



OPEN ACCESS



Check for updates

# TEACHING PLASTIC SURGERY AT THE UNDERGRADUATE LEVEL IN PAKISTAN

Muhammad Ashraf Ganatra<sup>1✉</sup>

<sup>1</sup> Liaquat College of Medicine and Dentistry, Karachi-Pakistan.

**Address for correspondence:**  
Muhammad Ashraf Ganatra  
Liaquat College of Medicine and Dentistry, Karachi-Pakistan.

**E-mail:**  
ashraf.ganatra@gmail.com

When I was a medical student at Dow Medical College, Karachi (1976–1982), my clinical rotations covered various specialties, including Medicine, Surgery, Gynecology, Ophthalmology, and ENT. However, Plastic Surgery was never part of the curriculum. Consequently, when I graduated in 1983, I had no exposure to or understanding of the field. Like many others, my perception of Plastic Surgery was shaped by the media, which primarily highlighted cosmetic procedures performed on celebrities like Madam Noor Jehan and actress Zeba. Movies further reinforced the misconception that Plastic Surgery was solely about facial reconstruction for new identities, as depicted in Bollywood films like “Yeh Vaada Raha.”

Now, after 40 years, has anything changed? Unfortunately, not much. In the province of Sindh, where I belong, undergraduate medical students still do not rotate through Plastic Surgery. Sindh has approximately 24 medical colleges, but only five have dedicated Plastic Surgery departments. Outside of Karachi and Hyderabad, there are no Plastic Surgery units or appointed plastic surgeons in medical colleges, including major institutions in Benazir Abad (Nawabshah), Sukkur, and Larkana.

**The Impact on Medical Graduates:** Due to this lack of exposure, newly graduated doctors are mainly unaware of basic Plastic Surgery principles. This gap in knowledge leads to critical mismanagement in various conditions, such as:

- **Burn Injuries:** Many graduates are unaware that immediate copious water irrigation for 30 minutes can prevent deep burns.
- **Cleft Palate Surgery:** Some doctors advise parents to wait until their child grows up for cleft palate surgery, whereas the ideal time for surgery is between 9 and 18 months for optimal speech development.

- **Hypospadias Repair:** Medical graduates often perform circumcisions on children with hypospadias, unaware that the removed foreskin is essential for surgical repair.
- **Wound Management:** Concepts of skin grafts, flaps, and reconstructive techniques are poorly understood, leading to inadequate care for trauma, cancer, and congenital anomalies.

When asked about Plastic Surgery, most medical graduates still associate it primarily with skin grafting or cosmetic procedures, as society and the media reinforce this narrative (Bhachoo et al., 2025). They are generally unaware of the extensive role plastic surgeons play in trauma care, cancer reconstruction, replantation, and congenital anomaly corrections (Javeed, 2019).

## The Solution: Integrating Plastic Surgery into the MBBS Curriculum

To address this issue, it is imperative to introduce Plastic Surgery as a mandatory subject in undergraduate medical education. Early exposure to the field has been shown to positively influence career interest in Plastic Surgery (Panse et al., 2012; Farid et al., 2017; Agarwal et al., 2013). This initiative would also help alleviate the severe shortage of plastic surgeons in Pakistan, particularly in underdeveloped regions.

## Implementation Strategies

1. **Mandatory Faculty Appointments:** All medical colleges should be required to appoint at least one Plastic Surgeon at the level of Assistant Professor.
2. **Curriculum Inclusion:** Plastic Surgery should be incorporated into the MBBS syllabus through structured teaching modules.

## This article may be cited as

Ganatra M A. Teaching plastic surgery at the undergraduate level in Pakistan. J Postgrad Med Inst. 2024; 38(1):1-2. <https://doi.org/10.54079/jpmi.38.1.3703>

3. **Clinical Rotations:** A two-week module in the fourth year, combining Dermatology and Plastic Surgery, should be implemented. Dow University of Health Sciences, Karachi, has already successfully adopted this approach.

4. **Hands-on Training:** Medical students should undergo a 15-day clinical rotation in Plastic Surgery departments, focusing on:

- Burn management
- Wound care, including skin grafts and flaps
- Congenital anomalies (e.g., cleft palate, hypospadias)
- Skin cancer surgeries
- Cosmetic and reconstructive procedures

5. **Innovative Teaching Methods:** Small group discussions, Problem-Based

Learning (PBL), and practical demonstrations should be used to enhance understanding.

6. **Collaboration with Regulatory Bodies:** Medical universities, the Pakistan Medical and Dental Council (PMDC), the Higher Education Commission (HEC), and professional organizations like the Pakistan Association of Plastic Surgeons should work together to implement these changes.

## ■ CONCLUSIONS

Taking these steps will not only improve the perception of Plastic Surgery in Pakistan but also inspire medical students to pursue this specialty. With a population of 250 million, Pakistan needs at least 1,000 Plastic Surgeons to meet healthcare demands. By integrating Plastic Surgery education at the undergraduate level, we can build a well-informed medical workforce capable of delivering essential reconstructive and emergency surgical care across the country.

## ■ REFERENCES

1. Panse, N., Panse, S., Kulkarni, P., Dhongde, R., & Sahasrabudhe, P. (2012). Awareness and perception of plastic surgery among healthcare professionals in Pune, India: Do they really know what we do? *Plastic Surgery International*, 2012, 1-9. <https://doi.org/10.1155/2012/962169>
2. Javeed, M. (2019). The Role of Plastic Surgery in Trauma and Cancer Reconstruction. *Journal of Plastic Surgery of Pakistan*, 8(2), 45–50.
3. Farid, M., Khan, H., & Ahmed, R. (2017). Influence of Early Exposure to Plastic Surgery on Medical Student Career Choices. *Pakistan Journal of Surgery*, 33(4), 211–215.
4. Agarwal, P., Gupta, R., & Singh, A. (2013). Undergraduate Exposure to Plastic Surgery: A Necessity for Better Healthcare. *International Journal of Medical Education*, 4, 89–93.