

Making Oral Pathology Clinically Relevant: A Call to Action for Pakistan's Healthcare System

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Oral pathology is a fundamental component of the dental and medical disciplines, as it is extensively involved in the identification, diagnosis, and comprehension of diseases that affect the oral and maxillofacial region. It is essential for the early detection of malignancy, the diagnosis of lesions, and the guidance of therapeutic decisions.¹ Oral pathology remains an underdeveloped and under-integrated discipline within the healthcare system, despite its clinical importance, particularly in a country like Pakistan with one of the highest burdens of oral cancer in the world.²

Oral pathology education commences in the third year of the Bachelor of Dental Surgery (BDS) program in Pakistan.

Regrettably, the undergraduate curriculum continues to be predominantly didactic, with minimal practical diagnostic exposure and virtually no integration with clinical departments.³ In comparison to other fundamental disciplines in medical and dental education, oral pathology is characterized by a dearth of applied learning experiences and insufficient curriculum hours. The outcome is a cohort of dental graduates who are inadequately prepared to diagnose or treat intricate oral pathologies.^{3,4}

Limited to academic tracks, namely the MPhil and PhD, only a handful of institutions offer postgraduate education in Oral Pathology. The MPhil program is typically structured over a three-year period, with one year of coursework and two years of research. In contrast, PhD programs prioritize research output and publication. Although these programs do develop scholarly and research skills, they do not adequately equip graduates with the necessary skills to assume real-world clinical responsibilities. Structured,

standardized clinical training components are conspicuously absent. The majority of graduates have minimal to no experience in multidisciplinary team collaboration, patient interaction, or hospital-based diagnosis.

The absence of a Fellowship in Oral Pathology (FCPS) from the College of Physicians and Surgeons Pakistan (CPSP), the nation's highest body for clinical specialization, is an even more pronounced lacuna. Conversely, countries such as India and Sri Lanka have established oral pathology as a robust clinical specialty, providing FCPS-equivalent pathways that are characterized by clinical exposure, oncology rotations, and interdepartmental collaboration.^{5,6}

Oral pathologists receive training in a variety of interrelated disciplines, such as: in countries such as the United Kingdom and the United States.⁷ They actively engage in molecular and immunohistochemical diagnostics, administer biopsies, and participate in multidisciplinary tumor boards. In Pakistan, however, oral pathologists, particularly those with MPhil or PhD credentials, are frequently confined to academic or lab-based positions with minimal or no patient interaction, despite their significant potential.

This discrepancy has far-reaching consequences; Despite its relevance, Oral pathology becomes less appealing to top dental graduates, who tend to prefer clinically recognized specialties such as orthodontics or oral surgery.⁵ The discipline experiences difficulty in establishing its relevance or visibility in clinical environments. Additionally, opportunities for international collaboration, research funding, and public health policymaking are substantially diminished.⁸

In order to alter this trajectory, it is imperative that we establish a clinically structured postgraduate curriculum for Oral Pathology, which will be led by CPSP and will include a formal FCPS training program. Rotations through oncology clinics, surgical pathology departments, diagnostic histopathology units, and exposure to molecular techniques should comprise this program. Furthermore, it should include patient-centered diagnostic roles, clinical-pathological correlation meetings, biopsy reporting, and tumor board participation.

It is imperative that the current MDS, MPhil, and PhD faculty in Oral Pathology are actively involved in the design and delivery of this clinical training. These professionals, who are already thoroughly ingrained in academic and diagnostic systems, are in the best position to establish a

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connection between theoretical knowledge and clinical application. By collaborating with general pathologists, they can co-create a hybrid educational model that is both clinically relevant and academically rigorous.

Simultaneously, institutions that provide MPhil and PhD programs must be required to incorporate hospital-based rotations, diagnostic lab exposure, and clinical case discussions into their core curriculum. This training can be further enhanced by collaborating with tertiary care centers and medical colleges, which will enable pathology residents to conduct histological evaluations, manage real-time cases, and acquire knowledge of contemporary diagnostic modalities.

Additionally, policy-level action is required. The Pakistan Medical and Dental Council (PMDC) and the Higher Education Commission (HEC) are required to promote international linkages, assure faculty development, and enforce uniformity in oral pathology curricula. Continuing medical education (CME) programs and investments in diagnostic laboratory infrastructure are both indispensable. In a nutshell, the field of oral pathology in Pakistan is currently at a critical juncture. It is clinically inert, despite its academic activity. Without the integration of oral pathologists into real-world patient care teams and the establishment of an FCPS clinical training pathway, the specialty is at risk of becoming irrelevant in both the public health and clinical sectors.⁹ To revitalize oral pathology in Pakistan, focused reforms are essential. Integrating clinical training, diagnostic exposure, and multidisciplinary collaboration into postgraduate programs will enhance its practical relevance. Public awareness campaigns, digital diagnostics, and partnerships with tertiary hospitals can extend its reach and visibility. Faculty development, international collaborations, and funding for translational research must also be prioritized.¹⁰ By aligning academic training with real-world clinical demands, oral pathology can regain its rightful place in healthcare.¹¹ The specialty holds immense potential to impact early cancer detection and public health.¹² With coordinated efforts, we can transform it into a vital, respected, and patient-centered discipline. A significant revival necessitates the utilization of the expertise of our current academic oral pathologists and the collaboration with general pathologists to establish a future that is representative of both clinical impact and academic excellence. The time for reform is now, as it is essential for the public health outcomes, our profession, and our patients.

Authors Contribution:

Muhammad Shahrukh Khan Sadiq: conception, writing, literature search, proof reading

Daud Mirza: Writing proof reading

Shahid Ali Khan: Literature search, proof reading

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