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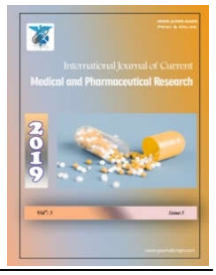

OBSTACLES IN THE JOURNEY OF A DENTAL UNDERGRADUATE STUDENT

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ABSTRACT

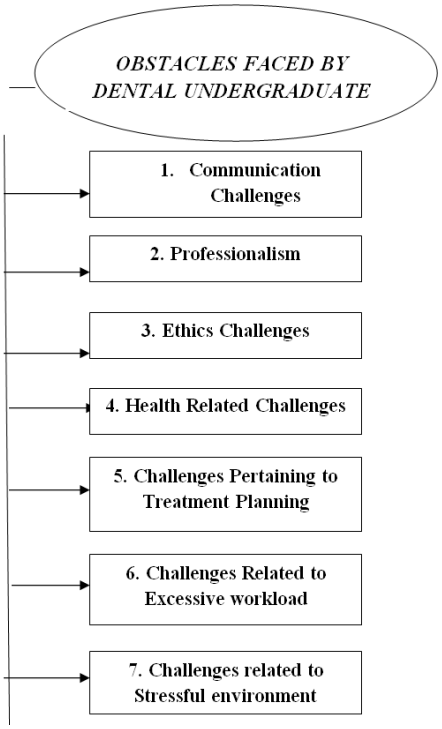
During the course of receiving dental education at undergraduate level, dental students tend to come across various challenges at academic as well as clinical level. This is irrespective of whether they study in government or private aided institutions. Students cannot be expected to excel in their field and provide quality dental treatment and become efficient dental leaders unless these problems are resolved. This article highlights some of those challenges by taking into account factors including clinical factors and academic factors.

INTRODUCTION

The common goal of dental programs is to produce graduates capable of delivering quality dental care to all sectors of the population.[1] Undergraduate (UG) dental education in India is characterized by a high number of theoretical classes that result in sound knowledge of various dental materials and procedures along with laboratory and clinical courses that results in numerous patient encounters during the clinical years. Bruce J. Baum suggested that dental schools should aim to produce a graduate who:[2]

1. Is a lifelong learner, capable of being able to grow and adapt as change occurs in our science base and health care systems.
2. Has a sense of community responsibility.
3. Is technically competent at dental surgical procedures.
4. Is competent at managing oral medical (stomatological) disorders; and
5. Is competent in treating ambulatory, medically compromised individuals.

But the current status of dental education in India has some serious drawbacks that need modification to be able to produce efficient dentists. Dental students in India are trained to excel theoretically, but there seems to be a disconnect between what is learned and what is applied in the clinics[3]. There are various challenges faced by UG students during their clinical posting when they interact and treat patient during clinical training especially during the first time. This article highlights the problems faced by the dental graduates in India and also suggests the solutions. The various problems encountered by the students have been divided into seven categories which have been discussed along with the solutions that can be done in order to solve the problem.



Category 1 Communication Challenges

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India is a multicultural country with 15 official languages and hundreds of dialects. Interaction with the patients starts in the third year of curriculum and the students have to communicate with the patients in the local dialect, which can prove to be a little difficult.[1,4] As a result, students are unable to provide their patients with optimally effective care resulting in patient's dissatisfaction. This language barrier, both nonverbal as well as verbal communications, poses a significant threat to the patient–doctor relationship.[1,5] Thus, to communicate, one should know the language which the patient can understand. Bridge classes for local language can be organized from the 1st year itself for UG which can make them confident to communicate with patients during their clinical training.

Another challenge faced by the students is to make the patient cooperative for the treatment if he has been referred to two or more departments. Treatment of a disease or a condition starts with its proper diagnosis and this can be done successfully only by taking a case history.[1] Since the students are taught to take proper case history before commencing the treatment, patient gets irritated when they are asked the same questions in every department they visit. Students take complete case history in all departments and the patient waste most of his time in giving case history repeatedly in all the departments which he visits and at last he is not ready to cooperate for treatment. This problem can be solved if the basic case history is recorded only in the first department, and later in other departments, case history relevant to that department can be added.[1]

Another problem encountered by the students is when they have to deal with a smart patient. Some patients search information related to the their dental problem and its treatment options on the internet before coming for appointment. Such patients interfere at each and every step and do not let the students complete the treatment on time.[1] It is difficult to treat such smart patients by the students. Thus, patient management skills should also be included in the curriculum before a student enters the clinical posting.

