

## Prosthodontics As A Dental Specialty In Pakistan: Reflections On Its Historical Developments, Achievements And Future Plans.

**Fazal Ghani, BSc. BDS (Pesh), MSc, CMP, PhD (London), FDSRCPSGlasg, FRSM (UK)**

Head of Department of Prosthodontics, Khyber College of Dentistry University Campus, Peshawar 25120 (Pakistan).

**Correspondence:** Email: fazalg55@hotmail.com

How to cite this article: Ghani F. Prosthodontics as a dental specialty in Pakistan: Reflections on its historical developments, achievements and future plans. J Pak Prosthodont Assoc 2013; 01 (02): 65 – 72.

### **Introduction:**

During the last 60 years, the field of medicine including dentistry has not only seen many new developments but also an ever rising financial stability of the people seeking healthcare services. Concurrent with these changes have been an increase in the awareness of people towards the importance of maintaining oral health and of the understanding of the relationship between oral health and general health. This has resulted in an increase in the demands and needs for utilization of both the preventive and dental-care service. To cope with these ever-changing trends, the importance of specialization in the various clinical disciplines and of the advance education and training in general dentistry can never be overemphasized. In UK, an estimated 75% of the total dental treatment workload going to prosthodontics prompted the authorities for introducing the specialty of restorative dentistry long ago in 1973 and that in the USA more than 90% dental treatments performed by dentists involves esthetic dental procedures. In USA, even the importance of sub-specialties within the main discipline of prosthodontics has been well recognized since long. This can be seen from the recognition of the sub-discipline of maxillofacial prosthetics as a separate field of super-specialization of prosthodontics since 1951.

Another new trend in the specialty of prosthodontics has been the introduction of implant dentistry. The proportion of geriatric people in the communities of

the world is also on the rise. Because of the physiological changes and their compromised medical status, these people have specific oro-dental problems requiring special expertise of the treating dentists. As a result, a new specialty of geriatric dentistry has emerged in the developed world. The tension, stress, changing socio-cultural norms and the consequent increased burden of living in a modern society presents several challenges for the people to cope with these. Many such people find themselves unable to cope with and thus these stressful event results in pathological changes in their stomatognathic system with the complaint of chronic oro-facial pain with severe socio-economic consequences. To help these people, the concept of oro-facial pain clinic is most popular now that have paved way for the establishment of a new specialty of Temporomandibular Disorders and Oro-Facial Pain in many countries of the developed world. All this clearly highlights the importance and need for specialization in the field of prosthodontics and in its sub-fields that involve dental restorative and esthetic procedures as well as functional rehabilitation leading to enhancement of the quality of life of patients. To provide and cope with the increasing demand for the prosthodontic services, more specialist prosthodontists are required. This is done by offering accredited programs of education and training in the specialty by the universities and specialist colleges. In Pakistan, special credit certainly goes to the College of Physicians & Surgeons Pakistan (CPSP).

**Brief Historical Background:**

In Pakistan, till 1990, the situation relating to the number of specialist dentists was not very pleasing. There were not only a few specialist teachers but most of them did not have major qualifications in their claimed specialties. They also had to teach and train students in dental subjects in which they did not hold any postgraduate qualification. Since its inception in 1962, the CPSP has shown a progressive approach to provide specialist education and training in dentistry. Initially it focused on a strategy to enhance the knowledge and skills of practicing dental surgeons. Advance level training in general dentistry were made available to teachers in dental colleges as well as practicing dental surgeons. This had to lead to the award of the diploma of membership in general dental surgery (MGDS). During the period from 1981 to 1990, only 10 candidates passed as MGDS specialists. Having noted the poor response and progress of the MGDS program and of the realization of its inappropriateness for the teaching of specialist dental subjects, it was discontinued. Keeping in view, a need for improving the situation, the dental faculty at the CPSP started a new program of specialization leading to the diploma of Membership of the Faculty of Dentistry (MFD) in the major clinical disciplines of dentistry.

