

Components that Influence patient's Satisfaction Concerning their Dental Esthetics And Their Aspirations For Future Dental Treatment to Enhance their Esthetics, Research Carried Out at PDH, Lahore

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ABSTRACT

Background: Facial esthetic holds significance because of its impact on physical attractiveness and hence in turn it has great impact on man's daily social interactions. Self-belief and self-confidence, psychological and emotional stability of people can directly correlates with their physical attractiveness and satisfaction with dental looks. Patient's satisfaction with their dental appearance is multifactorial/multidimensional phenomenon.

Aim: To identify those factors that can influence patient satisfaction in positive or negative ways and to point out the desire of patient for dental treatment in future.

Methods: Exactly 160 outdoor patients participated in the cross sectional study visiting diagnostic department of PDH; Lahore. A well-structured questionnaire guided by interviewer was administered in order to identify the factors significantly influencing the patient contentment in relation to their dental looks. The participants' perceived need for future dental interventions to improve esthetics has also been evaluated.

Results: Among 160 patients 72 males and 88 females participated, their mean age was 29 years (SD 13.0). Out of 160 patients, 104 (65%) patients were reported as unsatisfied with their general dental looks. 120 patients (75%) were reported unhappy with their color of teeth, 80 (50%) patients were regarded their teeth as poorly aligned, 88(55%) as crowded and 33(20.4%) protruded. Dissatisfaction with their dental looks was found significantly prevalent among females than in male patients. (75%) patients were desired for tooth whitening treatment. Results of statistical correlation showed that patients dissatisfaction with their general dental looks was significantly associated with factors like gender ($p < 0.05$) and the factor that their teeth were misaligned ($p < 0.05$).

Conclusions: Majority of patients (F>M) were found unhappy with their dental appearance. Dissatisfaction with their tooth alignment e.g., patients having protruded teeth had an impact on patient satisfaction. Dissatisfaction could also correlate directly with tooth color. Age was not found to have an impact on patient satisfaction.

Keywords: Patient satisfaction, Dental looks, facial appearance, Attractiveness

INTRODUCTION

Acceptable dental profile has turned out to be customary for apparent good looks and therefore has become essential for our everyday social interactions. Attractive personality corresponds directly with one's facial profile. Acceptable facial profile and personality has a very important part to play in one's social and psychological state^{1,2}. When this facial profile has been affected by numerous dental pathologies, it causes great deal of negative influence on a person's confidence and self-belief, eventually affecting social interactions. Improvement in facial and dental profile can be achieved through proper dental treatments³. Few facial aspects that regulates superiority of a person's smile includes, esthetic alignment of teeth, , shape, position, color of teeth, appearance and condition of front teeth with gingival display , framework of lips and restoration of the malformed teeth exclusively the teeth in the anterior region^{1,2,4,5}. Due to decline in tooth caries, the attention of modern practice of dentistry has become more directed towards useful esthetic dental Practice⁵. The tooth shape and color predominantly teeth

in the anterior region have substantial impact on patient's self-image and self-confidence of their dental smile. Discolored, Unrestored, missing, carious uneven and deformed front teeth have been known to set grounds for substantial emotional, social, psychological and other medical co morbidities^{6,7,8}. Patient's happiness and satisfaction with their dental and facial profile has also been directly linked to patients' demands and hopes^{4,5}. Malocclusion is not measured to be significant problem in few region whereas in other beauty conscious areas of the world it is a thoughtful matter. It is commonly perceived that patients frequently follow orthodontic treatments for improving dental orientation and appearance [9, 10]. Operative and Orthodontic treatments for example bleaching, composite buildups, tooth colored fillings and veneering plays vital role in enhancement of sociability and psychological of a person^{11,12,13,14}. In this study, the impact of dental treatment and dental appearance on patient satisfaction is assessed. Additionally, emphasis is on the patient contentment concerning dental treatment and desire for dental treatments by patient in an effort to enhance appearance. Elements influencing patient satisfaction has been scrutinized in this article.

