

PATIENT PERCEPTION REGARDING IMPACT OF ORTHODONTIC TREATMENT

¹ZUBAIR H. AWAIISI, FCPS (Orthodontics)

²SAAD ASAD, FCPS (Orthodontics), Invisalign Certified Orthodontist

³AMJAD MAHMOOD, FDS RCS (UK)

ABSTRACT

The objective of this study was to assess the orthodontic treatment need and outcome expectations among patients and to assess whether their expectations were realistic or unrealistic. A total of 200 physically and mentally healthy participants age 12-30 years were included in this study. These patients filled a consent form and valid questionnaire measure of orthodontic treatment need and outcome expectations. SPSS 17.0 was used for statistical evaluation. It was concluded that Patient's perception regarding orthodontic treatment need varies from no treatment (4%) need to strong treatment need (18.5%). Majority of the patients (60%) however felt significant treatment is needed. 56.6% patients themselves were concerned about their self being and felt that orthodontic treatment would improve their dento-facial concerns while 49.5% patients felt treatment need necessary but pressures from society was additional reason. 3% surly have unachievable aesthetic expectations from treatment. Out of 31.5% patients who wanted sufficiently good treatment at the end of treatment 10% were unattainable. 7% patients had unrealistic expectations, 33% patients had realistic expectations but were demanding while 60% patients had realistic expectations from treatment.

Keys: Patient Perception, Patient Expectations, Orthodontic Treatment

INTRODUCTION

People's perception of their position in life is affected by aesthetics.¹ Several studies have examined how orthodontic treatment affects aesthetics, occlusion, psychological well-being and thus the Quality of Life.² Most researchers have found that patients have different perceptions (realistic vs un-realistic) from the Orthodontic treatment and they feel that quality of life do improves with the orthodontic treatment which affects macro-aesthetics, mini-aesthetics and micro-aesthetics.³⁻⁵ Studies have shown that patients coming for orthodontic treatment believe that good profiles and beautiful faces affect their social life. Marriages, jobs finding, type of jobs, promotions, business and pressure from peers / society.⁶

Reichmuth M et al in their study on patients age eight to fourteen found that they expect significant

improvements in their social and psychological well-being and in their oral function after orthodontic treatment, but less so in their general health.⁷ Tung AW et al⁸ and Kiyak HA et al⁹ in respective studies studied that Patients' and parents' have mostly realistic expectations from treatment. Non-Hispanic white children and their parents expect greater improvement in appearance than other ethnic groups. Latino and African American children report higher expectations for improved social acceptance following treatment.

Patients thus seek orthodontic treatment because dento-facial deformity can variably affect an individual's social adjustments. Many patients seek orthodontic treatment to overcompensate their existing successful place in society. These patients are very pleasant to work with and they are also very compliant with

Correspondence: ¹Assistant Professor, Department of Orthodontics, Margalla Institute of Health Sciences, Rawalpindi. E-mail: zhawaisi@hotmail.com, Cell No: 0300-7721855

² Assistant Professor, Department of Orthodontics, Head of Oral Biology & Tooth Morphology, The University College of Dentistry, The University of Lahore. E-mail: saad2609@yahoo.com, Cell No: 0300-4079491

³ Associate Professor and Head of Orthodontic Department, Margalla Institute of Health Sciences, Rawalpindi E-mail: amjadasim97@hotmail.com Cell No: 0300-9557738

realistic expectations. A few patients seek orthodontic treatment thinking their deformity to be the most important barrier to social adjustments. Such patients will have unrealistic expectations to treatment which might not be the only solution to these barriers. Such patients with inadequate or pathologic personality must be treated with caution. Studies assessing patient's perception from orthodontic treatment have been reported from throughout the world but such studies have not been conducted in Pakistan. The objective of this study was to assess the orthodontic treatment need and outcome expectations among patients and to assess whether their expectations were realistic or unrealistic.

METHODOLOGY

A total of 200 physically and mentally healthy participants reporting at Orthodontic Department of Margalla Institute of Health Sciences and Orthodontic Department of Faculty of Dentistry, The University of Lahore, with age range 12-30 years were included in this study. These patients filled a consent form, part of the study and completed a valid questionnaire measure of orthodontic treatment outcome expectations. 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 200 subjects (100 females and 100 males) with mean age 19.87±5.05. Descriptive Statistics were calculated for each variable for each subject.

Patient's perception about treatment need was different as shown in Table 1, 192 patients, however felt that they need some sort of treatment for their dento-facial deformity while remaining 08 felt that their parent feel treatment need however they are not much concerned.

