DEMOGRAPHIC PROFILE OF PERCEPTION OF PATIENTS ABOUT MALOCCLUSION AND TREATMENT NEED IN ABBOTTABAD

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ABSTRACT

Surveys have found that the aspect of appearance with which people are most dissatisfied is their teeth especially malocclusion of front teeth is considered much more influential in self-perceptions of dental attractiveness. Therefore, one of the main reasons for seeking orthodontic treatment is for improving aesthetics. The aim of the survey was to provide basic demographic profile of self-perception of patients about their malocclusion seeking the Orthodontic treatment in rural area of Abbottabad. 30 patients, 5 males and 25 females, with age range from 12-18 years at Rehmat Memorial Dental Hospital, Abbottabad seeking orthodontic treatment participated in study. Convenience sampling was used, and our study tool comprised a 10-item questionnaire. Data was analyzed using SPSS ver 21. 40% patients rated straight teeth to be important followed by face shape. 73% patients said attaining straight teeth is the main reason for treatment followed by 37% patients citing enhancing facial appearance as main reason. 50% mothers, 40% self and 15% recommendation by dentists were reasons for starting the treatment. Patients placed a lot of emphasis over their facial appearance and beauty. Parents, primarily the mothers, were responsible for seeking treatment for young and adolescent children. Patients placed high value on facial appearance to be normal in order to have high self-esteem and self-satisfaction and peer acceptance.

Key Words: Self-perception, Malocclusion, Orthodontics treatment.

INTRODUCTION

Teeth form an essential component for body image and for self-perception. Aesthetic preferences related to facial characteristics are formed early in life[1] and self-esteem of a person appears to be related to perception of his appearance.[2] Surveys have found that the aspect of appearance with which people are most dissatisfied is their teeth especially malocclusion of front teeth is considered much more influential in self-perceptions of dental attractiveness than those in the posterior.[3] Therefore, one of the main reasons for seeking orthodontic treatment is for improving aesthetics.[4] Studies have shown that malocclusion can lead to psychological problems such as low self-esteem and can lead to poor social acceptance from peers and society.[5] The psychological response in the social situation is one indication for treatment.[6] Assumably, the psychosocial stress caused by improper tooth arrangement varies between different cultures, and perhaps even between genders within the same culture. Numerous studies have been carried out internationally about the perception of patients about their teeth and seeking of treatment based on this perception. In Pakistan, very few studies have been carried out.[7,8] The aim of this study was to provide a basic demographic profile of perception of patients with malocclusion reporting to Department of Orthodontics, Women Medical College, Abbottabad, which can serve as a mean of establishing data important for the diagnosis, treatment and counselling of patients/parents with malocclusion.

METHODOLOGY

The survey was undertaken at outpatient Orthodontic Department at Rehmat Hospital, Women Medical College, Abbottabad in 2015. The patients were selected according to convenience non-probability sampling technique. Total 30 patients (N=30) age 10-18 years were given questionnaire. 5 patients were males (mean age 12.4 years) and 25 were females (mean age 11.6 years). Inclusion criteria included patients who wanted orthodontic treatment and who have not received Orthodontic treatment before and willing

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to participate in the study. Patients below 10 years of age and above 18 years were excluded as well as those with removable and functional appliances were also excluded. All patients and their caretakers were briefed on the objectives of study. During their visit at the Orthodontic Clinic, verbal consent was obtained to participate in this study. Patients were given a modified 10-question questionnaire adapted from an earlier study by Bergman and Eliasi.

RESULTS

The statistical analysis was performed using SPSS ver. 21. Descriptive analysis for each gender was done and frequencies and percentages were calculated for each question. The demographics of patients are shown in Table 1 and age frequency is shown for male and female patients in Table 2 and Table 3 respectively. Table 4 shows frequency results from questionnaire. Table 5 shows descriptive statistics of age and gender from questionnaire.

DISCUSSION

This study was done with the purpose to explore the demographics of psychological perception of patients about their malocclusion in a Pakistani population in a relatively remote city of Abbottabad. Results showed that patients rated straight teeth to be most important feature followed by face shape. Patients' perception about irregular teeth was the main reason for treatment followed by need to enhance their facial appearance. This is in line with a previous study in Pakistan which found strong psychosocial impact of altered dental aesthetics on the emotional state of an individual.[9] Onyeaso and Sanu[10] also reported that adolescent children rate attractiveness (popularity) higher than young children who are more concerned with peer judgement of their appearance(acceptance). Findings like our results were also reported by Dann and Tulloch.[11]

