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**DENTAL STUDENTS ATTITUDE REGARDING THE CLINICAL  
EDUCATION IN DENTAL MEDICINE**

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**Abstract**

The quality of education can be assessed to the highest degree through the students' perceptions regarding a aspect because they are the target group for educational programs Clinical education is an active process by which the students use in practice the theoretical notions that they have learned helped by the clinical teacher. The aim of this study was to evaluate students' attitude regarding clinical education in faculty of Dental Medicine. The study was conducted means of an anonymous questionnaire among fifth- and sixth-year dental students at the Faculty of Dental Medicine, Ovidius University of Constanta. The results showed that the differences between the male and female students' attitudes about clinical education were not significant and dental students have positive attitude regarding clinical education in the Faculty of Dental Medicine. In this study, evaluating the students' perspectives towards clinical education, we have identified a number of strengths that enhanced the students' clinical experience. Also, some weaknesses were identified and give the opportunity of improvement. Our study gives us the occasion to adjust and improve the education quality so that the perceptions of the greater number of students in future years will demonstrate a more positive experience. Also, for increasing vocational aspect and for improving the quality of the students' practical abilities, it is recommended to create confidence in students for treatment of patients during dental education. Further studies can be helpful in finding the educational problems and proper solutions.

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**Keywords:** Clinical training; dental students; educational quality; attitude.

## 1. Introduction

Acquirement and development of clinical skills for dental students are the necessity for effective clinical practice in their future career. Students should become familiar with the clinical skills while a suitable environment and conditions should be provided by the dental faculty for their training. The



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learning and developing of required qualifications in performing clinical skills entails spending time, patience and practice in an appropriate context. Clinical education is an active process by which the students use in practice the theoretical notions that they have learned, and consists of: preparing students for coordinating basic scientific information and fulfilling skills, accompanied by diagnosing, curing, and caring patients, and acquiring different professional skills.

Learning process is affected by several variables such as the student himself, academic staff, interpersonal relations, attitudes, learning atmosphere, facilities, equipment and material structure of the faculty. These factors must be evaluated to make sure that the clinical environment is helpful and conducive to clinical learning.

The training quality at any faculty can best be analyzed by considering the students' perceptions (Henzi, Davis, Jasinevicius, Hendricson, Cintron & Isaacs, 2005). Students can provide an important feedback, which can be beneficial to review the curriculum and improve the overall standard of teaching, as well as the patient treatment (Oliver, et al. 2008). Unfortunately, in many situations the students' opinions often fail to be noticed, especially when considering the future planning of the program (Henzi, et al., 2005; Oliver, et al. 2008). Through evaluation of the students' attitude towards clinical education, the decisional factors can prioritize their educational needs and consequently improve the quality of clinical education programs. With evaluation of student's point of view towards clinical education the faculty leadership can prioritize their training needs and promote attractive educational programs. Also, tutors should have certain characteristics to motivate students on the right direction of clinical education (Mokhtari, Foroozanfar, & Farazi, 2012).

Dentistry is a comprehensive program that requires a lot of efforts, encouragement, and clinical exposure. There are a lot of factors that play a role during the mental development of dental student, and the most important of them is stress. Few of the possible stress factors could be competition, frequent examinations, comparisons between students, teacher - student relationships, patient - student relationships, clinical application of theoretical knowledge. These factors can significantly affect the confidence of the student and influence the way students perceive and experience their education stage. (Divaris, et al., 2008; Lanning, Wetzel, Baines, & Byrne, 2012). The importance of their vocational interests and personality traits in the profession of dentist cannot be challenged because satisfaction of the doctor's professional derived from performing a work that fits within vocational its staff and personality structure can facilitate or alter this performance (Raftu, 2016a).

The aim of all dental students is to succeed in their career. Since dentistry is a mainly clinical specialty in which receiving adequate skills and training are highly important for the graduates' performance in society and in labor market. This means successfully completing their studies, receiving their degree, and being able to insert themselves into the labor market (Raftu, 2016b).

Because the educational system, equipment and performance of teachers are different in dental faculties, so we cannot generalize the results of a study to other dental faculties. Therefore, surveying the students' attitude about the quality of clinical education in different dentistry faculties can surely improve the educational programs and clinical training quality.

## **2. Purpose of the Study**

The aim of the present study was to evaluate dental students' attitude regarding clinical education in faculty of Dental Medicine. In a six-year dental study program, at Faculty of Dental Medicine, Ovidius University of Constanta, students must be able to combine all the theoretical learning abilities with the patient management skills to best manage their patients and provide the required treatments not only to provide comprehensive patient treatment but also to achieve competencies in all the studied disciplines in order to graduate.

## **3. Methods**

The study was conducted in the academic year 2015-2016 by means of an anonymous questionnaire among fifth- and sixth-year dental students (107 persons) at the Faculty of Dental Medicine, Ovidius University of Constanta. The students did not receive incentives to participate in the study and they were under no obligation to complete the questionnaire.

