

Current Scenario and Crisis Facing Dental College Graduates in India

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INTRODUCTION

Dental education in India was established 91 years ago, when the first dental college was started in Calcutta by Dr. Ahmed in 1920 [1]. Diseases such as dental caries, periodontal problems, poor oral hygiene and oral cancers have always been major public health issues in India. It is well known that poor Socioeconomic Status (SES) provides negative impact on favorable dental health awareness, attitude and oral hygiene behavior [2]. Only in the last two decades dental industry has emerged as an field independent from general healthcare. Moreover, efforts of various organizations like, World Health Organization (WHO), Indian Dental Association (IDA) and Dental Council of India (DCI), to increase awareness of oral hygiene have provided major contribution in establishing today's developing dental industry.

The Indian healthcare industry is experiencing quick transformation owing to the increasing demand for quality healthcare. With the increased standard of living in India people are becoming health conscious, shaping a new market which is giving increasing importance to healthy teeth and dental cosmetics. The potential size of India's dental market is vast and as per the IDA, India is slated to become one of the largest single country markets for overseas dental products and materials [3]. Currently, the Indian dental care services market is estimated at about US\$ 600 million and dental equipment and appliances market is around US\$ 90 million, with a yearly growth rate of 10% [4]. As per the report of year 2010 published by Cygnus Business Consulting and Research, the Indian dental equipments industry is expected to reach US\$ 116.43 million, the dental care services market to US\$ 1.16 billion and oral care market to US\$ 1.8 billion by 2014 [5].

This huge market of dental industry in India has also made a remarkable impact on the dental education. The dental colleges providing bachelor's degree in dentistry (BDS) have grown in number with consequent increase in the number of dental graduates[Table/ Fig-1]. Currently, 292 DCI recognized Dental colleges exist with total intake capacity of around 25,000-30,000 students per year (as per the information provided on the official website of DCI). Among these, only 40 colleges with total intake capacity of 1500 students are government colleges, rest are in private sector. This scenario demonstrates the impact of commercialization on dental education [6].

According to the statistics provided by the Karnataka Examinations Authority (KEA), the demand for dental courses in the state is going down with each passing year. The number of colleges offering

dental courses has also come down to 37 from 40 (in Karnataka) in 2011, while the interest in medical education was unaffected [7]. This situation shows the lack of interest particularly in dental education rather than overall healthcare system. In spite of such a great promise of growth in dental industry, some of the dental seats have remained vacant in past few years, showing lack of interest of students in dental education. This paper explains why such paradox exists.

ADMISSION PROCESS OF INDIAN DENTAL COLLEGES

High school students with a background in physics, chemistry and biology are eligible to apply to dental colleges. There are three options for a student to get admission in a dental college[8]. State-administered entrance exams, common all-India entrance exams (for which all eligible students qualify) and Private school-administered entrance exam.

The entrance examinations are common for all the medical, dental and paramedical education including nursing, physical therapy, pharmacy, and occupational therapy. Typically, the order of preference for students medical followed closely by dental and paramedical courses. One can say that, students select the dental education by force and not by interest; as they are not getting admission in medical course.

UNEVEN DISTRIBUTION OF DENTAL COLLEGES ACROSS INDIA

The distribution pattern of the dental colleges across various states of India is uneven [Table/Fig-2]. It can be said that, Karnataka state students will be privileged to have highest chance of getting the admission compared to students from states like Gujarat, Himachal Pradesh, Bihar etc. This situation leads to unequal distribution of dentists across the states affecting their dentist: population ratio.