Category 2: Professionalism

It is very difficult for the students to manage the resources while treating patients as most of the times they are not able to use the material optimally resulting in wastage.[1] Students use excessive material than required in procedures such as impression making, pouring the cast with dental plaster or stone, cementation procedures etc. Excessive use of some materials can even be hazardous. For example, using large amount of mercury during restoring the tooth with amalgam restoration can pose threat to both student and the patient. Thus, apart from providing theoretical knowledge of the proper ratio to be used, students should also be given proper practical demonstration. The wastage can also be avoided if the amount of material given to the students is limited only to the amount required.

Moreover, since the UG students are not so proficient in doing the dental procedures, time management becomes a big problem. As a result, patient is bound to wait for long hours. Some patients get highly irritated when asked to wait especially the working personnels. Handling such patients can be difficult for the students.

Many clinical procedures that are commonly done in dental clinics such as root canal treatment and crown and bridge for multirooted teeth are not trained well at the undergraduate level.[6] Students even being well versed in the theoretical knowledge of such procedures are not able to perform them on patients efficiently as step by step practical demonstration on patient is not taught to them. In most of the dental colleges, students are allowed to do such procedures on the patients only during their internship. But as they are not well trained for such procedures, they face difficulty in providing a successful treatment. Even after completing the course, the students are not confident enough to be able to perform such procedures on their own.[6] The curriculum should be necessarily improvised by inclusion of such commonly practiced dental procedures into the agenda of the undergraduation.

Also, there is a huge difference between what they learn in their textbooks and what they apply on the patients. Students tend to learn various materials, procedures and even new techniques such as implants during their theoretical classes but they are not allowed to do all the procedures or even assist the postgraduate students when they are performing such procedures. They are bound to perform only the procedures told to them by their incharge as those procedures are part of their quota. Even if they wish to learn new techniques, they are not given chances.

In prosthodontics, they are bound to make only removable dentures and that too by conventional technique. If they get a case where modification in the technique is required due to unconventional ridges (resorbed or flabby), case is transferred to a postgraduate student due to which they tend to miss the opportunity to learn any new technique. In periodontics, students perform only oral prophylaxis procedure from third year to internship. They do not learn anything new except for scaling. This problem can be resolved if atleast in internship, they are taught and allowed to assist and perform procedures other than what they have done in third and final year.

Currently, the growth of private dental colleges has far exceeded the number of government-aided colleges. Inadequate number of patients in some private aided institutions is another challenge faced by the students. They sometimes are not even able to complete even their quota due to inadequacy of patients. The opposite is true for the government aided institutions where students get ample number of patients. But this affects the quality of dental treatment provided to the patients as more emphasis is given on completing quota rather than quality of work. This becomes even more challenging when they do not get sufficient amount of time in a particular department as there is difference in the duration of clinical rotations in some department. Thus, the duration of postings particularly in clinical departments should be increased so that the student can manage the patient well and provide the treatment efficiently and on time.

Non availability of some dental materials is another challenge. In such circumstances, either the student has to purchase the material on their own or they have to ask the patient to wait until the material is provided by the institute. This is the responsibility of the governing bodies running the dental institute to provide all the material along with newer materials and equipments in sufficient quantity so that the students can work easily.

Category 3: Ethics Challenges

There are six fundamental principles that form the foundation of the ethical code: Patient autonomy, nonmaleficence, beneficence, justice, confidentiality, and veracity. The dentist

has a duty to respect the patient's rights to self-determination and confidentiality.[1] Most of the students do not take informed consent from their patients. Moreover, many of them disrespect their patient's confidentiality which is one of the most important principles of ethics by discussing their patients in groups and on social media with their friends.[1] Ethics education should be considered important in the current curriculum, as it enables the students to follow principles and codes of ethics not only in their practice, but also in their life. It also helps to keep up the standard of their profession.[7,8,9]

The present curriculum revolves around calendar-based and quota-based deadlines. Students give priority to their needs and then to patient needs. So, there is a possibility that students coax patients into undergoing procedures because they need to show it in their records, and the patient probably does not require it.[2] This is in opposition to the basic tenets of professionalism and ethics.[2]

Category 4: Health related Challenges

Many students experience health related problems due to wrong posture while treating patients. Also, respiratory problems have been encountered by some students due to inhalation of acrylic powders while trimming custom tray, baseplates or dentures. Some students also face skin reactions due to allergy to some dental material such as self polymerizing liquid or latex gloves.

