REVIEW ARTICLE

Contemporary Situation of Dental Education in India

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ABSTRACT

India is one of the ancient countries in the world, with a population much or less of 1.35 billion spread over 29 states and seven union territories which are divergent in social, cultural, and environmental aspects, as well as in their caste, creed, and religion, with contrasting community needs in both the urban and rural structures. The dental education system in India operates within a large, diverse, and complex volley of network. This sector has been growing expeditiously with new colleges adding up alongside thousands of graduates graduating every year. Different authors have scrupulously expressed their views on dental education continuously on different occasions with the help of various media, and the encouragement given by pioneers in the field has always confined to verbal incitement but has never gone on to improve the insights of the upcoming dentists about the alleged and boasted scope in the profession. This document provides an in-depth dissolution of the scenario of dental education in India including the following domains: Rationale for joining dentistry, effeminization of dentistry, oral health policy entanglement, curriculum, current admission procedure and scenario, research and publications, social accountability, the paucity of consolidation between medical and dental components, tormented study environment, and migration issues finally globalization of dental education.

Keywords: Career motivations, Dental education, Dental school admissions, Dental students.

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INTRODUCTION

Dentistry is a noble profession, as a physician they swear by a number of healing gods, to uphold specific ethical standards, and it takes years of devotion toward the subject of dentistry to get the graduate degree. However, even after such arduous efforts, the contemporary situation of dental graduates in India is sepulcher.

India is the largest country with substantial 309 dental colleges, while most of them from the southern states of India and none from the northeastern states of India reflect the prejudiced distribution and establishment of dental colleges as most of the northeastern regions have seen many interethnic conflicts and disturbances since India's independence, affecting the socioeconomic life, transportation, and communication, thus having an impact on the establishment of the higher educational institutions in the region.[1] While high per capita income south Indian states like Karnataka, found to be having highest number of dental schools producing highest number of dental graduates i.e., 3260 candidates per annum.[2]

There are few commercialized private institutions started courses on many disciplines that are facing financial constraints in later periods of their establishments, resulting in lack of maintenance in infrastructure and short of faculty resulting in the downfall of standards.[3]

Aim

This article was aimed to effectuate a profound contemporary situation of dental education in India by amalgamating various views published in the literature.

Problem

The dental education in India is lacking an inexpungible vision of the challenges facing and a direction to facilitate the profession grow and make a significant contribution to regulate the current situation for the next era.

This document is to ensure balanced allocution to foment an overall view of the present dental education scenario from research, academics, general dentistry, and government policy.

RATIONALE FOR JOINING DENTISTRY

Mostly, the motives for joining the dentistry are of their family and friends advice,[4-6] social status,[6] prestige,[6,7] pride of being called a doctor,[8] inability to get medical seat,[4,8-11] and only lower number joining on their interest[12-16] where few of them have dentistry as their background.[11] These motives have led to the downfall of the quality of outcoming students. Hence,

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dentistry should be taken by the personal interest rather than as an alternative to other courses, to prevent this one should understand student's attitudes, approaches, and motives, for opting dentistry.

EFFEMINIZATION OF DENTISTRY

A recent trend showing more females joining in the dentistry[4-8,11-14,17,18] is observed which depicts feminization of the dentistry in India. Feminization in dentistry is defined as an increase in female presence and the corresponding shift in the occupation. However, in the present day, most practicing dentists in India are men, and the strides in current situation project a potential paradigm shift of the present scenario. It is surprising to notice this change in a society like India where the female child was considered as financial burden vast observations in the majority of Indian marriages reveal, a well-educated woman tends to have a well-educated husband with good social background by facing less financial efforts. This influenced the parents of a female child to consider dentistry as a mark of social status, besides which also have a high chance at the matching stage to find a spouse working in the developed countries where dentistry is of great demand, this trend where the admissions into dentistry are predominantly by female inmates might be the potential reason for dentistry's plight in India as many of the female graduates either be inactive in the field after graduation or tend to practice dentistry elsewhere in the world.[19]

The rapid growth in production of dentists has not helped to address the problems of public health system, and further, it has led to the imbalance in distribution and unemployment, indicating the public health dentist's role in planning dental health workforce and addressing existing inequality.[20]

