Author's response to reviews

Title: The attractions of medicine: the generic motivations of medical school applicants in relation to demography, personality and achievement

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Author's response to reviews: see over
Reviewer's reports on revised manuscript.

The attractions of medicine: the generic motivations of medical school applicants in relation to demography, personality and achievement

Reviewer comments are shown below, with our responses to them, as here, in italics.

Reviewer 1: Deborah Saltman

10 January 2006

Reviewer's report:

General

This paper is essentially unchanged, however, much more suitable for a medical education audience.

There were quite a lot of changes which we detailed in our previous response, although we did give our reasons for not carrying out a major re-write.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

Two reviewers have commented on the lack of evidence about the construction and validity of the Medical Situations Questionnaire. The authors have not answered these queries nor provided evidence beyond concordance data about the robustness of the instrument.

The construction of the questionnaire has been described as far as is sensible or feasible. Like many novel instruments, there were many arbitrary decisions in the construction of such a questionnaire, most of which would neither interest the reader nor, in fact, be available to the author who was primarily responsible for writing the questionnaire, the process taking place over a number of years and is oftentimes lost to memory.

The question of validity is a different matter. Notoriously, there are many definitions of validity, and not all are possible or appropriate in a novel questionnaire for research purposes. The interested reader is directed to the most recent edition of the APA, AERA and NCME’s joint publication on testing and assessment (AERA et al., 1999). The subtleties are well described there, and in particular the difference between tests for making decisions about treatment of individuals, where reliability and validity are paramount, and tests such as those used here which are merely for research purposes. The validity of the latter group of tests depends on the purposes to which they are being put, and the scientific interpretations for which they are being
used. As the manual recognises, the latter is an evolving concept, and to a great extent depends on how scientists choose to use and interpret tests, and the collective decision of the scientific community, based on evolving evidence derived from a series of studies using the test and similar tests. What is clear is that there is no simple, one-off, method of demonstrating validity of a new test for all situations and all times. We believe that the factor structure of our test is robust, we have provided evidence of the alpha coefficients of reliability (pace the reviewer’s earlier comment about ‘concordance data’), and we have shown clear and interpretable correlations with a range of background variables. That is probably sufficient for a novel test, particularly when based on several thousand individuals, after previous piloting.

Particular local idiosyncrasies should be highlighted for an International audience, for example, the ethnic categories: are they a recognised way for ethnicity to be described in the UK?

We have clarified this point, and included weblinks to the 2001 Census form itself, and the recommendations of the UK’s Commission for Racial Equality.

Also, since the rational for the study is to explore motivations and not link them to outcomes such as enrolments, the authors need to make a statement about how such a study can contribute to knowledge in the area.

We think that the results and the discussion already make clear that the study has contributed to knowledge in the area.

Reference List