Reviewer’s report

Title: Empathy and big five personality model in medical students and its relationship to gender and specialty preference. Cross-sectional study

Version: 0 Date: 10 Sep 2018

Reviewer: Thelma Quince

Reviewer's report:

This is an interesting article which adds to the debate surrounding the associations between personality and empathy. However it has a number of shortcomings which if addressed would improve the paper.

Background

It breaks new ground in using three different measures of empathy and specifically in using the EQ which has not been used with medical students, and in considering speciality orientation. But a better justification for looking at this topic would enhance the paper. Why is it important? Personality is normally considered to be relatively stable. Perhaps the authors could comment on, or raise, some of the following in the background: the role of personality in selection of students for medicine and/or advice concerning suitability of speciality; personal reflection on personality traits and how these could possibly influence empathetic behaviour towards patients. Some dimensions of empathy, particularly cognitive empathy can, perhaps, be taught and/or modified. The authors need to be mindful that they do not express what are "associations" in terms of causality.

Methods

Please could the authors give a little more detail as to how the survey was administered, i.e.

Were there incentives? Was it completed online? What was the response rate? How was confidentiality ensured?

Results

These are fairly clearly described but some suggestions are given below.

Discussion

The main findings are clearly outlined and well compared with the existing literature. Although the authors make some suggestions relating to medical education the paper would benefit from more detailed comment on these and on the relevance of the associations found to patient care. In
respect of the limitations of the study it would be helpful if the authors clearly stated that the study was conducted in a single institution and used self-report instruments.

Minor points:

Background:

Page 3 line 81, Expression: To date higher empathy scores have been observed..

Page 4 line 101, Expression: concluded that

Statistical methods:

Page 8 line 181, reference to R software needed

Results:

Page 9 Generally, this section would benefit from insertion of the words "score" or "scores". Some examples are given below.

line 208/209, expression: the percentile scores for Agreeableness recorded by our students were below those recorded for the Spanish population, while those for Openness were higher. Also reference is needed for Spanish population scores.

Line 216, Expression: Medical students with below average EQ scores recorded low scores for Openness ....

Line 225, Expression: Higher IRI-PT scores were associated with

Line 232, Expression: furthermore to specialty preference with lower IRI-PD scores..

Discussion:

Line 266, Expression: The empathy is not so present..... This is not well expressed and it is a huge value judgement on the part of the authors. One can argue that, possibly, in some technology oriented specialties empathy may be is less apparent or important in the doctor/patient relationship.

Line 285, Statement unsupported ..An open and more flexible

Line 290, Expression IRI-PD was only positively associated with Neuroticism, as found in other studies.

Line 317/318, Expression: Consequently …this is unclear.
We must teach medical students representative of the general medical student population (not the general population). The low proportion of males 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.

Yes

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.

I am able to assess the statistics

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

Needs some language corrections before being published

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