

To Study the Attitude of IV B.D.S. and Intern Students from a Dental College in Western Maharashtra Towards Pursuing Post Graduate Course in Oral Medicine and Radiology

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Abstract

➤ Introduction

Multiple factors influence the most important decision of choosing a branch of education and future career. Choice of Dentistry as a career option follows the Medicine stream. Dentistry is witnessing a phase of turmoil due to several factors, making it more necessary to have a post graduate degree. It is noted that in the recent years that the students opt for clinical branches of Dentistry rather than non-clinical branches, of which Oral Medicine and Radiology (OMR) is considered by many, which is opted as the last resort due to several factors. Hence, we decided to explore the reasons for the fall in admissions in the OMR faculty for post-graduation through a questionnaire and consider the modifications which can be implemented to improve the situation,

➤ Aim and Objectives

- To assess the attitude of IV B.D.S. and intern students from a Dental College in Western Maharashtra towards pursuing post graduate course in Oral Medicine and Radiology
- To evaluate the reasons for declining rates of admission in post graduate course in Oral Medicine and Radiology
- To recommend corrective actions for provoking admissions in post graduate course in Oral Medicine and Radiology
- To make students aware of the scope of post graduate course in Oral Medicine and Radiology.

➤ Study

It is a Qualitative and Quantitative type of Questionnaire based study

➤ Material and method

The interns and IV BDS students of a Dental College in Western Maharashtra from the academic year 2017-18 were sensitized with a peer reviewed 10 mins presentation on the scope of OMR. They were given a semi-structured, peer reviewed, self-administered printed questionnaire.

The data was statistically analyzed using SSPS software.

➤ Results

41.2 % had planned to pursue post graduate course in Oral Surgery whereas 2.4 % in OMR, out of the 85 participants. This difference was statistically significant ($p < 0.05$).

➤ Conclusion

Lack of lucrative benefits make OMR as a non-favorite subject. Certain recommendations are made in this article to improve the state of OMR subject.

Keywords:- Oral Medicine and Radiology, post-graduation.

I. INTRODUCTION

Career options were limited in our society a few decades ago. With the spread of internet and modernization, the youth of today are open to choose from a variety of options as their future prospective career. It is observed that, generally, it is still a prerogative of the parents¹ to influence the most important decision of choosing a branch of education and future career in India. Relatives, friends and career counsellors also have an influence to a major extent in the decision making¹.

Although the present generation has several avenues as their career options, it becomes too stressful and challenging, especially when questioned “What are you planning to do?” Choosing the right option will open the doors to have financial security and place you in an acceptable position in the society.

Medicine is a career driven by service. The dedication and services offered bring respect in the society. This makes one to choose Medicine as a career option. Choice of Dentistry as a career option follows the Medicine stream. It has been observed that choosing Dentistry could be attributed to ‘self-selection’ in most of the cases followed by the choice as the next option as Medicine was not available². Also, the financial security³ provided by Dentistry as a career makes it a lucrative profession.

Dentistry is among one of the noblest profession. The graduation process, a four year course with one year of internship, requires a whole lot of dedication and inputs from the student. In the recent past, Dentistry is witnessing a phase of turmoil due to several factors⁴. So, many of the undergraduates feel it a necessity to have a post graduate degree to make the competition a bit lighter. In India, post-graduation is offered in 8 faculties. OMR is one such option.

The field of OMR has grown exponentially due to the knowledge and development of newer technology. The diagnosis of diseases aiding to the planning of managing conditions and recent advances in imaging science have enabled dentists to uplift the status of OMR and also propose lucrative financial gains.

It is noted in the recent years that the students opt for clinical branches of Dentistry rather than non-clinical branches, of which OMR is a considered by some. Students opt for OMR⁵ as the last resort if they are unable to obtain the field of their choice. So the branch of specialty currently faces hardships and challenges in India. Hence, we decided to explore the reasons for the fall in admissions in the OMR faculty for post-graduation through a questionnaire.

➤ *Aim*

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II. MATERIAL AND METHOD

It is a Qualitative and Quantitative type of Questionnaire based study

- Inclusion criteria: IV B.D.S. and intern students from a Dental College in Western Maharashtra from the academic year 2017-18.
- Exclusion criteria: Students not willing to voluntarily participate in the study.

Students who wished to participate signed the institutional approved consent form in English and vernacular language. The interns and IV BDS students of a Dental College in Western Maharashtra were sensitized with a peer reviewed 10 mins presentation on the scope of OMR subject. A semi-structured, peer reviewed, self-administered questionnaire was designed in English language with 9 questions. This questionnaire was circulated among the interns and IV BDS students as a printed version in a class room where these students were accumulated. They were given an hour to answer the questionnaire. The identity of the students was kept confidential. The answers were studied by two evaluators.

