Author’s response to reviews

Title: Evidence-based medicine self-assessment, knowledge, and integration into daily practice: a survey among Romanian physicians and comparison between trainees and specialists

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Author’s response to reviews:

Dear Cecilia Pennica, PhD
BMC Medical Education,

Thank you for the e-mail regarding the manuscript "Evidence-based medicine self-assessment and factual knowledge: a survey among Romanian physicians and comparison between trainees and specialists" (MEED-D-19-00555R1) and for the opportunity to improve our manuscript.

We wish to express our appreciation and gratitude to the reviewer for her insightful comments, which have helped us to improve our manuscript. According to her suggestions, we have thoroughly revised our manuscript. All changes done in the revised manuscript are in blue text to be easily visible.

The manuscript was English edited for clarity and misspellings.

Point-by-point responses to the reviewer’s comments are listed at the bottom of this e-mail.

Looking forward to hearing from you.

Best wishes,
Sorana D. Bolboacă

Point-to-point answer to the reviewer’s comments
Maureen Mcevoy (Reviewer 1): Manuscript title: Evidence-based medicine self-assessment and factual knowledge: a survey among Romanian physicians and a comparison between trainees and specialists

Thank you for the opportunity to re-review this manuscript.

Abstract
1.1. Reviewer comments: Lines 24-27: In Background, need more context than a general re-statement of what EBM is.
1.1. Authors’ Response: The background in the abstract was rewritten.
1.2. Reviewer comments: Lines 35-36: I would remove the bracketed information.
1.2. Authors’ Response: Information in the brackets was removed.
1.3. Reviewer comments: Lines 48-50: re-word to: The participants have limited knowledge of EBM and a positive attitude towards the concept. They use mobile medical resources without understanding which of these are evidence-based.
1.3. Authors’ Response: Thank you for rephrasing; it was included in the revised manuscript.

Background
1.4. Reviewer comments: Line 56: avoid starting a sentence with an abbreviation.
1.4. Authors’ Response: The abbreviation was deleted and instead its definition was used.
1.5. Reviewer comments: Line 63: add the year of the study.
1.5. Authors’ Response: Rephased as „Aguirre-Raya et al. reported in 2016 the perception of EBM“.
1.6. Reviewer comments: Line 80: gap has been identified and linked to the aim to "…assess awareness, information and daily use of evidence-based medicine…; the integration of EBM into daily use and practice does not come into the title.
1.6. Authors’ Response: The title was changed as „Evidence-based medicine self-assessment, factual knowledge, and integration into daily practice: a survey among Romanian physicians and comparison between trainees and specialists” but now is long.

Methods
1.7. Reviewer comments: Line 93: replace 'filled' with 'completed'
1.7. Authors’ Response: Thank you for your suggestion. 'filled' was replaced with 'completed'.
1.8. Reviewer comments: Lines 91-109: The 284 words give a great overview of the system of medical education in Romania. However, for the purposes of this manuscript, this information needs to be focused and reduced. As an aim of the study is to compare specialists and trainees, the two groups just need to be clearly identified. It is clear that trainees (or resident physicians) are those who have not achieved at least a first specialty, and as you have pointed out, this trainee period may vary from three to five years depending on the specialty (e.g., three years for family medicine, five years for medical specialties, and up to seven years for some surgical specialties - neurosurgery). What is less clear is whether those who undertake a second specialty are then included in the 'trainee' group for that second period of specialisation or whether these participants were still included in the specialist group because they have gained at least one specialty. It does not seem necessary to include information about credit points, payment and funding, unless the authors believe this impacts on EBM awareness, information and daily use.
1.8. Authors’ Response: The information was rewritten in a shorter fashion and the information about credits and funding was deleted.
1.9. Reviewer comments: Line 112: this should be: Section A consisted of 13 questions related to awareness, knowledge of evidence-based medicine, and knowledge of EBM resources.
1.9. Authors’ Response: The sentence was written as you suggested. Thank you.
1.10. Reviewer comments: Lines 113-114: Section B consisted of 11 questions that related to mobile medical applications (the use, advantages, disadvantages, identification medical apps used that comply with EBM principles).
1.10. Authors’ Response: The sentence was written as you suggested. Thank you.
1.11. Reviewer comments: Lines 116-117: this should be re-worded to "Completion of 10 questions in Section A and two questions in Section B were required for valid submission…"
1.11. Authors’ Response: The sentence was written as you suggested. Thank you.
1.12. Reviewer comments: Line 119: Were responders who completed Section B subsequently lead back to complete Section C?
1.12. Authors’ Response: The sentence was written for clarity.
1.13. Reviewer comments: Line 125-125: Figure 1: remove the identification for closed and open questions from the title and place in the text.
1.13. Authors’ Response: Thank you for your comment. The identification for closed and open questions from the title of Fig. 1 moved in the text.

