

JPOSNA® Special Edition
2022 Annual Meeting Pre-Course on Diversity, Equity, and Inclusion

Making the Case for Diversity

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Abstract

Orthopaedic surgery lags behind all other medical specialties in its representation of women and underrepresented minorities. Diversity in medical training enhances the educational experience, improves cultural sensitivity, promotes professionalism, and increases the number of physicians who will provide care to the underserved. Diversity of the healthcare workforce leads to enhanced communication, greater patient satisfaction, improved care, better outcomes, and fewer healthcare disparities. Although pediatric orthopaedic surgery has demonstrated recent increases in diversity in the field, there remain opportunities to create a workforce that better reflects our patient population.

Key Concepts

- We remain a homogeneous specialty.
- Diversity of teams and organizations has multiple benefits.
- Diversity in healthcare enhances education, patient care, and outcomes while decreasing disparities.
- It is imperative to maintain a physician workforce that better reflects the U.S. population.

Diversity of teams leads to improved information processing, innovation, and decision-making in many sectors, including business, leadership, law, education, and healthcare. Gender and racial/ethnic diversity in the workplace enhances successes of organizations, promotes different perspectives, and boosts innovation.¹⁻³ Heterogeneous groups more often outperform homogenous groups in problem solving.⁴

Former Harvard President Neil Rudenstine⁵ affirmed the value of different perspectives, whether it be gender, racial, economic, religious, or geographic differences, in the pursuit of knowledge.

The Institute of Medicine acknowledges that racial and ethnic diversity among healthcare workers leads to improved access to care for minorities, greater patient choice and satisfaction, and improved medical

education.⁶ Health policy experts, medical educators, and clinicians recognize the need to diversify the healthcare workforce in order to reduce health disparities.⁷ Individuals of different racial and ethnic backgrounds vary in their perceptions and interpretations of symptoms, beliefs regarding appropriate treatments, reactions to pain and suffering, and their understanding of the doctor and patient relationship.⁸

Diversity has been shown to enhance the educational experience, improve cultural sensitivity, promote professionalism, and increase the number of physicians who will provide care to the underserved.⁹⁻¹¹ The Association of American Medical Colleges (AAMC) defines underrepresented in medicine (URM) as “those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population.”¹² The healthcare workforce in the United States does not reflect the population it serves. In fact, minority groups comprise over 30% of the United States population and are projected to become a majority by 2044.¹³ Whereas African Americans account for 13% of the U.S. population, they only represent 4% of physicians.¹⁴ Unfortunately, African Americans and Hispanics were found to be more underrepresented in medicine in 2016 than they were in 1990.¹⁵

Disparities in the medical field begin early in the education process and persist.¹⁶ Racial and gender disparities are especially notable in academic surgery, where underrepresentation persists at all levels from residents and junior faculty to professors.^{17,18} A study of 90,000 U.S. physicians found women were significantly less likely to achieve the academic rank of full professor at U.S. medical schools, even after correcting for age, years since residency, specialty, and measures of research productivity.¹⁹ Racial and ethnic disparities in faculty promotion in academic medicine have been found in other studies as well.²⁰ Furthermore, there is also a lack of female representation and minorities in various leadership roles.^{21,22}

The disparity in diversity is greatest in orthopaedic surgery, more than any other healthcare specialty, from

trainee level to practicing surgeons. Orthopaedic surgery has the lowest proportion of minority residents²³ and the lowest proportion of female residents, with recent statistics demonstrating approximately 15% women.^{24,25} From 2014 to 2019, there were 37 programs in the United States with no female trainees.²⁶ Representation of female faculty in orthopaedics, at 12%, also lags behind that of other specialties.²⁷ African Americans and Hispanics/Latinos comprise 5% of orthopaedic faculty, lower than that of general surgery (8%) and other surgical and nonsurgical fields. The most recent Orthopaedic Practice in the United States (OPUS) Survey revealed that the proportion of women (6.5%), African Americans (1.5%), and Hispanics or Latinos (1.7%) in practice were even lower.²⁸ The proportion of African Americans and Hispanic or Latinos in orthopaedics has not increased since 2008, which was 1.6% and 1.9%, respectively, 15 years ago.

