

ASSESSING LITERATURE OF EFFORTS IN DIVERSITY, EQUITY, AND INCLUSION WITHIN CARDIOTHORACIC SURGERY TRAINING PROGRAMS

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Background

- Thoracic surgery saw a doubling of underrepresented minority (URM) applicants and between 2010-2018, still has the lowest proportion of such compared to other surgical specialties
- Current literature acknowledges the need for diversity in the field, describes the implementation of diversity task forces and frameworks to address ways to improve diversity in thoracic surgery training programs
- Many areas of opportunity through which thoracic surgery can expand and diversify its membership to improve outcomes for underserved patient populations
- Disparities are concerning for the diversity and future of thoracic surgery itself and patients who require these surgeons' expertise

Aims

- Generate a baseline understanding of current knowledge and efforts regarding diversity, equity, and inclusion (DEI) in thoracic surgery
- Create effective strategies that bring more URM medical students and residents to the field
- Bring new perspectives to the field and provide an understanding and enhanced level of care for URM patients

Methods

- Comprehensive literature review of all published texts in PubMed and EMBASE databases between October 2021 and June 2022
- Main Keywords: cardiothoracic surgery, thoracic surgery, thoracic, general surgery, internal medicine, diversity, equity, inclusion, DEI

Inclusion Criteria:
 all published works in English

Exclusion Criteria:
 works not available in full text, works not relevant specific to DEI in thoracic surgery

Results

- Disparity remains between the percentage of Black and Latino trainees compared to the national population -- addressing implicit bias is required to properly discuss the general lack of DEI (Erhunmwunsee et al., 2019)
 - Problems associated with such implicit bias include tokenism of URM trainees, frequent instances of microaggression, and feeling of not belonging
- Much of the increase of women in CT surgery was due to their increased enrollment in integrated (I6) programs as opposed to traditional programs (Olive et al. 2021)
 - Number of URM resident applicants to general surgery remained relatively unchanged in the past decade
 - Proposed strategies to increase said pool of URM applicants: blinded steps in candidate selection, equal sharing of ideas in rank meetings (rejecting hierarchical valuation of opinion)
- Female students had generally low interest in the field due to perceived detractors in lifestyle, family planning, and length of training compared to male colleagues (Foote et al., 2017)
- Society of Thoracic Surgeon's (STS) Workforce to champion DEI recognizes that so long as the number of URM matriculants to medical school remains low, so will the URM candidate pool for thoracic surgery (Cooke et al., 2019)
 - Survey of STS members (9.3% response rate) revealed majority of respondents believe it is very important to or important to have a representative group of URM and women as thoracic surgery trainees and attendings and in the workforce in general
 - Female respondents described the lack of URM or female mentorship and representation as primary perceived barrier to achieving DEI in thoracic surgery



Figure 1. Recommendations for DEI advancements in thoracic surgery (Erkmen et al., 2021)

- Ten measures to mitigate bias, including commitment to diversity, training in bias mitigation, blinded and standardized application steps, encouragement of advocacy and shared ideas during the evaluation process, and the collection of data to advance research on DEI initiatives in the field (Erkmen et al., 2021)
- Compared to general surgery, there are more URM and women trainees, but this improvement mostly benefits white women (Kenshinro et al. 2020), issues directly feeds into those of thoracic surgery
 - Recommend use of holistic review and a common application (low cost), early surgery exposure through clerkship/awards/workshops targeting women and URM students to create interest, incentivization of participation in programs and meetings that may be otherwise out of reach for certain students (high cost)
- Compared to internal medicine, interventions included trainings in implicit bias, blinding of USMLE exam scores, and the search of experiences in their applicants that would best fit program's mission while covering the needs of the communities served during training (Aibana et al. 2019)
 - Increase of URM applications reviewed from 14.1% to 20.4%, interviewees from 16.0% to 24.5%, and matriculants from 12.5% to 31.7%. However, the amount of URM applicants did not change significantly

Conclusions and Implications

- Guides and recommendations describe diversity task forces and frameworks that address ways to improve diversity in thoracic surgery training programs and in the field overall
- No literature that studies the efficacy of interventions to increase DEI in thoracic surgery
- Pronounced focus also placed on bottlenecks early in or prior to medical training that minimize the pool of URM applicants to thoracic surgery training programs
- Potential areas for future research:
 - Collection of demographic data at the level of thoracic surgery programs to guide DEI efforts at an institutional level,
 - Broad surveys of thoracic surgery trainees can be obtained to gather a more complete view of attitudes and cultures within the field
 - Methods and recommendations used by other fields can be modified and tested in thoracic surgery to determine best methods and factors of consideration specific to the field and the needs of its trainees
- Any further study of DEI in thoracic surgery will be contributory to general knowledge of the subject and field overall

Disclosures

There are no disclosures or conflicts of interest for any contributing party