ISSN: 2581-5989
PubMed - National Library of Medicine - ID: 101738774

International Journal of Dental Science and Innovative Research (IJDSIR)

IJDSIR : Dental Publication Service

Available Online at: www.ijdsir.com

Volume – 3, Issue – 5, September - 2020, Page No. : 460 - 467

Does The Current BDS Curriculum Prepare US For Tomorrow

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Citation of this Article: Dr. Amit Gupta, Dr. Vidhi C Rathi, Dr. Pallavi Srivastava, Shree Goyal, Surbhi Sharma, Supriya Dahiya, Dr. Sanjeev Kumar, "Does The Current BDS Curriculum Prepare US For Tomorrow", IJDSIR- September - 2020, Vol. – 3, Issue - 5, P. No. 460 – 467.

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Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

BDS is one of the most popular and designated degree of dentists (doctors). The BDS (Bachelor of Dental Surgery) is the only educational and professional programme of dental surgery in India which is equivalent to MBBS and owes the "Dr" domain. The objective of the course is to prepare the students to tackle all kind of oral healthcare problems. The syllabus of this course covers core courses, electives and practical workshops. An internal assessment is done by conducting three exams in each session.

So here we have conducted a randomized, single centre study at our institute which is a questionnaire based study on 100 individuals including 40 faculty, 60 undergraduate student including BDS interns and final years with the aim to evaluate the ability of current dental training system and identifying specific features which could be incorporated into Indian dental curriculum.

The result of the study showed that BDS curriculum should also focus on making students more confident about dealing with medical emergencies in a clinical setup independently. 85% faculty and 98% student said BDS interns should be allowed to deal with implant cases. 66.7% faculty and 71.7% students said that Forensic Odontology should be introduced as a separate branch.

The study concluded that the learning and teaching atmosphere of dental schools should incorporate training students in the area of communication with patients. The

dental graduate should be aware of dental economics also to set up a private dental clinic in the future.

Keywords: BDS curriculum, Dental training, Forensic odontology, Implantology, Dental esthetics

Introduction

In the medical educational field, BDS is the second choice of the students after the MBBS course. Dentistry is a challenging and rewarding profession .Excellent communication skills are absolute necessity to enable dentist to treat patients effectively [1]. Undergraduate courses in dentistry are first steps to provide solid foundation of learning which ensure that patient receives most effective care possible supported by solid scientific foundation.

Major advances in technologies and dental materials are now a day's increased scope of dental practice. [2]

According to the latest needs of industry, BDS syllabus is designed and revised to keep it updated. The dental curriculum are overloaded with clock hours.[3]

The delivery method of this course combines classroom teaching, seminars, conferences, clinical works, group discussions and demonstrations together to strike the perfect balance.

Dental teaching is typically a combination of lectures, seminars, practical, clinical work, lab demonstration. The BDS curriculum is dividing into

1st year - basic building block related to medicine and dentistry.

2nd year - building ones knowledge and skills with introduction to clinical dentistry.

3rd year- Integrated knowledge, skills, exposure to clinical studies.

4th year - gain clinical competence. [4]

The assessment constitutes 20% of marking scheme. Another 20% is allotted for viva voce and the rest of it rides on the written examination conducted by university. The syllabus usually varies from one university to another. [5]

Curriculum revision: objectives the process of planning a new curriculum was started in the Institute of Dentistry in 1993 by nominating an ad hoc committee representing each discipline [6]. The main objective was to produce a framework for the curriculum change. Thus, a document – 'Guidelines for the Curriculum Change in Dental Undergraduate Studies' – was prepared and approved by the Faculty Council in December 1994 with the following curricular requirements: (1) To reinforce the links between basic biomedical and dental sciences, with emphasis on oral medicine and comprehensive dental care. (2) To promote an interdisciplinary approach and encourage students to understand the dental diseases in relation to the community at large. (3) To formulate the objectives for the behavioural sciences. The graduate should possess a positive attitude towards life-long learning and should have evidence-based dentistry as the goal and should be able and willing to promote scientific reasoning. The graduate should be able to manage patients from all age groups (healthy or handicapped) with ease and respect, and should be aware of the ethics of the dental profession. (4) To emphasise interpersonal communication skills and ability to work in a team both as a member and as a leader. (5) To arrange the clinical training in a comprehensive care setting. (6) To arrange the clinical training in a team-concept setting to allow more patient contacts per student and thus ensure willingness to encounter patients with different types of oral health problems in the future.

