

Patient's dento-facial motivations for orthodontic treatment: A questionnaire study

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Abstract

Introduction: Patients are concerned about their aesthetics; however it is important to realize that due to lack of awareness, generally people feel that facial aesthetics is not the domain of orthodontist. Hence they mainly report to orthodontists with dental anomalies only, especially prominent incisors or crowding. The objective of this study was to assess the dento-facial motivational factors for orthodontic treatment.

Material and Methods: A total of 250 physically and mentally healthy participants, aged 18-45 years were included in this study. These patients filled a consent form and valid questionnaire. SPSS 17.0 was used for statistical evaluation.

Results: Results showed that straightening of teeth (23.2%), prominent maxillary incisors (21.2%) and deep bite (17.6%) were the pivotal concerns.

Conclusions: Females were more aesthetically literate and concerned. Concerns of maxillary arch problems were more important to patients than lower anterior crowding. Adult patients and guardians of younger patients showed concern about treatment need.

Keywords: Patient perception; patient expectations; orthodontic treatment

Introduction

Patients along with their parents have dento-facial aesthetic concerns. However they have certain fears that do not let them visit the orthodontist and fail to get their concerns evaluated and thus treated. Patients in general and parents in specific need motivational counseling that can help them overcome their concerns. 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 beauty culture in society.¹ Thus, it is essential to understand subjective motives for undergoing orthodontic therapy and thereby set realistic treatment goals.²

Birkeland & Riedmann in their studies have reported that up to 75 per cent of adult patients are dissatisfied with their dental aesthetics and that this is their major cause for seeking treatment.^{3,4} Bergström found that 75% individuals considered orthodontic treatment important even when irregularities of the teeth were minor.⁵ Females demonstrated less satisfaction than males with the appearance of their dentition and were more likely to perceive a treatment need. Asians and females had higher Index of Orthodontic Treatment Need Dental Health Component scores.^{6,7}

Factors that force patients to seek orthodontic treatment include from profile concerns like lip incompetence, lip prominence, incisal show at rest, nose-lip-chin imbalance, smile aesthetics to dental aesthetics including maxillary incisor prominence, irregular maxillary teeth, buccally placed unilateral / bilateral canines, lower crowding, open bite, deep bite and a few concerned about their chins. However the patients and particularly their parents need counseling regarding treatment time, chair side time, number of

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visits, finances, metallic brackets, success of treatment and relapse.⁸⁻¹⁰

Aim of this study was thus to find out the dento-facial aesthetic factors that lead to internal motivation for orthodontic correction of their dento-facial deformity.

Material and Methods

A total of 250 physically and mentally healthy participants (patients / parents) reporting at Orthodontic Department, Margalla Institute of Health Sciences, Rawalpindi and Orthodontic Department of University College of Dentistry, The University of Lahore, with age range of 18-45 years were included in this study. These patients filled a consent form as part of the study and completed a valid questionnaire. This questionnaire was tested for reliability and validity. Non-probability purposive sampling technique was used to collect data with descriptive cross-sectional comparative study design. SPSS 17.0 was used for statistical evaluation. Descriptive Statistics were assessed for this qualitative data.

Results

The study was conducted on 250 subjects with age frequency for young and adult patients (Table I) and male to female ratio (Table II). Patient's / Parent's need treatment for aesthetic reasons (Table III).

Patient's / Parent's Motivational factors for orthodontic treatment (Table IV) shows that 23.2% were concerned about straightening of their teeth while another 21.2% patients / parents were concerned about the prominence of upper teeth. Only 10% patients were concerned about crowding in the lower arch. Basic reason for that was that lower incisor are not seen during smile in females and majority of the patients / parents in the study were females.

