



Self Perceived Orthodontic Treatment Need in Dental Students

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ABSTRACT

The aim of the study is to evaluate the self perceived orthodontic treatment need in a dental school population by survey using three different scales. Aesthetic alterations in the face can be self-perceived and can affect quality of life. For young people, physical attractiveness is an important factor affecting social relationships. The aim of this study was to estimate the prevalence of malocclusion, identify the most common types and test its association with oral aesthetic self-perception in dental students from age 18 to 25 years old. 250 dental students from saveetha dental college were asked to fill questionnaires which consisted of a few indices that considered self-perception regarding their orthodontic treatment need. The survey questionnaires included three different scales like,

- I) Orthodontic aesthetic subjective impact scale (OASIS)
- II) Aesthetic component (AC) of Index of orthodontic treatment need (IOTN)
- III) Visual analogue scale (VAS)

Out of 250 dental students, 71% of the students were satisfied with their teeth and its aesthetics while the rest of the 29% of the students felt they were dissatisfied with the way their teeth looked.

Keywords: Aesthetic self-perception, Orthodontic treatment need, Dental school students, oro-facial appearance.

INTRODUCTION

The face is said to be the most important physical characteristic in the development of self-image and self-esteem, as positive social interactions have been shown to result in better interpersonal relationships and more self-confidence.^{1,2} Any significant deviations from the norm may result in feelings of insecurity related to appearance, inhibition in social contacts, and comparison of self with others considered to be 'superior', all of which may negatively affect the quality of life of the individual.^{3,4,5} Dentofacial aesthetics is one important motivational factor to seek orthodontic treatment and, therefore, an improvement in appearance should be an essential treatment goal.^{6, 7, 8} In the past, orthodontic treatment need was evaluated from a strictly professional viewpoint (normative need), but several studies have stated that self-perceived dental appearance is also important in the decision to seek orthodontic treatment.⁹⁻¹² The main goals of orthodontic treatment are to correct aesthetic impairment, improve oral function, and help patients restore their socio-psychological well-being.¹³ As the perceptions of the dental professional and patient do not always coincide,¹⁴ the self-perceived need expressed by the latter or his or her orthodontic concern should be incorporated into the clinical criteria.^{15, 16}

MATERIALS AND METHODS

This survey study was done among the dental school students population. Students who are under orthodontic

treatment were excluded and fifty from each year of study (from first year to fifth year of study) were chosen and were asked to fill up the questionnaires consisting of three scales which are as follows,

- I) Orthodontic aesthetic subjective impact scale (OASIS)
- II) Aesthetic component (AC) of Index of orthodontic treatment need (IOTN)
- III) Visual analogue scale (VAS)

Totally 250 students answered the questionnaires and their doubts were clarified patiently to help them fill the questions according to their perception. The questionnaire consisted of totally 12 questions which included general information like name, age, sex, ethnicity, if they were dissatisfied with their own teeth followed by which there were questions from orthodontic aesthetic subjective impact scale (OASIS) which included five questions that is mentioned in figure 1 which has answer scale from 1 to 7 out of which the students were allowed to tick the number they thought would suit their perceptions. Followed by OASIS scale, there was aesthetic component (AC) of index of orthodontic treatment need (IOTN) which allowed the students to see the picture from figure 2 and compare the pictures to their teeth and select a rating from 1 to 10 out of which 1 represents the most aesthetic set of teeth to 10 which was the worst aesthetic appearance. Then the twelfth question was the Visual analogue scale in which the student was asked to look their own teeth in the mirror and give it a rating



2. Rate your teeth according to visual analogue scale (VAS)



Figure 3: showing visual analogue scale to rate the aesthetics of the participants’ teeth by themselves.

RESULT

Out of 250 students 78% were females and 22% were males and there were no significant relation between the age, sex or ethnicity to the dissatisfaction felt by the students about their own teeth. The percentage of females and males participated in this survey are tabulated in table no 1. Dissatisfaction with the students’ teeth as mentioned by them are tabulated in table no 2 with a pictorial representation in figure no 4.