The data was statistically analyzed using SSPS software.

III. RESULTS

The study sample included 85 students from a Dental college in Western Maharashtra, of which 43 were interns and 42 were final BDS students (table 1) who participated in the study.

	Frequency	Percent	Chi-Square	p value
Intern	43	50.6	0.012	0.914
Final Year BDS	42	49.4		
Total	85	100		

Table 1:- Educational Qualification

Interpretation: Out of the total 84 participants, who responded the questionnaire, 43 were interns and 42 were final year BDS students. This difference was not statistically significant. It means there were almost similar numbers of participants in both groups.

	Frequency	Percent	Chi-Square	p value
Tough competition in undergraduates, so to stand out	22	25.9	49.447	0.00
Personal interest	46	54.1		
Family pressure	1	1.2		
Academic interest	16	18.8		
Total	85	100		

Table 2:- Why would you take up a post graduate course?

Interpretation: Out of 85 participants, 54.1% of participants had a personal interest in taking up a post=graduate course whereas 1.2 % took it due to family pressure. This difference was statistically significant (p<0.05)

	Frequency	Percent	Chi-Square	p value
Oral Surgery	35	41.2	65.624	0.00
Orthodontics	17	20		
Endodontics	6	7.1		
Periodontics	5	5.9		
Pedodontics	5	5.9		
Oral Medicine and Radiology	2	2.4		
Prosthodontics	15	17.6		
Total	85	100		

Table 3:- If you plan to pursue a post graduate course, give order of preference of your subject.

Interpretation: Out of the 85 participants, 41.2 % had planned to pursue post graduate course in Oral Surgery whereas 2.4 % in Oral Medicine & Radiology. This difference was statistically significant (p<0.05)

	Frequency	Percent	Chi-Square	p value
Financial gains	12	14.1	105.541	0.00
Job opportunities	5	5.9		
Availability of the seat through competitive exams like NEET.	6	7.1		
Interest in the subject	62	72.9		
Total	85	100		

Table 4:- On what criteria would you choose the subject for postgraduate course

Interpretation: Out of 85 participants, 72.9% of them choose the subject for post graduate course as they had interest in the subject where as 5.9% for job opportunities. This difference was statistically significant (p<0.05)

	Frequency	Percent	Chi-Square	p value
No	13	15.3	40.953	0.00
Yes	72	84.7		
Total	85	100		

Table 5:- Do you think that a post graduate in Oral Medicine and Radiology can perform his specialized skills do in a better holistic approach than an undergraduate dental practitioner?

Interpretation: Out of 85 participants, 84.7% of them think that a post graduate in Oral Medicine and Radiology can perform his specialized skills do in a better holistic approach than an undergraduate dental practitioner, whereas 15.3% did not. This difference was statistically significant (p<0.05)

	Frequency	Percent	Chi-Square	p value
Lack of job opportunities academically	8	9.4	33.235	0.00
Lack of opportunities for consultation	24	28.2		
Less financial gains	11	12.9		
Subject not interesting	3	3.5		
Less rewarding in private practice	28	32.9		
No scope of research in India	11	12.9		
Total	85	100		

Table 6:- Why Oral Medicine and Radiology is not preferred as a subject for postgraduate course.

Interpretation: Out of 85 students, 32.9% think Oral Medicine and Radiology is not preferred as a subject for postgraduate course as it is less rewarding in private practice where as 28.2 % think there is lack of opportunities for consultation. This difference was statistically significant (p<0.05).

	Frequency	Percent	Chi-Square	p value
No	31	36.5	6.224	0.013
Yes	54	63.5		
Total	85	100		

Table 7:- Should Oral Medicine and Radiology post graduate course be of 2 years duration

Interpretation: 63.5% of 85 participants think Oral Medicine and Radiology post graduate course should be of 2 years duration where as 36.5% do not agree. This difference was statistically significant (p = 0.013)

	Frequency	Percent	Chi-Square	p value
Oral Medicine and Radiology	59	69.4	50.071	0.00
Oral Pathology	11	12.9		
Public Health Dentistry	15	17.6		
Total	85	100		

Table 8:- Of the so called non- clinical subjects which would be your choice for post graduate course

Interpretation: 69.4% of the participants responded that Oral Medicine and Radiology and 12.9% responded that Oral Pathology would be the choice among non – clinical subjects for post graduate courses. This difference was statistically significant (p<0.05)

	Frequency	Percent	Chi-Square	p value
Laser treatments of soft tissue lesions	4	4.7	99.388	0.00
Management of oral mucosal lesions	14	16.5		
Tobacco cessation programs	3	3.5		
Advanced radiological consultations e.g. CBCT	41	48.2		
Oral cancer diagnosis, management and awareness	18	21.2		
Dental management of medically compromised patients	3	3.5		
Drug trials/ Research	2	2.4		
Total	85	100		

Table 9:- According to you, the following comes under the purview of Oral Medicine and Radiology.

