Original Article

A Study on Assessment of Clinical Education Standards of an Indian Government Dental College by Students

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ABSTRACT

Background: Dental education system lays the foundation of the professional life of dentists. The Indian dental education system faces many challenges; less importance to students' opinions, health system challenges and political uncertainties. The aim of this study was to compare the opinions of dental students regarding their clinical education system and to identify the advantages and disadvantages of the clinical education system. **Materials and Methods:** Clinical Education Instructional Quality questionnaire (ClinED IQ) was used. It allows assessment of qualitative and quantitative information on student perceptions of clinical teaching skills of faculty and other factors. Undergraduate dental students attending clinics (3rd year (n=30), 4th year (n=30) and interns (n=34)) participated in the study. **Results:** 87% students felt they had experienced a good mix of patients, problems, and clinical experiences (p=0.019**)**. 56% felt diverse learning opportunities and mix of patients, preventing them from developing proficiency (p=0.032**).** Eighty-eight percent of students felt improvement in their communication and skills (p=0.025**)** with the patient. Students significantly felt that sometimes time is wasted with non-educational tasks. (p=0.030**)**, and they did not feel a useful member of the health care team (p=0.024**).** A statistically significant number of students felt discouraged from taking risks or trying new things (p=0.017). **Conclusion:** Students experience a good mix of clinical learning opportunities however they do not feel involved as a part of health care team. Their time gets wasted in many non-clinical activities. Modifications are required in the present education system giving more importance to student's perspectives.

Key words: *Clinical learning opportunities, Clinical teaching skills, Dental education, Indian dental education*

The global education system has evolved rapidly over years and will continue to do so as new teaching methodologies, skills and techniques for training students emerge. But judging the effectiveness of these methodologies is not possible until we identify deficiencies in the existing education system and environment. The skills and techniques that students develop during clinical education should be contingent with their interactions with faculty [1]. Exactly what instructional practices are likely to produce a high-quality learning environment in dental college clinics is not clearly understood. So, in much the same way as clinicians look for best practice evidence to guide patient care, clinical educators need evidence to evaluate the effectiveness of clinical teaching strategies.

Clinical teaching plays a pivotal role in dental education [2], and hence the importance of skilled and effective clinical teachers is acknowledged by all, dental students, faculty and administrators [3]. Several factors affect the student's learning capabilities and knowledge such as the student himself, instructor, staff, interpersonal

relations, attitudes, learning atmosphere, facilities, equipment and physical structure of the department [4]. All these factors must be assessed to make sure that the clinical environment is helpful and advantageous for learning.

Driven by the need to be at par with global educational standards, there has been an upsurge of interest in answering: What college environment factors, teacher behaviours, and teacher characteristics are perceived by students to be associated with quality instruction and effective learning? As students are the main stakeholders, taking their opinion is crucial [5]. Jain et al, conducted a study on perceptions of dental students towards learning environment in an Indian scenario and found that the students perceived their learning environment as negative. Students are the ones who are affected the most from their learning environment but they have the least amount of freedom to change their learning environment; as a result, the flexibility subscale was rated the lowest by preclinical and clinical phase both [6].

Some of the negative experiences reported by students in the clinical system are not enough faculty coverage on the floor at all times, inconsistent and condescending feedback by faculties, too much "leg work" like tracking patients, completing paperwork, scheduling appointments and performing other clinical tasks, and the impact of chasing requirements to complete their clinical quota [1].

Only few have studied clinical teaching effectiveness in dental colleges [1,2,7-9]. No such study has been conducted to evaluate the effectiveness of clinical dental education in India using a validated questionnaire. The objectives of this study are: to study perspectives and opinions of dental students regarding their clinical education and to compare findings obtained from this study with literature on clinical teaching effectiveness in other countries. This study will also discuss the implications of data obtained for clinical education improvement and faculty development.

