



Patient Satisfaction with Their Esthetic after Receiving Comprehensive Care at a Dental School

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Authors' contributions

This work was carried out in collaboration between both authors. Author HB wrote the first draft of the manuscript and collected data. Author SS designed the study, wrote the manuscript, analyzed data, revised and edited the final draft of the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Background: Student training through the delivery of comprehensive care is the key mission of any dental school. Comprehensive care consists of complete patient evaluation and treatments in terms of, the patient's dental needs and desires was identified and it implies that all those needs and desires will be addressed in a timely, appropriately sequenced, caring, and professionally responsible manner.

Purpose: This study aimed to investigate degree of patients' satisfaction with their esthetic after receiving comprehensive dental treatment by undergraduate dental student at Taibah University.

Materials and Methods: A total of 40 patients (mean age 30±10 years) were selected from a student pool at school of dentistry, Taibah University. The patients were surveyed with a questionnaire before and after receiving a comprehensive care by undergraduate students at Taibah University. The questionnaire includes information regarding to patients' age, gender, self-reported tooth appearance, educational level, required final esthetic result needed and any previous dental treatments. A scale ranging from 1 to 5 was used to assess general satisfaction.

Results: The patients' assessments were high, and more than half of them graded their

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satisfaction with their esthetic as excellent. On average, all variables were assessed higher by the patients compared to the results of questionnaire applied before start of their comprehensive care. **Conclusion:** The patient assessment of the esthetic outcomes after receiving comprehensive care was promising. However, the few dissatisfied patients assessed no satisfaction with the results obtained.

Keywords: Comprehensive care; esthetic; patients' satisfaction.

1. INTRODUCTION

Student training through the delivery of comprehensive care is the key mission of any dental school. Comprehensive care is defined as seamless and complete dental treatments that include all patients' dental needs. It consists of complete patient evaluation and treatments in terms of, the patient's dental needs and desires was identified and it implies that all those needs and desires will be addressed in a timely, appropriately sequenced, caring, and professionally responsible manner [1-3].

Esthetics has become an important issue in modern society, as it seems to define one's character. Functional demands were the main consideration in the history of dental care [4-6]. The focus has been shifted toward dental esthetic, with the increased dental care nowadays. The color and shape of the teeth with the shape of dental arch are numerous factors related with dental esthetics. These factors are affected by individual preferences and cultural factors [7,8].

As a teaching institution, selection of patients and their adherence to comprehensive care for the student clinic at a dental school is very important. Costs of health care education, quality of the education, and efficiency of teaching may all be influenced by the quality of patient selection. Once a patient meets the selection criteria it is important to retain that patient for the course of their treatment plan to best serve the students' education process [9]. Measuring patient experiences is an important part of the assessment of patient care delivery. It is necessary to understand areas of opportunities and those that require improvement to better serve patients' oral health needs [10].

In situations of complex restorations the success of the therapy depends largely on clinician and patient good interaction. [11,12] Patient considerations about function, comfort, and esthetics were self-addressed. To the knowledge of the authors, little is known about patients self assessment before and after receiving

comprehensive care. The purpose of this study was to compare esthetic perceptions and satisfaction for female patients before and after receiving a comprehensive care by undergraduate dental student at a school of dentistry, Taibah University.

2. MATERIALS AND METHODS

2.1 Patient Selection

This study was conducted at Taibah dental clinic, school of dentistry, Taibah University, Madinah, Saudi Arabia. Ethical approval for the study was obtained and all patients provided written informed consent. Eligible patients had been as a minimum 18 years of age, attending in fifth year comprehensive clinical course (=40 patients), and in a position to complete questioner in Arabic. Excluded patients will be those with complete denture, patients who are not indicated for comprehensive care program and finally those patients who refuse to be recruited in the study.

2.2 Study Design

The patients receive treatment in comprehensive clinical course of student. The treatment included an initial oral hygiene phase and the removal of all dental diseases (e.g. decay, periapical or periodontal inflammations, impacted third molars) prior to esthetic treatment. The patients were asked to complete two questionnaires asking for "Satisfaction with one's own dental appearance" once, before and after esthetic rehabilitation at the final recall session. The questionnaire containing questions about gender, age, education level and self-reported tooth appearance, received previous treatment(s) on anterior teeth and the basic treatment(s) they wanted to undergo to improve their present dental appearance.

2.3 Study Procedures

During the student course of 4 months period, every patient receives a comprehensive dental care that was done by one undergraduate

student. The treatment includes education and motivation about the oral hygiene, a provisional phase, which was 2 months period of time, prosthodontic treatment and a final recall session, 4 weeks after finishing the rehabilitation. The supervision on this treatment was done with the help of two assistant professors, which participate in the course. The comprehensive care was finished either with fixed dental prosthesis, removable dental prosthesis or combination of both.