Interpretation: Out of 85 participants 48.2 % think that Advanced radiological consultations e.g. CBCT comes under the purview of Oral Medicine and Radiology where as 2.4 % think about Drug trials / Research. This difference was statistically significant (p<0.05)

IV. DISCUSSION

Dentistry, in India, has been a lucrative branch as a career in the recent past. Every year around 26000 undergraduate dentists⁶ are awarded Bachelor of Dental Surgery (BDS) degree and most of them have a tendency to start up their clinical practice. The increase in the number

of dentists has led to a fear of saturation, especially the concentration in the metro cities leading to a feeling of anxiety among the dental students, thereby making them seek newer avenues to prove an upper hand in the society⁷. The Indian scenario grossly provides mainly two options namely clinical practice or post- graduation for the vast majority.

In India, specialization in Dentistry is available in eight faculties through a common entrance exam followed by counselling sessions to the government and private colleges. In the recent years, it has been observed that the students opting for Oral Medicine and Radiology, Oral Pathology and Microbiology and Community Dentistry are showing a downward graph as admissions for the postgraduate course is concerned. The reasons could be multifactorial. This study is an attempt to explore the reasons for the same in the field of OMR.

Oral Medicine is the specialty of Dentistry concerned with 'dental' and 'medical' related disorders of the oral and the facial region, including orofacial manifestations of systemic diseases⁸. As defined by the American Dental Association, Oral and Maxillofacial Radiology is the specialty of Dentistry and discipline of Radiology concerned with production and interpretation of images and data produced by all modalities of radiant energy that are used for the diagnosis and management of diseases, disorders and conditions of the Oral and Maxillofacial region⁹. This branch of Dentistry instils in a student the capacity to have a broader perspective while diagnosing any particular case and thus put forth a planned holistic approach for the management of these cases.

The subject of OMR was introduced in the Government Dental College, Bengaluru in cooperation with WHO as a two years post graduate course. Dr. B.K. Venkatraman and Dr. Ramchandra Reddy from Bangalore guided for the formation of IAOMR in 1985.

In the recent past, Oral Medicine opinions in the management of diseases are seen as a necessity. A study done in Australia¹⁰ and United States¹¹ stressed on the necessity of having a specialist in Oral Medicine. An Indian study also revealed that there is high rate of consultation with an Oral Medicine specialist in recent years¹². Although many studies emphasize the requirement of an Oral Medicine help, the current situation depicts the poor state in the form of reduced admissions happening in the faculty. OMR is opted as the last resort to fill in the vacancy of available private and government post graduate seats⁵.

The study sample in this study included 85 students from a Dental college in Western Maharashtra, of which 43 were interns and 42 were final BDS students (table 1) who participated in the study. A structured close ended questionnaire was given to the students to respond.

Among the participants, 54.1% of them wanted to do post- graduation out of personal interest and 25.9% wanted to opt for post- graduation due to tough competition in the

undergraduates so that they will have an edge (table 2). It was observed in a survey in 2007¹³ that 38.8% of the Japanese had a lean towards specialization attributing to the family dental set up, almost 50% of the Canadians were influenced by the expenses towards post-graduation and 39.3% of Thai students planned the course to raise the financial status of themselves. The talent and ability to possess special skills provoked students in USA to take up post- graduation in dentistry¹⁴. A cross sectional study⁷ on 73 UK based final BDS students revealed that the students preferred post- graduation to improve the talent in the field and one of the most discouraging reason for doing post- graduation was the length of the course. In 2004¹⁵, in a Canadian study and in 2013¹⁶, in a United States study, it was noticed that financial debt played a major role in considering post- graduation, which was in contrast as observed in a study at Harvard School of Dental Medicine in which 87.6% opted for postgraduate program enrolment inspite of the financial constraints¹⁴.

The participants in our study preferred Oral Surgery (41.2 %) as their first choice followed by Orthodontics (20 %), whereas only 2.4 % would opt for OMR (table 3) as their preferred choice for post-graduation. It was observed by Arowojulu OM.¹⁷ et. al. in 1971 that OMR was the least preferred subject for selecting it as a specialty branch by the students in Nigeria. Periodontology was the first choice among these students. A survey by Puryer J. and Patel A., in 2016¹⁸ in the UK, 71 % of the study population preferred Orthodontics as a subject for specialty.