MATERIALS AND METHODS

This is a cross-sectional study completed in one year and approved by the Institutional Ethical Board of the University. The study population was undergraduate students attending clinics, (3rd year, 4th year and dental interns) who gave their consent. G* Power statistical software was used. Keeping 80% power 5% a –error sample size was calculated as N=284.

A validated clinical teaching assessment instrument-Clinical Education Instructional Quality questionnaire (ClinED IQ) that allows assessment of qualitative and quantitative information on student perceptions of clinical teaching skills of faculty and other factors that influence learning in clinics was used. **(Table 1)** ClinED IQ questionnaire was originally developed by Shipengrover and James [17]. It is based on the original questionnaire "MedED IQ" and has internal consistency coefficients ranging from 0.87 and 0.94 [10-13]. The ClinED IQ contains forty-five questions, forty-three of which are in a forced-option (multiple choice) response format and two are open-ended.

Multiple choice questions are broken into three subscales. **(Table 1)** Clinical Learning Opportunities (15 items), Involvement in specific learning activities (13 items), and Interaction with clinical instructors (15 items).

The Clinical learning opportunities subscale assesses aspects of the overall learning environment in dental college clinics including variety and challenge level of patient care experiences, the efficiency of clinic operations, adequacy of resources and support, consistent contact with a core of instructors and opportunity to work in different health care settings.

Involvement in specific learning Activities subscale asks the students to assess the extent to which they performed various patients care tasks during their clinical education. Interaction with the clinical instructor's subscale asks the students to assess specific teaching skills of the clinical faculty including instructional best practices.

These items were measured as Agreement to the presence of opportunity of clinical learning and interaction with instructors (1) or disagreement (0). Involvement in specific learning activities was also scored as no exposure (0), or exposed (6). Participants were asked to answer all questions. Incomplete questionnaires were excluded.

Data obtained was analyzed to obtain mean and standard deviations for each student group (3rd year, 4th year BDS students and dental interns) and the overall composite mean for each ClinED IQ subscale using SPSS (version 17) software.

Table 1: Clinical Education Instructional Quality questionnaire (ClinED IQ)

No	SUBSCALE		
	Subscale 1: Clinical learning opportunities	**Subscale 2: Involvement in specific learning activities**	**Subscale 3: Interaction with clinical instructors**
1	I have experienced a good mix of patients, problems, and clinical experiences	Taking patient histories	Established an active role for me in patient care and gave me responsibility for managing patient care that was appropriate for my level of training
2	The learning opportunities and mix of patients were too diverse, preventing me from developing proficiency	Performing patient examinations	Failed to prepare me for patient encounters
3	My experiences were repetitive and offered few new learning experiences	Taking the patient's vital signs	Gave me specific and practical information that helped me improve skill
4	I increased my independence in caring for patients	Interpreting laboratory tests	Instructed me at my level of knowledge and expertise rather than at their level of knowledge
5	I improved my communication and skills	Assessing radiographic images	Provided consistent instruction and feedback
6	I became more proficient in clinical skills because of opportunities to practice and receive feedback	Developing my own treatment plans	Brought to my attention techniques and strategies that I had previously not seen
7	I have had the opportunity to work in a variety of patient care settings	Making case presentations to instructors	Made every patient encounter a positive learning experience
8	I have experienced a good mix of patients, problems, and clinical experiences	Explaining the pathophysiology of patients' health problems to instructors and answering questions about pathophysiology	Created an environment in which I felt comfortable accepting challenges, even at the risk of making mistakes and encouraged me to ask questions without fear of being "put down"
9	Things moved too fast for me to really learn anything	Discussing assessment and diagnosis with patients	Improved my understanding of clinical practice
10	I felt like my time in clinic was sometimes wasted with non-educational tasks e.g. calling patients for appointments, doing paperwork, standing in line at the cashier or dispensary, and waiting for faculty to check my work	Providing patient education	Discouraged me from taking risks or trying new things
11	The clinic functioned smoothly so that I could efficiently provide patient care	Discussing the linkage of basic science concepts and clinic knowledge with my teachers in the clinic	Did not check my work frequently and did not provide me with timely feedback when I needed it
12	I did not feel like a useful member of the health care team	Discussing the linkage of oral and systemic health problems with clinical instructors	Demonstrated the value of respecting patient preferences even when they differed from my own
13	Support staff have been available and helpful	Assisting faculty or residents with advanced procedures	Encouraged me to become increasingly independent over time
14	I had adequate resources available to me, which facilitated my learning	-	Criticized me without offering suggestions for improvements
15	For most of my clinical education, I have worked consistently with same instructors who know my abilities & learning need rather than having different instructors every day	-	Responded promptly to requests for consultation, assistance, feedback, or evaluation

