Reviewer's report

Title: The UKCAT-12 study: Educational attainment, aptitude test performance, demographic and socio economic contextual factors as predictors of first year outcome in a cross-sectional collaborative study of twelve UK medical schools

Version: 1 Date: 9 July 2013

Reviewer: Tim Wilkinson

Reviewer's report:

Overall this is a useful study, well designed, well implemented and well written. I do not feel competent to comment on all the statistical analyses that were undertaken, but on the face of it, they seem appropriate and well described.

The strengths of the study are its large sample size, the collaboration across 12 medical schools (which increases generalisability) and the rigour of the design. The questions being answered are important and likely to inform practice.

The only weakness is that the outcomes measures are only based on performance at the end of the first year of medical school. The authors explain why they are confident that the findings are likely to be generalizable to later years – an explanation I find only partly convincing. The lack of any substantial differential effect of the UKCAT sub-scores in predictive validity is perhaps a little surprising and could be explained by either the homogeneous nature of the sub-scores or the homogeneous nature of the outcome measures. I suspect the latter is the more likely explanation and this also suggests to me that results looking at predictive validity for performance in the later years of medical school would be important to learn about. Presumably these will be forthcoming in subsequent publications.

Discretionary Revisions

As such, the authors could consider watering down a little their confidence in their belief that the prediction after Y1 will be carried through to later years - but this is not something I feel strongly about.

I wonder if some allusion to the sub-score analyses should be included in the abstract

Major Compulsory Revisions

Nil

Minor Essential Revisions

Nil

Overall this is a useful study, well outlined and well written.
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests