A Survey of Oral Medicine Curriculum and Practice in India

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Abstract

Background: Oral Medicine specialists provide clinical care to patients with a wide variety of chronic diseases affecting the oral and maxillofacial region, oral manifestations of systemic diseases and behavioral disorders and provide general dental care to patients with medically compromised states. It is important to conduct studies that address the strengths and shortcomings of our specialty and the current system of its education and practice in order to yield highly skilled professionals and truly serve the oral health care needs of the public.

Aim & Method: This study aims to describe the current status of Oral Medicine curriculum and practice in India. A survey was designed to assess the current status of oral medicine education and clinical practice. The survey was sent to Oral Medicine Specialists across India to assess their opinion and analyze the benefits and shortcomings of the present system.

Results: 52 respondents completed the survey from various states across India. More than 87% of respondents considered management of oral mucosal diseases, salivary dysfunction, oral manifestations of dermatological diseases, HIV, oral manifestations of systemic disease and facial pain as part of Oral Medicine. Only 27% of respondents reported participating in multidisciplinary clinics for treatment of patients, and 85% of respondents agreed to the need for presence of multidisciplinary clinics. 85% of respondents agreed to the suggestion of developing a curriculum for training in Special Care Dentistry for Oral Medicine postgraduates in India.

Conclusion: Limitations to this survey study include a small sample size. Future efforts at defining the scope of oral medicine practice in India and improvements in training and education can help model future graduates and inspire undergraduates to choose Oral Medicine as a career.

Keywords: Oral Medicine, Survey, Clinical Practice, Oral Medicine curriculum

Introduction

Oral Medicine is a specialty largely credited to Dr. Lester Burket, considered as the Father of Oral Medicine [1]. It has been a recognized specialty in many but not all countries and has been a way to integrate Medicine and Dentistry, via oral health and its effects on systemic health and vice versa. The American Academy of Oral Medicine defines it as the discipline of dentistry concerned with the oral health care of medically compromised patients and the diagnosis and nonsurgical treatment/management of medically related disorders or conditions affecting the oral and maxillofacial region [2].

Oral Medicine experts typically provide nonsurgical treatment to various oral mucosal diseases, soft and hard tissue lesions, salivary gland disorders, viral, bacterial and fungal infections of the oral cavity, temporomandibular joint disorders, orofacial pain syndromes, chemosensory disorders, oral complications of cancer chemo/radiotherapy and also care for patients with oral manifestations of systemic illnesses [1]. Oral Medicine as a specialty is driven by the type of training

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offered, and the scope of clinical practice. Very few articles have been published that have investigated the standard of training in postgraduates and the scope of clinical practice globally \[3, 4\]. In two global survey studies, results have been quite parallel, most of the respondents recognizing postgraduate Oral Medicine training as a distinct field, and that the scope of practice and training competence in diagnosing and managing oral conditions that have been previously listed \[3, 4\]. Stoopler et al have reported that India had the largest number of oral medicine specialists compared to other countries, maybe because the Oral Medicine specialist initially screens patients in dental hospitals \[4\]. The objectives of this survey is to describe the status of Oral Medicine training and clinical practice among experts in India, to discuss the benefits of the current system, to address any possible shortcomings and to make recommendations to remodel future training and practice.

**Materials and Method**

The survey was designed using existing information from previous studies, with a closed response pattern. Standardized emails linked to online survey questionnaires (using Google Forms) were used. The email invitation to participate in the survey was sent to Oral Medicine specialists across India. A total of 52 respondents fully completed the survey. Data obtained were analyzed using simple descriptive statistics.

**Results**

The average age of Oral Medicine practitioners in India among the respondents was 33.8 years, with an average experience of 7.8 years. The distribution of respondents based on location has been illustrated in Figure 1. The average number of colleagues practicing with the respondents in a hospital setting was 7.6. Respondents reported a mean of working 27 h per week including clinical practice, teaching and administrative duties with a maximum of 40 hours per week.

![Figure 1 Percentage of respondents by state.](image)

Less than 25% of the time was spent on research among practitioners. 94.3% of participants had a formal training for three years followed by an examination for certification. 24% of participants hold a PhD. 5.7% of participants had a fellowship or equivalent by a board examination and certification. Majority of respondents reported that no funding was obtained and training was predominantly self-funded.

Most commonly, practitioners reported to be a part of Oral Medicine department in Hospital/ Dental College settings with maximum time spent on teaching duties. The most common settings for Oral Medicine practice were dental hospitals and dental schools, followed by private practice. Practice in medical schools was the least common.

When asked about the definition of Oral Medicine, more than 87% respondents considered management of oral mucosal diseases, salivary dysfunction, oral manifestations of dermatological diseases, HIV, oral manifestations of systemic disease and facial pain as part of their duties. Fewer respondents considered management of patients with physical and mental disabilities and general dentistry for medically complex patients in the definition of Oral Medicine. Oral medicine plays an important role in detection, treatment and monitoring of oral potentially malignant disorders, oral manifestations of systemic diseases and oral treatment of medically compromised states. The latter two are important as they are the link between medicine and dentistry that can be a useful service for both the patient and the medical practitioner. Oral manifestations can sometimes be the starting point of diagnosis of a systemic illness or may be a sign of progression of the disease state which highlights the importance of collaboration between doctors and oral medicine practitioners \[5\].