The MFD diploma was later on renamed as diplomas of the Membership of the College of Physicians & Surgeons Pakistan (MCPS, Pak) in the relevant clinical discipline. During the period 1991 – 2001, a total of 175 candidates passed their MCPS examinations in various clinical disciplines including 25 in prosthodontics, 20 each in periodontology and orthodontics, 51 in oral surgery, 50 in operative dentistry and 9 in community dentistry. The MCPS program was later on replaced by a new membership diploma program called diploma of the College of Physicians & Surgeons (DCPS Pak) in Family Dentistry as by then the already introduced major degree program of Fellowship of the College of Physicians & Surgeons Pakistan (FCPS Pak) in the four major clinical disciplines of dentistry in 1995 were in full course of operation with the feeling of no need for minor membership diplomas (MCPS) in those specialties. In a period encompassing the years 2002 and Jan 2014,

a total of 34 candidates have received their diploma of DCPS Pak in Family Dentistry. Later on, again upon the insistence and demand from the community of dental practitioners, the CPSP Faculty of Dentistry reconsidered the continuation of the specialty based MCPS program but with more structured training. The latest data (Jan 2014) for those having received their dentistry related membership diplomas of MGDS, MCPS and DCPS equals 236. The distribution of these is; 10 as MGDS, 34 as DCPS Family Dentistry and 192 MCPS (27 in prosthodontics, 27 in periodontology, 23 in orthodontics, 55 in oral surgery and 52 in operative dentistry and 9 in community dentistry).

In 1994, the Dental Faculty, upon the strong insistence of the CPSP Council, started practical planning for implementing the major degree fellowship (FCPS) program in the clinical disciplines of dentistry. Initially six dental disciplines including prosthodontics, orthodontics, oral surgery, operative dentistry, periodontology and community dentistry were identified for the FCPS program. This was based on the availability of facility and qualified teachers eligible for supervision of training in these disciplines in the various dental departments and colleges of the country. On 15 July 1994, the identified prospective FCPS training supervisors were invited to attend a two days meeting at the CPSP Karachi. Members in each of the six specialty groups completed the tasks of deciding upon the format of FCPS examination, training requirements, syllabi in their respective disciplines and units capable and willing for imparting FCPS-II training in their specialty. In the specialty of prosthodontics, by then only three teachers could qualify as supervisors. These included me (Dr Fazal Ghani) as Head of the Department of Prosthodontics at Khyber College of Dentistry Peshawar and Dr. Tariq Zaman Ahmad and Dr. Nazia Yazdanie both at the Department of Prosthodontics, De'Montmorency College of Dentistry Lahore. It is to mention that the syllabi, contents and format of examination for FCPS Part I had already been established.

The general and core issues relating to the FCPS-II frameworks for syllabi, training objectives, format of examination etc were sorted out through between group interactions and the specific specialty related

issues including training contents and competences through within group interactions. Parallel to these activities, the Department of Medical Education (DME) had started the training workshops for preparing us as better trainers, educators, assessors and supervisors of research and clinical training. Upon completion of all the issues as well as physical inspection of the concerned identified units, finally approval was given by the CPSP Faculty to start the program of FCPS-II training. Initially two supervisors for FCPS-II Prosthodontics were approved including me (Dr Fazal Ghani) at Khyber College of Dentistry Peshawar and Professor Dr Tariq Zaman Ahmad at De'Montmorency College of Dentistry Lahore. It is a matter of great pride and honour that I got the credit of being not only the first FCPS-II supervisor in the specialty of Prosthodontics but also the first among all the dental specialty supervisors by having the FCPS-II Dentistry Supervisorship registration No. DSG-S-019-001.

