

Peer Review File

Article Information: <https://dx.doi.org/10.21037/tau-22-793>

Review Comments (Round 1)

Reviewer A

There are many studies indicating that sexual medicine education during medical school is insufficient. I think you have an interesting angle in your research to study the influence of mentoring in the career choice. The main concerns are the low participant size and use of a non-validated survey. Below are my comments.

Comment: In the title you say: “Perceived influence of medical school sexual health education on specialty selection in young urologists specializing in sexual dysfunction”, but I found no mention about the participants’ age. How do you know they were young? Or is this some language issue I don’t understand? Also, were all participants specializing in sexual function? Did you exclude all that answered they did not have a focus on sexual dysfunction? Also, there is no mentioning of mentoring in the title (nor in the aims). I thought that was the main idea of your paper?

Reply: Thank you for your comments. While we did not specifically ask the participants for their ages, we did obtain PGY levels of all participants, with most participants in residency or fellowship. Due to the lack of specific age-related data, we have removed the word “young” from the title. We have also changed the title to further reflect the impact of mentorship by now having the title of the paper as “Perceived influence of medical school sexual health education and mentorship on specialty selection in urologists specializing in sexual dysfunction.”

Not all of our participants were specializing in sexual medicine. Specifically, only 55% of survey participants were planning on pursuing a career specializing in sexual dysfunction. This is included in line 80 of the manuscript. We did include all participants in the statistics, but lines 104-111 specifically analyze the impact of mentors when comparing those who were planning on specializing in a sexual medicine fellowship vs those who were not.

Comment: Line 81 and 83. Is it necessary to use the word cisgender? If so, maybe it would be nice to open the meaning of the word. It might not be familiar to all the readers.

Reply: The meaning of cisgender has been clarified in lines 6 and 8 of the introduction.

Comment: On the line 96: You say “Healthcare workers often cite” and then you have only one reference. How can you say it is often? There are many papers describing the barriers of physicians not to bring up the subject of sexual health with their patients. Yet you have only cited one. I have actually found the most common barrier for physicians not to bring up the topic to be lack of time. What do studies say about urologists’ barriers?

Reply: Thank you for highlighting this. A second reference has been added (Komlenac et al) and lines 24-29 in the introduction were added to discuss possible barriers.

Comment: On the line 105 you state: “The axiom that urologists are content experts in sexual health..” Maybe you could say urologists should be content experts..? As you also say that they don’t get sufficient education so are they really content experts? Did you measure the respondents’ expertise?

Reply: Thank you for this comment. The wording has been changed to indicate that urologists should be content experts. While our study shows that the education system needs to be improved, urology and gynecology are two of the fields where sexual health takes priority. While we did not measure the respondent’s expertise, urologists are considered content experts.

Comment: On the lines 108 and 109 you give abbreviations. Are they actually necessary? Are those words brought up in the paper more than once?

Reply: Thank you for pointing this out. The abbreviations are not necessary and have been removed.

Comment: Subjects: The participant characteristics could be explained in more detail. Maybe a table or a flow chart would be more informative?

Reply: Paragraph 1 in the results section discusses and demonstrates all participant characteristics that we had collected. Given that it was an anonymous survey, additional information was not available.

Comment: Subjects: I wonder if your respondents are consistent with US urologists in general, regarding gender distribution? The authors should make more of an effort to include more data to help the reader understand how this sample may differ from the population of urologists in US as a whole.

Reply: Thank you for this comment. We have added a new citation to compare our respondent gender distribution to the current urology workforce. The gender distribution of our respondents compares favorably to the future of the urology workforce.

Comment: You stated that the response rate could not be determined. But you could give information about how many members there are in the SMSNA. How many possibly got the link to the survey? The low participant size raises concerns that this sample is not generalizable to most urologists in US – any additional information about factors that may be related to selection into this sample would aid the reader in interpreting the generalizability of these findings. See also my next comment.

Reply: We have added more information regarding the SMSNA membership numbers at the time of the survey distribution (190 members). This accounts for all individuals who received the survey. The response rate was generalized from this and noted to be 36%. This was noted in the results section.

Comment: If I understood correctly, the survey was first distributed in a scientific meeting and later via a website. You could mention why participants were recruited via two different channels. You did not specify how many participated to the survey during the meeting and how many via the website. Why? Maybe you could estimate the response rates too? How many participated in the meeting and how many (members) had access to the website?

Reply: Thank you for this comment. Participants were recruited from two different channels to help increase our sample size and help generalize our findings. Our response rate from the SUPS surgical lab was 100% as all participants had completed the survey. We were able to estimate a response rate from the website distribution after obtaining member information from SMSNA. This has been noted in the results section as it pertains to your previous comment as well.

Comment: How did the authors handle incomplete surveys or track for duplicate responses?

Reply: All responses were entered by hand for the SUPS surgical lab and the survey was set-up in a way that prevented duplicate responses. This information has been added to the Methods section.

Comment: You could also possibly elaborate somehow on non-response - as those who did not bother to respond.

