Reviewer's report

Title: Qualitative Approach to Medical School Applicant Admission System: a Case Study

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Reviewer: John Yaphe

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Review of “Qualitative Approach to Medical School Applicant Admission System: a Case Study” by Katz and Vinker for BMC Medical Education

This paper presents a new method of assessing candidates for admission to medical school in addition to older methods that use cognitive test scores and interviews. It describes a series of tasks including a portfolio, intuitive tasks, and measures of self-efficacy to rate candidates. It found attributes related to motivation, sociability and cognition. The method was applied to final year medical students as well and a new attribute labeled arrogance was identified. As such, the paper presents a potentially useful new tool to existing medical school admission procedures. However there are several questions that need to be answered before this paper can be considered ready for publication.

Major compulsory revisions

1. The title should be improved. The paper is less about a qualitative approach to the admission system and more about the system itself. The term case study is misleading. While this medical school is unique in using this admission method, the paper really describes the properties of the tests used and the ways the students responded to them. Perhaps a better title might be “New non-cognitive tests for medical student selection: a qualitative analysis in one school”.

The introduction puts the study into context by present what we know and do not know about the validity and reliability of current medical admission procedures. It discusses the strengths and weaknesses of cognitive based methods. It describes new methods to assess non-cognitive attributes. It discusses the value of qualitative research methods in studying selection procedures. The literature quoted is current and relevant.

2. There is an error at the end of the introduction that needs to be corrected. In line 121 the authors write: “The aim of the current (the word “study” is missing) is to attempt to use the qualitative approach.” This is not an aim. Methods are chosen and used to help us answer questions. What is the main research question? Is the study about the feasibility of the use of new methods to select medical students? Is the study about the feasibility of using qualitative methods to study medical school admissions? A clear statement of the research questions is needed in this paragraph along with a justification of why we need to answer
these questions and do the study. What can this study add to our knowledge and how will it change our practice? The answers to these questions need to be given in the discussion and conclusions of the paper.

3. In the methods section, the description of the study population requires some clarification. While it may be clear to some readers that the term “natives” refers to Jewish applicants or medical students born in Israel, perhaps this should be stated as such. The term “natives” in other contexts may refer to aboriginal peoples who may be an ethnic minority. The term “applicants with an academic background” should also be clarified to explain that these are applicants with a college or university degree obtained before application to medical school.

4. The medical school where the study was conducted is not mentioned by name. The authors may want to consider including this.

The data collection instruments are briefly described with relevant references. The data analysis methods chosen are appropriate, well described and referenced.

5. The recruitment procedure for subjects for the study requires clarification. Though we are told that applicants were informed that participation in the study would not affect admission decisions, we are not told how many students were approached, how many refused, and how many accepted to participate.

6. Ethical approval for the study also requires clarification. Though it appears that the study was conducted ethically with respect for privacy and anonymity in reporting of results, there is no explicit declaration that prior ethical approval for conduct of the study from a research ethics review board was obtained. The institutional website referred to in the note at the end of the paper contains a document on research ethics that states that this is necessary. The authors should address this point in a study of this nature.

The results section presents an interesting classification of the personality characteristics that emerged from the data collected.

7. In line 304 it is not clear what is meant by “delicate” differences between the personality profiles obtained. Perhaps this unusual term should be clarified.

Tests of quantitative validity of the findings appear to be robust. The test-retest experiment afforded by the resubmission of new portfolio material by some candidates is a good example. So is the validation by comparison of scores with ratings from external assessors.

The finding of arrogance among 6th year students in the comparison group is an interesting one. It deserves further study along the lines of recent research on developing empathy in medical students.

The discussion repeats the main findings of the study and explores the internal and external validity of the findings. Norman has suggested that people who do well on knowledge tests early on tend to do well on these tests later. The practice
of medicine requires professionals with a unique combination of knowledge, skills and attitudes and obviously high scores on knowledge tests are not enough. Special personal attributes are required and these differ across medical professions. However there is growing agreement on the attribute of medical professionalism and this requires attention in medical school.

8. The authors might address the question of what kind of professional they hope to produce in their medical school. An educational agenda like the CanMEDS program might help. Understanding the roles of clinician expert as communicator, manager, scholar, collaborator and health advocate can inform medical student selection and training. Perhaps the authors can reflect on how their package addresses these needs.

9. If this report is about the feasibility of the instrument we need additional information on the resources required to implement. Costs in terms of time, manpower and money should be reported. Acceptability of the process to students and assessors is also of interest.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests,