

## A Survey On Attitude Towards Orthodontic Treatment In Rural Area Among Students

### Abstract

**Objective :** To evaluate the attitudes and perceptions of students in rural area towards orthodontic treatment & to determine the problem in perceiving orthodontic treatment.

**Methods :** A cross sectional questionnaire based survey was conducted among 225 students from a higher secondary school in a village of Rajasthan. 12 items questionnaires were used to collect the data.

**Results :** Oral hygiene maintainence is a problem emerged as a major perception towards orthodontic treatment in 40% of population; next problem is duration of treatment with 37.3% population reported. 86% subjects reported teeth as a major feature for facial aesthetics. Only 4.5 % of subjects reported orthodontic treatment expensive. There are 12% subjects feel that there is lack of information towards orthodontic treatment still prevailing.

**Conclusion :** The principal conclusion reported in present study is that people consider smile as a major factor for aesthetics. Reason for other patients not opting for orthodontic treatment is not because this being too expensive but lack of information. There has to be a special campaign towards educating school children towards treatment modalities present and what difference they can bring in someone's life.

### Key Words

Malocclusions; orthodontic corrective; facial esthetics

### Introduction

Many researchers have shown how attractive person has an added advantage over his or her less attractive counterparts, be it in the social or career context. Enhancing appearance and improving psychosocial status have been considered as important motivating factors behind an adult's decision to initiate orthodontic treatment. However research for initiating orthodontic treatment may vary across cultural and socio-economic backgrounds. Epidemiological studies on caries experience and patient demographic realities have encouraged both general dentists and orthodontists to incorporate adult orthodontic treatment into their practices<sup>[4]</sup>. During fixed orthodontic treatment, some problems like poor oral hygiene, carious lesion can occur. With more adults seeking orthodontic treatment practitioners should focus their attention beyond the orthodontic mechano-therapy to the more subjective aspects of patents discomfort and attitude towards treatment<sup>[4]</sup>. Patients face many problems to start up with orthodontic treatment; one of the most common reasons may be the lack of information followed by other reasons like fear of pain, embarrassment, expensive and long duration of treatment etc<sup>[6]</sup>. Also there

may arise problems in various part of mouth like in tongue, lips, cheeks, etc. Orthodontic treatment resulting in proper alignment of teeth seems to bring about many alterations in the patient's life like in career opportunities, social interaction and confidence<sup>[6]</sup>. This study attempts to identify favorable and unfavorable aspects of orthodontic treatment from the patients' point of view and their motivation to accept and continue with treatment. The aim of the present study was to assess the attitude and perception towards orthodontic treatment by students suffering from malocclusion from a localized rural population.

### Material And Methods

A cross sectional questionnaire based survey was conducted among 225 students from Government Girls Senior Secondary School, Bagru, Jaipur during the period of 2012. Bagru is located Jaipur District of Rajasthan State, known for Bagru prints on clothes. The reason for selecting girls school was a common perception that girls are more esthetic concern.

All the students with a positive consent were considered in the study and were provided with a questionnaire to be filled by them although they were free to come

<sup>1</sup> Kuldeep Sharma

<sup>2</sup> Anu Sangwan

<sup>1</sup> Post Graduate Student,  
Dept. of Orthodontics & Dentofacial Orthopedics

<sup>2</sup> Lecturer, Dept. of Oral Medicine & Radiology  
Rajasthan Dental College & Hospital

### Address For Correspondence:

Plot No.287, Tagore Nagar,  
Near Heerapura School, Main Ajmer Road,  
Jaipur, Rajasthan -302021  
Contact No.-09414757900

Submission : 15<sup>th</sup> July 2012

Accepted : 14<sup>th</sup> July 2013

Quick Response Code



up with queries. A 12-item questionnaire, designed to investigate student's attitudes and perception of orthodontic treatment, was administered to students to get information whether the rural population was aware of orthodontic treatment & what the problems are. The questionnaires were filled by the students and collected by the dentists during their visit to the school. Completed questionnaires were received from 225 patients.

The study group selected was of age group of 17-22 years.

### Results

Response rate for the present study was 100%.

Table 1 reveals about the general oral hygiene maintenance methods used in rural students. All the students were aware of maintaining oral hygiene irrespective of the method used for cleaning teeth. 99.5% students used

Table 1: Awareness Of General Oral Hygiene Maintenance

Oral hygiene aids used	Percentage
Toothbrush & Toothpaste	99.5%
Toothpaste with finger	0.0%
Toothpowder	0.44%
Any other	0.0%

Table 2: Awareness of orthodontic treatment

Sources of awareness	Percentage
Parents	16.8%
Peer group	38.2%
Television	13.7%
Dentist	25.7%

Table 3: Need for Orthodontic treatment

Factors	Yes	No
Smile	93.7%	6.25
Willingness	57.7%	42.2%
Personality	96.4%	3.5%

Table 4: Problems in perception of orthodontic treatment

Problems	Yes	No
Difficulty in eating	37.7%	62.2%
Pain	44.4%	55.5%
Peer group reaction	66.6%	33.3%

toothpaste & toothbrush while 0.44% used toothpowder.

