



## Professional barriers experienced by South Asian women in academic anesthesia

Durriya Raza, FCAI · Fauzia A. Khan, FRCA

Received: 2 April 2022 / Revised: 26 July 2022 / Accepted: 23 August 2022 / Published online: 15 May 2023  
© Canadian Anesthesiologists' Society 2023

**Keywords** academic career · barriers · female anesthesiologist · gender equity

Gender inequity in medicine is a global issue, and is most evident in women's under-representation in leadership roles, promotions, and awards.<sup>1</sup> Literature from high-income countries has reported barriers to academic career advancement, including fewer opportunities, lack of female mentors, and the traditional perspective about gender roles in childcare.<sup>2</sup> There is a paucity of literature relating to gender equity among anesthesiologists from South Asian countries, a region representing 20% of the world's population. In a recent international survey, women anesthesiologists in lower-income countries (including South Asia) perceived their gender to be less of a disadvantage in taking on departmental leadership positions or doing research than respondents from high-income and upper-middle-income countries.<sup>3</sup> To help address the above knowledge void, we conducted a voluntary, anonymous, cross-sectional survey in July and August 2021, the results of which informed a presentation we made at the recent World Congress of Anaesthesiologists that took place virtually 1–5 September 2021, in a session titled “Is there Gender Parity in Anaesthesia?” In the present article, we share our survey findings with the readers of this month's Special Issue of the *Journal* and reflect on them in the context of the cultural and sociopolitical background faced by South Asian women physicians.

---

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s12630-023-02452-z>.

---

D. Raza, FCAI · F. A. Khan, FRCA (✉)  
Department of Anaesthesiology, Faculty of Health Sciences,  
Medical College, Aga Khan University, Stadium Road, P.O.  
Box 35000, Karachi 74800, Pakistan

For the survey, since we lacked a complete list of female anesthesiologists working in South Asia, we used our personal contacts to identify a representative group of prominent female anesthesiologists working in academic leadership positions for more than five years in six South Asian countries: Pakistan, India, Sri Lanka, Bangladesh, Nepal, and Maldives (ESM eTable 1). An initial e-mail invitation to participate was sent from the senior author (F. K.). If the recipient agreed to participate, they were sent a second e-mail with the following two survey questions (ESM eTable 2): 1) Are there barriers in academic progression in anesthesiology for women in your country? and 2) If your answer to the above question is yes, please describe the barriers faced by female anesthesiologists in their academic journey in your country (open-ended question). Given the low number of respondents, we expressed the results descriptively only. Emergent themes from the free-text responses were agreed upon by the two authors. A compilation of the free-text remarks is provided in the Appendix (ESM eTable 2).

The survey invitation was sent to 18 women anesthesiologists and 17 responded. Fifteen of 17 (88%) respondents agreed that barriers to progress in academic anesthesia for women existed in their country. Most of the barriers cited by respondents could be categorized as environmental or situational factors, relating to cultural and gender issues and the balance of work and family life.<sup>1</sup>

South Asian countries are traditionally considered patriarchal societies where women are stereotyped and considered the weaker gender. They are viewed as homemakers and are not expected to excel in their careers. There is a general lack of female autonomy, and family members may be involved in making professional life decisions. A study of female doctors in Bangladesh revealed that family and society were the most challenging factors in advancement of their careers.<sup>4</sup> In Pakistan, approximately 80–85% of medical school graduates are women but the number of practicing female physicians in health care is less than 50%; the reasons for this vary from

individual to organizational and sociocultural.<sup>5</sup> We lack similar data specific to anesthesiology.

The difficulty women in South Asian countries have in balancing professional work and family responsibilities is similar to that of their European counterparts,<sup>6</sup> but culturally there is more social pressure on women to marry and start a family at a younger age in South Asian countries. Usually, the most demanding phase in one's career coincides with having children, which makes work-life balance more burdensome, and many women leave medical practice at that stage.<sup>5</sup> A qualitative survey involving final-year medical students from Pakistan showed that both men and women believed that marital responsibilities should take priority over a medical career for women doctors and many perceived that working as a doctor is a privilege and not a necessity for women.<sup>7</sup>

Many women physicians live in combined families, sharing living space and household expenses with their in-laws and other extended family members. This cultural factor is particularly common in South Asia and other Muslim countries.<sup>8</sup> In this scenario, family support may be strong, but may also result in additional household responsibilities. In a traditional household, women are expected to take career breaks for marriage, pregnancy, rearing young children, and providing care for their in-laws. Academic career progression requires commitment and dedicated time. Those without family support struggle between family and work. General unavailability of reliable childcare facilities, and a dearth of part-time contracts in teaching hospitals further contributes to the struggle. Mohsin *et al.* conducted in-depth interviews with 31 Pakistani women doctors and found that, despite their professional work, they bore most of the household responsibilities, which the authors referred to as “the second shift.” The participants perceived that long working hours, night shifts, lack of childcare facilities, and inflexible practices and policies contributed to their challenges.<sup>5</sup> These findings are aligned with our survey results.