Upon the availability of trainees after passing the FCPS-I Dentistry examination, both the centers at Khyber College of Dentistry Peshawar and De'Montmorency College of Dentistry Lahore that had been recognized for FCPS-II Training in the specialty of Prosthodontics started trainees' induction and their training in 1996. Upon completion of the training by the first trainee (Dr. Sajid Naeem), the first FCPS-II Prosthodontics Examination was conducted by the CPSP. Myself (Dr. Fazal Ghani) was appointed by the CPSP as the First Examiner as well as the First Convener of the Panel of Examiners for this very first FCPS-II Prosthodontics Examination. This examination was conducted at the Department of Prosthodontics, Baqai Dental College Karachi. Thus I had also this honour and credit of having being not only the first FCPS-II Examiner but also the Convener of the Panel of Examiners. In the year 2001, the first two trainees (Dr. Sajid Naeem and Dr. Azad Ali Azad) passed their FCPS-II examinations in Prosthodontics. Conduction of examinations, by the CPSP, in FCPS-II Prosthodontics as well as in the other specialties then continued at Baqai Dental College, Dental Department of the Aga Khan Dental Hospital Karachi and Karachi Medical and Dental College (KMDC) for sometime until arrangements for all the dental FCPS

examinations were made at the CPSP Headquarter at Karachi. These examinations are at the moment conducted at the CPSP Karachi Venue and planning is underway for conducting them in future at the various regional centers of the CPSP. It is also being planned that possibly the future IMM Prosthodontics examination shall be conducted at the nearest local centers for the convenience of the candidates. Table 1 details the number of various dental specialists produced by the CPSP. It is to mention that currently, in the records of the PMDC, there are 1019 dentists with a postgraduate qualification. With 550 dentists having the membership and fellowship qualification in a dental specialty, the contribution of the CPSP to the dental specialist manpower in the country is more than 54 percent.

**Table 1: Dental specialists produced by CPSP (1981 – 2013). CPSP has contributed 550 dental specialists to the total 1019 dental specialist manpower currently registered with PMDC thus making a contribution of 54 %.**

<b>Membership Level General Dentistry Specialists (Since 1962):</b>	<b>46</b>
1. MGDS (1981-1990)	10
2. DCPS Family Dentistry (Since 2000)	36
<b>Dental Specialties MCPS (Since 1991):</b>	<b>203</b>
1. Operative Dentistry	52
2. Oral Surgery	66
3. Orthodontics	23
4. Periodontology	26
5. Prosthodontics	27
6. Community Dentistry	09
<b>Dental Specialties FCPS (Since 2000):</b>	<b>303</b>
1. Operative Dentistry	75
2. OMFS & Oral Surgery	103
3. Orthodontics	64
4. Prosthodontics	61
<b>Grand Total</b>	<b>550</b>

#### **CURRENT FACULTY & ITS RESPONSIBILITY**

Before 2000, a combined Dental Faculty existed at the college. However, it was decided to establish separate specialist faculties in the various dental disciplines. For this purpose, a meeting of all dental

experts was held at the CPSP Headquarter Office Karachi in 2000 (Figure 1). The first separate Faculty of Prosthodontics was established in 2000 with its members as Dr. Tariq Zaman Ahmad, Dr. Nazia Yazdanie, Dr. Fazal Ghani and Dr. Waheed Sheikh. In 2002, the faculty had its members as Dr. Tariq Zaman Ahmad, Dr. Nazia Yazdanie, Dr. Fazal Ghani, Dr. Asif Ali Shah and Dr. Azad Ali Azad. In 2005, the faculty members were; Dr. Tariq Zaman Ahmad, Dr. Nazia Yazdanie, Dr. Fazal Ghani and Dr. Azad Ali Azad. From 2010, the current Faculty in Prosthodontics comprises of Dr. Nazia Yazdanie (Lahore), Dr. Fazal Ghani (Peshawar), Dr. Asif Ali Shah (Lahore), Dr. Azad Ali Azad (Rawalpindi), Dr. Aamir Butt (Sindh), Dr. Moeed Zaigham (Lahore) and Dr. Jodet Askari (Sindh).