Year	Graduates
1960	1,370
1970	8,000
1980	13,930
1990	20,000
2010	30,570

[Table/Fig-1]: Growth in number of graduates from Indian dental schools [13]

State	Colleges	State	Colleges
Karnataka	43	Himachal Pradesh	5
Maharashtra	28	Bihar	7
Uttar Pradesh	28	Chhattisgarh	5
Andhra Pradesh	20	West Bengal	3
Tamil Nadu	17	Pondicherry	2
Haryana	11	Delhi	3
Rajasthan	11	Goa	1
Punjab	12	Orissa	4
Madhya Pradesh	11	Assam	1
Kerala	17	Uttaranchal	2
Gujarat	9	Jammu and Kashmir	2

[Table/Fig-2]: The distribution pattern of the dental colleges across various states of India

STANDARD OF EDUCATION

Despite the role of private sector in the growth of Indian dental education, there are certain issues regarding quality of education provided by private dental colleges. Unfortunately, many of the colleges have less than adequate infrastructure [10]. There is evidence that many dental colleges are short of staff. Faculty members in many dental colleges are engaged in private practice with comparatively less time to devote to teaching. Another concern is the fifth year of undergraduate training, which is not effectively implemented. Many private dental schools encourage students to complete their internship at another institution (generally in their own home state or town) to save the parent college from the burden of training students for another year. This may well result in less than adequate practical training for students. Often, students in private colleges lack the necessary clinical exposure, and hence are not properly trained [9].

The good news for the dental students is that the DCI is working on improving the quality of dental colleges. The council has now made it mandatory for professors teaching in UG level to stay in the same college for at least one year. Such decisions by the council can help in upgrading the quality of the dental education in India [11].

RATIO OF BDS: POST-GRADUATE SEATS

Increased awareness of Indian patients has raised their expectations from the dental practitioners. Awareness about the dental education among Indian population has also decreased the charm of BDS degree alone and more and more patients try to consult a specialist for their problems. This is the reason why the aim of dental graduate is to get the master's degree (MDS). A survey of dental students graduating in Gandhi Dental College and Hospital, Bhubaneswar has shown that around 40% of students in first year of graduation were interested in pursuing post graduation. Increasing trend towards post graduation was observed with the seniority and almost 70 % students from the fourth year of graduation have voted for master degree [12].

Number of seats available for MDS is only around 3000 compared to each year pass outs of 25000 BDS students. This is a big bottleneck in career prospects of a dentist.

DECREASING JOB OPPORTUNITY/ PRIVATE PRACTICE

Dentistry is one of the highest paid profession in developed countries but situation is not same in India. Opportunities for dental

graduates are limited. Jobs in government sector are few. With each new hospital opening it creates only 1-2 jobs for dentist as compared to many jobs for medical graduates. Salary in private hospitals is also less. Most Private hospitals and clinics will offer a dental fresher a meager amount of less than INR 10,000-15,000 (USD 200-300) per month for a full time job.

Private practice of dentistry is more fruitful than being attached to the dental hospitals. Working at dental hospitals provides fixed income with slower annual growth compared to the private practice. Hence, private practice is the dream of every dental graduate. However, the investment for establishing a competent dental clinic is higher than general health clinic due to expensive equipments.

Comparatively, level of competition and cost of establishing a dental clinic is less in the rural areas. The govt. is taking initiative to set up dental practices in rural area by providing the subsidies[13]. However, frequency of visits to a dental clinic is unexpectedly low in the rural area due to poor health education. According to a survey, visit to dentist in the last one year was nearly 100% in the upper Socio Economic Status(SES) and 32.3% in the lower SES [2].

ALTERNATIVE CAREER PATHWAYS ADOPTED BY DENTAL GRADUATES

Due to the above stated reasons many of young graduates after failure to get admission in MDS seats feel confused. They then try to search other alternatives for career growth.

Some look for overseas where after an initial period of struggle, the opportunities and returns are better. Countries like USA, UK, Australia are popular destinations for dental graduates. Increasing number of dentists are now moving to places like Russia, Romania, Germany for higher education. Most of these countries will require clearing a licensing exam and few years of study. Therefore, initially the person will need to support himself.

Courses like Public Health, Healthcare Management, Clinical Research and Administrative services are becoming popular with dental graduates. If done from good institutes, better opportunities await them in the corporate health care and pharmaceutical companies. Some Dental graduates consider working at Knowledge Process Outsourcing units (KPO), while others move to Insurance sector. Once absorbed they need to compete with the people of various non medical undergraduate streams and therefore dental education becomes redundant.