72 % of the participants considered interest in the subject as a criteria to choose the subject for selection for further studies (table 4) and 84% of the participants thought that by specializing in OMR, their specialized skills would improve and they will have a holistic approach towards the patient (table 5). Table 6 shows the reasons why OMR is not higher as a subject of choice in the priority list. Among the reasons, lack of job opportunities (32.9 %) and lack of consultation opportunities (28.2 %) being the major ones. Most of the participants were of the opinion that the post-graduation course should be of 2 years only (63.5 %) (table 7) rather than 3 years which is the stipulated duration of course as per Dental Council of India¹⁹. Table 8 shows a significant predilection towards OMR if given a choice to choose the subject from among the so called non- clinical subjects.

It has been observed that the BDS curriculum for OMR subject could make it non- interesting as it comprises of more of theoretical knowledge and less of clinical application and defer the students from considering the branch as a specialty preference. In a study done in Rohtak in 2016²⁰, where the 3rd and 4th BDS students from Pandit Bhagwat Dayal Sharma University of Health Sciences (PBDSUHS), Rohtak, Haryana, India were questioned, it was observed that 90% students found the subject significant in clinical practice, but 70% students expressed their inability to evaluate specialized orofacial conditions due to lack of knowledge. It is seen clearly from table 9 where the students are not very well aware of the scope of

OMR. So the authors recommend a revamp in the teaching and learning practices in educational institutes for the subject which will thereby create further interest and create interest in the students to pursue post- graduation in OMR specialty.

V. CONCLUSION

Although there has been a significant development in the Dental Imaging and clinical Oral Medicine field, the orthodox curriculum practice masks the brighter side of the specialty. The governing bodies have stressed on just increasing the number of postgraduates rather than revamping the quality of education, the prospects of these specialists and the academic and research oriented development of the branch members. The need of the hour states that the subject curriculum needs a revamp for the undergraduates which may instill a liking for the subject and motivate them to plan a career as a specialist in this field.

The Government of India has advocated National programs for rural and urban health improvement. On similar lines, programs can be recommended to alleviate the dental health. It is recommended that an Oral Medicine specialist be posted on such jobs which will enable to increase job opportunities and a surge in government jobs would occur²¹.

Considering the lack of financial gains due to increase in number of dentists or uneven distribution of fellow colleagues, many graduates look up for careers in foreign countries especially the United States, United Kingdom, Canada, Australia, and New Zealand. The practicing conditions, research and academic support systems and the monetary gains inspire them to consider going abroad²².

In an interview with the Past President of IAOMR²³, Dr Gopakumar recommends the Dental colleges to wash out the image of OMR subject as a non- clinical one and exploring the advancements in the fields are definitely newer career options. He stresses that even though the job opportunities are declining, the development in the specialty of OMR has enough strength to make its specialists have a potential growth. He also recommended the specialists in the field to tap the newer opportunities instead of hunting for jobs in academics which are in scarce. The advancement in the Radiology like the CBCT, total Head and Neck Imaging facilities, 3D printing advancements, collaboration with other medical specialties and providing dental treatments to medically compromised patients, exploring research opportunities with pharmaceutical and other government aided institutes for research and development purposes in drugs and solutions for oral and maxillofacial ailments should be tapped. In view of the increasing oral cancer proportions, he also said that the association has sent recommendations to the central and state government authorities to appoint an Oral Medicine specialist to the primary health centers (PHCs), so that the lesions can be detected at their innocuous states

and thus the patients can be educated about the adverse effects of deleterious habits.

It is highly recommended to broaden the scope of the specialty. The undergraduate students should be exposed to orientation sessions, counselling and awareness towards the future prospects in the specialty. The financial gains in terms of teaching options and applications of the innovations in the field should be stressed.