All the duties performed by the faculty members are to ensure that the training standards in the specialty of prosthodontics are meeting the national requirements and to be globally accreditable and at par with practices elsewhere. A wide range of tasks and responsibilities are assigned and performed by members of the faculty. Among these include the preparation and updating of the IMM and FCPS-II curriculum, constructing and vetting of MCQs and SAQs with well-structured and agreed answer keys, preparation of materials for Viva, TOACS and Clinical Examinations, Developing Table of Specifications for IMM and FCPS-II Examinations, development and revision of specialty Log Books, preparation of Competency Charts, proposition of further FCPS branches / sub-specialties of the specialty of Prosthodontics, decision about the need and changes for mandatory rotations in future, proposal for utilization of video-conferencing for CME activities and related credits / faculty meetings, preparation of weekly training programmes and encouraging and motivating trainees and supervisors for using E-log book system. The faculty is also involved in developing procedures and processes for supervision and monitoring of training and identifying criteria for approving departments and units for specialty training in hospitals / dental institutions. They also approve new methods of summative assessment and developing a bank of examination materials and items for both the written and practical / clinical examination held by the college.

Initially being comprised of only three active members (Dr. Fazal Ghani, Dr. Tariq Zaman Ahmad and Dr. Nazia Yazdanie), we all had to work very hard. We had to accomplish many important tasks on time. Among these, in addition to clinical supervision of our trainees, our duties also included; research synopsis supervision of our own candidates, review of the synopsis and dissertation of our own trainees and of those at other institutes and even of those in other dental disciplines. Personally, So far, I have supervised and reviewed some 17 research synopsis of my own trainees and 23 of trainees from other institutes, supervised 9 dissertations of my own trainees as well as evaluated 9 Dissertations of others' trainees. These are in addition to the more than 150 article review work that I have done for various national and international journals including the Journal of the College of Physicians & Surgeons Pakistan (JCPSP).

#### **Major Milestones Achieved:**

During the past period of 2001 – 2011, in which the FCPS-II examinations are regularly held by the college, 61 trainees have passed their FCPS in the specialty of Prosthodontics with more than this figure of trainees, either ready or to be soon ready for appearing in the forthcoming examinations. So far, from my department and under my supervision, 8 FCPS and 2 MCPS in Prosthodontics have passed. An additional 31 trainees already inducted under my supervision are in the various phases / years of their training leading to eligibility for appearing in the FCPS-II & MCPS Examination. The passed 61 FCPS in prosthodontics are in addition to the 27 MCPS level Prosthodontics Specialists already qualified from the CPSP. As for the data available on 10 January, 12 Centers / prosthodontics departments at the various public and private sector dental colleges in the country with one abroad have been accredited for imparting clinical training for MCPS and FCPS-II in the specialty of prosthodontics.

The achievement by the faculty of prosthodontics is quite comparable to the performance of other specialists' dental faculties by looking at the statistics of the total 269 CPSP Fellows in the various disciplines of dentistry. These include; 64 in operative dentistry, 55 in orthodontics and 97 in oral & maxillofacial

surgery. Similarly, a total of 203 specialists in the various specialties having membership level diplomas (with their specialty-wise distribution shown earlier) have also been produced thus making the total figure of 550 for the dental specialist manpower for the country by the CPSP. CPSP Fellows in prosthodontics are working in both the public and private sector institutions as well as overseas. Most of them are involved in the training and supervision of other FCPS & MCPS trainees. Some have also become examiners of the College in their specialty. Almost all the existing prosthodontics faculties in the local dental colleges as well as some in overseas (Saudi Arabia & UAE) are comprised of fellows and members of the CPSP.

An honour for the CPSP and recognition of its standard and quality of training has been made by one CPSP Fellow in Prosthodontics (Dr. Muhammad Ali Chughtai) who was trained by me (Dr. Fazal Ghani). Dr. Chughtai has been the first FCPS Prosthodontists who passed the FFD RCS-I (Restorative Dent) examination of the Faculty of Dentistry of the Royal College of Surgeons of Ireland. An additional honour and recognition for the college has been made by me (Dr Fazal Ghani, Supervisor for FCPS Training, Examiner and Member of the Sub-Committee of Prosthodontics of the CPSP Faculty of Dentistry). This is that since 2007, I am the Member of the Panel of Examiners for MFDS Examination of the Dental Faculty, Royal College of Physicians & Surgeons Glasgow (UK). This further attests the standards of training and credibility of CPSP examinations.