Patient's Perception Regarding Undergoing Orthodontic Treatment is shown in Figure 1

Reasons for orthodontic treatment need expectations of patients from orthodontic treatment, and

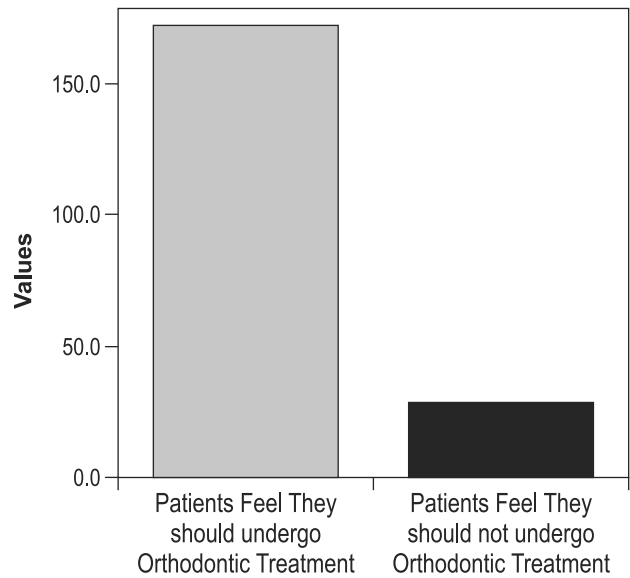


Fig 1: Patient's perception regarding undergoing orthodontic treatment

realistic vs unrealistic expectations from orthodontic treatment are shown in Tables 2, 3 and 4 respectively.

It was an interesting outcome that 07% patients/parents seek orthodontic treatment thinking their

TABLE 1: PATIENT'S PERCEPTION ABOUT TREATMENT NEED

	Observed N	Expected N	Residual
No need	8	40.0	-32.0
Very less need	16	40.0	-24.0
Less need	18	40.0	-22.0
Significant need	121	40.0	81.0
Strong need	37	40.0	-3.0
Total	200		

TABLE 2: REASONS FOR ORTHODONTIC TREATMENT NEED

	Observed N	%age
Self conscious	103	56.6
Social impact: Marriage issues	37	19.7
Pressure from peers/family	36	18.8
Job issues	16	8.0
Total	192	

TABLE 3: EXPECTATIONS OF PATIENTS FROM ORTHODONTIC TREATMENT

	Observed N	%age
Smile like favourite celebrity	6	3.0
Treatment sufficiently good	63	31.5
Treatment would solve concerns	87	43.5
Treatment would improve the concerns	44	22.0
Total	192	

TABLE 4: REALISTIC VS UNREALISTIC EXPECTATIONS OF PATIENTS FROM ORTHODONTIC TREATMENT

	%age
Unrealistic expectations from treatment	7
Expectations were realistic however felt that treatment might improve social barriers	33
Expectations were realistic (Aesthetics, Occlusion & Both)	60

deformity to be the most important barrier to social adjustments like marriage and thus had unrealistic expectations to treatment which might not be the only solution to these barriers. Such patients might need counseling in addition and should be managed with caution as shown in Table 4.

DISCUSSION

Within the field of orthodontics there is long-standing recognition that malocclusion and dentofacial anomalies can produce immense physical, social, and psychological upset.^{10,11} Increasingly, patient-centered measures are used to assess these subjective attributes in assessing orthodontic need and in determining the outcomes of orthodontic care.^{12,13} There is some understanding of patients' expectations of outcomes from orthodontic therapy and growing evidence of how their perceptions of orthodontic treatment have benefited them.^{14,15} However, there is little understanding of patients' expectations of the orthodontic treatment process.^{16,17} Most of the patients have realistic expectations from treatment. A few patients, however seek orthodontic treatment thinking their

deformity to be the most important barrier to social adjustments. These patients usually have unrealistic expectations to treatment. Such patients need psychological counseling in addition to the Orthodontic treatment.

This study was conducted on 200 patients with mean age 19.75±5.05 whereby patient's expectations from Orthodontic treatment were assessed. 07% patients in this study were found having unrealistic expectations from the orthodontic treatment. 06% patients expected celebrity smile which was also unrealistic expectation. Moreover, another 10% had unattainable treatment requirements.

Psychological benefits from Orthodontic treatment do occur however to different extent. A twenty-year observational study of 332 individuals (45 percent of whom obtained orthodontic treatment on their own during this period) between 1981 and 2001 who were between the ages of eleven and twelve at baseline found that self-esteem did not improve when baseline level of self-esteem was controlled, nor were untreated persons more likely than those who under-went orthodontic treatment to experience psychological disorders such as depression or social anxiety.¹⁸ However, those who had significant malocclusion and underwent orthodontic treatment during that period reported greater satisfaction with their dental occlusion and with their dental and general appearance. These patients also reported higher overall quality of life in their twenty-year assessment, compared with their peers who also had significant treatment needs but had not undergone treatment. 27.7% patients in this study seek orthodontic treatment due to social impact such as marriage and job related issues. They felt that orthodontic treatment might improve their social issues in addition to their dento-facial concerns.

