



Comparative Analysis of Rationale used by Dentists and Patient for Final Esthetic Outcome of Dental Treatment

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ABSTRACT

Aim: To compare and evaluate the perceptions of esthetics among dentists and patients regarding the final esthetic outcome of a dental treatment.

Background: Esthetics is a matter of perception and is associated with the way different people look at an object. What constitutes esthetic for a particular person may not be acceptable for another. Hence it is subjective in nature. This becomes more obvious during the post-treatment evaluation of esthetics by dentist and the concerned patient. Opinion seldom matches. Hence, the study is a necessary part of the process of understanding the mind of dentist and patient regarding what constitutes esthetics.

Technique: A survey has been conducted by means of a questionnaire consisting of 10 questions, on two groups of people. First group consists of 100 dentists picked at random in Kanyakumari district of Tamil Nadu, India. Second group consisted of 100 patients who required complete denture prosthesis. The second group was divided into two subgroups A and B. Subgroup A consisting of 50 men and subgroup B consisting of 50 women. In each subgroup 25 patients were selected in age group of 40 to 50 and 25 patients were selected in the age group of 50 to 60. The questionnaire was given to both the groups and asked to fill up, which was then statistically analyzed to look for patterns of thought process among them.

Results: Results were subjected to statistical analysis by Student's t-test.

Conclusion: Perceptions of esthetics differs from dentist who is educated regarding esthetic principles of treatment and a patient who is not subjected to such education. Since, the questions were formulated such that patients could better understand the underlying problem, the final outcome of survey is a proof that dentists need to take into account what the patient regards as esthetics in order to provide a satisfactory treatment.

Clinical and academic significance: The current study helps the dentist to better educate the patient regarding esthetics so that patient appreciates the final scientifically based esthetic outcome of treatment. It also helps the dental students to understand the underlying patient's thought process regarding esthetics.

Keywords: Esthetics, Dentist, Patient, Perception.

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INTRODUCTION

Esthetics in dentistry is defined as the theory and philosophy that deals with beauty and the beautiful, especially with respect to the appearance of a dental restoration, as achieved through its form and/or color, those subjective and objective elements and principles underlying the beauty and attractiveness of an object, design or principle.¹ The goal of any dentist during complete denture treatment is improving the facial appearance of patient.² Even though a patient seeks dental treatment for the sake of mastication of food, esthetics form the prime concern than function for many patients.³ It is the duty of dentist to educate the patient regarding esthetic principles governing the treatment outcome before he actually treats the patient. It is not uncommon for dentists to consider a case as success functionally but unsatisfactory for the patient. This problem is accentuated in case of patients when they are emotionally disturbed.⁴ In the realm of denture esthetics, it would seem that only one aim would be necessary, and that would be to reproduce the anatomic characteristics present before the patient became edentulous. Yet, the dentist must understand the needs and wants of the individual patient and realize that these needs and wants are not uniform, nor do they harmonize with natural, age, sex differences or the fundamentals of esthetics.^{5,6} Failure on part of dentist to understand the patient's point of view results in failure of treatment.^{7,8} Patients undergoing extensive prosthodontic

Table 1: Questionnaire

Questions	Yes	No
1. Do you think teeth of people should be milky white in color?		
2. Do you think slightly yellow/discolored teeth are unesthetic?		
3. Do you feel teeth should look similar for males and females?		
4. Are you aware of any dissimilarity between male and female teeth?		
5. Did your teeth undergo any change with your age?		
6. Does your teeth color and size match that of teeth of your parents?		
7. Do you agree that teeth are brighter in daylight than under electric lamp?		
8. Does the discussion regarding color of teeth between dentist and patient help in selecting better teeth?		
9. Do you like your dentist/patient giving suggestions while selecting teeth?		
10. Do you think that teeth that are good to look are unfit for chewing food?		

rehabilitation should be given the opportunity to ask and talk about their dental health, and dentists should try to understand their cultural and emotional perspective to improve patient satisfaction with treatment outcome.⁹

Technique

In order to know the thought process governing perceptions of esthetics among dentists and patients, a simple questionnaire comprising of 10 close-ended questions with an option for 'Yes' or 'No' has been designed to avoid ambiguity (Table 1). Demographic profile of the study (Table 2) shows that questionnaire was distributed to 100 dentists who have general dental practice. It was also distributed to 100 patients who were seeking complete denture treatment. The patients were divided into two subgroups, subgroup A and subgroup B with subgroup A consisting of 50 men and B consisting of 50 women respectively. Each subgroup included patients of two age groups of equal number of 25 patients. One age group comprised of patients between 40 and 50 years of age and another between 50 and 60 years of age. The completed forms were collected and subjected to statistical analysis. Patients were selected using inclusion and exclusion criteria. Main criterion that was taken into consideration was whether

the patients had worn complete denture before and whether they have any prior information about dental esthetics. Patients who wore any type of dental prosthesis prior to the current complete denture treatment were not selected for the study. Detailed case history was recorded; questionnaires were analyzed and subjected to Student's t-test for mean and standard deviation.