**Table 2** : reveals the awareness of students towards orthodontic treatment. Interestingly the 5.3% students were unaware of orthodontic treatment. The students who were aware of this treatment got this information from peer group with the percentage of 38.2%. The second most common source of information was their recent visits to the dentist for some other reason & they came across the malocclusion problem when dentist educated them. Some of them got the awareness from parents & television with the percentage of 16.8% & 13.7% respectively.

**Table 3** : reveals that 57.7% of the rural students were not willing to get the treatment to get done even if they got chance in future. These were the students who considered smile as important factor in esthetics & were satisfied with their personality. The students who want treatment to be done considered improvement in smile & personality as a criteria.

**Table 4** : reveals the problems they can come across while opting orthodontic treatment. Out of three causes the highest percentage was their peer group reaction with 66.6%. 44.4% were concerned about the pain caused by wearing braces & 37.7% complained that it will cause difficulty in chewing food with the percentage of 37.7%.

## Discussion

Our results demonstrated that the improvement in self-confidence and physical attractiveness as a result of enhanced “dental” or facial appearance was the most important motivating factor for treatment. Improvement in psychosocial status resulting from orthodontic treatment should therefore be cited as an important factor for treatment, unfortunately, the commonly implemented orthodontic indices use to determine treatment priority do not take this factor into consideration, as psychological testing often requires the use of sophisticated questionnaires and professional evaluation. It was interesting to note that improvement in self-confidence was rated only second to the enhancement in dental aesthetics, when patients were asked for the main reason for them in seeking treatment. Furthermore, improvements in career opportunities, social life and self confidence following orthodontic treatment were seen as motivating factors in of patient’s. Also most of the patients felt that crooked teeth seek long duration of treatment; lack of information was the next most important reason hence they did not go for treatment. Wearing braces among adults in Indian Rural society is still not as accepted as Europe and America<sup>[1]</sup>. This was also a discouraging factor. In other studies it has been shown as fear of pain was the main discouraging factor in other countries. With the advent of ceramic labial appliances and lingual orthodontic appliances the task of marketing orthodontics to adult should be less formidable. Orthodontists are capable of changing the arrangement of teeth, jaws and shape of face, which 96.4% of subjects considered “the most important facial feature” this fact high light the important role of the dental profession in determining facial aesthetics. Dentists have a large part to play in recommending orthodontic treatment when indicated. The state health service should also strive to educate the public about dental and orthodontic treatment. This result was similar to study by Breece et al<sup>[4]</sup>. It also noted that 15.5% of subjects did not seek treatment earlier because they were unaware, confirming the findings of Breece and Neiberg on 204 Caucasian patients who had completed orthodontic treatment. Our dental health education programmes should put more efforts in making patients aware of dentistry as a

contributing factor to health. With the advancement in orthodontic materials (aesthetics and a better understanding of the histology of tooth moments, the adult to children patient ratio in orthodontic practices has increased dramatically. Unfortunately few studies have been published on the discomfort involved in orthodontic tooth movement in adults<sup>[2]</sup>. The discomfort following orthodontic tooth movement is often for about 1-2 days, was found in the present study to affect teeth, cheeks, lips and tongue. The main concern of students regarding treatment was reaction of their friends on wearing braces which was originated due to lack of complete knowledge about treatment. Also our study has shown that perception towards pain caused by orthodontic appliances had a wide range of individual response, reflecting the subjectivity of the pain response. This difficulty could be brought on by the discomfort of foreign attachments on the surface of teeth and the tenderness on activation of the arch wire. Orthodontists should control post adjustment orthodontic pain via several means such as dietary restrictors (soft diet) and non steroidal anti-inflammatory agents such as aspirin and ibuprofen immediately following bending or in patients who experience repeated post-adjustment pain. Difficulty in chewing food was experienced by 38% of patients in our study while several studies on lingual orthodontic patients have implicated tongue soreness as the main contributor to chewing problems<sup>[5]</sup>. Our results also showed an almost similar percentage of patients with speech problems and tongue soreness. Several authors have suggested that motivation plays a key role in successful adult orthodontic therapy (16-19). The importance of a dentist educating his patient about the benefits of orthodontic treatment need not be over-emphasized.

## Conclusion

The principal conclusion reported in present study is that people consider smile as a major factor for aesthetics. Reason for other patients not opting for orthodontic treatment is not because this being too expensive but lack of information such as peer group reaction, pain & discomfort etc. There has to be a special campaign towards educating school children towards treatment modalities present and what difference they can bring in someone’s life. Also

school dental health programmes should be conducted to educate students about orthodontic treatment in which they should educate about malocclusion, effects of malocclusion, orthodontic treatment as a personality developing factor, about ceramic braces etc so that they can opt for it easily.

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Source of Support : Nil, Conflict of Interest : None declared