Author’s response to reviews

Title: History-taking and empathetic communication - two sides of the same coin?

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Author’s response to reviews:

Dear Dr. Wilkinson, dear Mr. Uleb,

Below please find a point-by-point reply to all reviewers’ comments and suggestions. We are sorry that the manuscript increased by one page in length and by two tables by providing all information requested by the reviewers.

Kind regards,

Sigrid Harendza and colleagues

Reviewer 1: John Frain

1. Please review the references and information used in your introduction to reflect more up to date work and give clearer context.

Reply: We reviewed the references and information in the introduction and updated it according to the reviewer’s suggestion in the attached document within a clearer context (please also refer to the reply to reviewer 3 regarding these aspects).

2. It would help to describe how these skills are taught in your own institution by way of background

Reply: Information on training of communication skills in our institution is provided and patient cases are now presented in a table as suggested by the reviewer in the attached document. Former reference 17 is described further in the methods section of the manuscript.

3. It would be helpful to provide a copy of the CARE questionnaire and some examples of items covered in the histories

Reply: The questions of the German CARE questionnaire are provided in an
English translation in a table. Examples of items covered in the histories cannot be provided because items number 1 to 8 are all required in showing empathy in a first time patient encounter and the extent of perception of each item by the standardized patient can differ.

4. Information of blinding of assessors is required in your methods section

Reply: This information is provided now in the methods section as well as information on SP training and the information that they did not know the students from previous encounters. Because a piloting of the checklists resulted in an inter-rater agreement of 91% it was agreed that only FO could do the rating. This information was already provided in the manuscript.

5. You need to state when the outcome measures were decided and why these ones were chosen

Reply: Outcome measures were chosen when the study was designed and they are stated in the manuscript now.

6. Why not compare empathy with amount of information volunteered by patients?

Reply: This was actually done and also resulted in no correlation. We added this piece of information in the results section without an additional figure.

7. Given the amount of data collected the results seem quite limited in scope

Reply: More information is given now (please refer to answer of question 8).

8. It would be helpful to know whether certain types of medical information were more likely to be collected or volunteered than others and whether any of these correlated with empathy

Reply: As shown in the table 3, information from part 1 is more likely to be collected in all cases than information from part 2. Significantly more information is voluntarily provided from part 1 than from part 2. Neither of these correlated with empathy. These aspects are provided in the manuscript’s results section.

9. Some discussion of how empathy could be used to improve information gathering would be of interest

Reply: We added some aspects regarding this question in the discussion, and we also sharpened the connection of clinical reasoning and history-taking. If one does not have training in clinical reasoning and therefore is not shaping hypotheses while one is interviewing the patient it is much harder to formulate the correct “next question” to ask the patient.

10. How will this study change practice in your own institution

Reply: For our own institution we decided that even though students acquire
history-taking skills and learn about empathetic communication they are lacking clinical reasoning skill which are not taught as in other countries (except for one seminar which my colleagues and I started after we had gathered these data). Whether the dean of Hamburg Medical School will use these findings as a lever for curricular reform we are not able to say.

This is a study of interest particularly as it is in a European setting. I am sure there is a reasonably good article in here if the above points can be addressed. Please see also the attached document for more detailed comment.

Reply: We would like to thank the reviewer for this positive appraisal of our work. We thank the reviewer also for his detailed comments form the attached document which we have addressed and included in the manuscript and in the answers above.

Needs some language corrections before being published.

Reply: The revised manuscript underwent proofreading by a native speaker.

Reviewer 2: Neil Harrison

In the discussion you mention that only 56.4% of potentially relevant questions were asked and that this is naturally concerning. In reality of course a diagnosis or the most appropriate next step in management may be accurately reached without asking every possible relevant question. Were there any figures for the accuracy of the students diagnosis relating to their individual % relevant questions asked? If students happened to be very good at clinical reasoning (although hard to assess) then maybe it would be appropriate not to ask all relevant questions?

