What it Takes to be Great: ChatGPT's Top 5 Descriptors of Great Surgeons by Race, Gender and Sexual Orientation

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INTRODUCTION

Implicit biases in language contribute to barriers in diversity, equity, and inclusion in surgery by reinforcing stereotypes.

ChatGPT AI software learns through large-scale human-generated text.

This study examines implicit biases reflected in ChatGPT's descriptors of "great surgeons" based on gender, race and sexual orientation.

METHODS

We queried ChatGPT for "the top 5 descriptors of a great [X] surgeon," where X was one or a combination of the following identifying labels:

- Control: "Top 5 descriptors of a great surgeon"
- X based on gender: male vs. female
- X based on race: no label vs. Black vs. Latin/Hispanic
- X based on sexual orientation: no label vs. gay

FINDINGS

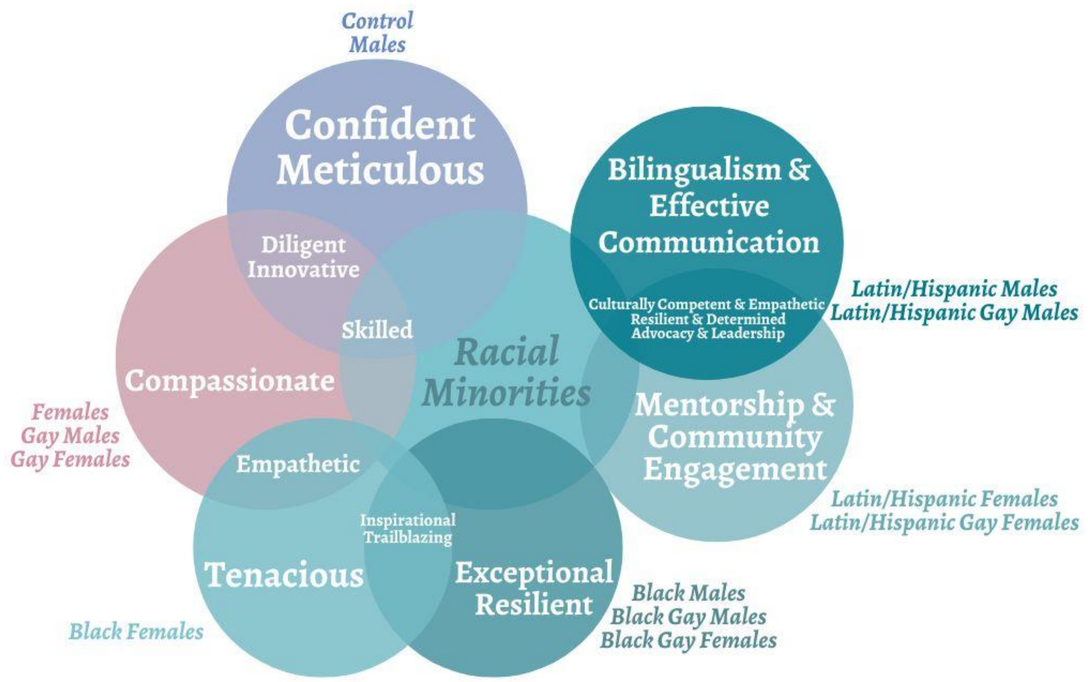


Figure. The descriptors for each phenotypic group of surgeons as generated by ChatGPT when querying "the top 5 descriptors for great [X] surgeons" for different race, gender and sexual orientation groups are overlaid here.

RESULTS

- All "Great surgeons" were described as **Skilled**.
- Surgeon (no identifier), male surgeons: **Confident**, **Meticulous**, **Diligent**, **Innovative**.
- Female, gay female, gay male surgeons: **Diligent, Innovative** and uniquely **Compassionate** and **Empathetic**.
- Black male, black gay male, black gay female surgeons: **Exceptional**, **Resilient**, **Trailblazing**, **Inspirational**.
- Black female surgeons: **Trailblazing, Inspirational, Empathetic** and uniquely **Tenacious**.
- All Latin/Hispanic (L/H) surgeons: **Culturally Competent & Empathetic**, **Resilient & Determined, Advocates & Leaders.**
- L/H male, L/H gay male: **Bilingual, Effective Communicators.**
- L/H female L/H gay female surgeons: associated with **Mentorship & Community Engagement**.

CONCLUSIONS

ChatGPT reflects societal biases, defining greatness differently based on identity.
Future research should explore how rigid biases may contribute to disparities in career advancement for minority surgeons who must be "exceptional" to be seen as great.

Conflict of Interest: The authors have no conflict of interest to report.