



BEYOND THE CLASSROOM: A DENTAL STUDENT'S HANDS-ON EXPERIENCE IN SECONDARY HEALTH CARE HOSPITAL.

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Abstract:

Introduction: Students' clinical development has been greatly aided by the fact that primary care outreach programs are able to offer them training beyond what is provided in a traditional dental school. The purpose of this research was to ascertain whether or not dental students' familiarity with recent medical postings influences their own growth.

Methods: The questionnaire-based study was intended for third- and fourth-year BDS students. The survey asks undergraduate dental students gaining medical experience sixteen questions designed to gauge their knowledge, attitude, and clinical practice. On a five-point Likert scale, students will be asked to rate each questionnaire item as either "True," "mostly true," "neither true nor false," "false," or "mostly false." The data was analyzed using the Chi-square and Fishers exact tests.

Result: Many more third-year students (39, or 54.9 %) than fourth-year students (35, or 39.3 %) reported that they had gained confidence and improved their interpersonal skills as a result of their medical posting, and that they had been able to do a wider variety of work in a community setting than in a department.

Conclusion: Clinical instruction away from the student's home dental school, known as "outreach," gives students access to facilities and equipment that might otherwise be inaccessible. Practice settings vary according to factors such as local culture, needs, available resources, and patient population, but they all teach students valuable lessons about the real-world challenges they'll face in their chosen careers.

Keywords: Community based learning, Community Setting, Outreach posting, Secondary care.

Introduction:

The term "dental outreach teaching" refers to courses that are offered at a location that is not in close proximity to a dental school or other conventional dental education provider.¹ Outreach training improved clinical maturity by exposing students to a variety of treatments.² Due to population growth, auxiliary dental personnel are in high demand, so students must be trained in primary and secondary community health care settings to solve the urgent needs of the changing world and familiarize them

with real-world situations.^{3,4} Students of health professions are given the opportunity to expand their clinical skills and improve their clinical confidence in this type of health care setting, which goes beyond the confines of the academic environment. In this way, student awareness of various clinical fields, opportunities for careers, and interpersonal skills is increased.^{5,6}

The provision of the vast majority of patient care in all countries takes place not in college or university clinics but rather in nearby hospitals or other establishments. This is the primary reason for the outreach posting of students.⁵ Therefore, it makes sense to rotate all dental students through primary or community health care centers for the purpose of gaining practical experience before they complete their education. Dental students have the opportunity to improve their megamenu skills, their communication skills, and to gain first-hand experience with community problems and the solutions to those problems.⁷ In addition, students have a better opportunity to develop their leadership skills by working with a variety of health care teams in primary health care settings rather than in a classroom.⁸

Students from a variety of dental schools from around the world, including England, Finland, the Netherlands, Australia, and the United States, work together in an off-campus clinic to provide a wide range of dental services to patients.⁹

Learning opportunities have been found to be greater in primary care settings compared to routine dental care settings, but there is very little data available regarding the effects of secondary care settings.² Although evaluation of outreach placements in primary care settings has been the focus of a number of previous papers, the authors of the current study were unable to locate any other study that provided a comparable evaluation of similar secondments in secondary health care settings.^{10,11} It is imperative that an analysis be done as soon as possible to determine whether or not postings of this kind have a positive effect on students' perceptions and whether or not they contribute to personal growth. As a result, a study was commissioned to investigate the impact that the dental students' recent outreach placement in a secondary health care setting had on the overall quality of the teaching and to analyze the dental students' perspectives on that placement.

Methods:

A cross-sectional study was carried out in Acharya Vinobha Bhave Hospital, Sawangi (meghe) Wardha Maharashtra State India, among the third and final BDS undergraduate students of Sharad Pawar Dental college and Hospital Sawangi (M), Wardha. Which is a private dental school affiliated with the Datta Meghe University of Health Sciences, Wardha, India. The purpose of the study was communicated well in advance to the students, and student participation in the research was voluntary. Out of total (200) third and final BDS student 161 of student voluntarily participated in study. The survey consisted of sixteen questions relating to possible sources to assess knowledge, attitude and clinical practice of an undergraduate dental students attending medical postings¹ Students response was recorded on were asked to assess the questionnaire items as "True," "mostly true," "neither true nor false," "false," and "mostly false" on a five-point Likert scale. The survey was administered during one class period. CDC- WHO designed procedures as the questionnaire itself is self-administered and the student's privacy was assured, and the care was taken to keep student's participation anonymous and voluntary. Students completed the questionnaire in the classroom, which consisted of demographic information and questionnaire on how this setting has influenced their viewpoint on learning, type of services and perspectives on diverse working situation. Data was analysed using IBM SPSS statistic version 25 predictive analytics software. Chi square test and Fisher's exact test has been used to find the significance of study parameters on categorical scale between two or more groups. Statistical significance was considered when $p < 0.05$ at 95% confidence interval (CI).

