How should surgeons both as individuals and a college be responsible for addressing barriers to diversity and inclusion in surgery and/or surgical training?

Introduction

In February 2022 Dr Rachel Farrelly was celebrated by the Sydney Morning Herald (SMH) as the first Indigenous female surgeon in Australia (1). Although well-deserved recognition, the report highlights that diversity in the surgical workforce is an irregularity rather than the norm. It raises the question: what will be the next landmark development, and more importantly, how do we get there?

To fully appreciate issues of Diversity and Inclusion, a comprehensive understanding of how diversity is defined is necessary. Diversity recognises and respects all people regardless of ethnicity, race, age, sex, disability, socioeconomic status, gender, sexual orientation or geographical location (2). Moreover, it places value in these differences, and prizes the opportunity which variety can offer the team (3-5). Australia and New Zealand have vastly diverse societies (6, 7) . Our surgical workforce must reflect society, to provide the best possible care to meet society's needs into the future.

The Royal Australian College of Surgeons (RACS) have made progressive movements to address issues of diversity, however, the numbers of female, Indigenous, rural, and ethnically diverse surgeons continue to be "lower than targets" (5, 8-10). The existing recommendations to address barriers to surgical diversity primarily target senior medical students, junior doctors and surgical trainees (5, 8). However, as Dr Farrelly stated in her SMH interview, her surgical achievements were inspired by her father while in high school, and were the fruit of many years of hard work (1). Additionally, to increase the quality of surgical applicants, the overall quality of medical graduates must be improved (11). This is no easy feat, and something which cannot be done in isolation but requires cooperation of many invested parties. In this essay, I will discuss additional ways RACS can collaboratively intervene at earlier stages of education, an approach I think is vital if we are to see an increase in diversity in future surgeons.

Role models for future surgeons

High school and university students need to be exposed to a broader representation of surgeons whom they can look up to as role models. Without a positive surgical role model, junior doctors are half as likely to be interested in a surgical career (12). Role models and mentors are crucial in medicine to provide inspiration, guide career decisions, enhance personal and professional development and demonstrate the 'possible' (8, 13-16). RACS must make every effort to develop structured mentorship programs, specifically for medical students from different backgrounds (17). By recruiting diverse registrars and consultants and then liaising with universities, hospitals and student societies such as the Australasian Student's Surgical Association, medical students can engage with clinicians who they can relate to (18). To entice time poor registrars and consultants, RACS could recognise mentoring roles towards training requirements, or offer financial incentives. Unfortunately, the limited number of Indigenous and rural surgeons makes accessing mentors difficult. Therefore, landmark achievements should continue to be celebrated broadly on social media (YouTube, Instagram, Snapchat) and through press releases, so despite lack of individualised mentoring, young people can still see what's possible (1, 19).

Striving for equitable opportunity

Financial and logistical barriers to training need to be evaluated and eased where possible to achieve equitable access to Surgical Education and Training (SET) programs. Due to the merit-based application process, medical students and junior doctors must accrue 'points' from early on in training (20). Completing research, attending conferences and engaging with community are necessary in a 'good' portfolio, but which are significantly restricting to those from a low socioeconomic, rural or Indigenous background (21). RACS could consider adding an 'adversity checklist' to their application process, to boost applicants who reach minimal merit criteria. Additionally, there should be more communication with high schools and universities to offer scholarships for medical admission exams. Once in medical school, more grants to attend conferences and scholarships for disadvantaged students interested in surgery can assist with time and financial stressors. When applying to SET, those from rural areas could be offered travel vouchers to accommodate time away from work to travel to interviews, or interviews and exams could be offered online. We must increase the equitability of opportunity if we are to see a change.

Stimulating diversity through curriculum

Thirdly, surgeons cannot be expected to work in rural areas, with lower socioeconomic groups or with ethnically diverse people without experiencing and learning from these populations during their early training (22, 23). The RACS *Rural Health Equity Strategy* states the 3 main drivers influencing rural work are: rural origin, rural medical school experience and positive post-graduate rural work exposure (9). 29% of Australian's live in rural areas (24) yet only 25% of medical students are from a rural origin and only 25% of students are required to complete rural placements during their degree (25). I believe these drivers apply to all minority groups and believe curriculum must address these factors to produce doctors willing to work in these areas of need. RACS should consider collaborating with other Medical Specialty Colleges, the Australian Medical Council and Medical Board of Australia to adjust curriculum requirements to increase training in rural areas during university. Curriculum could also mandate clinical placements with Indigenous health services and community health services in low socioeconomic areas. Through adjustment of curriculum, graduates will know first-hand the needs of society and can be better equipped to meet them in the future.

Conclusions

Finally, and ultimately, embracing diversity with open arms comes down to each individual surgeon. The ideas discussed are examples of how RACS is able to hold our hands and lead us to water, but as the 12th century English proverb states, they cannot force us to drink (26). Existing personal and traditional ideals of surgeons therefore act as a rate limiting step upon this process. Until the time that personal attitudes change, continued recognition of achievements of minority groups and discussing improvements from a strengths-based approach is vital to continue morale and highlight ongoing transformations (27, 28).

RACS must form a united front to nurture future generations of doctors from a young age, to develop well-trained surgeons that can best meet the needs of our ever-changing society.

