Reviewer's report

Title: Psychometric properties and confirmatory factor analysis of the Jefferson Scale of Physician Empathy

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Reviewer: Mohammadreza Hojat

Reviewer's report:

This study examines the construct validity of the Jefferson Scale of Physician Empathy by using exploratory and confirmatory factor analysis using data from 853 medical students at the University of Nottingham.

- The large sample size is a plus for a factor analytic study, and the authors should be commended for their choice of using confirmatory factor analysis.
- This is one of the rare studies in medical education in which confirmatory factor analysis has been used.
- Authors’ description of the differences between exploratory and confirmatory factor analysis (pages 4-5 of the manuscript) is informative for readers who are not familiar with the two methods.
- Findings are interesting which support the 3-factor model of the Jefferson scale reported in other studies in different countries.
- Although the 3-factor model is confirmed, but it seems that the overlaps between the factors extracted in this study, and those by others is not large. May be this is one reason that the authors used different titles for their extracted factors. This issue should be addressed in the manuscript.
- Instead of using both exploratory and confirmatory factor analysis with the entire sample, it could be more reasonable to randomly divide the sample into two groups. Exploratory factor analysis could be used with one group, and confirmatory factor analysis with another group.
- Authors can strengthen their discussion by adding a new dimension to their findings about “measurement equivalency” in cross-cultural studies. Factor analysis is one of the recommended methods to assure measurement equivalency in two countries (see Wild D, et al. Multinational trials….Value in Health, 2009;12 (4):430-440).

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.