ORAL HEALTH POLICY ENTANGLEMENT

The National Oral Health Policy in India is framed to set priorities and guides for resource allocation; even though it is tabulated way back in India, it is a desolate scene even today as definite budget allocation for oral health is lacking in India, but it is more important that the Indian government should implement the oral health policy in a more stalwart manner to improve quality and strengthening the dental education along with reduction of oral disease burden more comprehensively and empirically.[21]

CURRICULUM

Examinations in Indian dental schools are very important because they are required for dental schools graduation and licensure. Selecting the students through entrance exams that tests the performance of the candidates by administering multiple choice questions is doubtfully appropriate as validity of examinations by multiple choice is directed towards testing of mere recall of facts.[22,23]

Selecting students from underprivileged groups where the disadvantage of students is measured in terms of social community but not regarding their economic status which actually making the deserved students underprivileged in admission process, where such scenario is quite opposite in the developed countries.[24,25] Career advise, attitudes, and approach should be tailored for students before the beginning of the course as it makes dental universities easier to select the most suitable applicants both professionally and socially.[26]

Dental students expect to become competent health professionals by undertaking a curriculum that encompasses diagnosing oral problems, undertaking comprehensive clinical examinations, problem-based learning, evidence-based learning, competency-based and multidisciplinary approach, and performing dental procedures which are student presage factors and have a direct impact on the way students choose to process tasks.[27-29]

Several studies have demonstrated that curriculum does have an impact on student's views, and therefore, it is important that the curriculum should positively influence views.[30-33]

Faculty in dental educational institutions has to fulfill multirole such as a teacher, scholar, researcher, mentor, leader, committee member, and clinician; hence, they require a multitude of skills that go beyond their clinical expertise, and thus, there requires a master program to train the faculty to help them in reaching their goals.[34]

CURRENT SCENARIO OF ADMISSION PROCEDURE

Hemanth Jain and Aparna Agarwal (2012) proposed a hike in post graduation seats with a view that increase in number of seats will reduce the imbalance in the masters program of dentistry (MDS).[35] However, the existent picture in India has unveiled that the demand for the dental seats is low and many seats are unfilled in both government and private colleges. Currently, there were a total of 26,000 BDS and 6000 MDS seats in the country, of which only 24,000 seats are filled up as for the year 2016–2017; the vacant seats in the BDS in government colleges are 184, while in the private colleges, it was 6,243. In the 2017–2018, the vacant seats in government colleges are 329 and private colleges 4213. Similarly, the vacant seats in the MDS in 2016–2017 in government colleges were 105, while in the private colleges, it was

518. In 2017–2018, the vacant seats in government colleges were 232, while in private dental colleges, it was 1,678. This is conceivably due to increased fees, National Eligibility cum Entrance Test qualification marks, lack of interest in non-clinical subjects in postgraduate course and low income.[36-38]

RESEARCH AND PUBLICATIONS

There is a low proposition of published research in international journals; it was 25 years after the establishment of the Indian Society for Dental Research, India, ranked 26th in the world in terms of total article production and is still low concerning its impact.

Scientific writing has been a prodigious task to the Indian authors, especially in the early stages of their career, to make the best out of the accessible resources for meaningful and eloquent scientific publication. Professional career promotions and grants are directly linked to the number of papers; there is more pressure to publish which is also one of the main reasons for less quality articles. Sometimes, it can be very frustrating for a neophyte to face rejection, but the reasons for rejection may often seem unfair; however, this is something that all authors have to accept.

To initiate and promote research to explore possibilities to help research collaboration to offer support and training in research-related activity methodologies, publishing and funding should be aided by the dental colleges and also they should encourage knowledge exchange programs with international universities.[39]

SOCIAL ACCOUNTABILITY

The success of the education is always largely dependent on the educators, and hence, the dental faculties both in terms of quality and number have a profound impact on the dental education system.[40] Therefore, it is the responsibility of the dental colleges and faculty with respect to decide what extent it should produce graduates who fit the existing health structures or instead attempt to influence those structures to fit the principles of social accountability.[41]

Dental colleges need to consider the overall role of delivering socially accountable graduates that are change agents with the capacity to work on health determinants and contribute to adapting the health system to improve oral health outcomes for all including the needs of underserved populations.[41]

