



RESEARCH ARTICLE

PERCEPTION AND ATTITUDE OF PATIENT TOWARDS ORTHODONTIC TREATMENT

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ABSTRACT

Even though enhancing appearance and improving psychosocial status have been put forth as important motivating factors behind the decision to initiate orthodontic treatment, the exact reasons for initiating orthodontic treatment may vary across cultural and socio-economic backgrounds. Hence the current study was undertaken to determine the motivating factors for patients who seek orthodontic treatment. In order to determine the motivating factors for seeking orthodontic treatment, a questionnaire based survey was conducted on the patient reported for orthodontic treatment to the Department of Orthodontics, S D M Dental College and Hospital Dharwad. After evaluation of response of 100 participants it was seen that, enhancement of dento-facial appearance and improvement in self-confidence was cited as the most important motivating in 75% of the patients. While 15% of patients approached treatment for health reasons, only 10% sought orthodontic treatment for functional reasons. Long duration and fear of pain of the treatment was the reason for not seeking orthodontic treatment. As patient cooperation is one of the main factors which determine the outcome of orthodontic treatment it becomes important to consider these motivational factors before initiating orthodontic treatment.

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INTRODUCTION

Research has emphasized how the more physically attractive person has an added advantage over his or her less attractive counterparts (Berscheid, 1971), be it in the social or career context. Enhancing appearance and improving psychosocial status have been put forth as important motivating factors behind an adult's decision to initiate orthodontic treatment (Maccirkgor, 1970; Sims, 1972; Katz, 1978; Strkker, 1979). Improvement of oral health and enhancement of psychosocial well-being are perceived benefits of orthodontic treatment. Patient's expectations from orthodontics are primarily improvement in appearance, self-image and social functioning. This is supported by research on general body image which shows that individuals satisfied with their own physical appearance tend to be more outgoing and successful in social contact (Cash, 2002). Facial aesthetics seems to be a significant determinant of self and social perceptions. Optimal facial appearance is not only seen as being more attractive but also more socially accepted by peers, teachers, employers, and others. Smiling is still considered to be one of the most effective methods of influencing people (Kokich et al., 1999; Kokich, 2006).

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Correlations between satisfaction with dental and facial appearance and expectations of orthodontic treatment appear to be age, but not gender related. Although many different factors motivate patients in their decision to undergo orthodontic treatment, many adolescents are not fully conscious of external influences such as social norms, and the concept of beauty in their cultural group or society. Thus, it is essential to understand subjective motives for undergoing orthodontic therapy and thereby set realistic treatment goals (Trulsson et al., 2002). However, it has been reported that up to 75 per cent of adult patients are dissatisfied with their dental aesthetics and that this is their prime motive for seeking treatment found that three out of four individuals considered orthodontic treatment important, even when irregularities of the teeth were minor. A majority of the individuals stated that they would have been able to wear visible fixed appliances if needed, even in adulthood. Females demonstrated less satisfaction than males with the appearance of their dentition and were more likely to perceive a treatment need (Birkeland et al., 1996). Motivation for orthodontic treatment is important when attempting to better understand patients' overall treatment cooperation. Previous research demonstrated that lack of motivation in adolescents is significantly associated with their discontinuation of orthodontic treatment. Prior research also demonstrated that parental influence is instrumental to treatment motivation even when an adult first expresses

interest in receiving treatment. However, reasons for initiating orthodontic treatment may vary across cultural and socio-economic backgrounds. So this study was undertaken to determine attitudes and perceptions of adult patients towards orthodontic treatment.

## MATERIALS AND METHODS

A study specific close-ended questionnaire was prepared to collect the data from the study groups. The sample size was determined through the convenience sampling technique in the SDM college of dental sciences, Dharwad. A total of 100 samples were selected. Literate patients aged between 15-30yrs were included in the study. Informed consent was obtained from the study. The reliability for the questionnaire was checked by Cronbach's alpha test and the reliability coefficient was 0.76 which is acceptable and it had a good face and content validity.

### Proforma For Data Collection

**Which one of the following most accurately describes the reason for you seeking orthodontic treatment?**

- a) Attain straight teeth      b) Enhance the facial appearance  
c) Improve speech          d) Improve dental health

**In your opinion which of the following features is most important in determining facial esthetics?**

- a) Complexion      b) Face shape      c) Teeth      d) Jaws

**Why do you think other adults with crooked teeth do not seek orthodontic treatment?**

- a) Takes too long      b) Fear of pain  
c) Expensive          d) Lack of information

**Why did you wait till now to have orthodontic treatment?**

- a) Could not afford till now  
b) Relapsed  
c) Teeth more crooked  
d) Appearance is more important to me now

**Who suggested you to take orthodontic treatment?**

- a) Relative / friends      b) Self  
c) Physician              d) Dentist / dental specialist