Reply: As described in the methods section 30 medical students near graduation participated in an assessment for clinical competences developed for the comparison of students from different types of medical curricula. The validation study for this assessment has recently been published (Wijnen-Meijer et al.: An argument-based approach to the validation of UHTRUST: can we measure how recent graduates can be trusted with unfamiliar tasks? Adv Health Sci Educ Theory Pract 2012 Feb 12). The complete assessment consisted of the consultation hour which we analysed in this manuscript, three hours for the work up of the five patients from the consultation hour, and 30 minutes of discussing the management plans for these five patients with the supervisor. Students’ diagnoses were accurate but they used way too many blood tests and other
diagnostic tests like X-rays and CT-scans (this analysis is under revision in a separate manuscript). Clinical reasoning was measured according to Durning et al.: The feasibility, reliability, and validity of a post-encounter form for evaluation clinical reasoning. Med Teach 2012, and was unfortunately found not to be very high (this analysis is under revision in a separate manuscript where the results are compared with assessed levels of competencies). The enormous data set from this study could not be included in one manuscript but we have addressed the reviewer’s above mentioned aspect in the discussion section.

Reviewer 3: Anne M Cushing

1. Is the question posed by the authors well defined? No
The question posed by the authors is ill defined. In particular the authors refer to History Taking Skills when in fact it becomes apparent that they mean history taking content - they measure the number of questions asked about content not skills - Introduction para 3.

They also imply that communication skills are only about empathy which is a very outdated concept of communication. Any reference to the literature (McWhinney and Silverman Kurtz - Calgary-Cambridge Guide) indicate that interviewing skills include listening, open to focused questions summarising and clarifying to gain comprehensive information as well as rapport and empathy etc. Also where is the evidence that asking lots of questions leads to better clinical reasoning - students could be asking these in a scattergun approach with little understanding of pattern and clinical reasoning in their process.

Patients satisfaction and compliance (an old term) is also related to some structuring aspects of communication (orientation, facilitation and signposting) not just empathy as they state in Introduction para 2. (See Stewart et al.)

Reply: We agree with the reviewer that there is a confusion of history taking skills and content and we thank the reviewer for addressing this important point. We have changed the title of the manuscript and the abstract accordingly and we have clarified this aspect in the research question and in the introduction, included some of the suggested literature and deleted some of the older literature. The content aspects of the medical history of the five patients included
in the checklists were only aspects which were important for hypothesis generation (to include or rule out diseases). Hence, indirectly, not asking for certain aspects could be a sign for low clinical reasoning skills. For this aspect, please also refer to the reply to reviewer 2 which explains the whole context of the assessment setting.

2. Methods. They don't discuss whether SPs were trained or if more than one SP was playing the same role. How the SPs interpreted their ratings.
What % of the information (123 items) is psychosocial and what % biomedical.
Were the students instructed to take a history to reach a differential diagnosis or to arrive at a diagnosis and management plan?
Often students are unclear about what types of information is expected because they aren't clear about the outcome expected.

Reply: Additional information and literature is given regarding SP number and training in the methods section. The SPs were not asked how they interpreted their ratings but during training their perception of the different aspects of the CARE questionnaire which is provided as an accompanying table now was standardized with rating history-taking videos. Of the information, 8.1% are biosocial and 91.9% are biomedical. The items on the checklist are only items which were considered relevant for further clinical reasoning (e.g. the patient with haemoptoe from case 2 works as missionary in Africa and is back in Germany for a brief holiday, hence, in this case his work situation is an important feature for the differential diagnosis tuberculosis). The students were fully instructed about the complete assessment – which is described in the manuscript now – and the purpose of the consulting hour.

3. Yes

Reply: We would like to thank the reviewer for confirming the correctness of the statistical methods we used.

4. Results
The authors do not report the correlation co-efficient. It is obviously small from figure 1 but then it doesn't appear to be negative either and this could be discussed. It is possible from this data to say that being empathic is not detrimental to asking relevant questions? They provide average questions but not means and SDs which would be relevant.

Reply: The mixed models regression analysis as well as the Pearson correlation analysis revealed no correlation (r=0.093, p=.26). This is added in the results and in the figure legend. Mean values and CIs are given in tables 3 to 5.

5. Discussion & Conclusion
In the results para 2 they state patients gave 17.2% of aspect. The authors
conclude that students asking on average 56% of the content questions is alarming but offer no discussion of this. Indeed if the patients 17.2% offered info is added then it looks like 17/18 pieces of info emerge from the average of 23 per patient case (73%). One might ask if this would be sufficient to reach differential diagnosis and management consideration and if not why not. Would a practitioner in everyday clinical practice ask 56%, much more than that or indeed less to work through clinical reasoning?

Why do the authors say that history taking (content presumably) and empathetic communication skills do not seem to be two sides of the same coin? What was their proposition that they are - ie the relationship between them?