Analysis of handwritten and open-ended responses was done thematically. Interpretation of themes was done by a collaborative effort between investigator, mentors and an expert with extensive experience in the qualitative analysis as suggested by Denzin and Lincoln [14], to eliminate bias or assumptions that may arise when data is reviewed. The technique used for thematic representation and data coding was based on a protocol recommended by Taylor and Bogdan [15], which includes: 1) looking for words or phrases that capture the meaning of what is said; 2) as a theme is identified, comparing statements with other subjects and seeing if there is a concept that unites them; and 3) as different themes are identified, looking for similarities between them. An Analysis of variance was applied to determine if the responses of the three classes of students (3rd year, 4th year BDS students and BDS interns) were different. The combined scores were interpreted to assess current standards of clinical education in this government dental college as perceived by students.

Continuous data were summarized as Mean ± SD (standard deviation) while discrete data (categorized) in number and percent. Continuous groups were compared by one-way analysis of variance (ANOVA) followed by Tukey's post hoc test while categorical groups were compared by chi-square (χ^2) test. A two-tailed p-value less than 0.05 ($p<0.05$) was considered statistically significant. Analyses were performed on SPSS software (Windows version 17.0).

RESULTS

The present study assessed clinical education standards of a Government Dental College, by students. Total 94 BDS students, 30 BDS IIIrd Year, 30 BDS IVth Year and 34 Interns of both genders were recruited. The age of all students ranged from 19-26 years with a mean (± SD) of 23.02 ± 1.64 years and a median of 23 yrs. Among students, sixty-six percent of the students were females and thirty-four percent were males **(Table 2)**. Comparing the Mean age of BDS IIIrd year, IVth year, and Intern students by ANOVA showed no statistical difference. Comparing the gender frequency between the three groups, (χ^2=0.33, p=0.846) also showed no statistical difference. In other words, subjects of three groups were age and gender-matched and hence comparable.

Table 2: Demographic characteristics of three groups (n=94)

Demographic characteristis		BDS IIIrdyr (n=30) (%)	BDS IVthyr (n=30) (%)	INTERNS (n=34) (%)	χ^2 value	p value
Age (yrs)	Mean ± SD	22.53 ± 1.70	23.50 ±1.57	23.03 ± 1.57	2.70	0.072
	Range	(20-26)	(21-26)	(19-25)		
Gender	Female	21 (70.0)	19 (63.3)	22 (64.7)	0.33	0.846
	Male	9 (30.0)	11 (36.7)	12 (35.3)		

Subscale 1: Clinical Learning Opportunities

Comparing agreement/non-agreement to the presence of clinical learning opportunity response (15 items) the χ^2 test showed that a significant percentage of students (87%) felt they had experienced a good mix of patients, problems, and clinical experiences (Item 1) **(χ^2=7.94,p=0.019)**, though 56% felt that learning opportunities and mix of patients were too diverse, preventing them from developing proficiency (Item 2) **(χ^2=10.56, p=0.032).** Eighty-eight percent of students felt they had improved their communication and skills (Item 5) **(χ^2=7.37, p=0.025)** with the patient. Students significantly felt that my time in the clinic was sometimes wasted with non-educational tasks. (Item 10) **(χ^2=10.70, p=0.030)**, and they did not feel a useful member of the health care team (Item 12) **(χ^2=11.28, p=0.024).** Subjects **(**61%) felt they had adequate resources available to facilitate learning (Item 14) **(χ^2=16.34, p=0.003)**. For other items, responses did not differ significantly among the groups **(Table 3)**.