MATERIALS AND METHODOLOGY

This study which is of cross-sectional design, has been conducted in the diagnostic department of PDH. All 160 participants were visiting the dental hospital for seeking some kind of dental treatment. All the participants who took part in this study had their age group ranging between 18

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to 40 years. This age group has been particularly selected as important because young people are chiefly concerned with their look particularly smile. Participants below 18 and above 40 were left out due to the fact that people of particular age group have been found to be less concerned with their appearance. All participants were having teeth in their anterior region. All participants were devoid of all kinds of cognitive incapacity and were well aware of their surroundings. This research has been conducted within the stretch of two months period starting from 1st July 2018 to 31 august 2018. Participants, contributing to the study, visited the diagnostic department of PDH during the aforementioned time period. Proper study model was selected with the help of Systemic Random Sampling technique with selection being made by estimating the number of suitable patient in outpatient department. Every fifth appropriate participant was deemed eligible and was asked to play a part in the planned study. Sample for study, demonstrating the reference population was nominated with no predicted biases. Data assortment was accomplished with the help of well-structured closed ended questionnaire. A reliable and effective questionnaire has been taken from prior researches [2, 15]. The contributors were directed by questioner to assist them in understanding the asked questions. Necessary alternations were made to the questionnaire to make it explicable for the participants. It entailed questions concerning their

socio-economic rank and demographic credentials i.e., Gender, age, socioeconomic class, education level. It also contained within questions to evaluate their contentment with existing state of their facial and dental appearance i.e., arrangement of teeth, tooth color, tooth shape, tooth fracture, any previous or presently existing dental pathology disturbing the facial profile. It further, incorporated questions concerning patient's perceived requirement for some sort of esthetic improving dental treatment like tooth whitening, orthodontic treatment, tooth colored fillings, crowns, and removable or complete partial dentures. Informed consent, in written form, has been taken from all participants before the participation.

Statistical analysis: Data has been documented by making use of Excel Sheet of Microsoft whereas the statistical inquiries were achieved by using SPSS (version 22) software. The descriptive statistical analysis that includes the frequencies and percentages had been assessed and presented in tables below. Furthermore, inferential investigations were performed. The inferential statistical analyses was performed after the descriptive investigation. Mean value, percentages and standard deviations has been considered for qualitative and quantitative data. Correlation test and Chi square has also been performed to evaluate the relationship between variables.

RESULTS

Table 1: Distribution of Socio demographic data of all participants and correlation with satisfaction of dental appearance

Socio demographic Data	Frequency (n=160)	(%)	Satisfied - Yes Chi square	Dissatisfied - No	Bivariate analysis P value
Male	72	45	37	35	^ 0.335
Female	88	55	26	62	
Age					0.001**
18-20	32	20	24	8	
21-28	72	40	12	60	
29-39	40	30	24	16	
40	16	10	11	5	
Married	88	55	16	64	^0.897
Unmarried	72	45	40	32	
Socioeconomic status:					^0.286
Upper middle class	48	30	30	18	
Lower middle class	65	41	20	45	
Upper class	32	20	16	16	
Lower class	15	09	5	10	
Education level:					^0.789
Primary	40	25	0	16	
Secondary	64	40	16	16	
Graduation	32	20	16	20	
post-graduation	24	15	04	48	
General health:					^0.723
Good	144	90	56	88	
Poor	16	10	0	16	
Family income :					^0.560
<10000	40	25	16	24	
10000-25000	56	35	08	48	
25000-50000	32	20	16	16	
50000-100000	32	20	1	15	
>100000					

** Result is significant for p value less than 0.01, ^ Result is insignificant. * Result is significant for p < 0.05.

Table 2: Distribution of patient responses and correlation of their satisfaction with dental appearance.

Questions regarding patient satisfaction	Frequency n=160	%age	P value
General satisfaction with facial appearance:			
A little not satisfied	8	05	0.002**
Satisfied	112	70	
completely satisfied	40	25	
Perceived sense of attractiveness?			
Acceptable	40	25	0.023*
Unacceptable	88	55	
Little Acceptable	32	20	
Very Acceptable	0	0	
Satisfaction with dental appearance?			
A little	32	20	
Not satisfied	104	65	
Satisfied	24	15	
completely satisfied	0	0	
Crowded teeth?			
Yes	88	55	^0.0587
No	72	45	
Satisfaction with your tooth color?			
Yes	80	50	0.007**
No	80	50	
Protruded teeth?			
Yes	32	20	0.01**
No	128	80	
Poorly aligned teeth?			
Yes	80	50	0.009**
No	80	50	
Perception of yellow teeth?			
Yes	120	75	P0.001*
No	40	25	
Do you have caries in your anterior teeth?			
Yes	72	45	0.025**
No	88	55	
Non-esthetic filling in your front teeth?			
Yes	24	15	0.03**
No	136	85	
Any kind of fracture in your front teeth?			
YES	16	10	0.042*
NO	144	90	
Any gingival bleeding?			
Yes	72	45	0.044*
No	88	55	
Do you hide your teeth while smiling?			
YES	72	45	0.03*
NO	88	55	