RESULTS

Any two questionnaires which had nine questions out of 10, answered similarly as either yes or no were considered to be similar while the rest of the questionnaires were considered dissimilar. Answers were analyzed using Student's t-test for standard deviation between answers given by:

- Dentists–intragroup (Table 3).
- Dentists and patients–inter group (Table 3).
- Different gender groups of (male and female) patients (Table 4).
- Different age groups of male and female patients (Tables 5 and 6).

Results showed the following trends:

- Answers given by 95% of dentists had absolute similarity and they matched with each other's answer patterns.
- When answers given by dentists and patients were analyzed, there was similarity of only 68%.
- When answers given by male and female patients alone were compared (without taking into consideration the dentists answers), 76% of males gave similar answers and only 44% of females gave similar answers.
- When answers given by different age groups of patients were considered (without taking into consideration the dentists answers) it was found that 92% of males and 40% of females between the age 40 and 50 years gave similar answers. But as the age increased from 50 to 60 years, 60% males and 48% females gave similar answers.

DISCUSSION

The study showed the lack of consensus in perception of esthetics among dentists and complete denture patients who

Table 2: Demographic data of study subjects

Subjects	Number
Doctors	100
Patient (gender)	
Male	50
Female	50
Total	100
Age (40-50 years)	
Male	25
Female	25
Total	50
50-60 years	
Male	25
Female	25
Total	50

Table 3: Comparison of similarity of answers and its significance within the doctors and between doctors and patients

	Compatibility within the doctors				Compatibility doctors with patients			
	Similar		Dissimilar		Similar		Dissimilar	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Compatibility	95	95	5*	5	68	68	32*.#	32

*p < 0.05 significant compared within the doctors and #p < 0.05 significant compared between doctors and the patients

Table 4: Comparison of similarity of answers and its significance based on patient gender

Groups	Compatibility patients				Total
	Similar		Dissimilar		
	Number	Percentage	Number	Percentage	
Male	38	76	12#	24	50
Female	22*	44	28*.#	56	50

*p < 0.05 significant compared compatibility of answers between males and females; #p < 0.05 significant compared compatibility of answers within the males and females

Table 5: Comparison of answers compatibility based on age of male patient

Age	Compatibility patients				Total
	Similar		Dissimilar		
	Number	Percentage	Number	Percentage	
40-50 years	23	92	2*	8	25
50-60 years	15	60	10*	40	25

*p < 0.05 significant compared compatibility of answers in the males in age 40 to 50, 50 to 60 years; p < 0.05 significant compared within the age groups

Table 6: Comparison of answers compatibility based on age of female patient

Age	Compatibility patients				Total
	Similar		Dissimilar		
	Number	Percentage	Number	Percentage	
40-50 years	10	40	15	60	25
50-60 years	12*	48	13*	52	25

p < 0.05 significant compared compatibility of answers in the females in age 40 to 50, 50 to 60 years; *p > 0.05 not significant compared within the age groups

were not exposed to clinical procedures at any time prior in their life. Perceptions changed according to sex of the patient and also the age group among same sex patients. A closer look at the results show that the results were on an expected lines as far as dentists were concerned, since 95% of dentists were seen to give similar answers. The questionnaire involved questions that were designed to be patient friendly so that even layman could understand the questions. Hence, it is improbable that the dentists could have understood the questions wrong. Still, the fact that 5% of dentists deviated

from the expected lines showed that as far as esthetics is concerned, we cannot apply a strict set of rules for a practicing dentist since over a due course of time the preset ideas of dentists could change on exposure to patients who are not well educated. Then again the answers given by dentists and patients coincided only 68% of the time. This shows a tremendous gap between the concepts of understanding esthetics from a well trained mind of dentist to a layman. This could create problems for the dentist if he fails to educate the patient regarding the clinical procedures of complete denture. When the answers given by male and female patient were compared, it was found that 76% of all male patients gave similar answers whereas only 44% of female patients gave similar answers irrespective of answers given by dentists. This shows another glaring disparity in application of esthetics by male and female patients. Dentist is well advised to take sex of patient into consideration in case of selection of teeth. Finally when the answers were compared within the male and female patients on the basis of age groups, male patients scored better in having a notion of esthetics that's predictable with their age. But female patients showed unpredictable behavior within the age groups, which is borne by the fact that almost half of them within the age group of 50 to 60 years, gave dissimilar answers to same set of questions.

CONCLUSION

The study on the differences in esthetic perceptions of dentists and patients tries to correlate various gender, education and psychological aspects involved in the success of prosthodontic treatment. It clearly concludes that as far as esthetics is concerned there is no universal standard that can be applied. It differs from dentist to dentist, dentist to patient, and within the patients it differs from males to females and also between different age groups of same gender. Predictability of esthetic outcome of treatment decreases with the failure to predict the concept of esthetics that is eminent in patient's mind. Hence, dentist is advised to inculcate the concept of esthetics in patients' mind which matches that of dentist's own, so that the final treatment outcome is satisfactory.



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