The three levels of competency applied to knowledge, skills and attitudes [6]

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Level of competency	Applied knowledge	Skills	Attitudes and communication
1-Beginner	knows the basics for this treatment	needs help to perform	minimal communication particular relevant treatment skills, but still takes the patient into account; able to give instructions to patients
2-Independent performer	knows the basics for this particular treatment and its relation to comprehensive care of the patient	able to perform relevant treatment independently	able to understand treatment also from the patient's point of view
3-Skilful performer	able to evaluate causes and consequences able to give reasons for chosen procedures	able to perform relevant; treatment independently in a reasonable time	able to discuss several aspects of treatment; respects feedback given by patient; able to maintain professional role

Material Method

So we have conducted a randomized, single centre Questionnaire based study at ITS CDSR Muradnagar, Ghaziabad conducted by our department of Oral and Maxillofacial Surgery from January 2020 till February 2020 with a Sample size of 100 (40 faculty and 60 undergraduate students including BDS interns and final years) with the aim To evaluate the ability of current dental training system and Identifying specific features which could be incorporated into Indian dental curriculum such that there could be holistic learning and development of a BDS graduate as an independent clinician.

Inclusion Criteria: The sample was randomly taken; as undergraduates and dental faculty in the institution.

Exclusion Criteria: Any unwilling participants, incomplete answers were excluded from the study.

Data collection: The study included a 16 item questionnaire (customised) while distributed into the participants randomly and collected and analysed by another student who is not a part of the study to remove any bias. The 100 sample size of our study contained 40 faculty members and 60 undergraduates (final years and interns). The questions had “yes or no” type responses or “Multiple choice” options for the participants to choose from. The last question, however, was open ended to incooperate any suggestion or view from the participants.

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Questionnaire [2]		
Sn.	Questions asked	Options marked
1.	Do you think clinical observational postings in dental departments be held for 1st and 2nd year students?	a) Yes, one should have some basic knowledge about what dentistry consists of. b) No, not useful until they are taught the subjects. c) Can't say.
2.	Do you think General Medicine and General Surgery postings are providing enough knowledge to identify medical conditions?	a) Yes, I can identify and relate to different medical conditions and provide dental treatment accordingly. b) Yes, I can identify but I don't know how to manage those patients. c) No, I cannot identify due to lack of clinical case observation. d) There is a need for more comprehensive posting to co relate theoretical and clinical knowledge.
3.	Do you think exposure to general medicine/ surgery patients is beneficial and applicable in a dental clinic set up?	a) Yes b) No
4.	Can you handle medical emergency cases in a clinical set up confidentially?	a) Yes, I can do it on my own. b) Yes I can but not alone. I would need assistance. c) No, I cannot do. d) I can't say.
5.	In a medically compromised patient, would you be able to refer them to the concerned doctor?	a) Yes b) No
6.	As per the dental curriculum, do you think clinical postings for 3 years are good enough?	a) Yes, it is enough. b) No, it should be more. c) No, it should be lesser. d) Yes but we need some additional courses on clinical management and set up.
7.	Should "Forensic Odontology" be introduced as a separate branch in dentistry?	a) Yes b) No
8.	Should "Orofacial Pain" be separated as another branch?	a) Yes, it should be. b) No, it should be kept under oral medicine

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		and radiology. c) It should be under Oral surgery instead d) Can't say
9.	Should "Dental Implantology" be separated into a different branch?	a) Yes b) No
10.	Should BDS 4th year students be allowed to deal with implant cases as a part of BDS curriculum?	a) Yes b) No
11.	Should BDS Interns be allowed to deal with implant cases as a part of BDS curriculum?	a) Yes b) No
12.	Should "Dental Esthetics" be taught as a separate subject in dental curriculum?	a) Yes, should be a separate subject b) No, no changes needed. c) No, not a separate subject but short courses are good enough. d) Can be there with demonstration on cases.
13.	Do you think current BDS curriculum makes you self-sufficient in starting up your own practice?	a) Yes, I can independently start my own set up. b) No, I feel the need to work under some clinician first, to get skills. c) No, I feel the need to do some clinical courses first, to start with. d) Both b and c
14.	DCI curriculum if changed, which one of the following would you choose?	a) Current scenario- theory followed by clinics, separately. b) Integrated clinical posting with theoretical discussion but no separate theory classes (similar to PG seminars) c) Clinical (Patient based) only without theory classes d) Only theory classes
15.	Do you want to add any other clinical postings other than the current postings in the departments?	a) Yes b) No -If yes, what would you suggest or want? (write your answer in 1-4 point maximum, 50 words maximum)

