

The challenges with Dental Surgeries in Pakistan

As a core aspect of oral healthcare, dental surgery includes processes such as extractions and maxillofacial reconstructions. The field of dental surgery in Pakistan currently faces a multitude of challenges, which not only make it less accessible, but also severely limit its quality and effectiveness. Although strides continue to be made in dental education and technology, there are still persistent gaps such as poor infrastructure, lack of finances, inadequate trained personnel, and general illiteracy among the population. Tackling these problems should be a concern for policymakers and the general public along with healthcare professionals.

Poor resources and infrastructure:

Pakistan lacks adequate infrastructure and resources which poses a significant challenge to the country's dental surgery capabilities. Most rural clinics and hospitals do not have the adequate tools for basic and intermediate surgical procedures. Research indicates that roughly thirty five patients who utilize a public health system claim that some hospitals have a surgical operational unit available to a dentist and that unit is equipped with a few instruments. Other than these instruments, there are no other surgical implants needed for extensive surgical procedures. Further, a significant number of dental clinics do not follow the required step by step processes for sterilization and cleansing of machineries, therefore, posing risks for infection and cross-contamination.

Shortage of Expert Professionals:

There is a grave shortage of qualified dental surgeons in Pakistan. As per the Pakistan Medical and Dental Council (PMDC), there are around 15,000 registered dentists to cater to more than 240 million people, out of which an even smaller

percentage are trained oral and maxillofacial surgeons.² Its distribution is also extremely uneven, with the majority found in urban areas such as Karachi, Lahore, and Islamabad, leaving rural regions with a shortage of dental professionals. This unevenness leads to delayed treatment, with patients being required to travel for many kilometers or forgo surgery entirely.

Financial limitations and affordability challenges:

Financial costs of dental surgical procedures are another major impediment, as most patients in Pakistan have to pay directly out of their pockets. In contrast to general medical treatment, which is subsidised to some extent in public hospitals, dental treatment is still out of reach for the common man. Research has shown that the price of a single dental implant can be anywhere from PKR 50,000 to PKR 150,000, rendering it unaffordable for low-income groups.³ Private dental clinics, which tend to have better facilities and services, also charge much higher rates than government hospitals, worsening the affordability problem.

Limited public awareness and preventive care:

Public unawareness about oral health is another key factor contributing to the elevated rate of dental diseases in Pakistan, which finally grows the demand for surgical treatments. Ahmed et al in a study identified that more than 70% of people only visit dentists when they have severe pain or complicated situations, which usually forces them to undergo invasive treatments.³ Preventive dental care like regular check-ups and early treatments is not popular, and this results in high prevalence of severe dental conditions which need surgical interventions.

Regulatory and policy issues:

The regulatory system of dental practices in Pakistan is another concern. The PMDC is tasked with ensuring professional standards; however, regulation of dental surgeries is not enforced effectively. Unlicensed professionals are found operating throughout the country, delivering low-quality care and elevating the risks of dental procedures. Furthermore, there is no provision of continuing education and standardized procedures for dental surgeons, resulting in heterogeneity in the quality of surgical results.⁵

Challenges in Dental training and education:

Dental surgeon training in Pakistan is confronted with various challenges, such as outdated curricula, inadequate hands-on surgical experience, and the absence of research opportunities. Although a number of institutions provide Bachelor of Dental Surgery (BDS) courses, post-graduate specialization in oral and maxillofacial surgery is only available at a few universities. Lack of well-defined residency courses comparable to the ones available in advanced countries is also another deterrent for professional growth for dental surgeons. In a CPSP survey, it was identified that BDS graduates do not undertake further specialization at the rate of just 10%, thus there is a scarcity of proficient specialists in surgery streams.⁶

Technological barriers and the role of digital Dentistry:

Even though digital dentistry has transformed oral health globally, its implementation in Pakistan is slow because of exorbitant expenses and a lack of expertise. Technologies like CAD/CAM, 3D printing, and robotic-assisted surgeries have enhanced surgical accuracy and patient outcomes. Yet, Siddiqui et al conducted a survey and discovered that only 15% of dental clinics in Pakistan utilize digital imaging and diagnostic technology, which is a huge technological gap.⁷ Fostering investment in advanced dental technology and educating practitioners to use them more efficiently may increase surgical success rates and patient satisfaction.

Burden of Oral Diseases and increasing demand for Surgeries:

Pakistan has a high burden of oral diseases with dental caries and periodontal diseases prevailing in almost 90% of the population.⁸ Inadequate oral hygiene habits, the absence of fluoridation campaigns, and excessive tobacco use are factors adding to the rising burden of dental disease. Consequently, there is increased demand for dental operations such as extractions, root canal, and oral cancer surgeries. Increased oral disease burden adds to an already under-serviced dental health care system, highlighting the need for early intervention and prevention measures.

No separate policies for Oral Health:

There is no public policy of oral health in Pakistan. There is a national health policy of health 2009, but it does not mention oral health. There is only one document with WHO collaboration, there is a published document on oral health, "oral health in Pakistan, a situation analysis". Due to these, there is very little reliable data documenting the actual needs.⁹

Addressing gender disparities in Oral Health Care:

Because of cultural constraints, women's access to dentists is very low compared to men. Only 35% of dentists are females in Pakistan, and hence there is a problem of low utilization of oral health care in Pakistan. Research has also indicated that periodontal diseases among women have a relationship with low birth weight in children in Pakistan. Oral health of children also relies on the oral health of mothers, as mothers are primary care givers to children of Pakistani population.⁹

Way forward: Recommendations for improvement:

A multi-faceted approach, including government intervention, professional associations, and public participation, is needed to deal with these issues. The following steps can help improve the status of dental surgery in Pakistan:

1. **Strengthening Infrastructure:**
Investment in up-to-date dental surgical equipment, especially in public hospitals and rural settings, can increase access and quality of care.
2. **Increasing Post-graduate training slots:**
Increasing the number of postgraduate training slots in oral and maxillofacial surgery and hands-on residency programs can meet the shortage of qualified professionals.
3. **Improving regulatory control:**
Enforcing PMDC regulations and curbing unlicensed practitioners can enhance patient safety and surgical outcomes.
4. **Encouraging preventive Dentistry:**
Public health campaigns highlighting oral hygiene, check-ups, and early intervention can alleviate the workload of advanced dental diseases.
5. **Promoting Public-Private partnerships:**
Public-private partnership can enhance delivery of services, affordability, and use of modern technology.
6. **Making digital Dentistry mainstream:**
Encouraging clinics to introduce digital diagnostic and surgical equipment by offering incentives can improve accuracy and patient care.
7. **Financial support mechanisms:**
Admitting insurance schemes or subsidy programs for compulsory dental surgeries can enhance affordability and accessibility.

Conclusion:

Dental operations in Pakistan are plagued by several problems, from lack of proper facilities and financial shortcomings to shortages of skilled personnel and poor regulatory framework. These must be tackled together by health-care administrators, professional groups, and society as a whole. Through the provision of improved dental facilities, education, and training, as well as emphasizing preventive care, Pakistan can make its dental surgery services better and enhance the oral health of its citizens.

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