Sayers MS, Newton JT conducted a questionnaire survey on 100 patents age 12 -14 years and concluded that patients and their parents share similar expectations of orthodontic treatment for most aspects of care, although parents are more realistic Ethnicity significantly influences expectations of orthodontic treatment, and this may relate to differences in the patients' and their parents' assessed outcome of care.^{19,20} Results of this study also found patient's expectation from treatment in Pakistan are different from other ethnics.

Acknowledgement

We deeply appreciate the services provided by the final year BDS students namely, Janita Laraib, Aleshba Saba, Huma Shiekh, Najeen Ayub Asifa Saeed and Ghanna Iqbal of Margalla Institute of Health Sciences, Rawalpindi in conducting this study.

REFERENCES

- 1 Sarver DM, Proffit WR, Ackerman JL. Evaluation of facial soft tissues. In: Proffit WR, White RP Jr, Sarver DM, editors. Contemporary treatment of dentofacial deformity. 4th ed. Elsevier: Mosby; 2008. p. 92-126
- 2 McGorry et al. Impact of malocclusion and orthodontic treatment on quality of life. Poster# 3649. Presented at the Annual Meeting of IADR/AADR/CADR, Baltimore MD, 2005
- 3 Bos A et al. Expectations of treatment and satisfaction with dentofacial appearance in orthodontics patients. *Am J Orthod Dentofacial Orthop.* 2003;123(2):127-32.
- 4 Lehnen S et al. Patient expectations, acceptance and preferences in treatment with orthodontic Mini-implants: A randomly controlled study on insertion techniques. *J Orofac Orthop.* 2011;72(2):93-102.
- 5 Bekker HL et al. Developments in making patients' orthodontic choices better. *J Orthod.* 2010 ;37(3):217-24
- 6 Mu Chen et al. Fixed Orthodontic Appliance Therapy and Its Impact on Oral Health-Related Quality of Life in Chinese Patients. *Angle Orthod.* 2010; 80(1), 49-53
- 7 Reichmuth et al. Occlusal perceptions of children seeking orthodontic treatment: Impact of ethnicity and socioeconomic status. *Am J Orthod Dentofacial Orthop.* 2005; 128(5):575-82.
- 8 Tung AW, Kiyak HA. Psychological influences on orthodontic treatment timing. *Am J Orthod Dentofacial Orthop.* 1998;13(1):29-39
- 9 Kiyak HA. Patients' and Parents' expectations from early treatment. *Am J Orthod Dentofacial Orthop.* 2006;129(4): S50-4
- 10 Sticker G. Psychological issues pertaining to malocclusion. *Am J Orthod.* 1970;58:276-83.
- 11 Shaw WC, Addy M, Ray C. Dental and social effects of malocclusion and effectiveness of orthodontic treatment: a review. *Community Dent Oral Epidemiol.* 1980;8:36-45.
- 12 Albino JE et al. Psychological and social effects of orthodontic treatment. *J Behav Med.* 1994;17:81-98.
- 13 O'Brien K et al. Assessing oral health outcomes for orthodontics—measuring health status and quality of life. *Community Dent Health* 1998;15:22-26.
- 14 Cunningham SJ, Hunt NP. Quality of life and its importance in orthodontics. *J Orthod.* 2001; 28:152-158.
- 15 de Oliveira CM, Sheiham A. Orthodontic treatment and its impact on oral health-related quality of life in Brazilian adolescents. *J Orthod.* 2004;31:20-27.
- 16 Man Zhang et al. Patients' Expectations and Experiences of Fixed Orthodontic Appliance Therapy: Impact on Quality of Life. *Angle Orthod.* 2007;77 (2):318-20
- 17 Kiyak HA. Does orthodontic treatment affects quality of life. *J Dent Edu.* 2008 ;72(8):886-894
- 18 Shaw WC et al. A 20-year cohort study of health gain from orthodontic treatment: psychological outcome. *Am J Orthod Dentofacial Orthop* 2007;132:146-57.
- 19 Sayers MS, Newton JT. Patients' expectations of orthodontic treatment: part 1 - development of a questionnaire. *J Orthod.* 2006;33(4):258-69; discussion 256.
- 20 Sayers MS, Newton JT. Patients' expectations of orthodontic treatment: part 2—findings from a questionnaire survey. *J Orthod.* 2007;34(1):25-35.