CONCLUSION

The Indian healthcare industry is experiencing quick transformation owing to the increasing demand for quality healthcare. But it has been observed that the level of interest of students in dentistry in past few years has declined. Factors like, non-uniformity of admission procedure, uneven distribution of dental colleges across India, decreased quality of education and hurdles to establish private practice, difficulty in getting postgraduation might have affected the decision of the students. Although all of these factors cannot be eliminated immediately, but DCI and govt. of India should take steps to retain the interest of dental graduates within the dental stream. Few of the suggestions are listed below.

- DCI should conduct a single uniform exam of dentistry independent of medical examinations. The dental entrance

- exam should not be linked to the medical admission exam but should be an exam by itself. Having a separate exam will definitely bring students to the dental college who are really interested in the dental profession. DCI can follow the American system of Dental Admission Test (DAT), a single entrance test exists for all dental colleges.
2. Dental colleges should be enforced by the DCI to provide quality education and infrastructure.
 3. Number of Post-Graduate seats should be increased.
 4. Establishing more dental units in the government hospitals.
 5. Stronger programs of oro-dental awareness should be launched by the government and IDA.

REFERENCES

- [1] Tandon S. Challenges to the oral health workforce in India. *J Dent Educ* 2004;68(7 Suppl):28–33.
- [2] Chandrashekhar BR, Reddy C, Manjunath BC, Suma S. Dental health awareness, attitude, oral health-related habits, and behaviors in relation to socio-economic factors among the municipal employees of Mysore city. *Ann Trop Med Public Health* 2011;4:99-106.
- [3] Indian Dental Association. Future of Dentistry in India. Cite on 2011 October 16. Available from:<http://annualconference.ida.org.in/mainconfig1.aspx?Categoryid=5544&id=16&Moduleid=105&contentid=26&Isxpandable=true>.
- [4] Market Potential in Indian Dental Industry. World Dental Show 2011, Mumbai. Cited on 2011 October 16. Available from: www.wds.org.in/TextPages/Rationale_wds.aspx.
- [5] Indian Dental Market 2010 by Cygnus Business Consulting and Research, 2010 April 1. Cited on 2011 October 16. Available from: <http://www.marketresearch.com/Cygnus-Business-Consulting-and-Research-v3438/Indian-Dental-2720196>.
- [6] Database of Dental Council of India. Cited on 2011 October 16. Available from: <http://www.dciindia.org/search.aspx>.
- [7] Dental courses losing teeth: 502 seats remain vacant. DNA, Bangalore 2011 June 22. Cited on 2011 October 16. Available from: <http://dailybhaskar.com/article/BAN-dental-courses-losing-teeth-502-seats-remain-vacant-2209242.html>.
- [8] Indian Dental Association. Career in Oral Health. Cite on 2011 October 16. Available from: <http://www.ida.org.in/Mainconfig.aspx?Categoryid=5152&Moduleid=213&id=26&ButtonId=1042&IsExpandable=true>.
- [9] Mahal AS, Shah N. Implications of the Growth of Dental Education in India. *Journal of Dental Education* 2006 August;70(8):884-91.
- [10] Schwartz B, Bhan A. Professionalism and challenges in dental education in India. *Indian Journal of Medical Ethics* October-December 2005;2(4):119-21.
- [11] Health ministry panel to examine Dental Council decisions. Times of India 2005 June 25; Cited on 2011 October 17. Available from:http://articles.timesofindia.indiatimes.com/2010-06-25/india/28316155_1_dental-colleges-dental-education-dental-council.
- [12] Garla BK. Career Aspirations and Reasons for Choosing Dentistry as a Career – A Survey of Dental Students in Gandhi Dental College and Hospital, Bhubaneswar. *Annals and Essence of Dentistry* 2011 Apr-Jun;3(2):108-10.
- [13] Ahuja NK, Renu Parmar. Demographics & Current Scenario With Respect To Dentists, Dental Institutions & Dental Practices In India. *Indian journal of dental sciences*.

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