1.14. Reviewer comments: Lines 149-151: The authors have clarified that a 'trainee' was any respondent undertaking a specialty, regardless of whether this was a first or second specialty, at the time of completing the questionnaire. This may be considered a limitation and would need to be discussed. It would be interesting to analyse as 3 groups with the trainees divided into those undertaking a first or second/third traineeship.

1.14. Authors’ Response: Just 14 participants has the second (13 participants) and respectively thirds (1 participant) specialty so an analysis on two groups could not lead to valid results. However, the criteria for the group was also included at the limitations.

1.15. Reviewer comments: Line 153: the bracketed comment regarding use of square brackets would appear in the tables and not necessarily in text.

1.15. Authors’ Response: The 95% confidence intervals are given in text not in tables and for this reason the information was provided in this section.

Results

1.16. Reviewer comments: Lines 170-173: How many of the participants were trainees undertaking training for a second or third specialty ie they were trainees for a second or third time as compared to those trainees where it was for the first specialty?

1.16. Authors’ Response: The information regarding the number of participants with the second and respectively thirds specialty was included in the revised manuscript and encountered a total number of 14 participants.

1.17. Reviewer comments: Line 180: indicate that only data from the closed questions is represented in the Table.

1.17. Authors’ Response: The issue was clarified in the revised manuscript.

1.18. Reviewer comments: Line 186-187: that the accuracy is higher in paid compared to free resources is a perception or belief of the respondents; the accuracy was not tested?

1.18. Authors’ Response: Thank you for your observation. This aspect was clarified in the revised manuscript.

1.19. Reviewer comments: Line 194: put p value after 'trainees'

1.19. Authors’ Response: The P-value was moved as you suggested.

1.20. Reviewer comments: Line 205: indicate that only data from the closed questions is represented in the Table.

1.20. Authors’ Response: The reflection of the closed question data in the table was clarified in the revised manuscript.

Discussion

1.22. Reviewer comments: Line 213: 'factual knowledge' is a term also used in the title of the manuscript. What this means needs to be clarified and explained more, earlier in the manuscript.