Table no 1

Sample Characterization Sex	Absolute frequency (n)	Relative frequency (%)
Female	195	78
Male	55	22

Table no 2

Dissatisfaction with their own teeth	Female (n)	Male (n)	GRAND TOTAL Absolute frequency (n)	RELATIVE FREQUENCY (%)
YES	60	17	77	31
NO	135	38	173	69
Grand Total	195	55	250	100

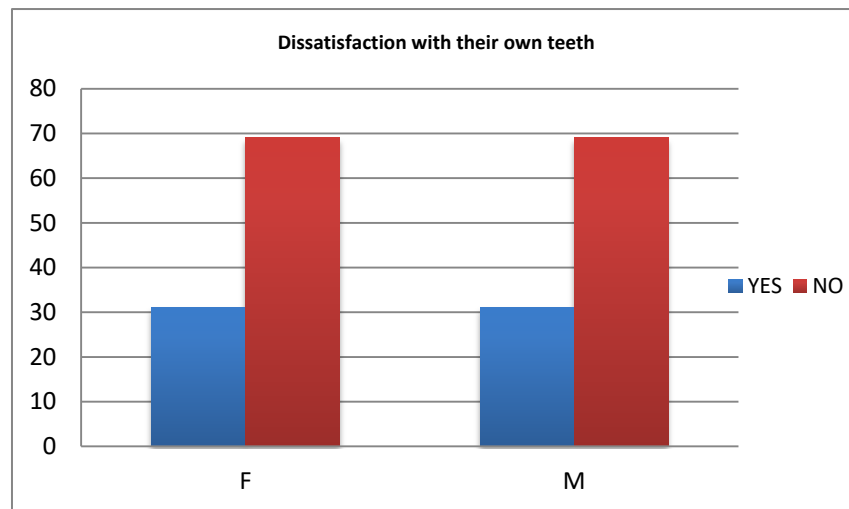


Figure 4: showing there was no difference in percentage of students’ dissatisfaction of their own teeth according to their gender.

Based on OASIS scale, there were 1 to 7 options for all five questions mentioned above, we have divided the ratings into four groups like very satisfied, satisfied, dissatisfied and very dissatisfied groups and the number of people who fall into each category is mentioned in table no 3 and figure number 5

According to the IOTN-AC criteria, assessment of the need for orthodontic treatment classified the subjects into 3

groups: no need [1 – 4], borderline cases [5 – 7] and definite need [8 – 10].According to this need for orthodontic treatment classification mentioned above, the students are categorized based on the treatment need perceived by them into three categories, namely, no treatment needed, borderline cases and cases that require treatment and tabulated in table no 4 and represented in figure no 6

Tabular column no 3

Variable	Absolute frequency (n)	Relative frequency (%)
Orthodontic aesthetic subjective impact scale (OASIS)		
Very satisfied	92	37
Satisfied	85	34
Dissatisfied	45	18
Very Dissatisfied	28	11

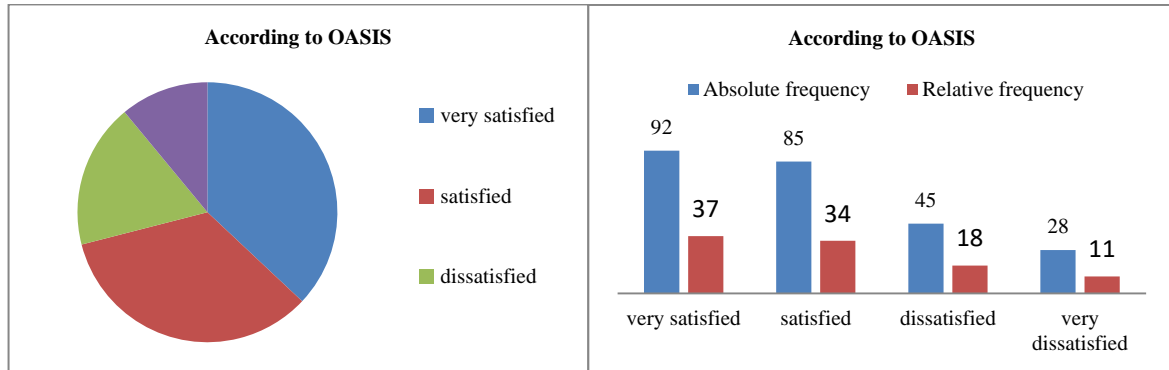


Figure 5

Tabular column no 4

Variables	Absolute Frequency (n)	Relative Frequency (%)
Orthodontic treatment need AC of IOTN		
No need	237	95
Borderline cases	11	44
Definite need	2	1

