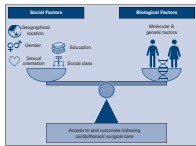


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FROM SINGULARITY TO PLURALITY: THE CASE FOR INTERSECTIONALITY IN CARDIOTHORACIC SURGERY RESEARCH

To the Editor:

Health services research is increasingly highlighting gaps in equitable cardiothoracic surgical care delivery, but the challenge translating these findings to interventions remains. Preventza and colleagues¹ evaluated how the interplay between socioeconomic factors and sex may influence thoracic aortic surgery outcomes. Between 2000 and 2020, men undergoing thoracic aortic surgery at Baylor College of Medicine were associated with more favorable socioeconomic factors, reduced hospital length of stay, and lower rates of complications compared with women.

Existing studies exploring sociodemographic disparities in cardiac surgery have failed to elucidate whether the etiologies of disparities are driven by historical marginalization and discrimination versus other (eg, biological) differences. For instance, after thoracic aortic surgery, female sex is an independent predictor of mortality and morbidity.² It is unclear whether this is due to systemic social discrimination toward women, whether female sex is associated with accelerated thoracic aortic aneurysm growth and aortic stiffness compared with male sex, or a combination of both.³ This distinction between social versus biological factors is important to target interventions to alleviate these gaps.

Remarkably, this is one of the first studies to explore the intersection between multiple social determinants of health in cardiac surgery, even if only a combination of 2 factors. Kimberlé Crenshaw⁴ coined the term “intersectionality” in 1989 to reject single-axis frameworks of anti-discrimination. Collins and Bilge⁵ later stated: “When it comes to social inequality, people’s lives and the organization of power in a given society are better understood as being shaped not by a single axis of social division, [...] but by many axes that work together and influence each other.”

Indeed, the combination of social determinants is not simply additive. Each patient presents with a unique psychosocial location composed of identities, such as age, sex/gender, race/ethnicity, sexual orientation, level of education, social class, immigration status, and geographic location, that likely influence their access to, experience of, and outcomes following surgery. To address patients’ unique needs, inclusive interventions are needed by surgical teams and their multidisciplinary colleagues, particularly those who serve the most marginalized communities. Hospitals in low-income or remote neighborhoods, serving proportionally more people of color, may need to tailor their surgical care to include social interventions for improved surveillance, medication coverage, or housing.⁶⁻⁹

Various research approaches can promote an intersectionality lens. First, recruiting diverse teams is crucial to conduct research in a respectful, inclusive, and culturally safe and humble manner. Second, quantitative studies can study intersecting social identities, qualitative approaches may start off indicative and only later become deductive, and mixed-methods research can incorporate both. Further, representative participant recruitment must be pursued, and participants must be enabled and encouraged to self-report social identities to ensure accurate data collection.¹⁰ Lastly, including patients as active partners in the study design and clinical decision-making facilitates patient-centered research and the delivery of equitable and high-quality clinical care. Embracing intersectionality in research is challenging but poses an opportunity for the field to move from singularity to plurality and optimize surgical care for all.

Lina A. Elfaki, MSc, HBSc^a

Melanie Keshishi, BHSc, MBDC^a

Akachukwu Nwakoby, BHSc^a

Dominique Vervoort, MD, MPH, MBA^b

^aTemerty Faculty of Medicine

^bInstitute of Health Policy, Management and Evaluation

University of Toronto

Toronto, Ontario, Canada

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References

1. Preventza O, Akpan-Smart E, Simpson KK, Cornwell L, Amarasekara H, Green SY, et al. The intersection of community socioeconomic factors with gender on outcomes after thoracic aortic surgery. *J Thorac Cardiovasc Surg*. October 19, 2022 [Epub ahead of print].
2. Chung J, Stevens LM, Ouzounian M, El-Hamamsy I, Bouhout I, Dagenais F, et al. Sex-related differences in patients undergoing thoracic aortic surgery: evidence from the Canadian Thoracic Aortic Collaborative. *Circulation*. 2019;139:1177-84.
3. Boczar KE, Cheung K, Boodhwani M, Beauchesne L, Dennie C, Nagpal S, et al. Sex differences in thoracic aortic aneurysm growth: role of aortic stiffness. *Hypertension*. 2019;73:190-6.

4. Crenshaw K. Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. In: Bartlett K, ed. *Feminist Legal Theories: Readings in Law and Gender*. Routledge; 1989:23-51.
5. Collins PH, Bilge S. *Intersectionality*. John Wiley & Sons; 2020.
6. Wadhera RK, Khatana SAM, Choi E, Jiang G, Shen C, Yeh RW, et al. Disparities in care and mortality among homeless adults hospitalized for cardiovascular conditions. *JAMA Intern Med*. 2020;180:357-66.
7. Glebova NO, Hicks CW, Taylor R, Tosoian JJ, Orion KC, Arnaoutakis KD, et al. Readmissions after complex aneurysm repair are frequent, costly, and primarily at nonindex hospitals. *J Vasc Surg*. 2014;60:1429-37.
8. Yin K, AlHajri N, Rizwan M, Locham S, Dakour-Aridi H, Malas MB. Black patients have a higher burden of comorbidities but a lower risk of 30-day and 1-year mortality after thoracic endovascular aortic repair. *J Vasc Surg*. 2021;73:2071-80.
9. Chatterjee S, LeMaire SA, Amarasekara HS, Green SY, Wei Q, Zhang Q, et al. Differential presentation in acuity and outcomes based on socioeconomic status in patients who undergo thoracoabdominal aortic aneurysm repair. *J Thorac Cardiovasc Surg*. 2022;163:1990-8.e1.
10. Allana S, Ski CF, Thompson DR, Clark AM. Bringing intersectionality to cardiovascular health research in Canada. *CJC Open*. 2021;3(12 suppl):S4.

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