Author’s response to reviews

Title: The surgical experience of current non-surgeons gained at medical school: a survey analysis with implications for teaching today’s clerks

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Author's response to reviews: see over
AUTHOR'S RESPONSE TO REVIEWS

Title: (former) Teaching surgical Clerks – A qualitative Analysis of sustaining Knowledge for future Non-Surgeons.

Authors: Sabine Zundel, Adrian Meder, Anne Herrmann-Werner

Version 2; Date 03rd February 2015

Dear Editors,

Thank you very much for the opportunity to revise the manuscript. I have copied the reviewers’ comments into this document (black) and typed the answer underneath (blue). All changes in the manuscript are listed in the text below and are additionally highlighted with blue writing in the revised version of the manuscript. I hope this is convenient for you.

REVIEWER HAZIM SADIDEEN

This is a very interesting topic the authors have explored, and the overall message is useful. Some recommendations have been made in light of the format requested, and I hope that the authors find these useful.

Major Compulsory Revisions:
1. I would recommend that the title is changed to “The surgical experience gained at medical school of current non-surgeons: a survey analysis” or something to this effect, because ultimately this is what they really looked at in this paper.


Additionally to heeding the reviewer’s advice, I included some words to clarify the reason for the study and why the findings are of interest.

2. The data reporting requires some further clarification please. There is no control group in the study.

It is the authors’ opinion, that the study design does not require a control group. The central research question of the study was to identify, “What knowledge, learned during their surgical clerkship, endures and which skills they regularly apply?”. We aimed to discover learning achievements valued by non-surgeons. We further believe, that current surgeons will not be able to differentiate where there learned valuable skills. Being constantly exposed to surgical procedures, it is unlikely that a learning achievement is placed into the right time slot (clerkship, internship or start of residency) in retrospect.

3. Furthermore, it is not clear whether the survey explored the role or presence of other surgical courses that were offered at any of these medical schools.

This is a very relevant aspect and the question should indeed have been included into the analysis, unfortunately it has been missed. Nevertheless, we doubt that it would have influenced the rankings significantly. From a focus group analysis, conducted by the authors on learning in the operating room (Master thesis of the MME), we know that even so students value preparation by simulation very much, workplace based learning is always regarded as the gold standard.

4. In addition, one important question would have been “did you ever consider a career in surgery whilst a student in medical school”.

Students’ considerations for their future careers are a very interesting topic and it is currently researched extensively since a decline in students’ interests to pursue a surgical career has become apparent. During the planning of the study, the authors considered the relevance of this information to answer the research question. We decided, that having considered a surgical career would not influence the value assigned to different skills used today (as current non-surgeons).

5. Table 3 should be annotated, for example what does n signify?
6. Page 4 briefly mentions the methodology, but this needs to be explained again.

Done

7. Could the authors also please reference the other tables within their results sections, so that readers know when to look at the tables?

Table 1 (the questionnaire) is referenced in the method section (page 4, line 113) since it is part of the study design and does not present results.

Table 2 is referenced in the results section (page 5, line 146)

Minor Essential Revisions

1. However as known surveys have their weaknesses too, which should be addressed in the discussion.

Weaknesses had been included in the discussion of the original manuscript (line 238). The paragraph has been extended; other possible forms of analysis are now discussed.

2. It would be useful if the authors’ could please expand on some aspects of methodology e.g. how many people analysed the data/ who “rechecked” the data/ the “basic recommendations of Mayring’s content analysis” would be useful e.g. type e.g. coding/thematic analysis as one would perform for qualitative interviews. These small additions make the explanation of their methodology process more robust.

Done (please refer to point 6 of the major revisions section)

Discretionary Revisions

It would have been interesting to compare different groups, or mention in the discussion that one cannot categories the above specialties as “non-surgeons” and make conclusions with regards to non-surgeons. For example, accident and emergency/obstetrics & gynaecology specialists may have provided some interesting insight into the above perspectives, as perhaps they may have acquired benefit from their surgical rotations in medical school, but are a group who were not addressed. Although it is noted that they may have been excluded as they rotated through a postgraduate surgical clerkship.

It would indeed be interesting to analyze the cohort mentioned above and future studies should include this subgroup or even focus on it. As already mentioned above, the authors were afraid of polluting the data with experience from postgraduate surgical rotations or work in a specialty with OR experience.
REVIEWER ANDREW HILL

The paper starts with the assertion, based on an obscure report from an obscure journal, that surgical teaching is poor. This stands in stark contrast to other reports and personal experience that students tend to love their surgical rotations for the reasons that you identify later.

The “obscure” report was removed from the paper. Unfortunately, there are no non-obscured reports to be found in the literature about students perceiving their surgical clerkship as poor. Nevertheless, the authors are positive that the statement is correct. Informal student interviews, our university evaluation and an international exchange with colleagues verify that the surgical clerkship is often one of the least favorite clerkships.

Finally you have failed to mention the rather selective group of doctors that you interviewed. To avoid any form of surgical rotation since graduation in most jurisdictions identifies a rather extreme sort of doctor—one who avoids surgical rotations at all cost—this is hardly a fair way to assess how well medical students are taught surgery.

In Germany, where the study was conducted, it is quite common that medical doctors do no rotation into Surgery during their training. They definitely do not avoid it at all costs, on the contrary, if someone training to become a neurologist or psychiatrist would look for a surgical rotation, this would be regarded as highly unusual.

