Peer Review File

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Peer Reviewer A Comments

Comment 1: "Evaluating the number of faculty with a subspecialty as well as their interests/skills from institutional websites is subject to many limitations and biases. As an example, per this study, only 79% of residency programs have faculty treating erectile dysfunction. This single statistic should be enough to question the validity of the data. I cannot imagine a single residency program where residents don't get trained in ED/IPP, let alone 21% of the programs"

Reply 1: We appreciate the reviewer's comment. One of the limitations of this study was the lack of descriptive data for many residency program websites as stated in the manuscript. The ACGME case log for urology residents to complete to graduate residency does not require residents to perform any IPP surgeries during their training; instead, only 15 cases of male penis/incontinence surgeries are required. As such, there could be some residency programs where minimal to no training in prosthesis could occur, as supported by this manuscript.

Changes in the text: The limitations of lack of available clinical information on websites is expanded upon within the last paragraph of the discussion section.

Comment 2: "The authors note that their data will not capture subspecialists that are not part of a residency. This is an appropriate acknowledgement. However, they then go on to calculate specific ratios of fellowship trained urologists per 1 million population. I'm not sure how this statistic is accurate at all? clearly, there are subspecialty urologists not counted in this study. Do they not care for the patients in their catchment area?"

Reply 2: We acknowledge the reviewer's comment. This is another limitation of this study, not looking at large private practice urology groups who commonly employ fellowship trained urologists, as stated in the last paragraph of the discussion section. One of the main points of this manuscript was to identify areas lacking subspecialty training as it relates to resident education and training. Large private practice urology groups who were affiliated with residency training programs, and if these urologists were listed on program websites, were counted in the study.

Changes in the text: Additional clarification of including large private practice urology groups as made in the last paragraph of the discussion section. More specific description of only including academic urologists were placed within the map figures.

Comment 3: "The US census denominator appears to be just adults (258 million), rather than the entire population (331 million). Is it specified somewhere, and what is the rationale? If the rationale is that these are adult subspecialties, then why not make it even more precise? For instance, the denominator for andrology/men's health should be adult males, not the entire adult population."

Reply 3: We appreciate the reviewer's suggestion. We only included the 18 years and older population from the 2020 United States Census Data. When this study was conducted, and still to this date, there had been limited release of the 2020 United States Census Data and unfortunately does not include data breakdown by gender. The data could be adjusted based on proposed ratios based off of 2010 census data and projections, but this may not be accurate as it would be 10 years old. If one were to use projected male to female ratios, the ratio of 1 fellowship trained urologist to 1,000, 000 people would at maximum still be less than 1 : 1,000,000 for the majority of subspecialties.

Changes in the text: Additional clarification of the used 2020 United Census Data was added to the methods section.

<u>Peer Reviewer B Comments</u>

Comment 1: "How did you control for overlap between specialties? I would speculate that the MGR and AMH specialties have a decent amount of overlap, particularly in the reference cases stated here. If a specific fellowship was not listed, how did you define subspecialty if both prostheses and urethroplasties were listed within the individual's profile?"

Reply 1: We appreciate the reviewer's comment. During data collection, if a physician had listed both inflatable penile prothesis and urethroplasty was listed, those physicians were counted towards MGR. Physicians who also performed vasectomy reversals were counted towards AMH.

Changes in the text: This is better clarified within the methods section of the manuscript and figure 1.

Comment 2: "Did you factor in if FPM faculty were urology trained or GYN trained?"

Reply 2: We appreciate the reviewer's suggestion. Only urology trained faculty were included in this study.

Changes in the text: A clarification has been made within the methods section (second paragraph of methods section).

Comment 3: “Figure 2 – this map is an interesting depiction of relative distribution of fellowship trained faculty. However, you demonstrate in Figure 1 that the number of faculty offering the reference cases is higher than those who are fellowship trained in those cases. Ultimately, this is important to consider when looking at access to resources and urologic care. It would be interesting to depict a similar Choropleth map demonstrating distribution of access to these services.”

Reply 3: We appreciate the reviewer’s suggestion. This analysis was performed. There was still a lack of access to care within the Western, South Central, and Southeastern portions of the US, more so for GURS and AMH subspecialities performed by any urologists. The Northeastern and New York Sections that had previously showed a lack of fellowship trained urologists showed an excess number of any urologists for all subspecialities compared to the national average.

Changes in the text: These edits have been revised within the results section of the manuscript.

Comment 4: “You bring up the point in lines 184-186 (page 6) that residents may be interacting with fellowship trained faculty more-so than non-fellowship trained faculty for these specialized cases. While I agree that this is an important point, I think another suggestion would be to parse out access to someone who performs those cases and not just limiting to fellowship trained faculty. It is more important to highlight the regions that do not have any access to those services whatsoever if you are using these data to demonstrate hiring needs.”

Reply 4: We appreciate the reviewer’s comments. Please see the response to comment 3.

Changes in the text: These edits have been revised within the discussion section and highlight box of the manuscript.

Comment 5: “Pages 6-7, lines 216-226: There are great points highlighted here about the growing demand for urologic services in these rapidly growing regions. However, I would again argue that a demonstration of access to specialized reference cases in MGR, AMH, and FPM and not just fellowship training is an important distinction to make.”

Reply 5: We appreciate the reviewer’s comments. Please see the response to comment 3.

Changes in the text: These edits have been revised within the discussion section and highlight box of the manuscript.