

Abstract:

There is currently an extreme lack of gender diversity within the field of orthopedic surgery, with about 80% of practicing orthopedic surgeons being males. This study aims to identify the educational level where the lack of gender diversity within the field occurs, explain solutions that have been attempted, and to propose solutions to improve gender diversity. A literature review was performed using Pubmed as the search engine while searching the following keywords: “gender”, “diversity”, “orthopaedics” and “orthopedics” resulting in 14 papers with only 10 being relevant to this paper. Research shows that only 14% of orthopedic residents are female. The results show that pipeline programs have a positive, significant impact on gender diversity within applicants for orthopedic residency - females are educated about and are able to experience orthopedic surgery through internships and shadowing programs therefore deconstructing negative stereotypes about the field, and empowering females to join a male dominated field. Additionally the results show that bias exists within the selection process for orthopedic residencies as well, 61% of females are asked about family planning while only 8% of men are questioned about this. This could be curbed by recognizing this, and other biases and removing them by making sure that each residency interview question is asked to applicants of each gender at an approximately equal rate. This lack of females applying into orthopedic surgery is the product of very little female representation in the field, unwelcoming work environments, and gender bias within the medical school application process. Clinical experience in orthopedic surgery needs to be made available to female students in medical school so that they can feel even further to apply for an orthopedic surgery residency, which could help alleviate the pattern of female students drifting towards fields with significant female representation. Social science currently outlines that 30% representation within a population is the diversity goal, but this goal for gender diversity is not expected to be met until 2060 for orthopedic surgery. However, with medical schools, residency programs, and the current medical industry working together to make the field of orthopedic surgery a more welcoming place for females, this goal could be met faster.

Comparing Gender Demographics in the Stages of Education

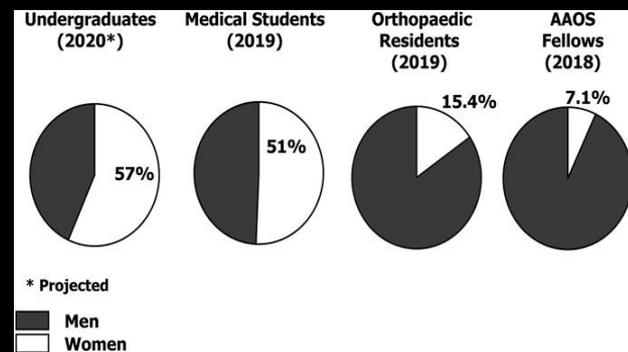


FIG 1. Gender summary of varying levels of education towards becoming an orthopedic surgeon.

Conclusions:

- Orthopedic surgery is the least diverse field of medicine in terms of gender
- The root problem of the lack of gender diversity is the lack of female applicants to orthopedic surgery residencies
- There has not been significant improvement for gender diversity within Orthopedic surgery in the last 15 years.
- Pipeline Programs show a significantly positive impact on improving gender diversity.

Future Directions:

To make sure that more women are represented fairly within orthopedic surgery, the medical community should look towards creating programs to give students clinical experience and informational programs about the field of orthopedic surgery in medical school, removing gender bias in the residency selection process, and by trying to create a more welcoming environment for women currently in the field.

Problem Statement:

There is currently a severe lack of gender diversity within the field of orthopedic surgery, with the bottleneck problem being the lack of female applicants to orthopedic surgery residencies.

Methods:

A literature review was performed using Pubmed as the search engine while searching the following keywords: “gender”, “diversity”, “orthopaedics” and “orthopedics” resulting in 14 papers with only 10 being relevant to this paper. Papers that were considered relevant not only addressed the problems surrounding gender diversity but provided solutions and their efficacies.

Limitations:

- Limited data due to all research being fairly new.
- Only 10 papers used
- Small sample sizes
- Does not address gender diversity beyond “male” and “female”

References:

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