Table I. Age distribution

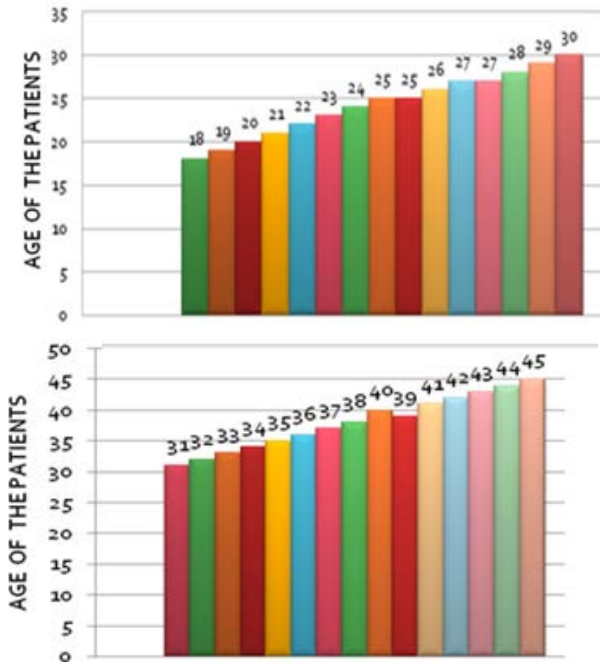


Table II. Male to female ratio

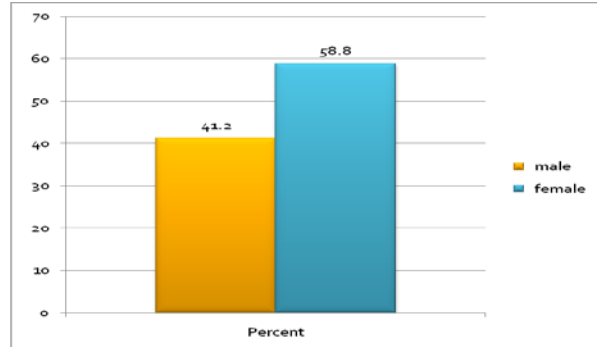


Table III. Treatment need for aesthetics

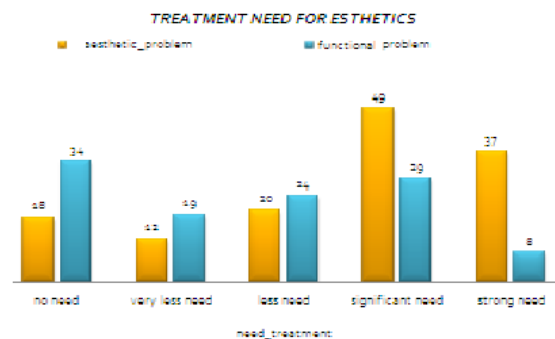
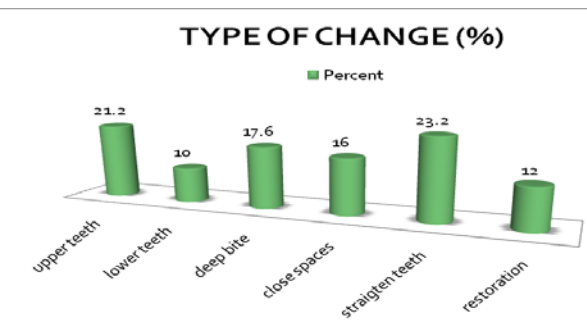


Table IV. Patient's /parent's motivation for orthodontic treatment

Discussion

In the present study it was found that the number of patients dissatisfied with the appearance of their teeth increased with age. Birkeland and Bos reported similar results in their studies.^{11,12} In relation to gender, females in the present study demonstrated more concern for appearance (58 percent) than males (42 percent) which corresponds with the findings of previous studies.^{4,6,7,12,13-17}

Prabakaran used Q-methodology to investigate motivating factors among adolescents seeking orthodontic treatment and parents wanting their children to undergo orthodontic treatment and concluded that for the patients, factor analysis identified 3 factors, all of which included esthetics, as most important. For the parents, factor analysis identified 4 factors all of which included treatment for dental improvement in adolescence to prevent future problems, as most important. In our study esthetics was given due weightage as a treatment concern however dental aesthetics was the prime area of assessment in our questionnaire.¹⁸

Dental anomalies have been reported to be the cause of teasing and 'general playground harassment' among children and are associated with lowered social attractiveness.¹⁹ Dental aesthetics was assessed in our study and maxillary incisor prominence and crowding were rated as the major reason for treatment. Parents were found to be more concerned about their

children's aesthetics in our study which is in line with the findings of Birkeland, Tung and Kiyak.^{11,20} The number of parents/guardians dissatisfied with the appearance of their children's teeth were 75 percent of which 54 percent wanted their children 'to look pretty'. Similar findings were noted by Trulsson and Bergström.^{5,21}

The results of the current study are in agreement with the findings of Dann that dento-facial appearance undoubtedly plays an important part in establishing the overall attractiveness of individuals and thus is the major contributing motivational factor for seeking orthodontic treatment.²²

Conclusions

Straightening of teeth (23.2%), prominent maxillary incisors (21.2%) and deep bite (17.6%) were the pivotal treatment seeking concerns. Since lower incisors are not seen on smile so that was not the concern, especially in female participants. Adults along with parents of young children were more concerned about the treatment. Moreover females were more aesthetically literate. It was however concluded that patients and parents were not generally aware of the fact that orthodontic treatment is not only for dental improvement but also for facial aesthetics as well; therefore they were not discussing facial aesthetic concerns with orthodontists.

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