Reply: Thank you for this comment. A sentence has been added to the limitation paragraph of the discussion section discussing the low response rate.

Comment: You say you had 95 respondents but then later you refer to 93 or 94 respondents. Even in the Abstract you say 94. Were there missing replies or why does the number differ? You should explain this.

Reply: The response rate varies due to incomplete surveys. This has been further highlighted in the methods section.

Comment: Line 179, please show numbers to those who did and did not complete subspecialty training (the two groups you compared).

Reply: The numbers have been added to that line.

Comment: Line 218: “the tides appear to be turning”. Maybe you could give this a more academic touch.

Reply: This sentence has been removed.

Comment: Discussion: Maybe you could add the number of participants and the country of origin of the studies you have mentioned as references. That would give a perspective to the reader of the generalizability of the studies. In some cases, you have mentioned this information but not in all.

Reply: Thank you for this comment. Additional information for the number of participants and country of origin for the studies has been included.

Comment: You discuss in bias section that you used a non-validated survey that was created by the study authors. Was the content- and construct validity considered? Was a pilot- and/or field study conducted?

Reply: Thank you for this comment. This is a non-validated survey; however this survey was reviewed by multiple experts in sexual medicine for content and construct. The SUPS surgical lab was our initial pilot study. This information has been included in the limitation paragraph of the discussion section.

Comment: Conclusion: I find the repetition of your main results unnecessary here. Instead, you could elaborate more on your suggestions for improvements: What kind of education and/or mentoring system? How can we ensure that education and/or mentoring will increase influence on the decision to pursue urology?

Reply: Thank you for this comment. The conclusion paragraph has been updated to state improvements that can be made in our current system.

Reviewer B

Comment: This is a study examining the influence of sexual health education in medical school on specialty selection. The major strength of the study is that the topic is highly innovative as it adds to a very limited body of research on the effects of SHE education. These data are specific to urology residents and fellows so they can inform the discipline. And the question this study is designed to ask is an important one: What influence, if any, does having a SHE curriculum in medical school have on urology trainees wanting to specialize in sexual dysfunction?

Reply: We have highlighted this in the last paragraph of the introduction. Sexual health is an important aspect of urologic care and conversation topics we often have with our patients. We therefore hypothesized that those who entered urology or elected to pursue subspecialty training in sexual health may have put more emphasis on sexual health education as a contributing factor to pursue urology.

Comment: The design is a quasi-experimental retrospective study design which is not particularly strong, but can produce data to inform urology training. However, there are three moderate-to-major weaknesses in this manuscript. First, this is a small study, underpowered to detect differences. This should both be clearly stated in the limitations section and the authors are reminded that the absence of significant findings is not proof that a relationship does not exist; only that in this sample, it was not observed. Second, as discussed in the next paragraphs, the results are not fully reported and the statistical analysis is incomplete. Third, the discussion is also problematic in some leaps of logic.

The analysis appears incomplete in four areas:

(1). The presentation of frequency data in this paper is poor. Pie charts only tangentially related to the topic appear in lieu of a table describing the sample characteristics. In terms of outcome data, the frequencies on question 6 results are not presented, and only a mean or possibly a median of Q7 and Q8 appears. Similarly, only partial data are

reported for Q11 and Q12. Given this is a retrospective study asking residents to recall their experience of undergraduate, reporting the number of participants who said “Yes”, “No” and “Unsure” is critical to contextualize the findings. Otherwise, the reader has no access to determining which results are accurate and which are skewed by recall. Presenting these results in a Table would allow readers interested to access the findings more fully.

Reply: A table of answers to each question has now been included in this manuscript.

(2) As stated in the first line of the abstract, the stated purpose of this study is “to determine effects of SHE in medical school on future specialty and subspecialty selection.” Statistically, this implies the authors will compare those who received SHE in med school with those who did not, on outcome variables such as “intending to focus their practices on sexual dysfunction” and “feeling prepared.” However, no results of the primary analysis are presented.

Reply: Unfortunately, there is no way for us to compare the groups of individuals who received exposure to a SHC (and those who did not) with information on whether they want to pursue sexual dysfunction as a career or whether those individuals feel prepared discussing sexual health with patients. This is because we did not ask these questions in a format that would be able to stratify these subgroups. This would be an interesting next step to pursue for a future project.

(3) This is a mixed methods study with an open question at the end. But no qualitative results are presented. This is a situation where the qualitative data may meaningfully inform the quantitative. Even if only 15% of residents said SHE influenced their decision to pursue urology, if they added comments stating it made a critical difference, that would be valuable to report. Conversely, if they said they had already decided on it, or already wanted to specialize in sexual dysfunction, that would be informative. For the 50% who did not receive a SHE curriculum, analyzing comments about how the absence of a curriculum influenced the key outcome variables could be valuable both in its own right and as a contrast. (If few qualitative comments were received making it impossible to do the qualitative analysis, then that should be stated in the limitations.