Subscale 2: Involvement in Specific Learning Activities

Students felt significantly higher involvement in activities like taking the patient's vital signs (Item 3) **(χ^2=12.06, p=0.017)** and providing patient education (Item 10) (61%) **(χ^2=11.23, p=0.024).** Responses to other items did not differ significantly in the level of involvement. **(Table 4)**

Subscale 3: Interaction with Clinical Instructors

A statistically significant number of students felt discouraged from taking risks or trying new things (Item

10) (χ^2=12.03, p=0.017), work was not checked frequently and timely feedback was not provided. (Item 11) (χ =15.67, p=0.003). However, a significantly greater number of students felt that instructors demonstrated the value of respecting patient preferences even when they differed from the student (Item 12) (χ^2=11.06, p=0.026) and encouraged them to become increasingly independent (Item 13) (χ^2=14.59, p=0.006).There was no specific learning of student's opinions on other items in the subscale. **(Table 5)**

DISCUSSION

Success of dental education largely depends on the educators in terms of quality and number of faculty members [16]. Student's perspective is very important in assessment of problems in dental education and in building and planning of student's development program. Students are the "consumer" of dental education and their lack of input is striking, and a long-standing perception within the dental education community is that the students do not like their experiences in dental school, perhaps because of an overly stressful learning environment [17]. This study reveals the perception of study participants in clinical learning. It was observed that the study participants experienced good clinical learning opportunities, especially concerning patient care. A road map for dental educators can be made by identifying the areas of concern from the dental students' perspective that will help in revising the curriculum [18].

Indian dental education system encounters some serious 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 more curative and only high-end dentistry, these factors have often pushed the dentists to migrate to the developed countries [19].

Government Dental hospitals offer good clinical exposure. Rural patients comprise the maximum patient population in government colleges, so dental students are exposed to a variety of innumerable clinical cases. They are mastering the clinical skills, which is the primary motto for Dental practice [20]. Commercialized private institutions also offer a good education but it has been observed that few may face financial constraints in later periods of their establishments, resulting in a lack of maintenance in infrastructure and short of faculty resulting in the downfall of standards [21].

Dental education should not only develop good clinical skills but, effective communication skills with patients, active listening skills, gathering and imparting information effectively, handling patient emotion sensitively, demonstrating empathy, rapport, ethical awareness, and professionalism are also crucial [22]. In this study major percentage of students showed a good mix of clinical exposure while many felt uninvolved in the clinics. **(Table 3)** Patient load sometimes deterrent the quality.

The requirement or quota system has an inappropriate emphasis, and therefore, it is a major concern for the students and also a common area of complaint, where the students feel compelled to act sometimes unethically toward patients being pressurized by the quota system to complete the required number of clinical cases [23]. This situation can be avoided and will be of benefit to both the students and patients, if the emphasis of clinical training is shifted to the quality of clinical cases from the number of cases [24].

Table 3: Distribution of clinical learning opportunities of three groups (n=94)

Item No	Subscale 1: Clinical learning opportunities	BDS IIIrd year (n=30) (%)	BDS IVth year (n=30) (%)	INTERNS (n=34) (%)	TOTAL (n=94)(%)	χ^2 value	p value
1.	Agree	26 (86.7)	30 (100.0)	26 (76.5)	82 (87.2)	7.94	0.019
	Disagree	4 (13.3)	0 (0.0)	8 (23.5)	12 (12.8)		
	No reply	0 (0.0)	0 (0.0)	0 (0.0)	0 (0)		
2	Agree	19 (63.3)	10 (33.3)	24 (70.6)	53(56.32)	10.56	0.032
	Disagree	10 (33.3)	19 (63.3)	10 (29.4)	39(41.4)		
	No reply	1 (3.3)	1 (3.3)	0 (0.0)	2(0.02)		
3	Agree	16 (53.3)	18 (60.0)	18 (52.9)	52 (55.3)	2.80	0.592
	Disagree	14 (46.7)	11 (36.7)	16 (47.1)	41(43.6)		

