

INTRODUCTION

- Patients in minority groups experience a **lower standard of care in surgical fields**, potentially due to the lack of diversity amongst the surgical team treating them.¹
- Previous research has highlighted the **value of diverse medical teams** in bridging gender, cultural and linguistic gaps, and consequentially improving the quality of patient care.^{1,2}
- American Surgical Association released a white paper **identifying areas for improvement to ensure equity, diversity and inclusion** in academic surgery.³
- Although surgical fields are progressing towards enhanced gender and racial diversity, **white males still predominate** and efforts towards gender and racial parity are necessary to enhance patient care.^{4,5}

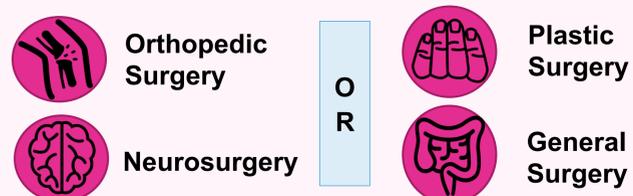
OBJECTIVES

- Identify if women and those of minority races are less likely to be authors in surgical subspecialty clinical trials.
- Determine if a gap exists in the gender and race distribution of authors compared to the distribution amongst participants enrolled in clinical trials.
- Determine if the distribution of gender and race in authors has changed over time to become more reflective of the characteristics of participants enrolled in clinical trials

METHODS

- DESIGN:** systematic sampling review

- ELIGIBILITY:** Surgical fields investigated for comparison of the heterogeneity of authors and participants among clinical trials:



- STUDY SELECTION:**

Search Strategy

- Searched variations of "surgery" and "randomized controlled trial"

Literature Search

- Systematically searched MEDLINE and Embase from January 2021 to June 2021

Data Extraction

- Data extracted for each surgical specialty in duplicate for author sex and demographics, trial characteristics and participant gender and demographics.

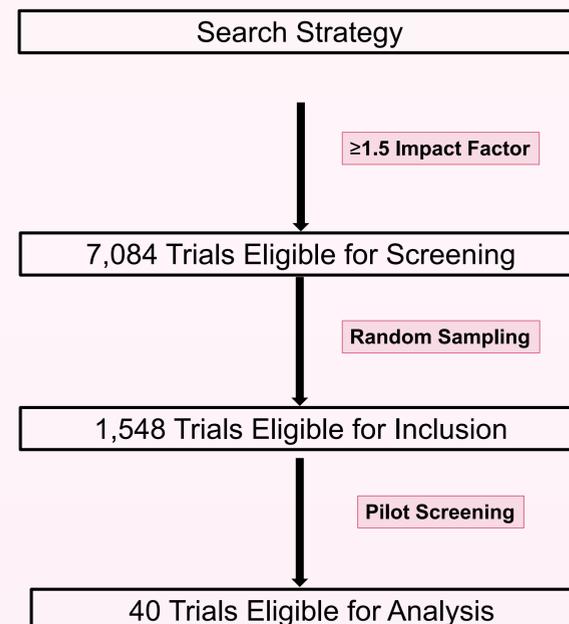
Data Analysis

- Data extracted from articles recorded as counts and proportions and compared to baseline

RESULTS

SEARCH RESULTS

PRELIMINARY ANALYSIS:



SEX DISTRIBUTION

Mean Proportion of Women Authors

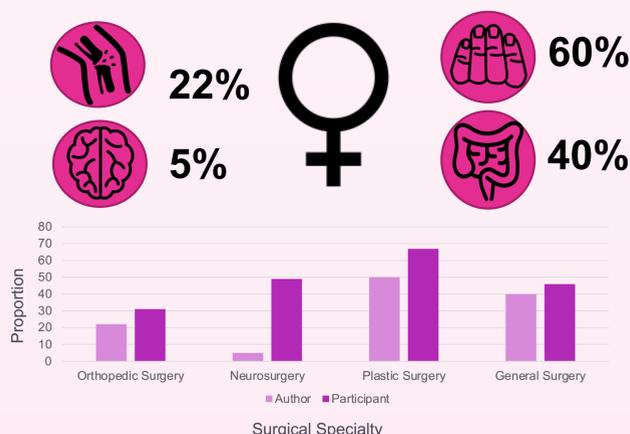
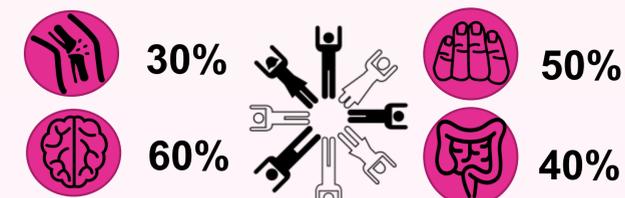


Figure 1. Proportion of authors' gender compared to participants' sex in RCTS

RACIAL DIVERSITY

Mean Proportion of Non-Caucasian Authors



- Comparison of race could not be analyzed as most studies across all surgical specialties did not report participant's race in the RCTS

FUTURE ANALYSIS PLANS

- For comparison of proportion of male and females and minority and non-minority groups, the Chi-Squared test will be used for univariate analysis.
- Temporal trends will be assessed using the Mantel Haenszel test
- Poisson regression model and the Jonckheere-Terpstra trend test will be used to examine the association between author and participant characteristics
- Two models will also be built:
 - 1) characteristics associated with women and minority authors
 - 2) characteristics associated with women and minority participants.
- A sensitivity and subgroup analysis will be conducted to determine if there is heterogeneity or differences among international studies

CONCLUSIONS

- This preliminary analysis reinforces the **underrepresentation** of women as authors in neurosurgery and orthopedic surgery RCTS
- Standardized reporting** of participant's race would allow for comparison between authors and participants
- Surgical trials can **change practice and ultimately lead to better care**, but it important to include **diverse perspectives** when designing trials to consider inclusion of appropriate participants and patient important outcomes that **reflect the population that is being served**



REFERENCES

- Lopez CM, Diaz S, Abraham O, DiBrito SR. Diversity and Inclusion in Surgery: The Role of Implicit Bias on Patient Care. *Curr Surg Reports*. 2020;8(12):1-9. doi:10.1007/s40137-020-00275-1
- Gomez LE, Bernet P. Diversity improves performance and outcomes. *J Natl Med Assoc*. 2019;111(4):383-392. doi:10.1016/j.jnma.2019.01.006
- West MA, Hwang S, Maier R V., et al. Ensuring Equity, Diversity, and Inclusion in Academic Surgery: An American Surgical Association White Paper. *Ann Surg*. 2018;268(3):403-407. doi:10.1097/SLA.0000000000002937
- Siotos C, Payne RM, Stone JP, et al. Evolution of Workforce Diversity in Surgery ☆. *J Surg Educ*. 2019;76(4):1015-1021. doi:10.1016/j.jsurg.2018.12.009
- Butler PD, Longaker MT, Britt LD. Major deficit in the number of underrepresented minority academic surgeons persists. *Ann Surg*. 2008;248(5):704-711. doi:10.1097/SLA.0b013e31817f2c30

FUNDING

This research was supported by the Faculty of Medicine's Summer Studentship Award in the EDI/Wellness/Professionalism Priority Area.