There is little discussion about length of station or the fact that they didn't assess the students clinical reasoning or diagnostic ability - because they count questions ie bits of info rather than they way/ chronology/ reasoning apparent in sequential questioning they should be circumspect in discussion and conclusions.

Reply: The 17.2% of the items which were volunteered by the patients cannot “simply” be added to the 56%, because usually the pieces of information the patients were supposed to provide on an open question at the beginning of the consultation, e.g. “Why are you visiting me today” would be pieces of information which require further questioning, e.g. if the patient from case 3 volunteers the piece of information “I have belly pain”, this should trigger further questions like “where, since when etc. which will then be counted as individual pieces of content for further clinical reasoning, hence, will be included in the 56%. We emphasize this in the discussion. As the checklists only contain components which will reveal important pieces of information for clinical reasoning in every case 56% seems very low. We explain this in more detail now in the discussion. As our hypothesis was that students who acquire a high number of medical history information are also perceived as being more empathetic our hypothesis has to be declined according to the data we found. The students who seemed to the patients very empathetic but gathered very little data could be the ones most “dangerous” to patients because the patient is quite satisfied with the doctor who as a matter of fact might not have a clue what is wrong with the patient or will order lots of blood tests and X-rays which is also a harm to the patient (please also refer to the reply to reviewer 2 for assessment of clinical reasoning skills etc.). This is why we feel that history content and empathy are two sides of the same coin but rather two very separate things which are barely if at all connected. Our proposition was that they could be connected (i.e. students who are very empathetic gather more medical details in history-taking). We have adapted the statements in the manuscript. The length of the station (10 minutes) seemed appropriate. As we could see from the videos, many students finished after about 8 minutes and didn’t ask any more questions even though there
would have been plenty of more time. These aspects are added in the discussion.

Discussion

para 1 sentence 4 - this would appear obvious and sentence 5 is incomprehensible.

The last sentence introduces the concept of attitudes - what attitudes are the authors talking about as there is no assessment of attitudes in their study and again what are the history-taking skills of their participants that they refer to - other than knowledge of content and what question to ask.

Para 2 last sentence - what is meant by different objectives learning in communication skills training for male and female students. This suggests stereotyping as there will be a range in each gender group with a mean difference.

What was the range for male participants and for female participants.

Reply: Sentence 4 has been removed and sentence 5 has been reshaped. The cited article was used not to introduce a concept of attitudes but to demonstrate the concept of repetition. This paragraph has been reshaped. With clarifying the terminology – we were not studying history-taking skills but the skill to gather as much medical content by asking questions which are prompted by clinical reasoning – this paragraph has been rewritten. The ranges for female and male participants are given in table 5. The last sentence of this paragraph has been changed to avoid stereotyping.

Conclusions

'History taking' isn't the correct term here unless it is very specifically defined at the outset as being knowledge of what questions to ask. Otherwise it should be replaced with something like. 'Asking relevant questions to get important information for clinical reasoning'

Reply: The conclusion has been adapted according to the reviewers suggestion.

7. The authors have referenced widely but missed some key references particularly in relation to claims they make that nothing is known about patient preference when it is. Introduction Para 3 (Elwyn G at al, Salmon P et al who have looked at what patients want in consultations).

Reply: Thank you for suggesting these references which have been added (including another additional reference by Coulter and Elwyn).

8. The title is confusing - the authors don't explain their hypothesis/ concept of 2 sides of the same coin and then draw a conclusion that this is disproved.
Reply: The title was changed with respect to clarifying the concept and we hope that we have addressed this appropriately by explaining it further in our revised hypothesis.

9. Some minor grammatical errors e.g. Introduction para 2 sentence 4. e.g. Results para 3 should be 'When data from all female standardised patients were combined ... and para 1 the 1st sentence.

Reply: These sentences were adapted.

In Summary
There are some interesting findings here and a lot of work has been done. I appreciate the opportunity to read and review the paper.
I would recommend major revisions to clarify the concepts and terminology, to incorporate a discussion of distinction between history taking skills (which are communication skills) and history taking as knowledge of what questions to ask. I would recommend the authors to be more discursive about the findings and whether the number of questions asked might or might not mean better diagnostic and clinical reasoning ability.

Reply: We addressed the points the reviewer mentions in her summary (please find further details in the answers to the above questions) and hope that the manuscript has improved with our revision.

Needs some language corrections before being published

Reply: The revised manuscript underwent proofreading by a native speaker