There is a voluminous and qualitative experience and qualifications to the credit of all supervisors, examiners and members at the CPSP Faculty of Prosthodontics. Simply to speak some of it that is related to myself (Dr. Fazal Ghani), include the experience of several post-doctoral visits to Japan, South Korea, Kuwait, the experience of manuscript reviewing for several national and international journals including Journal of Prosthodontics (USA), presentations and keynote lectures at many international conferences and universities abroad, membership of several local and international professional societies and a vast experience of

publishing in both the national and international journals including the Journal of Prosthetic Dentistry (JPD, USA), British Dental Journal (BDJ, UK), Journal of Oral Rehabilitation (JOR, UK), European Journal of Prosthodontics & Restorative Dentistry (EJPRD, UK) and the Journal of Japan Prosthodontics Society (JJPS, Japan).

The members of the faculty of Prosthodontics have been also assigned national level tasks by various national bodies such as Higher Education Commission Pakistan, PM&DC and Pakistan Medical Research Council. I Dr Fazal Ghani, Dr. Nazia Yazdanie, Dr. Azad Ali Azad and Dr. Tariq Zaman Ahmad have acted as Members, Conveners and Members of the Core Committee of the National Curriculum Revision Committee (NCRC) of the Higher Education Commission for both the undergraduate and postgraduate studies since 2001. I Dr Fazal Ghani and Dr. Nazia Yazdanie have also acted as members of the PM&DC National Examination Board (NEB) for Foreign Dental Graduates. In addition, we also had the honour of holding the prestigious positions as Member of the Technical Advisory Committee (TAC) and Convener of Experts Panel for Oral Health at the Pakistan Medical Research Council (PMRC). The CPSP, its faculty of Prosthodontics as well as the other faculties of dental disciplines are also well known all-over the world. At all forums when CPSP has been mentioned and its website introduced, our foreign colleagues in the profession who are leading Professional Bodies / Associations in their own countries or regions have overwhelmingly praised us and the CPSP when knowing about the credible and significant achievements that the CPSP has made for the profession of dentistry in Pakistan.

The credit of all this tremendous achievement by us at the Faculty of Prosthodontics certainly goes to all at CPSP and especially to the present and the past Presidents of the CPSP and Members of their Learned Councils. They have been all the time listening to us and guiding us despite the fact that we the dental fraternity at the CPSP being too small and in the very beginning of remodeling its future. Surely, this would not have been possible without the excellent, guidance and training provided to both the

supervisors and trainees by the Department of Medical Education (DME), Department of Examination (DoE) and the Research and Training Monitoring Cell (RTMC) in the form of workshops and conferences and hands-on-training sessions. This learning of all of us by these departments continues till this writing and shall be necessary in future so we remain current and updated. All at the Department of Operation (DoO) by making our travel and stay during outstation duties extremely comfortable and respectful cannot be forgotten. It would be certainly not possible to describe, in the words of any language, how effective, conducive and cooperative environment the CPSP has been providing to all of us as trainees, supervisors and faculty members at the CPSP Headquarters or at its nation-wide spread Regional Centers. We all are highly indebted to the staff at all these places.

#### **Immediate Consideration of the CPSP for Dental Specialist Training:**

Expanding the Role of CPSP Faculty of Dentistry (FoD).

Task Assigning to FoD to respond to the challenges of tremendous workload related to introducing new dental specialties.

Introduction of *Mandatory Quota for Dental Members* in the *CPSP Council*.

Introduction of the *CPSP Position of Vice-President (Dental)*.

#### **Existing and Future Plans of the Faculty of Prosthodontics:**

We at the Faculty of Prosthodontics have planned for bringing several improvements and strengthening of our existing activities. The faculty has already established the specialty association with the name Pakistan Prosthodontics Association (PPA) with myself as its President Elect for the Year 2013. The PPA is holding the first International Conference in October 2012 in Lahore with all lectures and workshops / seminars by world renowned teachers of prosthodontics from Europe and USA including the President of the European Prosthodontics Association. The 2<sup>nd</sup> international PPA conference was held from 27-30 September 2013 in Peshawar and organized under my term of PPA Presidency in

Peshawar. The author of this writing is also the Founder President of the Pakistan Forum for Restorative Dentistry (PFRD). The 3<sup>rd</sup> PPA conference is being planned for September 2014 in the twin cities of Rawalpindi and Islamabad. PPA has launched its biannual journal called the *Journal of the Pakistan Prosthodontics association (JPPA)* with its second issue of the year 2013 in press at the time of this writing.