**What is in your opinion is the worst part about orthodontic treatment?**

- a) Discomfort      b) Speech  
c) Duration          d) Embarrassment

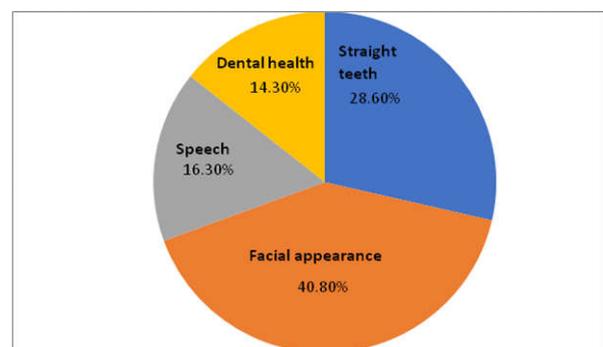
**Which of the following areas of your life will improve after your orthodontic treatment/straightening your teeth?**

- a) Career opportunities - yes , no , unsure  
b) Social interaction – yes , no , unsure  
c) Confidence – yes , no , unsure  
d) All of the above

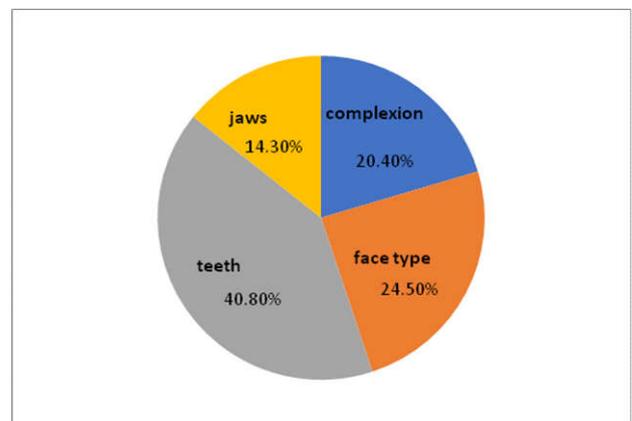
## RESULTS

Statistical analysis was performed using SPSS (version 18). Descriptive statistics were presented in the form of mean and standard deviations. Results of descriptive analyses of demographic data revealed that about 90% of the patients surveyed were between 18 and 25 yr old, with the remaining 10% between 28 year and 32 year old. The mean age of the sample was  $23.2 \pm 3.2$  yr, 66 of the respondents had at least 12 year education. About 90% were single while the remaining 10% were either separated/married or divorced. 43% percent were professionals, 21% were studying in tertiary institutions, 14% were skilled workers, 12% were unskilled workers and the remaining 10%, were unemployed. About 70% of the respondents were females. The relative importance of motivating factors affecting an adult patient's decision to embark on orthodontic treatment is shown in descending order.

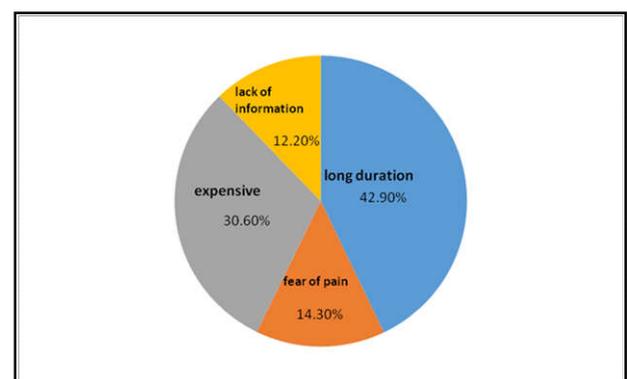
### Most important motivating factor seeking orthodontic treatment



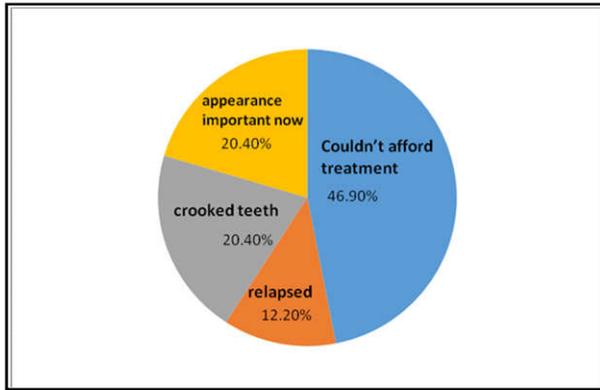
### Facial feature which are considered most important determining facial esthetics



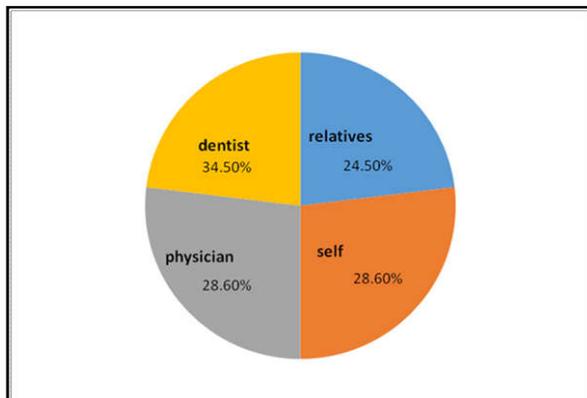
### Reasons why they thought with crooked teeth do not seek orthodontic treatment



