Reviewer's report

Title: Changes in standard of candidates taking the MRCP(UK) Part 1 examination, 1985 to 2002: Analysis of marker questions

Version: 2 Date: 12 May 2005

Reviewer: David Alan Powis

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General
This paper reports a comprehensive analysis of the standard of knowledge displayed by candidates sitting the gatekeeping examination for professional physicians in the UK, the MRCP (UK) Part I. Disturbingly the conclusion is that standards have been falling since 1997, and the major factor (emerging from their data) that appears to underlie the decline is the change in undergraduate (medical) education that has occurred in recent years. The message that is conveyed must be taken very seriously by medical educators and curriculum planners and implementers.

The paper is well written, easy to read and has taken into account all of the obvious explanations for the observations. This it has done in a commendably balanced way: the final conclusion is not forced on the reader by the authors following a preset biased line, but emerges as the most probable explanation after the other alternatives have been dismissed by the data.

All of the comments that follow are relatively minor points that the authors might consider in a bid to make an excellent account even better.

1. The term ‘diet’ is unusual in this context. It's meaning soon becomes clear, and I would not suggest changing it since I imagine that it is standard terminology in terms of the MRCP examination, but its meaning could be explained at its first appearance by giving a simple synonym. Likewise the usage of 1996/3 etc to indicate the 3rd sitting of the exam in 1996 should be explained at the outset, e.g., method, p.2.
2. Is it a typographical error in the case of 1996/3 (Results, p.2)? 1996/2 is referred to above and below on p.2).
3. Third para, p.3: the phrase ‘independently of question difficulty’ obscures the intended meaning of the sentence. I suggest the whole sentence be rewritten.
4. First line, p.4: I understood (eventually) what is being said by the phrase: ‘35% of those candidates taking the examination on their first four attempts at UK examination centres’, but suggest that the intended meaning could be better conveyed by rewriting it.
5. Page 4, Study 1: Should 1988/1 be 1985/1 (see results summary, p.2).
6. Method, P4: What is a five-part Multiple True-False question? Are those shown in table 1 examples of this form?
7. Method, p.4: how was guessing taken into account?
8. Page 6: could the section on dummy variables be deleted? It is not subsequently referred to, and is thus an unnecessary distraction.
9. Results, p.6 onwards: there is continuing confusion caused by references to 1985 and to 1988 (see 5. above and results summary, p2). In particular we are told about 5332 marker questions in the 43 diets between 1988/1 and 2002/1 (p.6), but then about only 4405 marker questions in the longer period between 1985/1 and 2002/1 which covered 52 diets.
10. Results, p.7 and Figure 2: If ‘(?m)’ were added to the figure legend after the word regression this would, in my view, provide a better link to understanding (though I must confess that I still have difficulty understanding what the solid points (?) in figure 2 actually represent, though I do get the
gist of it!)
11. Page 12: suggest adding a specific reference to the supplementary material relating to grads of non-UK schools after the statement (mid-page) that the decline had taken place in doctors graduating from UK medical schools.
12. Figure 1: explain in the legend what the relevance of the line of identity is to interpretation of the figure.
13. Table 1: suggest adding ‘28’ as per ‘performance of UK graduates on 28 marker items……”

Additional minor points:
14. Conclusion, p.2: suggest breaking second sentence: “……has implications for medical education. Further studies are……”
15. Page 3, line 1: “Practice”
16. Page 3: line 4 from bottom: suggest substituting ‘in’ for ‘on’
17. Page 4, method, second para: suggest substituting ‘distractors’ for ‘item’, as in ‘….stem, distractors and the correct answer…..’

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

Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Accept for publication in BMC Medicine after minor essential revisions

Quality of written English: Acceptable

Statistical review: No

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