

# A Survey on Knowledge of Patients about Orthodontic Treatment who Visits Dental College

S. Pradeep Kumar<sup>1</sup>, Dr. Saravana Pandian<sup>2</sup>

<sup>1</sup>Undergraduate Dental Student, Saveetha Dental College, Chennai, India

<sup>2</sup>Senior Lecturer, Department of Orthodontics, Saveetha Dental College, Chennai, India

**Abstract:** ***Objective:** To describe patient's expectations of orthodontic treatment. **Design:** A questionnaire survey of 50 patients and their primary care-givers attending a new patient orthodontic consultant clinic, at a teaching hospital. **Subjects:** The sample consisted of 50 participants who completed the questionnaire, patients aged 17-20 years who had been referred to the orthodontic department for treatment. **Materials and methods:** Participants completed a valid questionnaire measure of orthodontic expectations that was tested for reliability and validity. Descriptive analysis of the responses was undertaken. **Results:** On visiting to the orthodontic clinic, about 66% patients prefer is check up and diagnosis, and they least prefer taking radiographs and impressions. Patients mostly prefer fixed appliance and they are more concerned about the aesthetics. And about 33% of them expect the treatment would last for 1-2 years, and they prefer to visit every month for the review. About 36% of them prefer to have an aligned tooth and they want to be satisfied with the treatment, rather than preferring better mastication and speech. **Conclusions:** According to the study conducted, patients prefer checkup and diagnosis on first visit, fixed appliance and good teeth alignment. They are more concerned about the post treatment appearance, duration of the treatment, regular review to the orthodontists and cost of the treatment. Most importantly, they expect the outcome of the treatment should be satisfied.*

**Keywords:** Orthodontic, impression, mastication.

## 1. Introduction

Orthodontic appliances represent foreign objects inserted in a physically and psychologically sensitive area of the body. An important factor in a person's decision to seek orthodontic treatment is the desire to improve dentofacial aesthetics, improvements in social life and self-confidence (1), (2). Discomfort caused by orthodontic treatment may affect patient's compliance; satisfaction with treatment and it might lead to stress between patient and practitioner (3), (4), (5). In this study, a questionnaire is developed to know about the knowledge and expectations of orthodontic treatment who visits a private dental college and then it is evaluated and standardized.

The questionnaires used to measure patients and parents expectations require further psychometric validation (reliability and validity tests) (2), (3). In one study, an adaptation of a questionnaire to measure patients expectations of orthognathic surgery was used to measure patients expectations of orthodontic treatment(4).

## 2. Materials and method

Criteria for participation in the study were:

- New patients and their parents presenting to the orthodontic consultant clinic.
- Patients with no previous history of orthodontic treatment.
- Consent obtained from the patient.

Fifty subjects were invited to participate in the study before attending their new- patient orthodontic consultation. They consisted of 33 male and 17 female patients. An information sheet was given to the patient before written consent was obtained from them. Patients completed their questionnaires and it is evaluated and standardized.

## 3. Result

On visiting to the orthodontic clinic, about 66% patients prefer is check up and diagnosis, and they least prefer taking radiographs and impressions. Patients mostly prefer fixed appliance and they are more concerned about the aesthetics. And about 33% of them expect the treatment would last for 1-2 years, and they prefer to visit every month for the review. About 36% of them prefer to have an aligned tooth and they want to be satisfied with the treatment, rather than preferring better mastication and speech.

### Characteristics of the sample

A total of 50 subjects completed the questionnaire during the period may 2015–June 2015. They consisted of 50 patient participants aged between 17 and 20 years. 34% of patient participants were female, and 66% of parent participants were males. The findings from the questionnaire were analysed.

## 4. Discussion

Some of the patient have expectations of orthodontic treatment, but the majority of patients and parents had no expected experiences of orthodontic treatment. The expectation of an orthodontic appliance being fitted at the initial visit was significantly lower in patient. However, expectations of pain, discomfort, problems with eating, speaking and cleaning teeth, and embarrassment with wearing fixed orthodontic appliances, were anticipated. Patients did not expect pain and masticatory difficulties to be associated with orthodontic treatment. No negative reaction from the public was expected by child and parent participants with regard to the wearing of fixed orthodontic appliances. This probably reflects the normalization of orthodontic treatment in the Western world (6).

