

Title: Challenges and Gender Disparities Faced by Women in Surgery in Pakistan

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Author names:

1. Dr. Ahmed Akhtar
2. Mushaim Gillani
3. Yumna Shariff
4. Amna Inayat
5. Manahil Bahrawar

Degrees and Affiliations:

1. MD, Affiliation Director of Darul Qalb, Knoxville Tennessee, USA
2. Fifth year Medical Student, Bahria University Health Sciences Campus Karachi, Karachi, Pakistan
3. MD, Bahria University Health Sciences Campus/Aga Khan University hospital, Karachi, Pakistan
4. Fifth year Medical Student, Bahria University Health Sciences Campus Karachi, Karachi, Pakistan
5. Fifth year Medical Student, Bahria University Health Sciences Campus Karachi, Karachi, Pakistan

ORCID (Open Researcher and Contributor Identifier:

1. <https://orcid.org/0000-0003-2694-0917>
2. <https://orcid.org/0009-0004-8913-5928>
3. <https://orcid.org/0009-0004-0654-2270>
4. <https://orcid.org/0009-0005-2358-0225>
5. <https://orcid.org/0009-0004-4314-057X>

About the author: Mushaim Gillani is currently a final year medical student of Bahria University Health Sciences Campus Karachi of a five year program

Corresponding author email: amnainyat021@gmail.com

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- https://www.instagram.com/manola_218?igsh=cmFhaGNycnFyaHYx,
- [Instagram](#)

• **Linkedin:**

- [\(8\) Mushaim Gillani | LinkedIn](#)

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ABSTRACT.

Medicine continues to face significant challenges in gender imbalance. The issue of gender discrepancy in the field of surgery has become more pronounced in low or middle-income countries like Pakistan due to the growing trend of women leaving the healthcare profession after completing education. Even fewer graduates go on to become surgeons. Female surgeons face clinical biases, excessive workloads and lack of recognition. Cultural norms and patriarchal mindsets impose additional challenges, making it difficult for female surgeons to balance professional and personal responsibilities, particularly motherhood. Gender biases in hiring, salary disparities, and a lack of institutional support further exacerbate the issue. Deeply ingrained preferences for male surgeons, with workplace harassment, reinforce the gender gap in operating theaters. This leads to stress, burnout, and lower job satisfaction causing fewer females to opt for surgical fields, creating gender disparity. In recent years, a newer trend has emerged with more females following their passion, but there is an increased need for support groups, proper mentorship programs, and implementation of equal opportunities for both males and females. It requires mentorship, institutional reforms promoting inclusive hiring, flexible work policies, and cultural shifts to challenge gender norms. Encouraging representation in surgical networks and advocacy groups fosters an inclusive and diverse surgical workforce.

Key words: Gender disparity, healthcare, female-surgeons, workplace bias, challenges, work life balance, Cultural Barriers, male supremacy.

EXPERIENCE:

As a final-year medical student with a strong inclination towards surgery, stepping into the OR felt like stepping into another world. The familiar scent of disinfectant tingled in the air, a sharp yet oddly comforting reminder that I was exactly where I wanted to be. The floors gleamed under the bright overhead lights, reflecting the careful sterility of the space. Instruments were laid out meticulously on the mayo stand, their metallic edges glinting in anticipation. The steady murmur of the morning handoff between the night and day teams hummed in the background, blending seamlessly with the rhythmic beeping of monitors. Perhaps, I had found my passion.

The scrub gowns and gloves were tailored for larger hands and broader shoulders, leaving me adjusting and rolling up sleeves that were always too long. The step stools, meant to offer better visibility over the drapes, were a quiet reminder that the space had not accounted for a surgeon who wasn't built like her male colleagues. But it wasn't just the physical space—it was the culture.

Comments, sometimes subtle and sometimes overt, reminded me of my place. "Are you sure you want to do surgery? It's tough for women." A senior chuckled when I struggled to retract during a long case, "See, this is why women don't last in surgery." Even the unspoken rules were clear—show no weakness, take no breaks, and never, ever complain.

It was disappointing to see how easily the scalpel was handed over to male surgeons while females were asked to observe. The gender discrepancy and bias were conspicuous. Even patients, well-meaning but influenced by the same biases, sometimes looked past female surgeons, addressing questions to the nearest man in scrubs.

Despite this, even though a minority, the aura of female surgeons was absolutely awe-inspiring. Their resilience was proof that change, though slow, was happening. And as I stood there in the OR, watching one of them take charge of a complex case with unwavering confidence, I realized that if they could do it, so could I.