40% patients in study rated teeth to be important followed by face shape. Uthman et al identified second important factor to be self-perception of dental appearance.[12] In another study, it was reported that attractiveness of teeth, in many cases is more important to children than their health. Children with a normal dental appearance would be judged by peers and adults to be better looking, more desirable as friends and less likely to behave aggressively than children with dento-facial anomaly. Reason for treatment shows that 73% patients said attaining straight teeth is the main reason followed by 37% patients citing enhancing facial appearance as main reason. Miyawaki et al have shown that orthodontic patients showed a significantly higher awareness of teeth than the patients without

treatment.[13,14] In this survey, the first to notice crooked teeth were mothers 50%, self-noticed 40% and dentists 15%. This is similar to a study in which parents realized the need for treatment based on perception of their children's teeth.[15] 33% patients were teased for teeth, 16% for color of skin and 13% for chin and facial appearance. In 47% of the participants, the initiative for treatment was taken by mothers, 24% by self and 20% of the time by the dentists. 60% thought that the Orthodontic treatment will have some positive change in lives and 33% were unsure. The awareness of malocclusion and dissatisfaction with dental appearance among participants agreed with their objectively determined and perceived orthodontic need. The findings in survey in general agrees with other studies[16,17,18] but in contrast to the study.[19]

The study was limited due to inclusion of a range of age group of patients because self-perception change with age.[20] Our culture, religion, family beliefs, attitude and friends do influence how we see ourselves. This self-perception also seems to influence the individual's judgement of orthodontic treatment need. Individuals with malocclusions are usually aware of it and their self-esteem is dependent on the relative value they assign to their self-image.

TABLE 1: DEMOGRAPHIC PROFILE OF ORTHODONTIC PATIENTS (GENDER)

Profile	N=30	%
Gender		
Male	5	16.7
Female	25	83.3

TABLE 2A: AGE FREQUENCY TABLE FOR MALES

Age Value	Frequency	Frequency%
10	2	40%
12	1	20%
14	1	20%
16	1	20%

TABLE 2B: AGE FREQUENCY TABLE FOR FEMALES

Age Value	Frequency	Frequency%
10	6	24%
11	8	32%
12	5	20%
13	3	12%
14	2	8%
15	1	4%

TABLE 3: FREQUENCY FROM QUESTIONNAIRE

Q1 What is the most important feature for Facial Aesthetic.	Hair 4%	Nose 6.7%	Jaws 6.7%	Teeth 40%	Face 34%	Color 10%	
Q2. Which is your reason for having treatment	Improve chewing 3.4%	Enhance Facial Appearance 36.7%	Enhance self confidence 6.7%	Improve dental health 3.4%	Improve speech 0%	Attain straight teeth 60%	
Q3. Who was the first to notice your crooked teeth	Dentist 10%	Relatives 0%	Brother 0%	Mother 54%	Father 10%	Your self 26.7%	
Q4. How much did the crooked teeth bother you?	A lot 13.4%	Quite a lot 50%	A little 33.34%	Not at all 3.4%			
Q5. Have you ever been teased for?	Teeth 33.34%	Chin 13.3%	Ears 3.34%	Nose 6.66%	Legs 6.66%	Skin 16.7%	Hair 6.67%	Body Build 13.3%
Q6. Who took the initiative to start your treatment?	Myself 33.4%	Mother 46.7%	Father 6.7%	Brother 0%	Sister 0%	Relative 0%	Dentist 13.34%
Q7. In your opinion, how important is the treatment for you?	Not at All 3.34%	Not so Imp 13.3%	Quite imp 23.3%	Very imp 60%			
Q8 Do you think that after your teeth are straightened, it will alter your life?	Unsure 33.4%	No 6.6%	Yes 60%				
Q9 Based on your own experiences, would you recommend others to have braces?	Unsure 20%	No 6.6%	Yes 73.4%				
Q10. Which of the following parts has been most difficult during your orthodontic treatment?	Keeping your appointment 3.3%	Embarrassment 6.6%	Problems with Oral hygiene 6.6%	Problem in speaking 3.3%	Problem in eating 26.6%	Pain 53.3%	

TABLE 4: DESCRIPTIVE STATISTICS FOR AGE AND GENDER

N=30	Male N=5	Female N=25
Minimum	10	10
Maximum	16	15
Range	6	5
Count	5	25
Sum	62	290
Mean	12.4	11.6
Median	12	11
Mode	10	11
Standard Deviation	2.608	1.414
Variance	6.8	2
Mid-Range	13	12.5
Inter Quartile Range	4	2
Sum of Squares	27.2	48
Mean Absolute Deviation	2.08	1.152
Root Mean Square	12.62	11.68
Std. Error of Mean	1.66	0.2828
Skewness	0.3248	0.7248
Kurtosis	1.302	2.625
Coefficient of Variation	0.2103	0.1219

CONCLUSION

This study aims to document the demographic data regarding the psychological perception of patients about malocclusion in population of Abbottabad. The conclusion in this study seems to be that patients place a lot of emphasis over their facial appearance and beauty. Not surprisingly, parents primarily the mothers[21], were responsible for seeking treatment for young and adolescent children. Patients placed high value on facial appearance to be normal to have high self-esteem and self-satisfaction and peer acceptance. Further studies are required to validate the findings with larger sample size.

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