There are many potential factors that contribute to the dearth of women and minorities in orthopaedics, but there is clearly a pipeline issue, as women and URM are simply not pursuing orthopaedic surgery to the same degree as their white male counterparts. Another reason for the small proportion of women and minorities choosing orthopaedic surgery could be the relative lack of female and minority mentors and/or a lack of exposure to the field.^{29,30} Female orthopaedic residents are more likely than their male colleagues to indicate that a role model of the same sex or ethnicity was a determinant in selecting a surgical field.³⁰⁻³² Unfortunately, compared to all other specialties, orthopaedics has the lowest percentage of women faculty.^{23,26,29,33-35} Minority faculty members serve as important role models and mentors to minority trainees and junior faculty. However, minority faculty members have been historically less likely to be satisfied with their jobs in academic medicine, are more likely to perceive racial/ethnic harassment and bias, and describe additional barriers such as poor retention efforts and lack of their own mentorship.³⁶⁻³⁸

Another potential reason orthopaedic surgery may not be enticing to underrepresented groups is the documented



Figure 1. Second annual meeting of the Pediatric Orthopaedic Society, precursor to POSNA, with a homogenous group of surgeons in 1972.



Figure 2. Enhanced diversity of POSNA 2021 board of directors.

and observed prevalence of abusive behaviors, including microaggressions, bullying, discrimination, harassment, and sexual harassment.³⁹⁻⁴¹ A large

majority (81%) of women surveyed had experienced harassment, discrimination, and bullying in the field of orthopaedics.⁴¹ It has been shown that residents are



Figure 3. (A) Drs. Emily Dodwell, Kali Tileston, Christen Russo, Julie Samora, and Corinna Franklin sharing camaraderie at a POSNA event. (B) “Bathroom selfie” representing dozens of women at IPOS[®] 2021. (C) POSNA 2021 annual meeting tennis outing in Dallas with a diverse group of surgeons.

the most likely victims of microaggressions, more so than fellows or attendings, and that can be off-putting if rotating medical students observe these behaviors.⁴⁰

Interestingly, the field of pediatric orthopaedic surgery has shown great promise in enhancing diversity from its original inception (Figures 1–3). Pediatric orthopaedic surgery has had the largest increase in female applicants for fellowship (25%) compared to other orthopaedic subspecialties.⁴² In 2014, 19% of active POSNA members and 34% of candidate members were

women.^{43,44} Extrapolated to 2025, POSNA membership is expected to be 41% women.⁴³ However, we still have work to do if our ultimate goal is a workforce that represents our patient population.

Pipeline programs have been shown to be very effective in enticing women and URMs into the field.^{45–47} Inviting women and URM faculty as grand rounds speakers or visiting professors may enable young surgeons to be exposed to potential role models and mentors. Social events such as a “Women’s Night Out” or “Diversity

Activity” (such as a book club or gathering) can foster camaraderie and support within a program (See Figure 3C). Finally, an inclusive and welcoming culture within the working and learning environment along with zero tolerance policies for discrimination and harassment are key to changing the status quo.

Challenging this disparity will require a multifaceted strategy that increases exposure at all levels to foster the pipeline and maintains the underrepresented minority and women that currently work in orthopaedic surgery. An open and inclusive environment will not only attract the best and brightest to orthopaedics, but will also create a healthier learning and work environment while concomitantly improving patient care and healthcare outcomes. With diversity as a priority, we can create and maintain a workforce that better reflects the U.S. population to reduce healthcare disparities, improve the health of our patients, and enrich the field of orthopaedics.

Disclaimer

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