	No reply	0 (0.0)	1 (3.3)	0 (0.0)	1(0.01)		
4	Agree	26 (86.7)	24 (80.0)	25 (73.5)	75 (79.78)	2.99	0.559
	Disagree	4 (13.3)	6 (20.0)	8 (23.5)	18 (19.14)		
	No reply	0 (0.0)	0 (0.0)	1 (2.9)	1 (0.01)		
5	Agree	28 (93.3)	29 (96.7)	26 (76.5)	83 (88.29)	7.37	0.025
	Disagree	2 (6.7)	1 (3.3)	8 (23.5)	11 (11.70)		
	No reply	0 (0.0)	0 (0.0)	0 (0.0)	0 (0)		
6	Agree	28 (93.3)	20 (66.7)	29 (85.3)	77(81.91)	8.58	0.073
	Disagree	2 (6.7)	8 (26.7)	3 (8.8)	13(13.82)		
	No reply	0 (0.0)	2 (6.7)	2 (5.9)	4(0.04)		
7	Agree	20 (66.7)	24 (80.0)	22 (64.7)	66(70.98)	8.52	0.074
	Disagree	10 (33.3)	3 (10.0)	11 (32.4)	24(25.53)		
	No reply	0 (0.0)	3 (10.0)	1 (2.9)	4(0.04)		
8	Agree	25 (83.3)	26 (86.7)	27 (79.4)	78(82.97)	1.77	0.778
	Disagree	5 (16.7)	3 (10.0)	6 (17.6)	14(14.89)		
	No reply	0 (0.0)	1 (3.3)	1 (2.9)	2(0.02)		
9	Agree	12 (40.0)	10 (33.3)	9 (26.5)	31(32.97)	5.17	0.270
	Disagree	18 (60.0)	17 (56.7)	24 (70.6)	59(62.76)		
	No reply	0 (0.0)	3 (10.0)	1 (2.9)	4(0.04)		
10	Agree	27 (90.0)	23 (76.7)	33 (97.1)	83(88.29)	10.70	0.030
	Disagree	3 (10.0)	7 (23.3)	0 (0.0)	10(10.63)		
	No reply	0 (0.0)	0 (0.0)	1 (2.9)	1(0.01)		
11	Agree	13 (43.3)	19 (63.3)	12 (35.3)	44 (46.80)	8.12	0.087
	Disagree	17 (56.7)	11 (36.7)	20 (58.8)	48 (51.60)		
	No reply	0 (0.0)	0 (0.0)	2 (5.9)	2 (0.02)		
12	Agree	8 (26.7)	5 (16.7)	17 (50.0)	30 (31.91)	11.28	0.024
	Disagree	20 (66.7)	25 (83.3)	16 (47.1)	61 (64.89)		
	No reply	2 (6.7)	0 (0.0)	1 (2.9)	3 (0.03)		
13	Agree	21 (70.0)	18 (60.0)	20 (58.8)	59 (62.76)	3.61	0.461
	Disagree	8 (26.7)	12 (40.0)	14 (41.2)	34 (36.17)		
	No reply	1 (3.30)	0 (0.0)	0 (0.0)	1 (0.01)		
14	Agree	11 (36.7)	18 (60.0)	28 (82.4)	57(60.63)	16.34	0.003
	Disagree	19 (63.3)	11 (36.7)	6 (17.6)	36 (38.29)		
	No reply	0 (0.0)	1 (3.3)	0 (0.0)	1 (0.01)		
15	Agree	13 (43.3)	13 (43.3)	11 (32.4)	37 (39.36)	5.81	0.214
	Disagree	17 (56.7)	15 (50.0)	23 (67.6)	55 (58.51)		
	No reply	0 (0.0)	2 (6.7)	0 (0.0)	2 (0.02)		

