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Survey of Australasian oral and maxillofacial surgeons 2011—scope and workforce issues

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Abstract. This study examined the qualifications, training, and practice patterns of oral and maxillofacial surgeons in Australia in 2011. This information was compared to similar studies performed in 1986 and 1995. It was found that dentoalveolar surgery comprised the greatest proportion of practice. There had been major growth in dental implantology, orthognathic surgery, and management of pathology. These increases were directly related to the standardization and increase in qualifications and training. The workforce had increased at the highest rate predicted, but was only just keeping up with the increases in population and the number of general health practitioners.

Key words: oral and maxillofacial surgery; training; scope; workforce; Australia and New Zealand.

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The speciality of oral and maxillofacial surgery (OMS) in Australia and New Zealand has undergone major changes in the last 30 years. Training in the 1960s and 1970s was individual, without standardization, and this was the subject of criticism from the medical surgical specialities. A full review of training by the education subcommittee of the Australia and New Zealand Association of Oral and Maxillofacial Surgeons (ANZAOMS) found that training was predominantly university-based and built upon a dental degree. There was very wide variation in qualifications and duration of training. A review published in 1982 titled ''Oral surgery training in Australia and New Zealand. A plan for the eighties'' made three recommendations: a joint advisory committee should be set up to standardize training and specialist requirements across Australia and New Zealand, a survey of all current OMS specialists, trainees, and training programmes should be performed, and the minimum requirement for training should be established.[1]

The process of implementing these recommendations has extended ever since, and in 1988 the Board of Studies in OMS of the Royal Australasian College of Dental Surgeons (RACDS) was established and the requirements for the Fellowship (FRACDS(OMS)) were developed. This involved accreditation of training centres and trainees. Initially this was dentally based, but by 1994 training required registrable medical and dental degrees (dual degree) and hospital-based surgical training for a minimum of 4 years, with the exit examination for Fellowship (FRACDS(OMS)).[2] This concept has been defined progressively since then. The speciality of OMS received recognition as a principal surgical speciality in 1998 from the Commonwealth Government of Australia. The pathway has not been straightforward and has been driven by the leaders of the speciality. The full story is the subject of an upcoming book titled ''From extractions to reconstruction. The development of oral and maxillofacial surgery in Australia and New Zealand''.[3]

Monitoring of progress has been a key component. The baseline studies were in the subcommittee report[1] and a postal survey of all full members of ANZAOMS in 1986.[4] The effect of training on scope from the same dataset was analyzed separately.[5] In 1986, only eight registered specialists had the FRACDS, DOS – the Diploma in Oral Surgery which was the forerunner of the FRACDS(OMS) – and of these, six were dentally qualified and two

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were dually qualified. These studies showed that in the 1980s most oral and maxillofacial surgeons (89%) were dentally qualified with 4 years of postgraduate training (81%). A smaller subset had both medical and dental degrees (dual, 11%) and only 19% had less than 3 years of training. In general, the greater the training, the greater the scope of practice.[5] Dentoalveolar surgery, particularly for those in the full time private practice, was the bulk of practice scope.[6]

The second group of studies relate to the period 1986–1995. During this period, the national dual degree programme with a minimum of 4 years training was instituted.[7,8] These studies compared those who had recently completed their training and those who were currently in training. By 1996, 33% of recent specialists were dual degree FRACDS(OMS) and 84% of the trainees were on a dual degree FRACDS(OMS) track.[7] An integrated logbook of surgical experience of trainees was also evaluated.[9]

The extent of continuing professional development (CPD) of the whole workforce was also investigated.[10] A detailed workforce evaluation including the projected needs for the OMS workforce was carried out by the Australian Institute of Health and Welfare, Dental Statistics and Research Unit, which is based at The University of Adelaide.[11] All of these studies were sponsored by ANZAOMS and funded by its Research and Education Foundation.

The aim of the present study was to document the current training, scope, and workforce situation for oral and maxillofacial surgeons in Australasia.