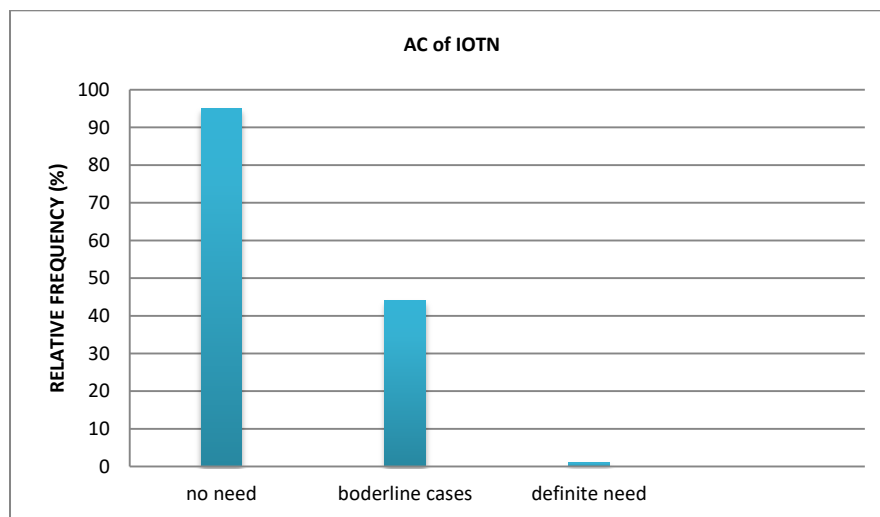


Figure 6

According to Visual analogue scale, the values chosen by the students is tabulated in table no and none chose 0 and 1 which were considered to be the worst aesthetics and the maximum number of students of 174 chose ratings from 6 – 8 and 47 students perceived their teeth to have the most ideal aesthetics in visual analogue rating. And the number of students and percent of

students who rated their teeth based on VAS has been tabulated in table no 5.

Tabular column no 5

VAS score	Absolute frequency (n)	Relative Frequency (%)
2	4	1
3	3	1
4	8	3
5	14	6
6	35	14
7	77	31
8	62	25
9	18	7
10	29	12
Grand total	250	100%

DISCUSSION

And there was no significant variation of perception of orthodontic treatment need in students of various age groups, sex or ethnicity. Some occlusal conditions related to aesthetic impairment, such as incisor crowding, upper and lower misalignment and missing teeth were not associated with the aesthetic subjective impact of malocclusion (OASIS). This finding was in disagreement with a previous study which showed an association between this instrument and occlusal alterations.¹⁷ This fact highlights the great variability and complexity of perception of facial aesthetics, with significant differences between normative and self-perceived values.^{18,19} Overall, 31 percent of the students were dissatisfied with their teeth and answered yes for the question if they were dissatisfied with their teeth, while the rest of the 69% of the students were not dissatisfied and thought they do not need orthodontic treatment. 29% of the students were unsatisfied with their teeth while the rest of the 71% were satisfied and did not think they need orthodontic treatment according to the OASIS scale. And 89% of the students were satisfied with their teeth and 11% were unsatisfied according to Visual analogue scale ratings given by them.

CONCLUSION

Self perception of orthodontic treatment need plays a major role in bringing the patient to the orthodontist for treatment and the perception varies according to psychological status, basic knowledge of malocclusions and also perception changes according to the comments an individual receives from the surrounding people. OASIS proved to be more helpful in knowing the satisfaction of the individuals about their teeth. VAS score ratings and Aesthetic component of IOTN showed less correlation. No relation between the gender and the differences in the perception of orthodontic treatment needs was found.

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