Table 4: Distribution of involvement in specific learning activities of three groups (n=94)

Item No	Subscale 2: Involvement in specific learning activities	BDS IIIrd year (n=30) (%)	BDS IVth year (n=30) (%)	INTERNS (n=34) (%)	TOTAL (n=94)(%)	χ^2 value	p value
1.	High involvement	19 (63.3)	24 (80.0)	24 (70.6)	67 (71.27)	5.87	0.209
	Low involvement	11 (36.7)	6 (20.0)	8 (23.5)	25 (26.59)		
	No reply	0 (0.0)	0 (0.0)	2 (5.9)	2 (0.02)		
2	High involvement	19 (63.3)	16 (53.3)	16 (47.1)	51 (54.25)	5.43	0.246
	Low involvement	11 (36.7)	13 (43.3)	14 (41.2)	25 (26.59)		

	No reply	0 (0.0)	1 (3.3)	4 (11.8)	5 (0.05)		
3	High involvement	9 (30.0)	18 (60.0)	21 (61.8)	4 (51.06)	12.06	0.017
	Low involvement	21 (70.0)	10 (33.3)	11 (32.4)	42 (44.68)		
	No reply	0 (0.0)	2 (6.7)	2 (5.9)	4 (0.04)		
4	High involvement	10 (33.3)	9 (30.0)	9 (26.5)	28 (29.78)	1.99	0.738
	Low involvement	20 (66.7)	20 (66.7)	23 (67.6)	63 (67.02)		
	No reply	0 (0.0)	1 (3.3)	2 (5.9)	3 (0.03)		
5	High involvement	16 (53.3)	16 (53.3)	18 (52.9)	50(53.19)	0.36	0.986
	Low involvement	13 (43.3)	13 (43.3)	14 (41.2)	40(42.55)		
	No reply	1 (3.3)	1 (3.3)	2 (5.9)	4(0.04)		
6	High involvement	6 (20.0)	6 (20.0)	11 (32.4)	23(24.46)	3.93	0.415
	Low involvement	24 (80.0)	23 (76.7)	21 (61.8)	68(72.34)		
	No reply	0 (0.0)	1 (3.3)	2 (5.9)	3(0.03)		
7	High involvement	12 (40.0)	14 (46.7)	15 (44.1)	41 (43.61)	3.84	0.429
	Low involvement	8 (60.0)	13 (43.3)	17 (50.0)	38 (40.42)		
	No reply	0 (0.0)	3 (10.0)	2 (5.9)	5 (0.05)		
8	High involvement	17 (56.7)	9 (30.0)	13 (38.2)	39 (41.48)	7.23	0.124
	Low involvement	13 (43.3)	20 (66.7)	18 (52.9)	51 (54.25)		
	No reply	0 (0.0)	1 (3.3)	3 (8.8)	4 (0.04)		
9	High involvement	23 (76.7)	19 (63.3)	23 (67.6)	65(69.14)	3.23	0.520
	Low involvement	7 (23.3)	9 (30.0)	8 (23.5)	24(25.53)		
	No reply	0 (0.0)	2 (6.7)	3 (8.8)	5(0.05)		
10	High involvement	23. (76.7)	21 (70.0)	23 (67.6)	65 (69.14)	11.23	0.024
	Low involvement	7 (23.3)	7 (23.3)	8 (23.5)	24 (25.53)		
	No reply	0 (0.0)	2 (6.7)	3 (8.8)	5 (0.05)		
11	High involvement	13 (43.3)	14 (46.7)	22 (64.7)	49 (52.12)	6.31	0.177
	Low involvement	17 (56.7)	15 (50.0)	10 (29.4)	42 (44.68)		
	No reply	0 (0.0)	1 (3.3)	2 (5.9)	3 (0.03)		
12	High involvement	15(50.0)	14 (46.7)	13 (38.2)	42 (44.68)	3.89	0.422
	Low involvement	15 (50.0)	13 (43.3)	19 (55.9)	47 (0.5)		
	No reply	0 (0.0)	3 (10.0)	2 (5.9)	5 (0.05)		
13	High involvement	11 (36.7)	10 (33.3)	16 (47.1)	37 (39.36)	3.59	0.464
	Low involvement	19 (63.3)	18 (60.0)	16 (47.1)	53 (56.38)		
	No reply	0 (0.0)	2 (6.7)	2 (5.9)	4 (0.04)		