References

1. Carroll L. NSW medical graduate set to become first Indigenous female surgeon. Sydney Morning Herald. 2022;Sect. Healthcare.
2. B. M. Togioka DD, E. Young. Diversity and Discrimination in Healthcare: StatPearls Publishing; 2023 [updated 14 August 2023. Available from: https://www.ncbi.nlm.nih.gov/books/NBK568721/#:~:text=In%20the%20medical%20community%2C%20diversity,spoken%20language%2C%20and%20geographic%20region.
3. State Government of Victoria. DPC Diversity and Inclusion Strategy: What do we mean by diversity and inclusion? Melbourne2021 [Available from: https://www.vic.gov.au/dpc-diversity-and-inclusion-strategy-2019-2021/what-do-we-mean-diversity-and-inclusion.
4. Stahl A. 3 Benefits of Diversity in the Workplace. Forbes. 2021 (col. Careers).
5. Royal Australasian College of Surgeons. Diversity and Inclusion Plan: 2019 Progress Update. Melbourne; 2020.
6. New Zealand Government. Ethnic Group Summaries reveal New Zealand's Multicultural make-up 2020 [Available from: https://www.stats.govt.nz/news/ethnic-group-summaries-reveal-new-zealands-multicultural-make-up/.
7. Australian Bureau of Statistics. Cultural Diversity: Census Canberra: ABS; 2021 [Available from: https://www.abs.gov.au/statistics/people/people-and-communities/cultural-diversity-census/latest-release#cite-window1.
8. Royal Australasian College of Surgeons. Breaking Barriers; developing drivers for female surgeons. 2020.
9. Royal Australasian College of Surgeons. Train for Rural- Rural Health Equity Strategy. Melbourne; 2021.
10. College of Surgeons launches program for Indigenous Surgeons [press release]. 2021.
11. Lauer AK, Lauer DA. The good doctor: more than medical knowledge & surgical skill. Ann Eye Sci. 2017;2.
12. Ravindra P, Fitzgerald JE. Defining surgical role models and their influence on career choice. World J Surg. 2011;35(4):704-9.
13. Morgenroth T, Ryan, M., Peters, K. The Motivational Theory of Role Modeling: How Role Models Influence Role Aspirants' Goals. Review of General Psychology. 2015;19(4).
14. Atlas AM, Seltzer ES, Watters A, Riley B, Chan T. A Global Perspective of Mentorship in Medical Schools: Systematic Review from 2014 to 2019. Med Sci Educ. 2021;31(2):969-77.
15. AMA Victoria. Mentoring- what, how and why is it useful in medicine? 2023 [Available from: https://amavic.com.au/news---resources/stethoscope/mentoring-what-how-and-why-is-it-useful-in-medicine#:~:text=The%20benefits%20of%20mentoring%20for,Improve%20communication%20and%20listening%20skills.
16. Louissaint J, May FP, Williams S, Tapper EB. Effective Mentorship as a Means to Recruit, Retain, and Promote Underrepresented Minorities in Academic Gastroenterology and Hepatology. Am J Gastroenterol. 2021;116(6):1110-3.
17. Bhatnagar V, Diaz S, Bucur PA. The Need for More Mentorship in Medical School. Cureus. 2020;12(5):e7984.

18. Australasian Students' Surgical Society. EMPoWER: Women in Surgery 2023 [Available from: https://anzsurgsocs.org/empower-women-in-surgery/.
19. Infodec Communications. The Top 3 Social Media Platforms to target Young People 2022 [Available from: https://www.infodec.com.au/top3socialmediaplatforms/.
20. Royal Australasian College of Surgeons. SET Selection, Requirements, Process and Application 2023 [Available from: https://www.surgeons.org/en/become-a-surgeon/how-do-i-become-a-surgeon/set-selection-requirements-process-and-application.
21. Ely K, Lagasca G, Andersen S, Patel D, Simanton E. Medical Students' Socioeconomic Status and Academic Performance in Medical School. Cureus. 2023;15(6):e39875.
22. McGrail MR, O'Sullivan BG. Increasing doctors working in specific rural regions through selection from and training in the same region: national evidence from Australia. Hum Resour Health. 2021;19(1):132.
23. McGrail MR, Doyle Z, Fuller L, Gupta TS, Shires L, Walters L. The pathway to more rural doctors: the role of universities. Med J Aust. 2023;219 Suppl 3:S8-S13.
24. Australian Institute of Health and Welfare. Rural and Remote Health 2023 [Available from: https://www.aihw.gov.au/reports/rural-remote-australians/rural-and-remote-health.
25. KBC Australia. Independent Evaluation of the Rural Health Multidisciplinary Training Program. Orange: KBC Australia; 2020.
26. The American Heritage Idioms Dictionary. You can lead a horse to water but you can't make it drink: Houghton Middlin Harcout; 2023 [Available from: https://www.dictionary.com/browse/you-can-lead-a-horse-to-water-but-you-can-t-make-it-drink.
27. Commonwealth Department of Social Services. Strengths-Based Approaches. Canberran.d.
28. Glicken MD. Using the Strengths Perspective in Social Work Practice: A positive approach for the Helping Professions. Virginia: Pearson A & B; 2004. 222 p.