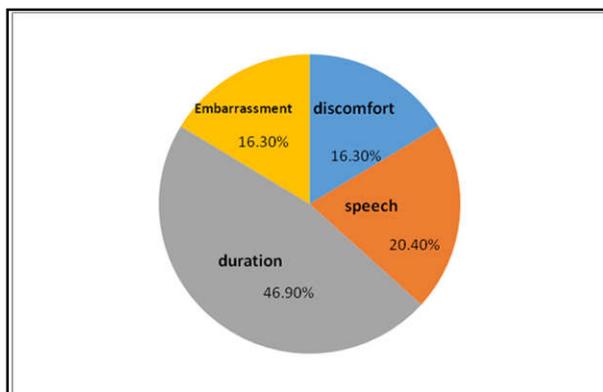
### Reasons why they waited to seek orthodontic treatment



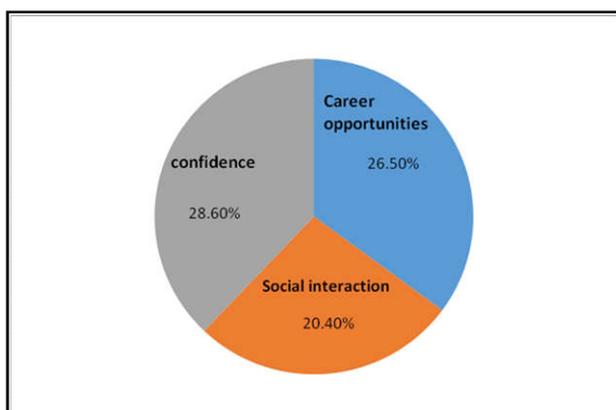
### Source of referral for orthodontic treatment



### Opinion of what they consider the worst part about orthodontic treatment



### Opinion about which area of life will be altered as a part of orthodontic treatment



Enhancement of den to-facial appearance and improvement in self-confidence was cited as the most important motivating factors in almost 80% of respondents. While 15% of respondent's sought treatment for health reasons, only 15% sought orthodontic treatment for functional reasons.

### DISCUSSION

Care was taken to encourage a response from those surveyed by enclosing a stamped self-addressed envelope and making the survey simple to complete. Although the demographic data included age, marital status, sex and occupation, the responders were not required to fill up their names. The demographic data suggested that the majority of adult patients were either students in tertiary institutions or professionals who had just entered working life. We were therefore dealing with a well educated segment of the population. The survey showed an almost 3:1 majority of female respondents, which was also a reflection of the female to male ratio in patients seeking orthodontic treatment in our hospital. The preponderance of females perhaps highlights the greater importance attached to appearance by females. Our results demonstrated that the improvement in self-confidence and physical attractiveness as a result of enhanced "dental" or "facial" appearance was undoubtedly the most important motivating factor for seeking treatment (pie chart 1 and 7). It is 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 in 27%, 21%, 29% of patients respectively (pie chart 7).

Most of the respondents felt that the duration of orthodontic treatment was the main reason for not seeking orthodontic treatment (pie chart 3). Lack of information was the next most important reason. Unlike other studies on Caucasians<sup>(11, 12)</sup> where fear was one of the key factors discouraging patients from seeking treatment. In our study, fear of pain was cited as the third reason for not seeking treatment. It was also noted that 24% of respondents did not seek treatment earlier because they were unaware that adults could wear braces, confirming the findings of BRBECE & NiEBERG (Oeiver, 1985) on 204 Caucasian patients who had completed orthodontic treatment. This may point to a weakness in the dental health education programme and should signal more concerted efforts by the health educators in making patients aware of dentistry as a contributing factor to health. 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.

In our study, most of the patients seeking treatment in our hospital were self-referred; only about 20% had orthodontic treatment recommended by a dentist or dental specialist (pie chart 5). These results differed from those published by BREECE & LEW NEIBERG A on American patients where dentists were the largest source of referrals for orthodontic treatment. Unfortunately, few studies have been published on the discomfort involved in orthodontic tooth movement in adults. Difficulty in speech was experienced by patients, but again this was transient as it lasted only for 2 days in over 20% of patients (pie chart 6). Several studies on lingual orthodontic patients have implicated tongue soreness as the main

contributor to speech problems (Sinclair, 1986; Mariotti, 1984). Our results also showed almost similar percentages of patients with speech problems and tongue soreness. The importance of a dentist educating his patient about the benefits of orthodontic treatment cannot be over-emphasized (Barrer, 1977).

### Conclusion

This study proved that in a relatively Indian community, the motivating factors for adults in seeking orthodontic treatment lay primarily in the enhancement in den to facial appearance together with its accompanying improvement in self-confidence. A major difference was that our patients cited duration rather than fear and embarrassment as the major factor deterring people with orthodontic needs from seeking treatment.

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