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Specialisation and Specialist Education in Prosthetic Dentistry in Europe

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Abstract - *This presentation reports on the results of a meeting of prosthodontists from selected European countries. The aim of the meeting was to analyse and promote specialisation and specialist education in Prosthetic Dentistry in Europe. Representatives for Europe were selected from the European Prosthodontic Association (EPA) board, the Education and Research Committee of International College of Prosthodontists (ICP), countries with a legally recognised speciality, countries without a recognised speciality but organised training programmes and countries with neither of these situations. Data about specialisation and specialist training in Prosthodontics in Europe was scrutinised and discussed. The programmes for countries with specialist training had relatively similar content, mostly of three years duration. There was strong agreement that a recognised speciality raises the level of care within the discipline for both specialists and non-specialists. In several of the countries where a speciality had been introduced it had been initiated by pressure from public health planning authorities. The conclusions are that from a professional viewpoint an advancement of the speciality over Europe would develop the discipline, improve oral health planning and quality of patient care. A working group for harmonisation was recommended.*

KEY WORDS: Specialisation, prosthodontics, education, europe

INTRODUCTION

The EPA (European Prosthodontic Association)[1] has for a number of years made considerable efforts to expand the member countries with a recognised speciality in Prosthetic Dentistry. This endeavour is based on the conviction that a formal recognition of the discipline will form a solid foundation for developing patient care; an interest by general practitioners in the subject; and greater focus on the research and the academic field.

This paper will report on the results of a meeting held in Copenhagen, Denmark, May 19-20th 2003 that aimed to both analyse and promote specialisation and specialist (postgraduate) education in Prosthetic Dentistry in Europe.

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MATERIALS AND METHODS

Under the umbrella of the EPA an invitation was issued to faculty staff in Prosthetic Departments in a number of countries that were considered representative of the situation in Europe. Selection criteria were broadly based on individual people who had been involved in:

- the EPA Board
- the EPA Joint National Committee
- the Education and Research Committee of the International College of Prosthodontists[2]

and:

- representatives from countries with a legally recognised speciality
- representatives from countries with organised postgraduate training programmes but no speciality
- members from countries where neither of these situations existed

Delegates from the following countries were invited by personal invitation:

Belgium, Croatia*, Denmark, Finland*, Germany, Greece, The Netherlands, Norway, Poland*, Sweden*, Switzerland*, Turkey*, United Kingdom*(* denotes legally recognised speciality in Prosthetic Dentistry).

All invited accepted or sent an alternate from the country in question. All delegates are authors of this report.

Information was obtained from delegates, websites and published material.

DISCUSSION

The FDI (Federation Dentaire International)[3] has expressed that a transition towards specialisation in a health care field "will strengthen the integrity and cohesiveness of the profession as long as the welfare of patients remains as the focal point"[4].

The FDI also lists some general principles[4]. In brief these indicate:

- That a dental speciality must address a clear health need
- That a speciality is best developed through collaboration between regulatory, professional and educational bodies
- That specialties should be regulated via legal, statutory or professional authority.
- That a speciality should be founded upon a formal programme of education
- That the establishment of dental specialities should not legally limit the right of the general practitioner to practice the full spectrum of dentistry including specialist tasks.

Some dental specialist organisations have, within the framework of their constitution, taken actions to harmonise quality standards for graduate training programmes and to act as links between European national licensing bodies to facilitate specialist practice at an appropriate level in any European country. See references regarding Periodontology,[5] Endodontology[6], Orthodontics[7], TMD[8], and Oral and Maxillofacial Surgery[9].

In most countries where the status of specialists is recognised they are either employed in public dental organisations in a specialist position or are active in private practice. Specialists in private practice may in some countries be restricted, by legal regulations, to work only in the speciality once they have chosen to advertise themselves as specialists (eg. in Belgium). In other countries it is up to the individual specialist to limit his practice to the speciality or to work both as a general practitioner and a specialist. Ethical rules within Dental Societies and Specialist Organisations may give guidance on how to handle inter-collegial relations and the extent of treatment that a specialist shall undertake on referred patients. In those countries where open advertising of a speciality status is allowed it is prohibited for non-specialist registered dentists to advertise themselves as specialists in a sub-discipline of dentistry. There are, however, several examples where this is bypassed by just adding terms such as implants or cosmetic dentistry. Internet advertising has, however, generated even more aggressive advertising where it may be difficult for the public to differentiate between an authorised or registered specialist and a self appointed "specialist".

