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Student Perspectives and Opinions on Their Dental Outreach Posting Experience at Vadodara, India

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Abstract

Background: International emergence of community based clinical teaching has been attributed to drawbacks of conventional teaching methods restricted to dental schools. The rationale behind these outreach teaching schemes is to smoothen the progress of dental undergraduate students from a dental school environment where they are 'taught', to a clinic where they are more closely incorporated with what they will come across in an independent dental practice. To ensure that the designed teaching program is fit for its purpose it is important to understand the views of students who have trained at the unit. **Aim:** The aim of this paper is to report student perspectives and opinions on their experience at outreach teaching centre of K. M. Shah Dental College and Hospital. **Subjects and Methods:** A cross sectional questionnaire study was conducted among students who had undergone internship training programme at K.M. Shah Dental College and Hospital, Vadodara in academic year 2011-12. Percentage was used for statistical analysis. **Results:** Forty eight respondents indicated that the learning experience was helpful with their subsequent clinical careers. Respondents' agreement with common likes was related to increased clinical autonomy and routine access to more equipment and dental materials while the agreed dislikes were related to, inability to access patients requiring specific treatment items. e.g., crowns /RPDs and inaccessibility to certain specialized equipment. **Conclusion:** Implementation of community-based clinical teaching program has been successful in helping the students with their careers while outlining the advantages and deficient aspects of the present programme.

Keywords: Dental education; Dental students; India.

Introduction

One of the biggest challenges for dental educators is to prepare graduating dental students for future careers as independent practitioners.[1,2] This is particularly pertinent in current times, where clinical practice is subjected to continuous evolution.[3] Conventionally, dental undergraduate education was completed entirely in a dental school setting. The drawback of such an education is that they are most often detached from the realities of clinical practice and even 'lag behind' developments in contemporary dental practice.[4,5] Recognizing these challenges, outreach dental teaching has begun to emerge internationally over the past number of years.[5-8] The rationale behind these outreach teaching schemes is to smoothen the progress of dental undergraduate students from a dental school environment where they are 'taught', to a clinic where they are more closely incorporated with what they will come across in an independent dental practice.[9-10] In doing so, it is hoped that the dental student will begin to understand that the practice of dentistry is more than just the completion of prescribed clinical tasks, and it includes considerations such as working with other members of the dental team, including working with a dental nurse and practicing four-handed dentistry, so-called 'holistic' management of a patient, and issues around managing and scheduling appointments.[9,

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In the Indian context, the Dental Council of India (DCI) is responsible for the quality of dental practitioners and educational standards. In their circular to principals of all the dental schools in India dated ninth February 2012 the DCI stresses that "the revision of the five year BDS curriculum to the four +one year duration was done with the clear intention of providing adequate clinical exposure to the students during their internship period and as a part of this proposal, all dental institutions are required to setup Satellite Clinics to support a rural outreach dental program and to facilitate clinical exposure of the interns".[14-16]

Indian dental schools have approached outreach teaching by developing purpose-built units within a radius of 20-30 km distance of the school, where patients are seen and treated in a primary care setting. K.M. Shah Dental College and Hospital had started one single-chair purpose-built unit in year 2008 and another six-chair purpose-built unit in 2007 within city limits.

These centers allow the dental interns to undertake 'total patient care' across the spectrum of primary care dentistry. Each teaching session typically has nine or ten dental students lasting 30 days. A dental nurse is available to assist them. The staff: student teaching ratio is usually 1: 6. Clinical teaching is delivered by the permanent staff, who are based at the unit on a full-time basis. The unit is also supported by reception staff. Record-keeping is 'paperless'; computerized records of patients are maintained. Students have access to radiography facilities within the unit. Dental students generally operate on patients in this unit during their internship year. The centers offer unique opportunities to students and have many advantages, such as ensuring a consistent quality of supervision, consistent nursing support, and consistent access to equipment and dental materials, with the aim of facilitating a suitable transition to subsequent independent practice.

To ensure that the designed teaching program is fit for its purpose it is important to understand the views of the dental students who have worked/trained at the unit. The aim of this paper is to report student perspectives and opinions on their experience at the outreach teaching centre of K. M. Shah Dental College & Hospital.

Subjects and Methods

The ethical approval was obtained from the Ehics committee, Sumandeep Vidyapeeth, Vadodara and informed consent was obtained from each participant who was willing to participate in the study.

All the students who graduated from K.M Shah Dental College & Hospital in the year 2012 and had undergone outreach clinic posting during their internship were included in the study that comprised of eighty subjects in total. The students who did not undergo outreach clinic posting during their internship due to any reason or who did not respond to the survey were excluded from the study.

The study was scheduled to be conducted over a period of three months from June 2012 to August 2012 and the questionnaire was distributed to the participants when they came for their convocation and was collected back on the same day.

The participants who did not come for the convocation were contacted over phone and questionnaire was sent to them via email. Three calls were given at an interval of one week each to all the absent individuals. Three absent individuals responded in the first call, while one in the second and five in the third call. 26 individuals didn't respond to the survey thus the response rate was 67.5%.

A pilot study was conducted for testing of validity and reliability of the developed questionnaire. The questionnaire developed was evaluated by five subject matter experts (SMEs) four of which were having experience of rotatory peripheral posting at the same centers. The modifications indicated by SMEs in the questionnaire were done accordingly. A thorough test development process was

followed and a job analysis was conducted following which the content validity of the test was very high. Reliability of the questionnaire was tested by "test-retest" method. Correlation coefficient between responses given by respondents were obtained at two different time points.

The questionnaire included quesions pertaining to current practicing status and practice type, experience, likes and dislikes at the peripheral clinic as compared to base dental clinic and personal details. The data was compiled, tabulated and subjected to percentage analysis.