We aim to start regional meetings and series of lectures, seminars and hands-on-workshops for trainees and practitioners. We also look for collaboration between other specialties locally and internationally. In this regard, a major milestone is the signing of MoU with the European Prosthodontics Association for exchange of teachers and trainees within prosthodontics departments in Pakistan and those within European dental institutions. At the same time we are also cognizant of the fact that the main specialty of Prosthodontics is too vast and no one will ever be able to master and command in all its domains. For this purpose, it is of utmost importance that the current FCPS specialist in general prosthodontics will be required to excel in one of its several sub-fields. Therefore, it is proposed that in future, the faculty is planning to start sub-specialization programs leading to second FCPS in the following sub-fields of Prosthodontics:

1. Removable Prosthodontics.
2. Fixed Prosthodontics.
3. Implant Prosthodontics.
4. Maxillofacial Prosthodontics.
5. Geriatric Dentistry (Gerodontics).
6. Gnathology (study of occlusion) and Temporomandibular Disorders (TMDs).
7. Special Care Dentistry.
8. Preventive Prosthodontics.

In addition to the above, it is also proposed to the CPSP to widen the domains of specialization in dentistry by offering the following training programs leading to fellowship qualifications and additional programs leading to diploma and certificate level qualifications enhancing skills of general dental practitioners:

Twenty Seven Dental Fields For Fellowship / Advanced Level Specialization:

1. Dental Public Health.
2. Operative Dentistry.
3. Endodontics.
4. Prosthodontics.
5. Orthodontics & Dentofacial Orthopaedics.
6. Oral Medicine.
7. Paediatric Dentistry.
8. Periodontology.
9. Special Care Dentistry.
10. *Oral Biology incl; Oral Anatomy / Physiology & Histology.*
11. *Dental Biomaterials.*
12. Dental Laboratory Technology.
13. *Oral & Maxillofacial Pathology incl; Oral Microbiology / Histopathology / Immunology / Cariology.*
14. *Dentofacial Radiology & Diagnosis.*
15. *Forensic Odontology.*
16. *Dental Hygiene & Dental Therapy Education.*
- 17.
18. *Dental Implantology.*
19. *Comprehensive Care Dentistry.*
20. Oral & Maxillofacial Surgery.

21. *Restorative Dentistry.*
22. *Advanced Prosthodontics (RP, FPs, MFPs & Implants).*
23. *Occlusion & Temporo-mandibular Disorders.*
24. *Gerodontology.*
25. Hospital Dentistry.
26. Dental Practice Management, Economics & Ethics.
27. Advanced Oral & Maxillofacial Surgery (Orthognathic / Facial Plastic & Reconstructive Surgery).
28. Esthetic Dentistry.

**Diploma & Certificate Level Training Programs for General Dental Practitioners (DPs):**

1. Diploma in General Dentistry (MGD).
2. Diploma in Implant Dentistry.
3. Diploma in Restorative Dentistry.
4. Diploma in Primary Care Orthodontics.
5. Diploma in Primary Dental Care.
6. Diploma in Dento-Facial Aesthetics.
7. Diploma in Surgical Dentistry.
8. Diploma in Dental Health Services Leadership & Management.
9. Certificate in Dental Practices Appraisal.
10. Certificate in Mentoring in Dentistry.



Figure: Meeting of Dental Experts with the then President CPSP for the establishment of separate specialists faculties in dentistry held in 2000.

**Recommendations:**

1. Expanding the Role of CPSP Faculty of Dentistry (FoD) to introduce new dental specialties.
2. Task Assigning to FoD to respond to the challenges of tremendous workload related to introducing the mentioned new dental specialties.
3. Introduction of Mandatory Quota for Dental Members in the CPSP Council.
4. Introduction of the CPSP Position of Vice-President (Dental).