There are examples of countries where it is accepted to advertise yourself as "specially trained" in a dental subdiscipline, such as prosthetic dentistry eg. Germany, Italy, Norway.

In Germany there are officially approved specialist programmes in orthodontics in all states and in some states also in Oral/Maxillofacial Surgery and Periodontology. These programmes end with an examination by the Chambers of Dentists (official authority). Specialists are allowed to advertise themselves publicly as specialists. In addition to these regulations the German Supreme Constitutional Court (2001)[10] made a verdict that a dentist, in spite of the prohibition of commercial advertising, can publicly indicate a special field of interest. Following this verdict the authoritative bodies, the German Chambers of Dentists within the 16 German states (organisation of care is not a federal matter), are currently discussing guidelines for speciality training to avoid erroneous indications. This will probably include Prosthetic Dentistry.

As another example, in Denmark a practitioner is permitted to advertise that he/she accepts referrals in certain disciplines in professional dental journals but not publicly eg. in the telephone book. The Danish Dental Journal, however, clearly states on the pages for inter-colleague referrals that the society takes no responsibility for whether the advertising colleague possesses or not the qualifications that he/she advertises.

Prosthetic Dentistry

Within Prosthetic Dentistry about 50 countries in the world have a formally recognised speciality[11].

The number of countries which recognise the speciality of Prosthetic Dentistry is expanding.

The United States seems to be the country with the oldest speciality in Prosthetic Dentistry, established in 1948[12]. Lloyd refers to American Dental Association documents and concludes that the specialist in Prosthetic Dentistry has continued to meet the requirements at every subsequent review[12]. He continues: "designation of a specialist is more than just a label given to a group of dentists who share a philosophical and clinical commonality. It represents recognition, by the profession as a whole, of a discrete and distinct body of knowledge, the distinction of which benefits the general public. It takes considerable evidence to examine speciality status, and we should do all we can to promote it"[12].

There are several arguments and indications presented that a specialisation, or alternatively a specialisation-like programme will benefit the standard of prosthodontic care in a country[13-16].

The FDI[3] and WHO[17] data together with participating delegates' data are presented in Table 1 for those countries with a formally recognised speciality in Prosthetic Dentistry. Information is missing about the following countries: Andorra, Armenia, Azerbaijan, Georgia, Liechtenstein, Monaco, Moldova, San Marino, Ukraine, Vatican City. Countries not mentioned above and not included in table 1 do not have a recognised speciality in Prosthetic Dentistry.

It is obvious that for many of the countries the FDI[3] and WHO[17] data are not correct.

The Speciality

According to the FDI[3] and WHO[17] the speciality in most European countries is named Prosthetic Dentistry. A few countries however, use other terms: Finland has a speciality in Clinical Dentistry including the branches of periodontology, cariology/endodontics, prosthetic dentistry, and stomatognathic physiology, paediatric dentistry and diagnostics (including oral pathology and oral radiology). Education is provided partly together and partly in the

Table 1. *Data about European countries with legally authorised speciality in Prosthetic Dentistry*

	Population (millions)	*Dentists (number)*	*Prosth specialists (number)*	*Ratio (denists / specialists)*	*Denturists (number)*
Albania	3.3	2000	102	20	
Belarus*	10.0	5800	600	10	
Bosnia-Herzegovina	3.7	842	63	13	
Croatia	4.5	3000	164	18	
Estonia*	1.5	1000	54	19	
Finland	5.0	4580	97	33	341
Iceland	0.3	263	6	43	
Kosovo	2.5	700	52	13	
Latvia*	2.5	1700	5	340	10
Lithuania	3.7	2700	220	12	
Macedonia	2.0	1442	121	12	
Poland	38.6	33.000	1808	18	
Serbia & Montenegro	8.2	3403	327	10	
Slovakia**	5.4	3084	59	52	
Slovenia	2.0	1188	35	40	
Sweden	9.0	7700	198	39	
Switzerland	7.5	4000	56	71	few
Turkey	70.0	17.000	117	146	
UK	59.0	31.425	366 + 277***	52	soon

*FDI or WHO information; 3, 4 ** EU Manual; 5 *** Monospecialists + Specialists in Restorative Dentistry (some dentists will be on more than one list). Jan 2005

special disciplines and the specialists have the status of specialists in their "sub-specialities". UK has a speciality in Prosthodontics but also a speciality in Restorative Dentistry, which includes Periodontology, Endodontics and Prosthodontics (Prosthetic Dentistry). The speciality in Prosthodontics (Prosthetic Dentistry) is accordingly called a monospeciality, as are the single specialties of Periodontology and Endodontics. From 2005 in Flanden, the Dutch speaking part of Belgium, the traditional prosthodontic training will be joined together with operative dentistry training in a new speciality called, Restorative Dentistry, which will include direct as well as indirect restorations, prostheses, adhesive dentistry, endodontics, and implant supported devices and gerodontology. Switzerland has recently renamed its speciality as Reconstructive Dentistry. Jokstad has previously described the situation in the Nordic countries[18].