All of the students received verbal information regarding the study from the research group before deciding whether to participate. It was explained to them that there was no right or wrong answer for the questions. The study was anonymous and all information would be available only for the group analysis. The students had the right to refuse participation or to quit at any moment. Verbal consent was obtained from all participants.

In this study, a custom-designed questionnaire was used to evaluate the student perspectives of the clinic education along with the following SWOT components – strengths, weaknesses, opportunities for improvement and perceived threats.

The questionnaire consisted of twenty-seven questions, with three possibilities of response measuring the level of agreement (1 – yes, 2 – no, 3 – I don't know), including the opportunity to write in comments for each question where appropriate. Approximately half of the questions were designed in the positive and half in the negative manner and the other questions asked were about improvements or changes to the program, the clarity of the questions and the demographic variables.

To obtain the maximum response rate and minimize disruption to the study, the questionnaires were distributed following a routine lecture period. The researchers collected the completed questionnaires immediately after their completion.

To analyses the students' responses, we selected a standardized evaluation rubric, the SWOT standard matrix. The components of a SWOT analysis are strengths, weaknesses, opportunities and threats. This concept can be applied in dental education and has been effectively utilized in dental education research (Lanning, et al., 2012).

## **4. Results**

### **4.1. Students' characteristics**

From the total number of 107 fifth- and sixth-year students, 88 (82.24%) completed the questionnaire. The number of students per year of study was 40 for the fifth- and 48 for the sixth-year, so

majority of participants were sixth year students. As it is indicated in table 1, the respondents were mainly female (77.27%, n=68) and the students age ranged between 26 and 30 years old (year of birth between 1986 and 1990).

**Table 1.** Characteristics of the study participants (N = 88)

Characteristics	n	Percentage
<b>Gender</b>		
Male	20	22.72
Female	68	77.27
<b>Year of study</b>		
V	40	45.45
VI	48	54.54
<b>Total</b>	<b>88</b>	<b>100</b>

#### 4.2. The student Responses to the Questionnaire

The students' responses to the questions revealed no significant difference between the male and female students' attitudes about clinical education in different departments. Moreover, the student's grades did not hold significantly different attitudes towards clinical education.

The students' responses to the questions are presented in the tables below, divided into categories, according to the components of the SWOT analysis.

**Table 2.** Strengths category (N = 88)

Questions	Yes	No %	Undecided %
	n (%)	n (%)	n (%)
1. The clinical learning develop my clinical experience	67 (76.13)	15 (17.04)	6 (6.81)
3. The clinical learning helped me to build self-confidence	40 (45.45)	32 (36.36)	16 (18.18)
5. The clinical learning makes me familiar with comprehensive patient	48 (54.54)	25 (28.40)	18 (20.45)
7. The clinical learning gave me opportunities to concentrate on treatment	41 (46.59)	23 (26.13)	24 (27.27)
9. The clinical learning gave me opportunities to discuss cases/treatments in safe conditions	71 (88.68)	9 (10.22)	8 (9.09)
11. The tutors experience was very important to guide me	55 (62.5)	24 (27.27)	9 (10.22)
13. The tutors made me feel more trustful about achieving my competencies	57 (64.77)	18 (20.45)	13 (14.77)
15. The tutors were a good role model for me	66 (75.00)	15 (17.04)	7 (7.95)
22. I was very honest and transparent with my tutors	85 (96.59)	2 (2.27)	1 (1.14)

**Table 3.** Weaknesses category (N = 88)

Questions	Yes	No %	Undecided %
	n (%)	n (%)	n (%)
2. The time allotted to work with tutors was not sufficient for my	53 (60.22)	24 (27.27)	11 (15.50)
4. The student–tutor ratio was too high	49 (55.68)	29 (32.95)	10 (11.36)
6. The tutors did not know very well all my patient cases	42 (47.72)	33 (37.50)	13 (14.77)
8. The tutors did not know my convenience level with new treatment	34 (38.63)	24 (27.27)	30 (34.09)
10. The tutors did not provide me with consistent information	45 (51.13)	18 (20.45)	25 (28.40)
12. I could not ask for advice from my tutor exactly in the moment when I	41 (46.59)	11 (12.50)	36 (40.91)
14. The tutors are not empowered to ensure that students maximize their learning opportunities	45 (51.13)	11 (12.50)	32 (36.36)
16. I consider that sometimes tutors do not provide enough information to teachers on students achieving competencies in the clinical disciplines	45 (51.13)	10 (11.36)	37 (42.04)

**Table 4.** Opportunities category (N = 88)

Questions	Yes	No %	Undecided %
	n (%)	n (%)	n (%)
17. The face to face approach enabled me to speak openly and ask important questions	76 (86.36)	7 (7.97)	5 (5.68)
19. The tutor was able to follow my cases allowing for greater consistency in treatments	58 (66.00)	8 (9.09)	22 (25.00)
20. With my tutor, my cases have been performed and completed more efficiently	35 (39.77)	28 (31.81)	25 (28.40)

