Reviewer's report

Title: Mapping medical careers: Questionnaire assessment of career preferences in medical school applicants and final year students

Version: 1 Date: 3 June 2004

Reviewer: Linda L Gottfredson

Reviewer's report:

General

The paper provides a good overview and integration of three empirically-based career development theories that are useful for understanding choice of medical careers. This allows the authors to look at medical career choice in a more informative way. The RIASEC-based description of the 6 careers at the end of the paper is very good.

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

1. The 3 applicant samples are compared to the 3 samples of final-year students. The latter are considerably smaller than the former, suggesting considerable attrition. Some analysis of loss to followup is required. How do the students remaining at follow-up differ from those no longer in the sample? To what extent is the loss due to leaving the question blank vs. going to a different medical school vs. leaving medical school vs. refusing to participate?
2. Knowing more about loss to followup might help readers better assess two particular reports in the paper.
a. The authors say that differences in results (Figures 3-8) for the applicants and final year students are similar, which is true, but they are noticeably different. I wonder whether the differences are due partly to the substantial loss to followup.
b. By not discussing sample attrition, the authors' Figure 9 invites inferences about longitudinal changes in preferences from Time 1 (applicants) to Time 2 (final year), but that is unwarranted due to loss to followup. I presume that the question could be addressed in an analysis limited to applicants remaining in the sample till the final year.

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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)

1. How were the applicant samples recruited and the final year students located? Prior publications are available, but readers of this article should be given at least a brief account.

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Discretionary Revisions (which the author can choose to ignore)

1. How sure are the authors that students in the first year lab class didn't just make up the data for their 12 "subjects"?
2. page 12: Where is the "suggestion" that a third dimension may be necessary for the applicants? The stress levels for the third dimension are the same (.112) for both applicants and final year students.
3. It would help to label the axes in the figures.
4. typographical error on page 14, middle: 191=1991

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

None