PAUCITY OF CONSOLIDATION BETWEEN MEDICAL AND DENTAL COMPONENTS

Lack of integration of the pre-clinical, clinical components of dentistry and medical subjects undermines the understanding and application of basic sciences into the clinical aspects which turn out the requirement of integrated curriculum.[39]

This also aids initiation of bridge course for dental students so that they can work as MBBS doctors and help to solve the unemployment issue among dentists, especially in rural areas where there was a shortage of doctors and this would fulfil dreams of candidates who failed to join MBBS but pursuing dentistry.[42,43]

TORMENTED STUDY ENVIRONMENT

A congenial environment needs to be created by the dental faculty so that students can pursue their studies with less anxiety or fear, and to achieve this, there should be periodic interaction of dental faculty with trained educational psychologists who can train the faculty in the latest educational methodologies to maximize students' performance and minimizing stress.[44]

The Government and Dental Council of India should take initiatives to adopt rural areas per college and to appoint one dentist in each primary health center as the dentist plays a key role in educating the rural people about the consequences of quackery and should organize free dental educational camps in remote areas to terminate unethical practices.[45]

Redefining of dental education can be done by odontological model based on skills needs to be supplemented by a stomatological model. It was found that most of the Cochrane reviews of oral diseases focus on their systematic implications and their relation with systemic diseases which are in equilibrium with the WHO model of mind, body and spirit. There lies utmost need of early introduction of clinical competency programs in the undergraduate curriculum to integrate basic sciences and clinical skills and need of introduction of newer technologies to be brought down into the baseline dental education framework.[46,47]

NEWER ASSESSMENT METHODS

Introduction of formative assessment for the direct observation of the students' performance in communication skills and professionalism helps the faculty to understand the students and introduction of mini-clinical evaluation exercise can bridge the gap in formative assessment of skills as there was no formal evaluation of communication and counseling skills in the present dental curriculum.[35]

MIGRATION ISSUES PERTAINING TO DENTISTRY

A recent concern is the increase in the number of dentist's migration from developing countries, such as India, Philippine's, South Africa, Indonesia, Egypt, Iran,

and Iraq. These dentists are usually required to undergo a detailed scrutiny process to gain a degree or for registration to practice dentistry in the developed countries such as Australia, the U.K, and the U.S.A, regardless of the presence of hedges such as risk of discrimination, stress, isolation, settlement problems, and even loss of identity in various developed countries.[48]

The current dental education system is encountered with issues such as; more technology driven, less problem centric coupled with health system challenges, political uncertainties, high expectations of working conditions, desire for fancy earning, a sober craving to practice only high-end dentistry which is of more curative nature, are the factors that are pushing the dentists to migrate to the developed countries.[48] Another critical challenge is to produce a high-quality workforce for future generations. With passing time, there has been a gradual decline in the moral values of the workforce, with the majority of the workforce concentrating on making money.[49]

GLOBALIZATION OF DENTAL EDUCATION

The emerging globalization process has now gained the attention of the global dental education communion, and it was found that the barriers that currently curb the implementation of a standardized global dental education are accreditation and licensure issues, differences in dental education models and curricula, competencies, financial limitations, and the slow implementation of technological advances by dental institutions, language barriers in the context of global dental education, and lack of new workforce models to attain access to oral health care services around the globe.[50]

As suggestions are the eminent ways for the commencement of actual ideas, they should follow a course that strengths the dental education, systematic planning, examination patterns, and change of curriculum that engages the intellectual work in a variety of areas to aggrandize the dental fraternity on contemporary with the developed countries.

SUGGESTIONS

Expedite is required to instigate a taxonomy of components that can be elucidated and quantified, to anatomize in different settings, and to help facilitate harmonization of insights from these dental colleges located throughout India.

CONCLUSION

The current status is an obsolete desolate picture as the graduates' number is increasing without much opportunities leading to more problems than tackling the oral disease burden that, in turn, led to strife within the dental community.

As the history of past disease is a good clinical predictor of risk for the future disease, similarly, it is crucial to reflect back on the errors or faults that were done might help us to have befitting planning for the betterment of upcoming fledgling dentists. Many researchers struggle to identify and relay actionable messages to policymakers; therefore, a dynamic strategy should be planned to select advocates or other intermediaries to disseminate these messages to the policy-makers and finally gender shift is a silent stir that needed to be addressed with immediate action.

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