and if they were translated using back translation methodology. If not there is a potential confound. Similarly, it is not clear if the three measures were administered in a counterbalanced order. If not there is a potential confound as well. It is also not clear why the demographic, clinical and psychological data in Table 1 were included when theoretically grounded hypotheses were not advanced and when some of the data was already reported in an earlier publication (Makine et al., 2009).
4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

As far as I can tell, yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

Generally yes but not in relation to the two factors of the scale. More specifically, the conclusion that ‘they both contribute and form parts of the overall construct of depression’ needs to be supported empirically, that is the correlation between the two factors and their correlations with the total score; and their differential correlations with the two other measures and the demographic correlates. The two-factor solution they obtained should also be reconciled with the four-factor solution reported by Tatar & Saltukoglu for their Turkish version of the CES-D.

6. Are the limitations of the work clearly stated?

Sample size and representation as limitations should be highlighted.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

As far as I can tell they do in relation to published work but I am not in a position to comment on unpublished work. The authors do miss inclusion of relevant articles in the field (e.g., Tatar & Saltukoglu, Mansour & Jabir).

8. Do the title and abstract accurately convey what has been found?

Except for the error mentioned above, yes.

9. Is the writing acceptable?

Generally, yes.

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

**Quality of written English:** Acceptable

**Declaration of competing interests:**

No competing interests