Reviewer's report

Title: UKCAT and medical student selection in the UK – what has changed since 2006?

Version: 0 Date: 19 Nov 2019

Reviewer: David Alan Powis

Reviewer's report:

This paper is simply a very lengthy summary statement of how UKCAT has been used by British medical schools between 2006 and 2019. It presents a large number of facts, but offers no interpretation, nor explanations (e.g., the authors mention that some schools use a 'factor' approach, but don't explain what kind(s) of factors.) It's acceptable not to report specific cases, lest these schools become 'gamed' by applicants, but to leave the reader without any clue as to what the numbers actually mean makes the data of little value.

Another major criticism is there is no explanation, even in the discussion, about why the selection procedures are used as they are by individual schools. The paper provides no insight about what is going on, even in terms of 'widening access' which is mentioned specifically in the Abstract. For example, what are the outcomes desired by the various schools in terms of applicant characteristics? The reader might be drawn to the most reasonable conclusion that UKCAT serves merely as a convenient administrative tool to reduce the number of applicants to a manageable number. The reasonableness of this conclusion is confirmed by Table 1 which leaves little doubt that the prime focus is on the administrative benefits of this national procedure, rather than it being an instrument to determine and quantify specific desirable personal qualities.

I consider that the figures are unsatisfactory. In addition to lacking explanatory titles, they are difficult to interpret. In the case of the stacked bars graphs, it is difficult to trace the trends of one type of outcome from year to year, because one needs to take into account all the outcomes below (this is recognised as a shortcoming of this kind of graph in stats books). In the cases of 3, 4 and 6, it is challenging to understand which lines are being referring to. It would be much better in most cases to use ordinary line graphs (lines joining up the number of schools for each variable for each year).

Other points:
Page 2/5: I have a personal issue with such tests as UKCAT being designated 'aptitude' tests. Aptitude for what? Certainly not 'Clinical Aptitude'.
Page 2/30: Surely the increase in use of the SJT occurred only because it was now incorporated into UKCAT. Previously there was no SJT to use! (reference to THE SJT implies that it is a fixed entity, that there is only one.)
Page 2/36-38: The meaning of these two sentences is unclear. The second seems be a non-sequitur.
Page 2/41: "used more strongly"?
'Criteria' used in many places where 'criterion' is the correct form.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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.

Unable to assess

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.

Not relevant to this manuscript

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

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