**POSTER 73**

# Race and gender distribution among Orthopedic Oncologists

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**Background**

Orthopedic surgery is one of the least diverse specialties in medicine. A recent workforce survey by the American Academy of Orthopedic Surgeons reported that less than 2% of practicing orthopedic surgeons are African American, 2.2% Hispanic and 0.4% Native American. Over 90% of orthopedic surgeons are male, though the number of female surgeons has shown a small increase over the past decade from 4 to 5.8%. We sought to report on the demographic distribution of orthopedic oncologists and evaluate the Accreditation Council of Graduate Medical Education (ACGME) Resident Survey data over the past decade to look at musculoskeletal oncology fellows in the training pathway.

**Questions**

- What is the demographic distribution of current members the MSTS by gender and race/ethnicity?
- How has the distribution of race/ethnicity and gender of MSTS members changed since 1970?
- What is the current distribution of fellows, according to the ACGME, by race/ethnicity and gender?
- How has the distribution of race/ethnicity and gender of Musculoskeletal Oncology fellows changed in the last decade?

**Methods**

We obtained membership information from MSTS. We tabled current distribution by gender and race/ethnicity. We only included members from the United States. Members were then separated by decade of enrollment from 1970-1979 to 2010-2020 to assess demographic trends over the last fifty years. To assess the future of the field, we compiled data from the past decade of ACGME Resident Surveys. We tabled distribution of fellows by gender and race/ethnicity with year of fellowship from 2010-2020.

**Results**

The current race/ethnicity distribution of active members of the MSTS is as follows: Caucasian 68%, Asian American 5.4%, African American 3.5%, Hispanic 1.3%, Native American 0.3%, Multi-racial 0.3%, Other 0.3%, 2.2% indicted they did not wish to report and 18.7% left the question blank. The current gender distribution is 82.6% male and 17.4% female.

The number of non-white members of the MSTS has increased from 1 to 24 over the past three decades. From 1990-2020 the distribution of female MSTS members increased from 2.9% to 22.6%.

In 2020, the current race/ethnicity of fellows is as follows: Caucasian 77%, Asian American 8%, Other/Unknown 15%. 23.1% of fellows identify as female while 76.9% identify as male. From 2010-2020, 7 African American fellows have been trained in the field compared to 12 Hispanic, 23 Asian American, 0 American Indian/Alaskan Native and 0 Native Hawaiian/Pacific Islander. 79 out of 128 fellows identified as Caucasian in the last decade. In the same decade, the total number of female fellows trained was 33 (25.7%), with a mean of 3.3 female fellows in training each year. The number of female fellows peaked in 2017 with 7 (53.8%) in training.

According to the 2019 U.S. Census, the current race/ethnicity distribution of Americans is as follows: Caucasian 61.6%, African American 12.4%, Asian American 6.0%, American Indian and Alaska Native 1.1%, Native Hawaiian and Other Pacific Islander 0.2%, Other 8.4%, and Multi-racial 10.2%. Musculoskeletal oncology comprises 1-2% of all cancers. Based on the reported information from MSTS and ACGME, the minority patient population lacks representation.

There are potential discrepancies in self reporting race and ethnicity. 66.6% of MSTS members that joined from 1970-1979 did not list race/ethnicity upon enrollment. 20% of members that joined from 2010-2020 left the option blank. Additionally, ACGME did not have a “multi-racial” selection offered prior to 2015. Finally, there is no data on non-binary gender identification for either MSTS or ACGME. In addition, we realize not all practicing orthopedic oncologists are members of MSTS and not all musculoskeletal fellowships are ACGME accredited.

**Conclusion**

As a subspecialty, orthopedic oncology represents a slightly more diverse field compared to all of orthopedics, but we still do not represent the patients that we serve. There are ongoing initiatives by the J. Robert Gladden Orthopaedic Society, The Ruth Jackson Orthopaedic Society, Nth Dimensons and the Perry initiative, among others to improve diversity in orthopedics. Subspeciality societies also need to help this by encouraging and supporting students and residents from various backgrounds to pursue careers in orthopedic oncology, encouraging their members to provide mentoring and sponsorship, and provide resources for research into the disparities that this unequal representation promotes.