1.22. Authors’ Response: The term 'factual knowledge' was changed as 'knowledge' along the manuscript.

1.23. Reviewer comments: Line 222: 'should 'applied data collection' be 'method of, or format for, data collection'?

1.23. Authors’ Response: Changed as ,"the method of data collection”

1.24. Reviewer comments: Line 230: commence the sentence with "With few exception trainees and specialists showed similar results..."
1.24. Authors’ Response: Changed as you suggested.
1.25. Reviewer comments: Lines 231 -235: Make this two sentences and remove the brackets.
1.25. Authors’ Response: Thank you for your suggestion. The sentence was rewritten in the revised manuscript.
1.26. Authors’ Response: The year was added; 'on a small sample' was changed as you suggested.
1.27. Reviewer comments: Lines 238-243: it is not clear is what meant here? From what I can gather this relates to some of the information in the questionnaire that is 'hidden' within the detail of questions in the questionnaire in Figure 1. Some of the detail of the questions may need to be included briefly to add clarity and context to this paragraph.
1.27. Authors’ Response: The paragraph refer the information included in Table 2; the reference to these results is included in the revised manuscript.
1.28. Reviewer comments: Line 244: ? should this commence with 'It is widely recognized…'
1.28. Authors’ Response: Changed as suggested.
1.29. Reviewer comments: Lines 244-255: Again, a little more detail about relevant questions in the questionnaire is needed to give this context.
1.29. Authors’ Response: Details regarding the relevance with the study and questionnaire is provided in the revised manuscript.
1.30. Reviewer comments: Line 261: 'the'
1.30. Authors’ Response: Thank you for pointing out this issue.
1.31. Reviewer comments: Line 262: May be better as: 'There were also differences; compared to specialists, trainees have……'
1.31. Authors’ Response: Changed as you suggested.
1.32. Reviewer comments: Line 264: it is not clear what is meant by the second half of the sentence: '…pointing out the absence of scientific references to sustain the evidence and the non-functional application as the main drawbacks of medical apps.'
1.32. Authors’ Response: Changed for clarity in the revised manuscript.
1.33. Reviewer comments: Line 265-266: May be better as 'Some of the differences may be related to…'
1.33. Authors’ Response: Changed as you suggested. Thank you.
1.34. Reviewer comments: Line 267: change '…both parts…' to '…both of which are parts…'
1.34. Authors’ Response: Changed as you suggested.
1.35. Reviewer comments: Lines 267-268: change: 'other exceptions, such as great emphasis on the absence of scientific references…' to '…The absence of scientific references and use of non-functional apps by specialists could be explained by the education…'
1.35. Authors’ Response: Changed as you suggested. Thank you.
1.36. Reviewer comments: Lines 277-278: change to: '…have automatic updates as a main feature.'
1.36. Authors’ Response: Changed as you suggested. Thank you.
1.37. Reviewer comments: Line 278: 'students' or trainees'? and add 'with' so this reads '…with the main …'
1.37. Authors’ Response: Changed as you suggested. Thank you.
1.38. Reviewer comments: Line 289: change: 'The medical apps started to be very used in specialities where…' to 'The use of medical apps has increased in specialities where…'
1.38. Authors’ Response: Changed as you suggested. Thank you.
1.39. Reviewer comments: Lines 273-295: Overall, the approx. 500 word section on Medical applications and professional resources could be presented more concisely.
1.39. Authors’ Response: The section was reduced at 402 words in the revised manuscript.
1.40. Reviewer comments: Line 307-308: remove the brackets and make this a separate sentence.
1.40. Authors’ Response: Thank you for your suggestion. Done.
1.41. Reviewer comments: Line 318: change to '…would allow a better assessment to reflect EBM knowledge in clinical practice'.
1.41. Authors' Response: Changed as you suggested. Thank you.
1.42. Reviewer comments: Line 322-325: change to '…an expected answer rather than what is actually done, the lack of control over who actually accesses the survey link and the possibility of arbitrary answers [48].
1.42. Authors’ Response: Changed as you suggested. Thank you.
1.43. Reviewer comments: I believe a further limitation is grouping, definition and subsequent analysis of trainees defined as those currently in training at the time of completion of the questionnaire, irrespective of previously being trainees and having completed one or more specialty.
1.43. Authors’ Response: Amendments were done in the revised manuscript. However, the number of participants in this situation 14 so it is not expected to have significant influence on the reported results.
1.44. Reviewer comments: Line 333: change 'proper' to 'more thorough'
1.44. Authors’ Response: Changed as you suggested. Thank you.
1.45. Reviewer comments: Line 234: change 'which is' to 'which are'
1.45. Authors’ Response: Changed as you suggested. Thank you.
1.46. Reviewer comments: Lines 326-336: The section may be better placed in the body of the discussion or labelled as 'strengths'
1.46. Authors’ Response: Thank you for your suggestion. In the revised manuscript was labeled as Strengths.

Conclusion
1.47. Reviewer comments: Lines 342: change to something like: '…but the respondents could not differentiate the apps which do and do not comply with EBM principles.'
1.47. Authors’ Response: Changed as you suggested. Thank you.

1.48. Reviewer comments: In summary, overall the manuscript is now tighter in structure and detail. Much improved Abstract and Background. Greater detail in the method section with a little too much in some areas as indicated. The addition of the questionnaire structure was useful. Further detail on some questions in the questionnaire is needed however, to give context and clarity to some areas of the discussion. The discussion length has been considerably and appropriately reduced from 2300 to approx. 1600 words. There are some areas still that go further than the scope of the data collected for the study, particularly in relation to medical apps, and could be presented more briefly.
1.48. Authors’ Response: Thank you for spending time reviewing our manuscript and for useful feedback and suggestions.
1.49. Reviewer comments: There are many grammatical errors throughout.
1.49. Authors’ Response: The revised manuscript has sent to English editing service and hope that now all grammatical errors were corrected.
1.50. Reviewer comments: In the reference list there are many references where the author list is incomplete with us of 'et al' in refs 2, 28, 29, 39, 35 and 39 and possibly others.
1.50. Authors’ Response: The references were carefully checked.