Scope of the Speciality

The scope of the speciality is not always clearly defined. The definition of Prosthetic Dentistry as an academic discipline may thus serve as a guideline[19]. Fixed, removable and implant-retained prosthodontics should be the essential parts covered. Dental Materials and Gerodontology were also considered natural parts of Prosthetic Dentistry. In none of the countries is Maxillofacial Prosthetics a formally defined additional discipline and "intraoral" maxillofacial prosthetics is considered part of the main speciality discipline.

Stomathognatic physiology/clinical oral physiology/TMD care and occlusion are considered to be a part of Prosthetic Dentistry in all European countries with the exception of Sweden where Stomathognatic Physiology has been a separate, formally approved, speciality since 1993.

Development of a Recognised Speciality

Of the countries attending the meeting seven had a formally recognised speciality in Prosthetic Dentistry. Data are presented in Table 2.

Historically there has been pressure from the public dental health authorities in some countries, (Iceland, Poland, Sweden, UK) to have a speciality established because they recognise a need for standardised education and competence in order to supply a necessary high level of care and to "protect the public" as it was phrased by Seward (1998)[14].

Iceland has not had any domestic training of specialists, but has accepted training abroad with a minimum of three years. This has resulted in 11 recognised specialities (2003: oral surgery, orthodontics, paedodontics, stomatognathic physiology, microbiology, cariology, periodontology, endodontics, prosthodontics, community dentistry, gerodontology) (Einar Ragnarsson pers. inform).

Several universities in countries without the formal speciality have well established graduate training programmes reflecting the need of dentists for a higher qualification in the discipline. Belgium, Germany, Greece, The Netherlands, and Norway have such structured graduate programmes.

Germany has had a graduate programme in Prosthetic Dentistry since 1995 organised by the German Society for Prosthetic Dentistry and Dental Materials. It is a three year programme and given at all 29 Dental Schools.

The data from those countries participating in the meeting without a recognised speciality but with graduate programmes in Prosthetic Dentistry are presented in Table 3.

Table 2. *Data regarding those seven, among the participating countries, that have a formally recognised speciality in Prosthetic Dentistry. Jan 2005*

	Year of establishment	*Subdisciplines included in speciality*	*Programme length*	*Other dental specialities*
Croatia	1970		3 yrs	Oral/Maxillofacial Surgery Orthodontics Periodontics Paedodontics Community Dentistry Cariology/Endodontics Oral Pathology
Finland	1985*	Stomatognathic Physiology	3 years (min 2 yrs general dental practice)	Oral and Maxillofacial Surgery Orthodontics Periodontology Pediatric dentistry Cariology and Endodontics Oral diagnosis, oral pathology and oral radiology
Poland	1974	Maxillofacial Prosthetics TMD Implant Prosthetics	4 yrs	Oral/Maxillofacial Surgery Orthodontics Periodontics Paedodontics Conservatory/Endodontics Dent Public Health
Sweden	1982	Maxillofacial Prosthetics Orthodontics Periodontics Paedodontics Endodontics Stomathognatic Physiology Radiolology	3 yrs	Oral/Maxillofacial Surgery
Switzerland	2000	Maxillofacial Prosthetics TMD Gerodontology Implantology	4 yrs	Oral/Maxillofacial Surgery Orthodontics Periodontics
Turkey	2002	Maxillofacial Prosthetics TMD	4 yrs	Oral/Maxillofacial Surgery Orthodontics Periodontics Paedodontics
UK	1998	Maxillofacial Prosthetics TMD	3 yrs	(Oral/Maxillofacial Surgery is a Medical Speciality) Orthodontics Paedodontics Periodontics Endodontics Oral Medicine Surgical Dentistry Dental Public Health (Restorative Dentistry.***)

* Introduction of official training programmes in Finland.
** Maxillofacial Prosthodontics was earlier a separate speciality in Turkey. Some still hold this title. Now it is included in the speciality of Prosthetic Dentistry.
*** The programme length for Restorative Dentistry in UK is 5 years.