Figure 1a

Introduction:

Surgery has been a male-dominated field, with significant barriers preventing women from entering and excelling in the specialty. In the United States, women represent less than 25% of professionals across ten surgical specialties, with particularly low representation in fields like orthopedic surgery (5.3%).¹ Similar pattern can be seen in Pakistan as well. As of December 2017, the Pakistan Medical and Dental Council reported a total of 168,842 registered MBBS doctors, with females comprising approximately 48.2% (81,456). In terms of specialists, there were 40,328 registered MBBS specialists, of which only 31.4% (12,652) were female.²

Our perspective of gender discrimination in surgical fields, made it evident that female surgeons in Pakistan face significant bias throughout their careers in multiple ways. These biases are particularly noticeable in leadership opportunities, respectful boundaries, salary parity, and overall job satisfaction, which have had adverse effects on the professional experiences of Pakistani female surgeons. Although, a number of women in Pakistan pursue a medical career there remains severe under-representation of females in surgery

residency programs. Underrepresentation of women in surgery raises concerns about unequal opportunities and its impact on healthcare quality. Traditional gender norms with undue pressure on female surgeons, hindering their professional growth which deteriorates the overall system leading to poor healthcare services.³

A previous study from Janjua et al.⁴ highlights significant gender disparity in surgical specialties, with male dominance in vascular (100%), orthopedic (92%), otolaryngology (89%), urology (86%), and neurosurgery (81%). While cardio-thoracic (77%), plastic (75%), and general surgery (62%) also show male predominance, ophthalmology (60%) and pediatric surgery (55%) are more balanced. Notably, breast surgery is the only specialty with 100% female representation, emphasizing stark gender divisions in surgery.

Challenges faced by female surgeons

The field of surgery demands immense dedication and unwavering resilience. In developing countries, female surgeons encounter a myriad of challenges that hinder their career progression. A study done on female surgeons revealed that 18% of participants felt they experienced gender discrimination in medical school, 36% in residency, 12% in fellowship, and 41% as staff surgeons. More than half felt that their gender had played a role in the career challenges they faced.⁵ These formidable obstacles encompass inadequate mentorship, pervasive gender discrimination, prolonged working hours, and the lack of equipment tailored to meet the needs of female surgeons. Motherhood plays a pivotal role in shaping the career decisions of female medical students. Balancing motherhood with a rigorous surgical career can prove to be exceptionally challenging. Furthermore, societal attitudes in Pakistan perpetuate the preference for male surgeons over their equally competent female counterparts, which reinforces gender superiority in this field.⁶ Distressing instances of harassment against female surgeons with deep rooted cultural barriers act as formidable hindrances for aspiring female medical students who dare to pursue surgery as their professional calling. Together, we can create an environment where female medical students are emboldened to pursue surgery without the burden of undue obstacles and discrimination, leading to a more inclusive and diverse surgical workforce that thrives on excellence.

Changing trends in surgical fields

We have come a long way from a time when women such as Dr. Miranda Stewart impersonated men to practice medicine and surgery. Multiple female surgical residents have suggested that trends are changing, and the historical disparity is slowly declining. This claim can be supported by a recent study that revealed a ratio of 1.3:1 male-to-female attending plastic and reconstructive surgeons' compared to 4.8:1 in 2019.⁷ In Pakistan, the increase in female progression in surgical programs has been credited initially to their drive towards surgery and then to a more conducive work environment. A study by Cochrane et al.⁸ found that in the U.S., the proportion of women in general surgery residency programs increased from 17.3% in 2000 to 41.1% in 2020.

While women now constitute nearly half of medical school graduates in many countries, their representation in some surgical fields still lags. A 2023 study showed minimal representation of women in the surgical faculty at Pakistani medical colleges at only 10.3%.⁹ A globally it is seen that despite increasing female enrollment in general surgery, gender disparities persist in highly specialized fields such as cardiothoracic, neurosurgery,

1 and orthopedic surgery. Women now make up approximately 40–45% of general surgery trainees in
2 developed countries. However, despite progress, women represent only 5–10% of practicing orthopedic and
3 cardiothoracic surgeons, indicating significant gaps in these high-intensity fields.¹⁰

4 All of the literature suggests that the issue is deeper than a linear curve. Over the last two decades,
5 discrimination has taken on a subtler form but is still certainly present.

6 7 **Conclusion**

8 Gender disparity is a deep-rooted problem in Pakistan's healthcare system, especially in surgical fields, and
9 aspirants like ourselves believe that we need to address this issue through awareness and education to shift
10 the mindsets of patients, colleagues, and female medical students who give up their dreams due to fear of
11 discrimination. Introduction of mentorship programs, zero-tolerance policies towards microaggression, and
12 harassment, anti-discrimination policies, and gender equity initiatives in medical education could lead ways to
13 decrease the gender-gap in surgical specialties
14

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1 **FIGURES AND TABLES.**

2 **Figure 1a: *The OR wasn't built for women, but that didn't mean we couldn't claim our place in it,***

3 Yumna Shariff (MBBS) Medical student scrubbed and assisted in coronary artery bypass grafting.



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