**Table 5.** Threats category (N = 88)

Questions	Yes	No %	Undecided %
	n (%)	n (%)	n (%)
18. I was worried that tutors might transfer my cases to other students	23 (26.13)	58 (66.00)	7 (7.97)
19. I was concerned that the tutor would change the treatment plan	5 (5.68)	68 (77.27)	15 (17.04)

By the mean of the quantitative analysis of the students' responses, a number of strengths of the clinical education in dental medicine were identified. Approximately seventy-six percentage of the students (n = 67, 76.13%) felt that the faculty develop their clinical experience. Building of self-confidence, which is an important aspect in clinical practice, registered a slight decrease, 40 (45.45%) of respondents declaring positively. The majority (n = 48; 54.54%) felt that the clinical learning makes them familiar with comprehensive patient care. When students were asked to write in comments for this question, a student declared that it was a good opportunity to have skilled practitioners to discuss each particular case and the most appropriate treatment options, while another said that it was helping especially when faced difficulties with the patient management. The opportunity to discuss cases or treatment plans in a non-threatening environment was a very favorable result by 71 (88.68%) of the respondents. Plenty of students related that discussions about treatment with tutors that are dentists assigned to supervise the students in the clinical practice, in front of the patient can be intimidating. In other studies, results showed that 'the establishment of a non-threatening environment and respectful attitude encourages students to risk failure', which is a critical element in clinical learning (Wallace, & Infante, D.I. (2008). Other strengths included mentors bringing much experience to guide them (n = 55;

62.5%), making students more trustful about achieving their clinical competencies (n = 57; 64.77%) and being a good role model for the student (n = 66; 75.00%) (Table 2). The American Dental Education Association (ADEA) Statement on Professionalism in Dental Education identified and developed the six values-based statements defining professionalism in dental education professionalism. Among these six values they identified fairness, integrity and respect as essential values for dentists (Buchanan, et al., 2012). Eighty-five participants (96.59%) reported that they were honest and transparent with their tutors. Although most students reported that they were honest, other students could observe dishonesty amongst their colleagues.

The participants to this study identified several weaknesses in the current state of clinical education at the Faculty of Dental Medicine. About sixty percent (n = 53; 60.22%) of the respondents felt that the time allotted to work with tutors was not sufficient for their necessities, and about forty-seven percent (n = 41; 46.59%) felt that they could not ask for advice from the tutor exactly in the moment when needed. Most of the respondents (n = 49; 55.68%) pointed out that the student–tutor ratio was too high (Table 3). Lack of uniformity of the tutors was identified by many of the participants as a critical weakness. Everyone provided different information, particularly when it came to requirements.

When answer the questions under the category of opportunities, almost eighty-seven percent of the respondents (n = 76; 86.36%) identified with the statement that the face to face approach enabled them to speak openly and ask important questions. Some students commented positively about the clinical education saying that it is obvious that the tutor’s primary role is to aid and encourage the students and not to judge them: sixty-six percent saying that (n = 58; 66.00%) the tutor could follow the cases allowing for greater consistency in treatments and 35 students (39.77%) considered that with their tutor, the cases have been performed and completed more efficiently (Table 4).

As we imagine in this questionnaire a perceived threat, would have been that faculty would transfer a student patient to another student who has had less experience with the required treatments. The results indicated that only 23 students (26.13%) felt this to be an important threat (Table 5).

Students as center of dental education can be a valuable indicator in providing feedback and suggestions for revision of curriculum and improve their learning environment. Since faculties of medical sciences teach clinical skills that have impact on the health of the whole society, assessing the status of clinical education in these universities is of maximum importance. From the results of this study is evident that better communication is required between faculty members and students about their desires regarding the clinical aspect of the learning process, to ensure their future success and a greater alignment with comprehensive patient care.

#### **4.3. Limitations of this Study**

First, it is a self – reporting study, and the respondents may not be very honest when answering, from a variety of reasons. Because some students want to represent themselves as socially desirable, even in an anonymous study may not answer truthfully. Secondly, this is the first study exploring the fifth- and sixth-year dental students’ attitude towards clinical education in Faculty of Dental Medicine, Ovidius University of Constanta. This research incorporated the views of the dental students from just one dental

school in the Romania and consequently, prudence should be taken for relating these findings to the overall Romania dental students.

## 5. Conclusions

The results of this study showed that the students from the Faculty of Dental Medicine, Ovidius University of Constanta have positive attitude regarding clinical education in this faculty. In this study, regarding the students' attitude regarding clinical education, we have identified several strengths that enhanced the students' clinical experience. Also, some weaknesses were identified and give the opportunity of improvement. Our study gives us the occasion to adjust and improve the education quality so that the perceptions of the greater number of students in future years will demonstrate a more positive experience. Also, for increasing the vocational aspect and for improving the quality of the students' practical abilities, it is recommended to create confidence in students for treatment of patients during dental education. Further studies can be helpful in finding the educational problems and proper solutions.

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