Table 3. *Data about the participating countries without a formally recognised speciality in Prosthetic Dentistry. Jan 2005*

	Recognised Specialities	*Non authorised programmes in Prosthetic Dentistry*
Belgium	Orthodontics (Oral/Maxillofacial Surgery is a Medical Speciality) Periodontics	yes at all University; 3 yrs
Denmark	Oral/Maxillofacial Surgery Orthodontics	no
The Netherlands	Oral/Maxillofacial Surgery Orthodontics	no
Norway	Oral/Maxillofacial Surgery Orthodontics Paedodontics Periodontics	yes at all University; 3 yrs
Germany	Orthodontics Oral/Maxillofacial Surgery (in some states) Periodontics (in some states)	yes at all University; 3 yrs
Greece	Oral/Maxillofacial Surgery Orthodontics	yes at all University; 3 yrs

Benefits of a Speciality

In order to satisfy patients who have complex treatment needs or rare oral conditions there is a need to have formally authorised expertise and not "self made" experts to refer to. With the European goal of free movement and greater movement of patients and professionals between countries there is not only the need for local specialisation but also harmonisation[20-21].

From a health care planning aspect, specialists and their organisations may add important knowledge regarding the needs of the population.

In countries with publicly employed dentists in speciality disciplines, it is beneficial for the employer to have a safe reference for judging qualifications. The formally recognised speciality is one such reference. This has been an important aspect in some countries e.g. Poland, Sweden and Finland and has been a factor in the public availability of specialist dentists who are adequately trained.

Obstacles to the introduction of a speciality

The greatest obstacle to the introduction of specialisation is a lack of consideration of what is best for patients. In some countries, eg Australia and Belgium specialist status requires a private practitioner to cease practising dentistry outside the speciality. This would appear to go against the best interest of the patient and be more concerned with the business of dentistry. It also challenges the FDI statement (see above)[4]. Owing to a resistance from dental societies, who considered prosthetic dentistry part of general dentistry. Countries with the speciality did not report any such problems.

Specialist training

In several of the countries with a formally recognised speciality, the training itself is approved by the authorising body.

The directives mostly include a specified time for the programme, usually three years, with a background in general practice of about two years. See table 2.

Of the countries with a formally approved speciality and represented at the meeting, all had specialist training within the Dental Schools/Universities. Sweden and UK also had approved specialist training centres not related to the Dental Schools.

Currently there is no standard regarding the contents of the programmes within Europe.

Authorisation as specialist

The countries with legally approved specialists in dentistry all have authorising bodies at national or federal level. For those eight countries with a speciality in Prosthetic Dentistry, the specialist authorisation is added as a supplement to the diploma as general practitioner. This means that in none of those countries can the specialist certification/diploma be withdrawn/erased from the register separately but has to be withdrawn/erased together with the general authorisation as a dentist.

CONCLUSIONS

In most countries in the world legally recognised specialists in sub branches of dentistry have, for many years, been restricted to Oral and/or Maxillofacial Surgery and Orthodontics[20]. Though widely accepted and infrequently questioned, the reasons for the unique status of these two specialities has been rarely articulated. Possible factors for their recognition as specialities are:

- The same background factors that have regulated specialisation in medical disciplines
- The need for special qualifications, equipment and technical resources
- More risks involved that make the treatments unsuitable for normal general practices

- An historically limited patient base so that specialists need to be concentrated in selected centres to ensure high standards of clinical knowledge and adequate work so their specialist skills are maintained

The same arguments could, however, be used with prosthodontics and it is far from clear why only these two specialties have developed and why there is apparent resistance to further specialisation in some countries. Prosthodontics includes treatments that are of great functional and psychological benefit and may have high economic significance to individual patients with defective dentitions or oral function as well as to dental health care providers and other third party payers.

Dentistry has developed diagnostically and technically in such a way that most sub disciplines today can identify levels of both advanced and specialised care. Whether the level of advanced care has or is required to have the status of a formalised and recognised speciality seems related more to the organisation of dentistry within a country than to the level of care and the needs of the population.

From a professional viewpoint an advancement of the speciality in Europe would develop the discipline, improve oral health planning and quality of patient care and allow greater freedom of movement. The group recommended that a working group with wide representation be established to obtain agreement of the curricula and training programme and the method of assessment and recognition.

ADDRESS FOR CORRESPONDENCE

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