Reply: Thank you for this important comment. We agree that this is an important limitation. The lack of qualitative data is now included in the limitations paragraph of our discussion.

(4) As described, an analysis between residents and fellows may have inappropriately used Chi-square when a Fisher’s test may be required (given the N of only 6 fellows).

The authors are encouraged to seek a statistical consultation (both on statistical analysis and presentation of quantitative data).

Reply: Based on your comments, we consulted with a statistician. As we did not stratify the group pursuing fellowship vs not into residents, fellows, and attending physicians, our N is greater than 6 (42 decided to pursue further subspecialty training vs 33 who did not vs 18 who were unsure). Therefore, they believe that a chi-square test is correct.

Comment: Because the results were not analyzed to answer the study question, the discussion reads more as making a number of general points than answering the study question. There were two problematic logical leaps that were not clear to this reviewer. First, how the authors conclude that “SHE does not influence specialty choice,” when only 50% of the participants recalled having an SHE, and no qualitative or quantitative comparisons were undertaken, is mysterious. The authors are reminded that asking frequency data is not the same as asking about influence. A second logic leap is stating both the SHE did not influence specialty choice but then concluding the need for more SHE. Once the data have been fully analyzed and presented, a revision of the discussion would improve the manuscript.

Reply: Thank you for your important comments. It is not our intention to suggest that adequate sexual health education exposure does not influence specialty choice. In an ideal world, all students who have substantial exposure to sexual health education during medical school. This would allow us to answer this question with more certainty. That being said, when specifically asked about this, most of our survey respondents did not feel that any sexual health curriculum exposure (or lack thereof) during medical school was particularly influential on their ultimate decision to pursue urology and sexual health subspecialization. Based on your comments, the words “as we found” have been removed from the sentence discussing whether sexual health education affects specialty choice as this was not definitively proven. We have also included a paragraph in the discussions section further discussing limitations of our project.

Comment: In addition, there were some minor typos in an otherwise well written manuscript:

Line 1. Title: Not sure the term “Young” is the right word as it connotes an analysis by age. Recommend reword for clarity.

Line 84. Odd to report an estimate prevalence of 33% sexual dysfunction in German men. Consider replacing this with a prevalence estimate from the US, or one based on systematic reviews.

Line 84 and throughout. “et al” is short for “et alia” and as such is always spelt with a period “et al.”

Line 123 Remove “unique” as redundant.

Line 136 Please check if “American” should be “America”

Line 155. Should “55%” be “Fifty-five percent. Please check instructions to authors about starting sentences with a numeral.

Line 160. “Total time dedicated to SHC was <10 hours in 35% of cases (58%)” is confusing. What does the 58% refer to? Please reword for clarity.

Line 173 “sexual medicine” should be “sexual medicine.”

Line 262 Remove “current” as redundant.

Figures 1 and 2 could be more efficiently combined if presented as tables not pie charts.

Reply: The majority of the requested changes have been made. As various requests were made to present all information in table form, all questions have been presented in a combined document in table form. The pie diagrams have remained to demonstrate the information in a different format.

Reviewer C

Comment: These data need to be treated with caution, but this study provides specific information when choosing the specialty in urology(sexual medicine) and we know that Limited data exist regarding the influence of a SHC during medical training on patient care because there is high level of variability across studies caused by methodology differences in the instruments used to assess presence of sexual medicine education in Medical school and decision in their career, this is seen all over the world.

However, this study becomes very interesting because it shows a surprising result where the Faculty (Professor/ Tutor / specialist) in sexual medicine is an important factor in the choices. The authors demonstrated that less than 15% felt that their sexual health education exposure in medical school had any meaningful impact on their career choices, whereas nearly 70% felt that a training faculty member with expertise in sexual medicine was influential to their career choice. This is relevant given that 55% of our respondents were intending to focus their practices on sexual health. These results suggest that, as the state of sexual health education in medical school currently stands, mentorship plays a greater role in the decision to pursue a clinical practice in sexual health compared with medical school exposures. This study is valuable because it shows where to act in the training of professionals of high caliber and expertise so that we can maintain the good influence, but without neglecting to seek attention to basic training during the medical school phase.

Reply: We thank the reviewer for their insightful comments and for taking their time to review our manuscript.

Reviewer D

Comment: This is a very well written paper with excellent contemporary sources. Appropriate description of limitations. Paper is very well written and highlights an important gap in current medical education.

Reply: We thank the reviewer for their insightful comments and for taking their time to review our manuscript.

Review Comments (Round 2)

Comment: Thank you for your careful considerations of the points raised in the prior review, almost all of which were incorporated. The one item that still struck me as odd was the lack of a table of Demographic Characteristics of the Sample (standard in almost all research studies). Instead, the authors have retained pie charts, and added an item responses to the survey. It makes this manuscript, in this reviewer's opinion, look unprofessional.

Reply: Thank you for the comment. Figure 1 has been removed and Table 1 with demographic information has been added. Table 2 will now be included as supplementary information.