2.4 Treatment Documentation / Photographs

Two standardized digital photographs before and after oral rehabilitation have been used to evaluate the esthetic appearance.

2.5 "Satisfaction with one's own Dental Appearance" (QDA)

According to the guidelines of anterior esthetics advanced by means of Magne and Belser [13], a questionnaire with 20 items was developed, and its reliability and validity were tested. After completion of comprehensive care, the patients complete a survey regarding to a self-reported tooth appearance as described previously [14-16]. A Likert scale with five categories of choice per item will be used. The 1 to 5 scales is

common grading scale in the educational system (1 = unsatisfactory, 2 = hardly satisfactory, satisfactory on average, 4 = very satisfactory, 5 = excellent).

2.6 Statistical Analysis

Statistic analysis of the data was done using "SPSS for Windows" (Version 20, SPSS Inc., USA) at a level of significance of $P \leq 0.05$. Non-parametric tests have been used for data analysis. The Wilcoxon rank sum test was suitable for comparison of before and after data of oral rehabilitation.

3. RESULTS

Patient satisfaction with the esthetic result after treatment was significantly at high level on all questionnaire items ($P < .05$).

The study result illustrates that, 70% among the patients were satisfied with the color of their anterior teeth after treatment, 95% of the patients were satisfied with general appearance of their anterior teeth after treatment, 92.5% were thinking that their anterior teeth were not crowded, 12% were hiding their teeth while smiling, 5% were thinking of having a non-esthetic restoration(s) and 52% their chief complaint is related to esthetic issues Table 1.

Table 1. Questionnaire: "Satisfaction with One's Own Dental Appearance" before and after comprehensive de care treatment

Questions		% of patient satisfaction
1 Are you satisfied with the appearance of your teeth?	Before treatment	0% (0)
	After treatment	95% (38)
2 Are you satisfied with your gum appearance?	Before treatment	30% (12)
	After treatment	72.5% (29)
3 Do you think you have non-aesthetic restorations on your anterior teeth?	Before treatment	92.5% (37)
	After treatment	5% (2)
4 Are you satisfied with the size of your teeth?	Before treatment	91.2% (31)
	After treatment	65.2% (15)
5 Are you satisfied with the shape of your teeth?	Before treatment	12.5% (5)
	After treatment	50% (20)
6 Are you satisfied with the color of your teeth?	Before treatment	12.5% (5)
	After treatment	70% (28)
7 Are you satisfied with the position of your teeth?	Before treatment	52.5% (21)
	After treatment	71.8% (28)
8 Do you wish that you had other teeth?	Before treatment	91.2% (31)
	After treatment	32.5% (13)
9 Do you think that your anterior teeth are crowded?	Before treatment	100% (40)
	After treatment	7.5% (3)
10 Do you hide your teeth while you are smiling?	Before treatment	91.2% (31)
	After treatment	12.5% (5)

All the patients are satisfied with their fixed /removable dental prosthesis after the treatment. 50% of patients feel that losing teeth makes them older in age. 85% of patients think that their fixed /removable dental prosthesis doesn't affect their taste while eating.

57.5% of the patients are satisfied with their ability to eat with their fixed /removable dental prosthesis.

All the patients are satisfied with their ability to speak with their fixed /removable dental prosthesis after the treatment. All the patients are satisfied with their crown form of their fixed /removable dental prosthesis. All the patients are satisfied with the form and color of the gingiva around their fixed /removable dental prosthesis.



Fig. 1. Representing frontal view photographs before and after comprehensive care

4. DISCUSSION

The current study was aimed to look for patients' satisfaction about their esthetic after receiving comprehensive care by undergraduate dental students, Taibah University. Since the studies on patients' esthetic satisfaction before and after comprehensive care are scarce [2,3], A limited comparison of the result of current study with those of others.

According to the current results, an increase in esthetic satisfaction after comprehensive care has been reported.

It should be noted that, the rather high satisfaction with esthetic results after comprehensive care, in general population it might not be representative about the level of satisfaction. In this study, all the included patients were looking for comprehensive care as solution to non-esthetic appearance or pain. The satisfaction scores would have been suppressed by this [14].

Patients attending the course of the students may requiring high level of esthetic, but may not expect complete perfection. This could be

attributed to the fact that, patients may not expect complete perfection results could be possible supplied by undergraduate dental students [13,15]. The patience of undergraduate students in utilizing all the time allowed for proper treatment sequence, concentration at work, enthusiasm and sincerity in young professionals of any field [16]. Long-term clinical follow up researches should be conducted to study the patients' satisfaction with the esthetic result over a period of time.

5. CONCLUSION

Within the limitation of this study, the following conclusions could be drawn;

Significant improvement in the patient's satisfaction after receiving a comprehensive care supplied by dental students in terms of function, comfort, and esthetics was achieved.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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