REFERENCES

- [1]. Patel D, Saiyed MH. Factors for choosing dentistry as a career: a study of first-year Dental students, India. *J. Int. Oral Health*. 2009; 1:10–9.
- [2]. AnbuSelvan GPJ, Gokulnathan S, PrabuRajan V, RajaRaman G, Kumar SS, Thagavelu A. A study among dental students regarding the factors influenced dental students to choose dentistry as career. *Journal of Pharmacy & Bioallied Sciences*. 2013; 5 (Suppl 1).
- [3]. Tom K, Gundavarpu KC, Dicksit DD. Reasons for choosing dentistry as a career- Survey of Dental students in AIMST University. *Malaysian Dental Journal*. 2014; 36(1) 1-4.
- [4]. Yadav S, Rawal G. The current status of dental graduates in India. *The Pan African Medical Journal*. 2016; 23:22.
- [5]. Shetty SR, Shaik MM, Babu SG. Oral medicine and radiology- the Indian scenario. *J. Contemp. Med. Edu*. 2013; 1(1): 59-61.
- [6]. Siddique Z, Srivastav R, Kohli V. The future prospects of Dental graduates in India: A review. *International Journal of Contemporary Medicine Surgery and Radiology*. April-June 2018; 3(2): B156-B160.
- [7]. Naidu GM, Prasad GM, Kandregula CR, Babburi S, Pratap KVN. Choosing Public Health Dentistry as a Career: A Cross-Sectional Study. *Journal of Clinical and Diagnostic Research*. 2014 Feb, Vol-8(2):199-202.
- [8]. Zakrzewska JM. Training in Oral Medicine. *J. R. Soc. Med*. 2001; 94:79-82.
- [9]. White SC, Pharoah MJ. *Oral Radiology Principles and interpretation*. Mosby, Elsevier. 5th edn, 2004, p 9.
- [10]. Farah CS, Simanovic B, Savage NW. Scope of practice, referral patterns and lesion occurrence of an oral medicine service in Australia. *Oral Dis*. 2008; 14:367-75.
- [11]. Miller CS, Hall EH, Falace DA, Jacobson JJ, Lederman DA, Segelman AE. Need and Demand for Oral Medicine Services in 1996. A report prepared by the Subcommittee on Need and Demand for Oral Medicine Services, a subcommittee of the Specialty Recognition Committee, American Academy of Oral Medicine. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1997; 84:630-34.
- [12]. Stoopler ET, Shirlaw P, Arvind M, Lo Russo L, Bez C, De Rossi S et al An international survey of oral medicine practice. proceedings from the 5th World Workshop in Oral Medicine *Oral Dis* 2011;17 Suppl 1:99-104.

- [13]. Karibe, H.; Suzuki, A.; Sekimoto, T.; Srithavaj, T.; Iamaroon, A.; Warita, S.; Kawakami, T.; Ogata, K.; Shirase, T.; Nakahara, S. Cross-cultural comparison of the attitudes of dental students in three countries. *J. Dent. Educ.* 2007, 71, 1457–1466.
- [14]. Saeed, S.; Jimenez, M.; Howell, H.; Karimbux, N.; Sukotjo, C. Which factors influence students' selection of advanced graduate programs? One institution's experience. *J. Dent. Educ.* 2008, 72, 688–697.
- [15]. Walton JN, Mathew IR, Dumaresq C, Sudmant W. The burden of debt for Canadian dental students: part 4. The influence of debt on program and career decisions. *J. Can Dent Assoc.* 2006; 72(10):913.
- [16]. Garrison GE, Lucas-Perry E, McAllister DE, Anderson EL, Valachovic RW. Annual ADEA survey of dental school seniors: 2013 graduating class. *J. Dent Educ.* 2014; 78(8):1214-36.
- [17]. Arowojolu OM, Aderinokun GA, Arotiba JY, Dosumu OO. Choice of specialty training among Nigerian Dental graduates. *Odonto-Stomatologie Tropicale.* 1997; 21-24.
- [18]. Puryer J. Patel A. The career intentions, work-life balance and retirement plans of dental undergraduates at the University of Bristol. *Br. Dent. J.* 2016, 220, 183–186.
- [19]. Dental Council of India notification <http://dciindia.gov.in/RuleRegulation/MDScourseRegulations2017.pdf>
- [20]. Gupta A, Singh H, Arya TL, Kumar A, Sunil MK. Assessment of undergraduate Oral Medicine and Radiology curriculum by student evaluation. *J. Indian Acad. Oral. Med. Radiol.* 2016; 28:391-5.
- [21]. Aeran H, Sinha S, Rawat P, Mudgil K, Negi S. "Budding Dentist on the Road to Success or In a Blind Tunnel?". *International Journal of Scientific Study.* 2014; 1(6):36-40.
- [22]. Priya BM, Shivakumar V, Anitha V, Shanmugam M, Tejasri G, Vidhu S. Career perspective among dental professionals in Tamil Nadu. *J Educ Ethics Dent* 2014;4:61-4.
- [23]. Reddy Kundoor VK. From the outgoing President's heart. *J. Indian Acad. Oral. Med. Radiol.* 2016; 28:347-50.