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Data Analysis And Results

After the completion of the questionnaire the completed data was analysed and the result was evaluated. The total male: female ratio included in the study is 35:65 which includes 41% faculty, 59% Undergraduates. For the clinical

observational postings in dental departments for 1st and 2 nd year BDS students 80.4% participants were in favour of having some basic knowledge about what dentistry consists of whereas 18.6% participants were in favour of teaching the subjects prior to clinical postings and 1% could not comment. Regarding the general medicine and general surgery postings 14.7% were able to identify and relate to different medical conditions and provide dental treatment accordingly. 42.2% were able to identify but didn't knew how to manage those patients. 21.6% cannot identify due to lack of clinical case observation where as 21.6% said there is a need for more comprehensive posting to co relate theoretical and clinical knowledge. 92.2% including faculty and UG agree with the exposure to general medicine/ surgery patients in BDS curriculum whereas 7.8% even disagreed with the postings for dealing with the medical emergencies 69% faculty and 50% undergraduates would need assistance whereas 11.9% faculty and 33.3% UG cannot handle emergencies confidently on their own. 96% of the participants were confident enough to refer a medically compromised patient to concerned doctor whereas 4% could not.

44% participants agreed with 3 years of clinical postings whereas another 44%^disagreed with the time frame and remaining 15% also demanded for further additional courses on clinical management and setup.30% participants require "Forensic Odontology" as a separate branch in dentistry whereas 70% participants disagreed with it. 7% of the participants wanted "Orofacial Pain" as another branch of dentistry but 28.4% disagreed and wanted it to be under oral medicine and radiology and 10% wanted it to be under oral surgery and 54% participants did not had any opinion. Regarding "Dental Implantology" as a separate branch in dentistry 58.8% participants agreed whereas 41.2% disagreed. 56.9% participants were in favour of allowing BDS 4th year students to deal with the implant cases whereas 43.1% were not in favour of this decision. Out of this 93% where faculty and 7% were undergraduate students. For dental aesthetics to be considered as a separate subject, 32% participants agreed to it whereas 20% do not wanted any changes but 39% where in favour of short courses and 8% participants were willing to get demonstration on the cases.28% of the participants think that they are independent to start their own set up, 29% need to work under guidance of some clinician first and 39% wanted to do some clinical courses whereas 3 % feels to do both course and clinical guidance. The participants were given choices to choose if they want any changes in DCI Curriculum according to which 53% participants wanted the current scenario with theory followed by clinics separately, 42% participants wanted Integrated clinical posting with theoretical discussion but no separate theory classes (similar to PG seminars), 3% wanted clinical based but 1% wanted only theory. 27.5% wanted other clinical postings and 72.5% did not support for any other clinical postings in other departments.

Discussion

69% of faculty and 50% of students group believe they can handle medical emergencies but they require assistance.

So it clearly shows that BDS curriculum should also focus on making students more confident about dealing with medical emergencies in a clinical setup independently.

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Implantology

58% in totality think that implantology should have separate branch but only 44% of faculty agrees with it.

85% faculty and 98% student say BDS interns should be allowed to deal with implant cases. Dealing with implant cases in internship not only provides good exposure but also helps them to handle implant cases more confidently under other implantologists and further practicing the same independently.

Forensic Odontology

66.7% faculty and 71.7% students say that this should be introduced as a separate branch. The scope of this is wide as students completing these courses expect to find employment in crime labs legal firms in ABROAD but in India it still needs time to get established academically as well as in practical requirement.

Dental Economics

Once you own a dental practice it's not easy to maintain it .There are many challenges that a dentist encounters in a new clinical setup. One of these includes on what to invest and how to invest in your own clinic. Classes and guidance can be included in our curriculum so that a fresh dentist is able to overcome this problem.

Communication Skills

With the rise in consumerism in dentistry patients looks for a dentist who is more patient centred and person focused. A dentist who adopts the style of person focused will be more patient centric and hence more approachable. It requires the dentist to embrace good communication and empathy skills. The necessary requirement of developing good communication skills is not yet realized in many dental schools especially in developing countries like INDIA. The learning and teaching atmosphere of dental schools should incorporate training students in the area of communication with patients.

Conclusion

As the importance of good dental care becomes increasingly paramount in a globally connected society it is imperative that the dental curriculum keep up pace with it.

The large number of Indian dental graduates who pass out every year should be in sync with the latest in the dental curriculum. In conclusion, the curriculum change enabled the school to broaden the biomedical aspects by increasing the period of preclinical studies. Although the extent of these studies was greater than in the past, and meant postponement of clinical skills courses by one semester, it did not jeopardise the competency in clinical dentistry, owing to the effective integration of the clinical phase teaching.

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