Table 5: Distribution of interaction with clinical instructors of groups (n=94)

Item No	Subscale 3: Interaction with clinical instructors	BDS IIIrd year (n=30) (%)	BDS IVth year (n=30) (%)	INTERNS (n=34) (%)	TOTAL (n=94)(%)	χ^2 value	p value
1.	Agree	26 (86.7)	27 (90.0)	31 (91.2)	84(89.36)	1.42	0.841
	Disagree	3 (10.0)	3 (10.0)	2 (5.9)	8(8.51)		
	No reply	1 (3.3)	0 (0.0)	1 (2.9)	2(0.02)		
2	Agree	11 (36.7)	6 (20.0)	7 (20.6)	24(25.53)	4.65	0.325
	Disagree	19 (63.3)	22 (73.3)	26 (76.5)	67(71.27)		
	No reply	0 (0.0)	2 (6.7)	1 (2.9)	3(0.03)		
3	Agree	27 (90.0)	25 (83.3)	28 (82.4)	60(63.8)	2.64	0.620
	Disagree	3 (10.0)	3 (10.0)	5 (14.7)	11(11.7)		

	No reply	0 (0.0)	2 (6.7)	1 (2.9)	3(0.03)		
4	Agree	18 (60.0)	12 (40.0)	19 (55.9)	49(52.1)	5.06	0.281
	Disagree	12 (40.0)	16 (53.3)	12 (35.3)	40(42.6)		
	No reply	0 (0.0)	2 (6.7)	3 (8.8)	5(0.05)		
5	Agree	24 (80.0)	20 (66.7)	28 (82.4)	72(76.59)	3.03	0.553
	Disagree	4 (13.3)	8 (26.7)	4 (11.8)	16(17.02)		
	No reply	2 (6.7)	2 (6.7)	2 (5.9)	6(0.06)		
6	Agree	23 (76.7)	14 (46.7)	19 (55.9)	56(59.57)	8.16	0.086
	Disagree	7 (23.3)	13 (43.3)	14 (41.2)	34(36.17)		
	No reply	0 (0.0)	3 (10.0)	1 (2.9)	4(0.04)		
7	Agree	22 (73.3)	20 (66.7)	31 (91.2)	73(77.65)	7.99	0.092
	Disagree	7 (23.3)	8 (26.7)	1 (2.9)	16(17.02)		
	No reply	1 (3.3)	2 (6.7)	2 (5.9)	5(0.05)		
8	Agree	19 (63.3)	21 (70.0)	19 (55.9)	59(62.76)	1.57	0.814
	Disagree	9 (30.0)	8 (26.7)	13 (38.2)	30(31.91)		
	No reply	2 (6.7)	1 (3.3)	2 (5.9)	5(0.05)		
9	Agree	27 (90.0)	25 (83.3)	30 (88.2)	82(87.23)	4.18	0.382
	Disagree	3 (10.0)	2 (6.7)	1 (2.9)	6(6.38)		
	No reply	0 (0.0)	3 (10.0)	3 (8.8)	6(0.06)		
10	Agree	4 (13.3)	13 (43.3)	10 (29.4)	27(28.72)	12.03	0.017
	Disagree	26 (86.7)	14 (46.7)	23 (67.6)	63(67.02)		
	No reply	0 (0.0)	3 (10.0)	1 (2.9)	4(0.04)		
11	Agree	6 (20.0)	19 (63.3)	14 (41.2)	39(41.48)	15.67	0.003
	Disagree	24 (80.0)	9 (30.0)	19 (55.9)	52(55.31)		
	No reply	0 (0.0)	2 (6.7)	1 (2.9)	3(0.03)		
12	Agree	25 (83.3)	23 (76.7)	17 (50.0)	65(69.14)	11.06	0.026
	Disagree	3 (10.0)	6 (20.0)	15 (44.1)	24(25.53)		
	No reply	2 (6.7)	1 (3.3)	2 (5.9)	5(0.05)		
13	Agree	20 (66.7)	27 (90.0)	27 (79.4)	74(78.72)	14.59	0.006
	Disagree	10 (33.3)	0 (0.0)	6 (17.6)	16(17.02)		
	No reply	0 (0.0)	3 (10.0)	1 (2.9)	4(0.04)		
14	Agree	10 (33.3)	12 (40.0)	10 (29.4)	32(34.04)	3.26	0.516
	Disagree	20 (66.7)	16 (53.3)	23 (67.6)	59(62.76)		
	No reply	0 (0.0)	2 (6.7)	1 (2.9)	3(0.03)		
15	Agree	18 (60.0)	18 (60.0)	27 (79.4)	63(67.02)	4.16	0.385
	Disagree	11 (36.7)	10 (33.3)	6 (17.6)	27(28.02)		
	No reply	1 (3.3)	2 (6.7)	1 (2.9)	4(0.04)		