Gender equity in leadership is crucial and results in more efficient health care services, high-quality clinical care, and high patient satisfaction.<sup>9</sup> Tricco *et al.* emphasized that female physicians value team building, and are more inclusive in decision-making and problem-solving.<sup>10</sup> We lack numerical data from South Asia on the percentage of leadership positions in anesthesiology held by women, but women are not perceived as natural leaders by the lay public.<sup>11</sup> A recent editorial from India observed that women in anesthesiology in their country had administrative roles in medical colleges, the army, and in hospitals as departmental heads, but did not provide any numerical data.<sup>12</sup> Currently we lack published numerical data of female anesthesiologists in leadership roles in academia from other South Asian countries. A qualitative study of nonphysician women educational leaders in Pakistan reported that successful

female leaders considered their families very supportive; however they experienced conflict between social expectations and their leadership role.<sup>13</sup>

Another possible hurdle in career advancement for women is the sociopolitical situation in South Asia. The poor state of personal security and the lack of available and safe public transport (particularly at night) places women at a disadvantage to career progression compared with men, who do not face the same personal safety challenges.

Structural and motivational factors like differences in pay scales, lack of mentorship and motivation, or a shortage of female role models<sup>1</sup> were not identified as barriers by the respondents. Kurdi *et al.* note that several female role models in anesthesia leadership and research exist in India,<sup>12</sup> and this was similarly reflected in our survey responses.

Change in South Asia will require more extensive studies as we recognize our above survey's inherent limitations, including its brevity as well as selection and recall bias as responses were based on personal observation and experience. Change in South Asia also will require ongoing discussion in open forums and local/regional anesthesia meetings, regarding the unique barriers faced by women. Emphasis on further training for leadership roles is needed, and changes in employment policies including more part time job opportunities should be considered.

**Disclosures** None.

**Funding statement** None.

**Prior conference presentations** The findings of this survey were presented in an invited talk (ten minutes) given by Dr Fauzia Khan at the 17th World Congress of Anaesthesiologists (WCA 2021) in a session on 4 September 2021. The session was entitled “Is There Gender Parity in Anaesthesia?” The conference was online due to COVID-19 pandemic.

**Editorial responsibility** This submission was handled by Drs Alana M. Flexman and Sangeeta Mehta, Guest Editors, *Canadian Journal of Anesthesia/Journal canadien d'anesthésie*.

## References

1. Bosco L, Lorello GR, Flexman AM, Hastie M J. Women in anaesthesia: a scoping review. *Br J Anaesth* 2020; 124: e134–47. <https://doi.org/10.1016/j.bja.2019.12.021>
2. Haller G, Delhumeau C, Mamie C, Zoccatelli D, Clergue F. Gender difference in career advancement and job satisfaction in anaesthesia: a cross-sectional study. *Eur J Anaesthesiol* 2016; 33: 588–90. <https://doi.org/10.1097/eja.0000000000000471>
3. Zdravkovic M, Osinova D, Brull SJ, *et al.* Perceptions of gender equity in departmental leadership, research opportunities, and clinical work attitudes: an international survey of 11 781 anaesthesiologists. *Br J Anaesth* 2020; 124: e160–70. <https://doi.org/10.1016/j.bja.2019.12.022>

4. Hossain P, Das Gupta R, YarZar P, et al. 'Feminization' of physician workforce in Bangladesh, underlying factors and implications for health system: insights from a mixed-methods study. *PLoS One* 2019; 14: e0210820. <https://doi.org/10.1371/journal.pone.0210820>
5. Mohsin M, Syed J. The missing doctors—an analysis of educated women and female domesticity in Pakistan. *Gend Work Organ* 2020; 27: 1077–102. <https://doi.org/10.1111/gwao.12444>
6. Matot I, De Hert S, Cohen B, and Koch T. Women anaesthesiologists' attitudes and reported barriers to career advancement in anaesthesia: a survey of the European Society of Anaesthesiology. *Br J Anaesth* 2020; 124: e171–7. <https://doi.org/10.1016/j.bja.2020.01.005>
7. Moazam F, Shekhani S. Why women go to medical college but fail to practise medicine: perspectives from the Islamic Republic of Pakistan. *Med Educ* 2018; 52: 705–15. <https://doi.org/10.1111/medu.13545>
8. Shams T, El-Masry R. Cons and pros of female anesthesiologists: academic versus non-academic. *J Anaesthesiol Clin Pharmacol* 2015; 31: 86–91. <https://doi.org/10.4103/0970-9185.150552>
9. Flexman AM, Shillcutt SK, David S, Lorello GR. Current status and solutions for gender equity in anaesthesia research. *Anaesthesia* 2021; 76: 32–8. <https://doi.org/10.1111/anae.15361>
10. Tricco AC, Bourgeault I, Moore A, Grunfeld E, Peer N, Straus SE. Advancing gender equity in medicine. *CMAJ* 2021; 193: E244–50. <https://doi.org/10.1503/cmaj.200951>
11. Ahmad N, Bano A. Women's political empowerment through local government in the patriarchal society of Pakistan. *LASSIJ* 2019; 3: 1–8. <https://doi.org/10.47264/idea.lassij/3.1.1>
12. Kurdi MS, Katikar MD, Ahuja V, Sharma R. Striding towards the pinnacles of professional growth, scientific epitome, and leadership: India's women anaesthesiologists. *Indian J Anaesth* 2020; 64: 739–42. [https://doi.org/10.4103/ija.ija\\_1116\\_20](https://doi.org/10.4103/ija.ija_1116_20)
13. Malik S. A portrayal of women educational leadership in Pakistan. *J Educ Psychol* 2011; 5: 37–44.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations. Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.