A prospective survey conducted by the Diplomates of the American Board of Oral Medicine showed an
increase in patients with medically compromising states, with more than 80% of cases requiring a comprehensive evaluation of the medical condition and dental treatment for patients with severe systemic disease. Majority of referrals were from general dentists and medical practitioners [6]. This highlights the changing scenario in oral medicine treatment needs among the public. A survey conducted among medical practitioners in Chennai about the awareness of Oral Medicine as a specialty in dentistry. Only 71% of respondents were aware of the specialty of Oral Medicine and the scope of the specialty. 29% were not aware of it and many oral manifestations and orofacial disorders were not always referred to the right dental practitioner [7]. The aging population will lead to an increase in oral complications in medically compromised patients and practitioners will spend most of the times caring for the elderly and severely ill patients. So, the integration of medicine and dentistry becomes even more important and training oral medicine graduates in managing oral health needs of medically compromised, physically challenged and behaviorally compromised patients is imperative [8]. Figure 3 shows the types of oral and maxillofacial diseases that constitute the definition of oral medicine according to the survey respondents.

Only 27% of respondents reported participating in multidisciplinary clinics for treatment of patients, and 85% of respondents agreed to the need for presence of multidisciplinary clinics. The use of multidisciplinary clinics is especially important when treating oncology patients, patients with severe systemic illnesses.

24% of respondents reported less than 25% of patients are seen on follow up, 45% of respondents had more than 50% of patients with follow up visits.

Figure 4 Use of Multidisciplinary clinics

95% of survey respondents agreed that there is a need for better communication and integration between dental and medical practitioners. Collaboration between the dental and medical profession can highly benefit the patient, especially, patients undergoing cancer therapy, patients in intensive care units and patients in long term care facilities where dental care can be provided by a trained professional rather than non-dental personnel as poor oral health can contribute to increased morbidity and decreases quality of life [9]. This reinforces the need for educating the oral medicine graduates to serve as a partner to physicians thereby enhancing the level of care provided to patients [9].

85% of respondents agreed to the suggestion of developing a curriculum for training in Special Care Dentistry for Oral Medicine postgraduates in India. Various studies have reported the medical problems in these patients and the rate of occurrence demonstrates the importance of general medicine knowledge and training in handling such patients [12-14]. Inclusion of Special Care Dentistry in the Oral Medicine curriculum does pose challenges in obtaining national consensus. Studies to identify types of patients, services available
and core skills required to qualify dentists are required for the introduction of Special Care Dentistry in the curriculum [15].

90% of respondents were open to the introduction of the internet and Smartphone applications in communication among clinicians and between patients and clinicians. Although studies have confirmed safety and benefits of Smartphone use in healthcare, adequate training and awareness of possibilities and limitations is imperative. This can be an adjunct in doctor-doctor and doctor-patient communication and help in referral and documentation [16, 17].

**Discussion**

This preliminary study was an attempt to investigate the current status Oral Medicine education and clinical practice across India. Our objective was to assess the practitioner and practice characteristics, investigate the types of patients treated, and the opinion of oral medicine specialists in on recommending changes and improvement in training and curriculum. Our findings suggest that oral medicine specialists in India treat a wide variety of patients including oral mucosal lesions, mucocutaneous diseases, salivary gland disorders, temporomandibular joint disorders, and oral manifestations of systemic diseases. Fewer respondents reported participation in multidisciplinary clinics, the presence of a Special Care Dentistry curriculum in the Oral Medicine postgraduate training. But almost all respondents considered provision of dental care for medically compromised patients, physically and mentally disabled patients to be a part of Oral Medicine Practice [4]. The diversity in practice characteristics can be attributed to regional variations in opinions among specialists, different systems of training and clinical practice.

There is increasing evidence that oral health has a significant effect on overall systemic health and that there are inadequacies in the interrelationships between dental and non-dental health care providers. It is time for dental education to establish integration of dental and medical training and practice in order to increase oral health knowledge among medical professionals and to increase the knowledge of oral-systemic health interface and a working knowledge of General Medicine among dental professionals. Oral Medicine Specialists may be considered the best choice for this integration because of its close connection with general health and systemic disease [18, 19]. Oral Medicine graduates should be competent enough to understand the interactions between, oral health, nutrition, general health, drug interactions, oral effects of systemic diseases, and also be familiar with provision of dental care to severely ill and physically/mentally challenged patients in a hospital setup. Training in Special Care Dentistry can provide the specialists the ability to handle challenges associated with treating physically/medically/mentally compromised patients including the management of medical emergencies, management of anxiety, management of frail/elderly patients, patients with severe systemic disease, patients in long term care facilities, treatment under general anaesthesia and sedation, and provision of dental treatment in different setups like hospitals, intensive care units, nursing homes, special schools and general practice [15, 20].

Older trends of procedure driven/mechanical dentistry are gradually being replaced by a more preventive/regenerative approach. Oral medicine is the best choice to handle the noninvasive and preventive aspects of future oral healthcare and for the integration into the medical field [21, 22]. Future studies are recommended to obtain a more detailed report of the status of oral medicine in India. Efforts at defining the scope of oral medicine practice in India and improvements in training and education can help modeling future graduates and inspire more students to choose oral medicine as a career.

**Conflict of Interests:** The authors declare no conflict of interests.

**Source of Funding:** Self-Funding

**Ethical Clearance:** Not Required

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