Table 1: Students perception about recent outreach posting

Year	True	Mostly true	Neither true nor false	Mostly false	False	p-value
Question 1	I found medical posting was challenging and stimulating.					
Third year	39(54.9)	21(29.6)	11(15.5)	0	0	0.029*
Final year	35(39.3)	43(48.3)	7 (7.9)	2 (2.2)	2 (2.2)	
Question2	The medical posting was valuable for my personal development.					
Third year	48(67.6)	20(28.2)	3 (4.2)	0	0	0.245
Final year	48(53.9)	34(38.2)	5 (5.6)	2 (2.2)	0	
Question3	I was able to see the full range of work carried out in the department that i visited					
Third year	27(38.0)	18(25.4)	18(25.4)	8 (11.3)	0	0.132
Final year	25(28.1)	38(42.7)	16(18.0)	10(11.2)	0	
Question4	During the medical posting i achieved things that i thought were beyond my personal limits					
Third year	40(56.3)	27(38.0)	3(4.2)	1(1.4)	0	0.203
Final year	35(39.3)	29(32.6)	20(22.5)	5(5.6)	0	
Question5	I learned a lot from the clinical teaching provided during my medical posting					
Third year	33(46.3)	26(36.6)	11(15.5)	1(1.4)	0	0.768
Final year	39(43.8)	39(43.8)	10(11.2)	1(1.4)	0	
Question6	Medical the posting has increased my knowledge and understanding					
Third year	40(56.3)	27(38.0)	3(4.2)	1(1.4)	0	0.997
Final year	51(57.3)	33(37.1)	4(4.5)	1(1.1)	0	
Question7	I gained additional clinical experiences which i would not have had in the dental hospital					
Third year	28(39.4)	29(40.8)	12(16.9)	2(2.8)	0	0.230
Final year	48(53.9)	30(33.7)	8(9.0)	3(3.4)	0	
Question 8	I gained additional non-clinical experiences which I would not have had in the dental hospital					
Third year	30(42.3)	23(32.4)	11(15.5)	7(9.9)	0	0.529
Final year	32(36.0)	34(38.2)	18(20.2)	5(5.6)	0	
Question9	This programme made me more aware of the roles that health/dental professional can have in the community					
Third year	41(57.7)	20(28.2)	8(11.3)	2(2.8)	0	0.841
Final year	49(55.1)	28(31.5)	11(12.4)	1(1.1)	0	
Question10	During this experience, i became more comfortable working with people different from myself					
Third year	40(56.3)	24(33.8)	5(7.0)	2(2.8)	0	0.307
Final year	39(43.8)	39(43.8)	10(11.2)	1(1.1)	0	
Question11	The whole experience of outreach has increased my awareness of dentistry outside the hospital setting					
Third year	33(46.5.)	25(35.2)	9(12.7)	4(5.6)	0	0.033*
Final year	38(42.7)	43(48.3)	8(9.0)	0	0	
Question12	I have been able to refer patients to other dental care professionals as part of routine dental care					
Third year	28(39.4)	27(38.0)	11(15.5)	5(7.0)	0	0.264
Final year	35(39.3)	43(48.3)	8(9.0)	2(2.2)	1(1.1)	
Question13	I have had experience of working with other health care professionals					
Third year	29(40.8)	22(31.0)	13(18.3)	7(9.9)	0	0.052*
Final year	35(39.3)	42(47.2)	9(10.1)	2(2.2)	1(1.1)	
Question14	I have been able to undertake whole patient care					
Third year	19(26.8)	26(36.6)	13(18.3)	13(18.3)	0	0.041*
Final year	28(31.5)	41(46.1)	16(18.0)	4(4.5)	0	

<i>Question15</i>	I am aware of the skills necessary to communicate with patients for whom English is difficult.					
Third year	44(62.0)	18(25.4)	8(11.4)	1(1.4)	0	0.140
Final year	44(49.4)	38(42.7)	6(6.7)	1(1.1)	0	
<i>Question16</i>	I better understand how culture can affect patient dental experience and attitude.					
Third year	38(53.5)	21(29.6)	10(14.1)	2(2.8)	0	0.017*
Final year	47(52.8)	39(43.8)	3(3.4)	0	0	

*P<0.05 Significant.

Result

This study was undertaken to assess knowledge, attitude, personal development and clinical practice of an undergraduate dental students attending medical postings. This study was carried in Sharad Pawar Dental College, among which 161 undergraduate students participated, 71 were from third year and 90 were final year BDS students.

The significantly higher number of third year students 39 (54.9%) found medical posting challenging and stimulating compared to final year students 35 (39.3%). Similarly, more number of third year students 48(67.6%) described that personal development during medical posting was worthwhile when compared to final year students 48(38.2%). When participants asked whether they were able to see the full range of work carried out in the department, maximum score was obtained from final year students 38(42.7%) as compared to third year students 18(25.4%). It was found that during the medical posting of third year student 40(56.3%) achieved things that they thought were beyond their personal limits as compared to final year students 35(39.3%). According to 33(46.3%) of third year students, they learned a lot from the clinical teaching provided during medical posting as compared to final year students 39(43.8%). Moreover, final year student 51(57.3%) achieved maximum knowledge and understanding during their medical posting as compared to third year students 40(56.3%) it was also observed that final year student 48(53.9%) gained additional clinical experiences which they would not have in the dental hospital as compared to third year students 28(40.8%).