To prevent musculoskeletal disorders while practicing dentistry, we have to ensure that existing equipment is functioning properly and that all dental chairs can be raised and lowered within the range, for which they were designed and light can be adjusted. Proper positioning should help reduce the static physical stresses placed on the students.[1,10,]

Category 5: Challenges pertaining to Treatment Planning

Treatment planning is generally the purview of the supervising clinical instructors. Thus, at the end of their rotations, students are usually proficient in the clinical abilities pertaining to the corresponding department.[3] However, they are poorly prepared to recommend comprehensive treatment planning. For example, a student completing a one-month rotation in restorative dentistry has an opportunity to work only on restorations and has no opportunity to learn how to provide a comprehensive treatment plan for patients.[3] If the patient requires comprehensive treatment, case is transferred to a postgraduate (PG) student and the UG student is not able to learn. There is a huge barrier between undergraduate dental students and postgraduate residents. Working together with residents would allow dental students to interact and learn from the residents. They would be exposed to many procedures in various specialties and also become familiar with treatment planning cases using a multi-specialty approach, as one does in a private practice. [3] Allowing dental students to assist in procedures performed by residents would help the students to observe, which gives them first-hand application of knowledge gained though lectures and textbooks.[3]

Also, students are taught to do clinical work for a particular situation, but they are not trained to treat other problems in the same patient. Once a specific treatment is completed, the patient is referred to other department and the student no longer sees that patient. The dental students need to be able to learn from their treatment successes and failures.[3] After the treatment is completed, the patient can be placed on a maintenance program, wherein he or she can obtain prophylaxis every four to six months along with routine follow-up dental examinations.[3] Follow-up care gives an opportunity for the student to longitudinally observe and evaluate his or her own work over a course of time. Also, students should be trained to treat the patient as a whole. Dental curriculam in India should include treatment planning sessions to teach students how to plan the treatment for a case involving all specialties.

Category 6: Challenges related to excessive workload

Students also face problems related to the amount of class work specifically in the third year. This is the year students are introduced to clinical procedures. They may face difficulties in learning clinical procedures both theoretically and practically.[11,12,13] The large quantity of difficult syllabus the students are required to master may cause them to feel inadequate for the task, which in turn results in the students becoming fearful about being able to complete their examination requirements on time.[11]

Also, in the fourth year, students have to study eight subjects along with submission of their preclinical and clinical quota, the number of which is higher as compared to other years. Managing studies, patients and preparing for exam simultaneously become challenging for the students.

Category 7: Challenges related to stressful environment

The increased student-staff interaction in the clinics for third year students may also cause them to feel humiliated when he or she is criticized by the staff in front of the patients and peers.[11] Various studies suggest that the clinical years are more stressful than the nonclinical years. [14,15,16,17]

Other investigative studies have also reported that for the clinical year group, faculty-related such as atmosphere created by clinical supervisors and differences in opinion between clinical staff concerning patient treatment also cause significant stress.[11] This becomes even more stressful when the clinical supervisors do not share a cordial relationship.

The establishment of student advisors and counsellors within a dental school, combined with a faculty advising system and student-oriented programs, have contributed to an improved educational environment by enhancing stress management.[11] The routine of "quota chasing" to complete a specified number of clinical procedures should be eliminated. This is a cause of great anxiety to students and their performance and behavior are driven by availability of patients.[2]

During internship, students start preparing and planning for what they are going to do after the completion of their course. Since, there is a lack of job opportunities in the dental field especially in the government sector, students feel stress and start doubting their career choices. In the private setup, if they seek a job they are not well paid. If they plan to setup their own practice, they feel stress as they know they are not well versed even in the basic procedures and they will have to do a short term course even for basic dentistry to run a successful clinical practice. Such problems sometimes result in loss of interest in the dental field and as a result, some students tend to opt for an entirely different career after BDS.

The problem can be resolved if the government and the dental council of India take steps to create more job opportunities and

bring some changes in the curriculum and make strict protocols to teach atleast the general dental procedures both theoretically and practically.

CONCLUSION

The challenges faced by UGs should be tackled as this will help them become a professional with good communication skills. The academic demands, manual dexterity, and clinical management skill requirements expose dental students toward stress which should be taken into account by the governing bodies while deciding the dental curriculum. Also, dental education must emphasize the professional ethics and moral responsibility of the graduating professionals to efficiently address community needs.

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