REVIEWER MARTINA KELLY

I think the question is one worth asking and will be of interest to readers. Apart from the potential to inform surgical clerkship curriculum, it could help situate the surgical clerkship within the wider undergraduate curriculum, especially as a number of the themes identified are generic e.g. team-work, professionalism.

1. I appreciate that the paper is not written by native English speakers and it may be that some of my interpretation of the paper is influenced by nuances of translation. I struggled with the framing of the question and results in relation to ‘learning objectives’, which to my mind are very specific statements. I agree that the findings can be used to inform learning objective and curriculum development, but that is not quite how the results are situated. I found the use of terms learning objectives, sustaining (would enduring be the correct term?) learning objectives and learning achievements somewhat ambiguous and confusing.

Mrs. Kelly is right; unfortunately none of the authors are native English speakers. We therefore had the manuscript proof-read by a native speaker (Clare Blythe, Research Assistant).

Mrs. Blythe might not have focused on the interpretation of the use of the word “learning objective” but rather on grammar and spelling. The authors agree on Mrs. Kelly’s point, the term learning objective has been used in too broad a sense. The manuscript has been revised and the term exchanged with i.e. “statement”, “learning achievement”, and “category”.

Additionally, the change of the title mentioned above is surely helping since it is a change into the same direction. All changes are highlighted in the manuscript.

2. Background: This section could be strengthened by additional references e.g. to substantiate the sentence that surgical education is perceived as poor and that studies on learning objectives are few (whilst studies may be uncommon, are there any position statements e.g. from colleges on expectations of surgical undergraduate education?)

3. The line of argument is not convincing to me; students’ career choice can be influenced by their educational experiences; whilst learner input into learning objectives is essential, it is not the sole factor.

The background section has been rewritten. The introduction was changed (see above) as suggested by Mrs. Kelly and the other reviewers.

4. L76-78 Could the research question be rephrased to better reflect what was done e.g. to inform learning objective development...

Done

5. Methods: How was the sample identified and contacted (by whom), was it the same in different sites? How was it determined that the sample fulfilled the inclusion criteria?

These points have been added in line 92 – 113

6. As I am unfamiliar with German medical training, is it worth commenting on family medicine e.g. would such residents be working in these hospital sites or do a substantial proportion of medical graduates go into family medicine (in terms of future research or potential missed sample)

Since 1992 it is not possible to work in family medicine without prior training in a hospital (a minimum of 5 years is required). Therefore, these medical graduates are included since a portion of them is currently working in the included departments. Nevertheless, including current family practitioners in the survey might have added valuable information. Further studies should include this subgroup.

7. Did ethics prevent re-mailing at a different time span e.g. 4 weeks later – might that have helped with response rate (maybe not?)

The authors discussed the number of email reminders and decided on just one reminder. We did not want to risk irritation of our colleagues by sending emails that might be considered an annoyance. Additionally, we were quite satisfied with the response rate of 43%, which is regarded high for online surveys.
8. Table 1: questionnaire – ‘Post-gradual’ – replace with ‘postgraduate’.

   Done

9. Analysis: – was this a qualitative thematic content analysis?…

   The information about the analysis has been extended (see above).

10. To again enhance trusting the findings, were any presentations made of the survey findings e.g. at hospital rounds?

   The findings were presented at board meetings at the dean’s office and made public at the annual “Day of Teaching” were educational research is presented to the whole school.

11. Results: is the male/ female response rate representative of those surveyed or the workforce?

   A section about the male/female rate has been added to the discussion (line 251-3): the female response rate is very close to the rate of female first years at Medical School.

12. L157 how were ‘quality of answers, tone of voice and emotional involvement’ identified?

   All answers were read, discussed and assessed by two of the authors, authenticity was judged by the choice of words and use of slang expressions.

13. L160 does ‘strenuousness’ relate to working conditions of the questionnaire?

   Yes, the term has been changed to working conditions

14. L182 I don’t know what ‘because of these inexplicit mentions’ means

   Erased since unclear – reasons for inclusion should not have been in the results section anyway.

15. There is some mismatch in approach and terminology; the paper reads and seems to be framed somewhat in a quantitative paradigm, although the paper title suggests qualitative methodology. If this is the case, more detail on methods is required and care required when using terms like ‘generalizability’.

   Thank you for this important remark. Since the title and the phrasing of the research approach have been changed, the authors believe this issue is addressed and the terminology is now more fitting.
16. I feel there is a risk of over-interpretation within this paragraph. No data has been presented to support emotional involvement and whilst I can understand what the authors are alluding to, I don’t think this study can substantiate these statements, in its present form.

    We believe there is some misunderstanding here: We tried to explain the fact, that a number of participants were able to recall specific events from their clerkship by claiming they were emotionally involved.

17. References: ref 5 and 16 need final details.

    Done

18. Table 3: minor typo – different differing tissues (need to remove 1 word)

    Done

19. The English is a bit difficult to follow at times and although technically correct, lacks ‘flow’ for the reader. Addressing this might help with ‘take home’ message.

    As stated above, we had the manuscript proof-read by a native speaker. We would be grateful however, if the editorial office would recommend further changes which would improve the manuscript and the take home message.

LITERATURE