**Result is significant for p value less than 0.01, ^ Result is insignificant. * Result is significant for p < 0.05.

DISCUSSION

For a prosperous career, dentists need to recognize the key factors accountable for patient satisfaction. They tend to play a noteworthy role in developing suitable treatment plan for patients mainly when it encompasses the dental appearance¹⁴. Researcher in this particular study have explored patient contentment with their dental profile and

Table 3: Desire for future dental treatments and correlation of their satisfaction with dental appearance

Questions regarding patient satisfaction	Frequency N=160	%age	Bivariate analysis (correlation) P value
Perceived need for future dental treatments?			
YES	136	85	0.03*
NO	24	15	
Orthodontic treatment?			
YES	56	35	0.02*
NO	104	65	
Tooth whitening / Bleaching?			
YES	120	75	0.01*
NO	40	25	
Anterior teeth crowning?			
YES	16	10	0.023*
NO	144	90	
Dentures for missing teeth?			
YES	0	0	0.034*
NO	160	100	
Veneering of anterior teeth?			
YES	48	30	0.023*
NO	112	70	
Composite fillings in anterior teeth?			
YES	56	35	0.012*
NO	104	65	
Any previous trauma to anterior teeth and related discoloration?			
YES	32	20	0.0456*
NO	128	80	
Do you wish to have any other dental treatment?			
YES	48	30	^0.89
NO	112	70	

**Result is significant for p value less than 0.01, ^ Result is insignificant. * Result is significant for p < 0.05.

their hope to undertake dental treatments to enhance their dental and facial profile. A criterion for spectacular and satisfactory dental look varies among different personalities and populations. Approach, perception and discernment of a person about their dental profile fluctuates prominently among diverse populations.^[15, 16]. In accordance with this research, 35% patients have been found to be totally satisfied /fairly satisfied with their dental profile. Related researches performed in different regions of world have variable degrees of contentment within their populations

i.e., nearly 47.2% in Malaysia², almost 65% in Palestine, approximately 57.36%¹⁷ in turkey¹³, almost 65.5% in Jordan¹⁸, more or less 76% of satisfaction levels in UK have been noted¹⁹. The variance noted in patient contentment has been credited by discrepancies in measures and resources used for appraisal of contentment level within different populations. Additionally, this variance has been due to differences in race, culture, socioeconomic traits and religious beliefs. Satisfaction level is also suggestively subjective to the specific individual's preferences, line of work, impracticable and extraordinary anticipations and patient compliances^{15,18,23}.

This research concludes that 50% participants have been evaluated to be discontented with the color of their teeth while some researchers have determined this discontentment levels within their populations to be higher i.e., 66% dissatisfaction with tooth color in Saudi Arabia^{2,5,13,15}. Contentment with tooth color directly influences the satisfaction with dental profile ($p < 0.05$). View of perfect tooth color is critically impacted by the social, religious, cultural and psychological factors. It might have been influenced by the gruesome fact that society and culture often deems the picture-perfect tooth color to be pearly white. People usually find the natural color of tooth to be imperfect^{2,14,15}. This deduction has been reinforced with the some parallel researches^{2,5}. Misaligned and crowded teeth particularly teeth in anterior region have impacted the contentment level of subjects under study. Hence, the desire for the future orthodontic treatment to improve their dental profile was concluded to be 35%. This outcome corresponds with few researches⁵ and clashes with some of them². Age has been found to have substantial effect on contentment with dental profile. ($p < 0.05$), earlier studies showed the same results that elders are more contented with their dental look^{17,19,21}. Few studies support that age has no impact with respects to contentment with dental look^{15,18,21,22}. Gender has no significance to contentment with dental look. This result is supported by some earlier studies^{13,17,18}. This finding doesn't relate with few earlier studies in which more females were not satisfied with their dental look^{2,5}.

Contentment with the dental look is directly related with the satisfaction to overall appearance of participants. This result is similar to preceding studies that is contentment with overall look is related with satisfaction to dental color and tooth^{16,17,18}. Furthermore contentment with overall look is related with the longing to undertake dental intervention to enhance their looks. Few studies have found no relationship between general looks and dental profile^{23,24}. This variance has been related to diverse cultural historic, psychological, religious, ethical backgrounds and variety in study techniques, study populations and other factors^{14,15}.

CONCLUSION

Differences in the economic, cultural, religious and psychosomatic traits among different populations strongly affected patient's satisfaction with their dental appearance. Discontentment with dental esthetic has been found considerably less in male in comparison of female participants. Most looked-for treatment by patients was

tooth whitening. Statistical correlation data analysis indicated that patient's discontentment with overall dental esthetics was meaningfully related with factors like gender, discontent with color of their teeth, and the belief that their teeth had misalignment.

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