**LETTER TO THE EDITOR**

# Shaping the future of anesthesiology in Brazil: the role of women in leadership and academia

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**ABSTRACT**

Despite the growing number of women entering anesthesiology worldwide, their representation in academic leadership, authorship, and decision-making positions remains disproportionately low. Structural and cultural barriers, along with factors such as imposter syndrome, continue to limit their visibility and career advancement. In Brazil and other South American countries, gradual progress has occurred in recent decades, with increased participation of women in professional and institutional roles, though true parity is still distant. Evidence shows that female leadership and strong mentorship networks are key drivers of greater engagement and academic productivity among women. Advancing gender equity in anesthesiology requires sustained institutional commitment, culturally sensitive strategies, and inclusive initiatives that empower women to participate fully and shape the future of the specialty.

**KEYWORDS**

Anesthesia; gender equity; leadership; women

Dear Editor,

In recent decades, the number of women entering medicine and also choosing anesthesiology as specialization has increased significantly across the globe. In the United States, women represented 51% of medical school entrants in 2018[1]. A similar trend has been observed in Brazil, and according to the Medical Demographics in Brazil 2025, the country had 597,428 active physicians, 47,718 residents and 22,367 board-certified anesthesiologists, 40.1% of whom were women. The continuous expansion of the anesthesiology workforce, currently the fifth largest medical specialty in the country, highlights its strategic relevance and its growing role within the Brazilian healthcare system, with a significant impact at the national level[2].

However, this growing participation of women in the clinical workforce has not been reflected proportionally in the influence of academic medicine and research. The presence of women in senior leadership positions, editorial boards, conference panels, guideline committees, prestigious awards, and promotions remains markedly low[3]. Structural and cultural barriers are key factors, but imposter syndrome also plays a significant role, hindering career progression by causing women to underestimate their qualifications and delay pursuing leadership positions, thereby perpetuating their under-representation[1]. These findings highlight that increasing workforce numbers alone do not translate into equitable influence or recognition within the specialty.

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Recent analyses of authorship trends in anesthesia literature have revealed persistent gender disparities in academic contributions. Rong et al.[5] demonstrated that, despite a gradual increase in the number of women pursuing careers in anesthesiology, female representation among first and senior authors remains disproportionately low. Their cross-sectional study of contemporary anesthesia publications highlighted that women still face structural and systemic barriers that hinder equal participation in research and scholarly leadership. Beyond authorship, inequities also extend to editorial leadership positions within anesthesiology journals. From 2010 to 2020, women remained markedly underrepresented on editorial boards, with slow progress over the decade. This underrepresentation in editorial leadership has far-reaching implications, as editors play a pivotal role in shaping research priorities, determining which voices and topics are amplified within the scientific community[6].

This global pattern is mirrored in Brazil. Although academic spaces in anesthesiology have evolved, achieving true gender equity remains an ongoing challenge. The Brazilian Journal of Anesthesiology (BJAN), founded in 1951, did not appoint a woman as Editor-in-Chief until 2004 – a delay of 53 years. However, the trajectory has shifted markedly in the past two decades: in the past 20 years, five individuals have held this position, three of whom were women. As of 2025, women comprise 34.6% of associate editors and 21.6% of the editorial board, marking significant advances in visibility and participation in scientific publishing. Garcia et al. conducted the first historical analysis of female authorship in the largest anesthesiology journal in Latin America, the BJAN, and found that significant and sustained rise in female authorship beginning around 2010, reached its highest peak in 2022. However, despite this continuous upward trajectory, the projected trend does not intersect with that of male authorship in the foreseeable future. The study also highlighted that periods with female leadership in the editorial board coincided with higher rates of female authorship, suggesting that greater representation in editorial roles may encourage more women to submit and publish their work[7].

Institutional factors further shape these patterns. Since its foundation in 1948, the Brazilian Society of Anesthesiology (SBA) has historically been led predominantly by male leadership, with only two women having served as president over more than seven decades. However, the past 25 years have witnessed steady and tangible progress. Between 2021 and 2025, women have occupied three of nine positions on the SBA's national board, presided over eight of the twenty-five regional societies (32%), and represented nearly 28% of members in committees and commissions. This gradual increase in representation highlights the need to ensure that these advances translate into long-term cultural changes to achieve true parity between the academic and professional domains in Brazilian anesthesiology[8].

In South American countries, particularly in Brazil, the underrepresentation of women in leadership positions has deep historical roots. However, the past 25 years have witnessed a gradual yet meaningful transformation. For instance, the introduction of gender quota laws, such as Brazil's Law 9.504/1997, which requires political parties to allocate a minimum percentage of candidacies to women in proportional elections, has contributed to a steady increase in female representation in municipal councils and, to a lesser extent, mayoral offices[9]. While top-down initiatives that intentionally create and reserve spaces for women are essential, true progress also requires a bottom-up movement, women recognizing their own potential, seeking visibility, and actively engaging in academic, clinical, and leadership arenas (rather than being included only symbolically).

As highlighted by Bustillo and Gotian, one of the most effective strategies for promoting engagement is a mentoring circle, in which an individual or group helps others achieve their full potential. It represents a collaborative team effort that requires faculty of all genders and career stages to work together in developing mentorship programs and opportunities tailored to the specific needs and circumstances of their departments. Mentorship initiatives and career support programs have proven instrumental in fostering self-recognition, confidence, and a sense of belonging among women in anesthesiology[10]. The presence of strong female role models catalyzes this process, inspiring others to envision and pursue leadership paths. Achieving true gender equity in anesthesiology requires more than isolated initiatives, it demands sustained, context-sensitive efforts that acknowledge regional disparities and cultural nuances.

Some journals, like the British Journal of Anaesthesia, have played a pioneering role in advancing gender equity within anesthesiology through dedicated issues, and consistent editorial leadership exemplifies how scientific journals can transform awareness into meaningful action. This dedication was most notably reflected in the landmark 2020 special issue, "Women in Anaesthesia," which illuminated the structural and cultural challenges that women continue to face, including underrepresentation in leadership positions, gender bias, and barriers to career progression[11]. The comprehensive scoping review by Bosco et al. provided an insightful overview of the multifaceted barriers that still hinder women's full participation and advancement in anesthesiology. The authors identified enduring inequities in leadership representation, academic promotion, and compensation, compounded

by unconscious bias, limited mentorship, and challenges related to work-life integration. They emphasized that progress toward gender equity must be guided by an intersectional approach, fostering conditions in which women can thrive, assume leadership roles, and actively shape the future of anesthesiology[3].

By integrating data and perspectives from underrepresented and developing regions, including Brazil, the global dialogue on gender equity in anesthesiology is broadened and strengthened. Such inclusivity enhances the specialty's relevance and transformative potential, ensuring that the collective pursuit of equity translates into meaningful and enduring progress worldwide.

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