Results

The questionnaire was reliable for the present study as the reliability was 81.4% with correlation coefficient as 0.814 and p-value as 0.026.

Fifty-four responses were returned, for a re-sponse rate of 67.5 percent. The current practicing status of the participants has been summarized in Table 1 and 2. Respondents learning experience at K.M. Shah Dental College community-based clinical teaching program are outlined in Table 3, 4 and 5. Respondents' agreement with common likes and dislike are reported in Tables 6 and 7.

Table 1: Table Showing Current Practice Status of the Individuals

No. of Practicing individuals	No. of Non practicing individuals
32	22

Table 2: Table Representing Current Practice Arrangements of the Individuals

Practicing arrangements	No. of individuals
General dental practice owner	0
General dental practice partner.	4
Working in a dental clinic.	22
Working in a Hospital.	6
Working in a dental school.	0

Table 3: Table Showing Respondents' Views on How Well Their Learning Experience Peripheral Centre had Prepared them for their Clinical Careers since Graduation

Help from learning experience	No. of respondents
It helped a lot	37
It helped a little	11
It did not help	7

Table 4: Table Showing Views of Practicing Respondents' on How Well Their Learning Experience Peripheral Centre had Prepared them for Their Clinical Careers since Graduation

Help in preparation for clinical careers	No. of respondents
It helped	33
It did not help	3

Table 5: Table Showing Respondents' Views on Their Learning Experience at Peripheral Centre when Compared to Base Dental Clinic

Learning experience	No. of respondents
Better than that at base dental clinic	45
Poor than that at base dental clinic	6
Same as that at base dental clinic	3

Table 6: Table Showing Respondents' Agreement with Common Likes at the Peripheral Centre

Likes	No. of respondents
Availability of a suitably trained dental nurse for all procedures	0
Ready access to helpful and approachable teaching staff	2
Suitability of patients seen	19
Routine access to more equipment and dental materials	47
Increased clinical autonomy/control	53
Good working atmosphere	11
Increased clinical freedom	25
Closeness of learning experience to subsequent practice	25 (practicing) 10 (non practicing)

Discussion

The incorporation of a community-based clinical teaching program outreach teaching

Table 7: Table Showing Respondents' Agreement with Common Dislikes at the Peripheral Centre

Dislikes	No. of respondents
Difficulties using the computerized system for recording/accessing clinical notes	5
Patients failing to attend appointments	8
Timetabling issues, including travelling.	20
Access to certain specialized equipment	45
Being unable to access patients requiring specific/desired items of treatment. e.g., crowns/RPDs	53

is encouraged by Dental Council of India with a focus on the develop-ment of skills required in general dental practice/primary dental care.

The traditional models of dental education have been proven invaluable in the early professional development of dentists and for the consolidation and molding of clinical skills for primary dental care. But an ideal place to enhance such skills is within appropriately designed community-based clinical teaching programs and so "student teaching and learning should be increased by extending the clinical environment into any primary care setting approved by the dental school for the purpose of undergraduate education."[1]

The evidence to demonstrate the success of these ventures is usually in the form of contemporaneous student feedback and this is the first of its kind in Indian scenario. The incorporation of community-based clinical teaching/outreach teaching within dental school programs is felt by previous participants to be very beneficial to the development of their clinical and professional careers. This is demonstrated by the fact that 48 respondents indicated that the learning experience was helpful, with 68.51 percent (n=37) describing the learning experience as "helping a lot" with their subsequent clinical careers. Among those who were practicing at present 84.37 percent (n=27) indicated that the training was helpful (Table 4) and at the same time 78.12 percent (n=25) also agreed that the learning experience was close to subsequent clinical practice (Table 7). These results are in agreement with the findings of Lynch.[14]

The community-based clinical teaching approach allows the development of other important skills necessary for subsequent careers in dental practice, such as working as part of a dental team, increased clinical confidence, and time management. 98.14 percent (n=53) of the 54 respondents noted the development of their sense of increasing clinical autonomy as a result of their time within the unit. Again this is very important in a time where the transition to independent practice and completion of vocational training can be problematic. Development of this self-confidence is important in facilitating transition from dental school to vocational training and subsequent independent practice. Recognition of the development of this important trait within the outreach teaching unit from now-graduated students confirms the suitability of this form of dental education for a realistic approach to providing dental treat-ment within a dental practice setting.

On the negative side, 98.14 percent (n=53) and 83.33 percent (n=45) students recall the inability to access patients requiring specific/ desired items of treatment. e.g., crowns /RPDs and inaccessibility to certain specialized equipment to be the drawbacks at peripheral centre training. This perhaps denotes a possibility that even within this teaching program students are still focusing on completing specific clinical treat-ments rather than focussing on the overall holistic care of their patients. This is an important learning point for those involved in management of this part of the curriculum.

Recently, strategies are being implemented at the peripheral centres of K.M. Shah Dental College in order to increase the efficiency of such programmes. Expansion of peripheral centre in terms of infrastructure is one of them, thus providing the students with the most recent technology and also at the same time

enabling them to provide the best of the treatment to the patients. This will have a positive impact on student access to patients and lead to improved use of the clinical time available to them.

The present study also had drawbacks, one that the population at the beginning was 86 but only 54 responded to the survey and secondly the results are restricted to only the students of one batch. Further studies need to be conducted among the upcoming batches to improvise the learning facilities at the peripheral centres.

On the basis of our results, it is evident that student experiences at a community-based clinical teaching program at K.M. Shah Dental College has had an impact on the subsequent professional development of new dentists emerging into independent practice. This is to be welcomed and meets the needs of contemporary patient groups. Further development of outreach teaching is to be encouraged within dental school programs.

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