Students felt involved in many other activities such as; taking vitals and providing dental education. **(Table 4)** More support staff is needed to perform official and documentation work. 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.

Students did not feel very involved in examination, investigation and treatment of patients or assisting teachers in treatment planning, etc. **(Table 5)** Students must feel 'in control' and should be able to express their views freely and play an active role in decision making. This forms the basis of dental education [25]. Students were happy with their clinical instructors about making them independent and respecting patient's opinions while many felt discouraged from taking risks or trying new things **(Table 5).** Looking back at the beginning of the corporation, the benefits have outweighed the liabilities. The corporation school the flexibility to adjust to changes in the

educational and administrative environment provided a framework to increase overall student productivity (and learning) and facilitated better working conditions in the patient-centered clinics. With input from the student government officers, incentives in the form of partial waivers of clinic use and clinical board examination fees were introduced. Students became eligible for such incentives when they completed their clinical requirements. It was thought that the incentive program would increase overall student productivity and learning, but while there was general faculty support for this approach, the incentive program was not successful in materially increasing student productivity. Incentives to corporate staff were not considered because of concern that side-by-side state employees were not eligible for such consideration [20].

To improve students' quality of life and well-being, enhance their total educational experience and positively influence their future as oral health physicians, students perceptive should be taken into consideration in all discussions and decisions regarding dental education.[25]The significance of students' feedback and opinion in modifying the dental curriculum is evident and supported by many [26,27].

CONCLUSION

Through this study, an attempt was made to understand students' views of their dental school curriculum and also to evaluate the areas of strength and weaknesses. Students experience a good mix of clinical learning opportunities and feel that they have improved their communicating skills and felt encouraged when the clinical educators give preference to their opinion. However, many students felt that their time is wasted on non-clinical work, and they feel uninvolved in treatment plan making. Many felt discouraged from taking risks or trying new things. An effort should be made to involve students also while modifying or changing the curriculum. Special attention should be given to areas considered deficient in students' opinions. This study identifies the strengths and weaknesses of the current Indian Government clinical dental education system and existing Clinical instructors and if it requires any changes from student's perspectives. The findings from this study will help to guide the planning of faculty development programs for clinical dental instructors and find out areas of improvement required in the present system while identifying the strengths.

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