Materials and methods

A detailed questionnaire to evaluate scope and training was developed based on the previous studies, but with some additional questions. It was trialled on a small reference group, refined, and posted to all Australian full members of ANZAOMS in 2011. New Zealand members were not included.

Respondents were given the opportunity to opt out and non-responders were reminded at 6 weeks. The data were entered into a stand-alone research computer.

The overall responses were tabulated and key subgroups were analyzed: group 1, single degree non-FRACDS(OMS); group 2, dual degree non-FRACDS(OMS); group 3, single degree FRACDS(OMS); group 4, dual degree FRACDS(OMS). Significance was assessed with Fisher's exact test for count data using the statistics package R (The R Foundation). The four groups were initially screened for variance, with null findings leading to further assessment of three groups, omitting the small population of group 2 (dual degree non-FRACDS(OMS), $n = 4$). All significant findings were further analyzed between combinations of two groups only.

The workforce aspect of the study was based on the analysis of currently registered specialist oral and maxillofacial surgeons in Australia[12] and separately in New Zealand[13] set to a base 2010. These data were compared to previous workforce data[4–6,11,12] and also workforce projections from the Royal Australasian College of Surgeons (RACS).[14]

Results

Ninety usable replies were received from the 117 mailed out. The response rate of 77% was comparable to those of the previous studies – 83%[4] and 70%.[5,7]

Eighty respondents were males (89%). The average age was 55 years (range 39–76 years). The majority were born in Australia (55%), the UK (15%), and New Zealand (3%). Seventy-six percent practiced in capital cities, with the remainder (24%) in major regional centres. The percentages practicing the different aspects of the scope are presented in Table 1.

There were four main groups of qualifications: dental degree plus Australian master's degree and/or UK Fellowship (group 1), medical and dental degrees plus master's degree and or UK Fellowship (group 2), dental degree plus FRACDS(OMS) (group 3), and medical and dental degrees plus FRACDS(OMS) (group 4). These qualifications relate to the training period. In the 1970s a dental degree with or without an Australian masters or a UK Fellowship was usual, before 1988 a dental degree plus FRACDS(OMS) or an optional medical degree was common, whereas after 1998 dual degrees and FRACDS(OMS) were the required standard. These changes are reflected by the median age in each group (presented in Table 2). The majority had the FRACDS(OMS) (68%) and 38% had dual degrees and FRACDS(OMS). The comparison of scope to qualifications is presented in Table 3.

Table 1. Oral and maxillofacial surgeons' involvement in scope.

Procedure	% involvement	Median number per year (range)
Dentoalveolar surgery	99%	60% of time (20–80%)
Dental implants	88%	50 cases/year (5–500+)
Craniofacial implants	56%	10 cases/year (5–50)
Preprosthetic surgery	93%	25 cases/year (5–150)
Trauma	77%	50 cases/year (5–200+)
Mandible	52%	
Maxilla	66%	
Nasal	61%	
Zygoma	51%	
Orbital	42%	
Frontal	33%	
Orthognathic	67%	25 cases/year (5–100+)
Benign pathology	98%	50 cases/year (5–150)
Malignant pathology	82%	10 cases/year (5–150)
Ablative	53%	
Neck dissection	8%	
Microvascular	3%	
Salivary gland pathology	54%	10 cases/year (5–50)
Submandibular	46%	
Sublingual	45%	
Parotid	10%	
Skin pathology	60%	5 cases/year (1–30)
TMJ cases		
Non-surgical	81%	10 cases/year (5–150)
Arthrocentesis	73%	10 cases/year (5–150)
Arthrotomy	70%	10 cases/year (5–150)
Total joint	56%	5 cases/year (1–10)
Cleft lip and palate		5 cases/year (1–15)
Primary palate	4%	
Primary lip	4%	
2° grafting	27%	
2° orthognathic	27%	
Craniofacial surgery	21%	5 cases/year (1–10)

TMJ, temporomandibular joint.

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