It was noticed that third year students 30(42.3%) gained additional non-clinical experiences which they would not have in the dental hospital when compared to final year students 32(38.2%). Outreach program significantly created more awareness among third year students 41(57.7%) of their roles, as a health/dental professional can have in the community as compared to final year students 49(55.1%). While final year students 43(48.3%) valued and experienced more than 25(35.2%) third year students, that Outreach has increased awareness of dentistry outside the hospital setting and the difference was found to be significant.

It was found that 43(48.3%) of final year students were more confident in referring patients to other dental care professionals as part of routine dental care when compared with 27(38.0%) of third year students. Experience of working with other health care professionals was especially enjoyed more by final year students 42(47.2%) as compared to third year students 22 (31.0%) and the difference was found to be significant. Whole patient care was better undertaken completely by Final year students 41(46.1%) as compared to third year students 26(36.6%) and the difference was found to be significant. Among third year and final year, third year students 44(62.0%) were more comfortable to communicate with patients for whom English is difficult than final year students 44(49.4%). On observation better understanding about culture which affect patient dental experience and attitude was greatly taken care by third students 38(53.5%) than final year students 47(52.8%) and the difference was found to be significant.

Discussion:

It is possible to deliver these learning experience goals through outreach teaching. The purpose of this study of outreach placement was to provide dental undergraduate students with broader educational experiences (i.e. knowledge, attitude, and personal development) of secondary care. In this setting, dental students will have the opportunity to practice a wide range of clinical procedures, as well as

become familiar with the primary healthcare system and acquire a more comprehensive understanding of the social factors that contribute to oral disease.^{12,13}

It is important for educational institutions to be aware that learning outcomes can vary from site to site, despite the fact that such secondments unquestionably provide many students with valuable experience and opportunities. It's possible that the order in which individual secondments were completed had an adverse effect on the educational opportunities that were made available to undergraduates.^{5,14} According to the findings of the current research, the vast majority of students believed that the outreach clinic was beneficial for their personal development, and that participating in outreach clinic practices helped them gain clinical confidence. These findings were very similar to those obtained in an earlier evaluation that was carried out in Sweden. In that evaluation, the outreach model received consistently positive ratings over the course of the five years that the study was carried out. These findings were very similar to those obtained.^{6, 15}

This study used qualitative semi-structured interviews to assess the students' perceptions of the value of secondary care outreach learning as well as the feasibility of providing such learning. In the current study, almost all of the students who participated in the free-text comments provided a favorable attitude toward outreach training. They liked the outreach training for reasons that were comparable to those reported in earlier studies,^{5,16} including a setting that encourages growth through education. Students valued the extensive and varied clinical experience they gained while working in a secondary care clinic with nursing support and immediate supervision. This experience was invaluable to their education. They reported working together as a team, increasing their self-confidence, and developing more holistic and practical perspectives on the treatment planning process. In some instances, difficulties with organization or communication prevented the intended learning experiences from being fully realized.² Outreach teaching can be valuable¹⁷ the quality of the teaching and the value of the secondment may vary. The students gave off an optimistic vibe when discussing the possible role that outreach training could play in dental education to improve students' knowledge and abilities.¹⁸ They reported that they were excited to participate in training in an outreach teaching unit, and they discussed their role as a dentist in the community.⁶ Increased student confidence as a result of outreach placement is supported by the existing literature, as was reported in this study as a consequence of outreach placement.^{2,14} In a manner that is consistent with the findings of Smith et al., participants in the outreach placement were given the opportunity to gain confidence, which was reflected in their increased comprehension of multidisciplinary teamwork.⁵ The ability to communicate effectively with one's dental team is regarded as the third most important single skill that a "good dentist" should possess, placing it behind only the ability to communicate effectively with patients and diagnostic skills.¹⁹ It is important to note that this assessment was carried out on a single year group, which may restrict the work's applicability to other contexts in the real world. Due to the fact that the survey was administered towards the end of the final year, a large number of students responded to it several months after they had completed their placement. This may have encouraged a sense of detachment and reflection bias.

Conclusion:

The results of this survey provide us with information regarding the secondary care sector, where quality management plays an equally important role in ensuring that students receive the stable and beneficial educational experience that is, without a doubt, attainable. Outreach is clinical teaching that takes place at a location other than the student's home dental school. It gives students access to resources that are not easily accessible on campus. It varies according to local cultures, needs, available facilities, and patient base; however, all of them provide students with the invaluable experience of working in practice environments, thereby preparing them for the demands of the profession in the real world.

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Conflict of interest

The authors deny any conflicts of interest.

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