Patients have high expectations that orthodontic treatment will produce straight teeth and a better smile. However, expectations are higher with regard to straight teeth compared to a better smile. Parents expected a higher increase in social confidence as a result of orthodontic treatment than their children (4). Participants felt that orthodontic treatment was unlikely to improve mastication, speaking or career prospects (3). Patient's expected orthodontic treatment is to improve mastication, speech, and success in future occupations.

Most of the patients expect the orthodontic treatment would last for 1-2 years, and they have no problem in such a long treatment period. And they think the orthodontic treatment should be done at the age range of 15-20 years, that they think it is best age to undergo orthodontic treatment. Patients think that they might undergo various kind of discomfort after starting the orthodontic treatment such as pain, discomfort, difficulty in cleaning teeth and eating, and mostly they are considered about their aesthetic appearance.

### 5. Weaknesses of the Study

A larger sample size is required to analyse the orthodontic expectations for each age group. The effect of occupation on parents' expectations of orthodontic treatment could not be analysed, because the sample size limited full differentiation into occupational groups. However, studies have shown that professional parents anticipate that straight teeth will aid future occupational success (3), and educated fathers and parents with higher incomes have increased expectations of the benefits of orthodontic treatment (2). A larger sample is needed to explore the relationship between parent's occupation and their expectations with regard to orthodontic treatment.

### 6. Strengths of the Study

Patient's expectations of orthodontic treatment were measured using a psychometrically validated questionnaire based on an Indian population, and not a modified questionnaire (8). Information was collected before the pre-treatment consultation, which reduced bias in response. Other authorities have stated that orthodontists should ask patients about their expectations before treatment (10). The study collected data on patient's expectations of their initial visit, type of treatment expected, problems associated with orthodontic treatment, duration and frequency of attendance, and the expected benefits of treatment.

### 7. Clinical Practice

The questionnaire could be used to assess unrealistic expectations and aid the consent and treatment-planning process. As a result of understanding patients' anticipations, this measure may be used to reduce failed appointments, avoid premature termination of treatment, and increase patient compliance. These factors help to improve the quality of orthodontic treatment provided to the patient.

### 8. Conclusion

According to the study conducted, patients prefer check up and diagnosis on first visit, fixed appliance and good teeth alignment. They are more concerned about the post treatment appearance, duration of the treatment, regular review to the orthodontists and cost of the treatment. Most importantly, they expect the outcome of the treatment should be satisfied.

#### A survey on knowledge of patient about orthodontic treatment who visits dental college.

Name:  
Age: Sex:

Variables	n = 50	%
<b>1. Your expectation of initial visit to Orthodontist?</b>		
a) Check up and diagnosis	33	66%
b) Discussion about treatment	3	6%
c) Get braces done	12	24%
d) Only x-rays and impression will be taken	0	0%
e) Don't know	2	4%
f) _____		

<b>2. What kind of orthodontic treatment do you expect?</b>		
a) Fixed braces	31	62%
b) Removable braces	6	12%
c) Extraction and braces	6	12%
d) Braces and surgery	4	8%
e) Don't know	3	6%
f) _____		
<b>3. After starting the orthodontic treatment, what kind of discomfort did you expect?</b>		
a) Not aesthetic	17	34%
b) Pain/discomfort	12	24%
c) Cannot eat properly	4	8%

d) Not easy to clean teeth	12	24%
e) Don't know	5	10%
f) _____		
<b>4. What is your expected duration of orthodontic treatment?</b>		
a) 1-2 months	7	14%
b) 2-10 months	13	26%
c) 1-2 years	17	32%
d) 2-4 years	8	16%
e) Don't know	5	10%
f) _____		
<b>5. What is your expected frequency of orthodontic appointments?</b>		
a) Every week	8	16%
b) Twice in a month	12	24%
c) Every month	19	38%
d) 2-4 months	7	14%
e) Don't know	4	8%
f) _____		
<b>6. What is the benefits of orthodontic treatment?</b>		
a) Straighten the teeth	18	36%
b) Better speech	6	12%
c) Improved mastication	8	16%
d) Good smile	15	30%
e) Don't know	3	6%
f) _____		
<b>7. At what age orthodontic treatment should be done?</b>		
a) From 6-10 years	7	14%
b) 10-15years	13	26%
c) 15-20years	16	32%
d) 20-25years	14	28%
e) Don't know	0	0%
f) _____		
<b>8. What is your expected waiting time in orthodontic clinic?</b>		
a) 5-10mins	6	12%
b) 10-20mins	12	24%
c) 20-30mins	21	42%
d) 30mis-1hr	11	22%
e) Don't know	0	0%
f) _____		
<b>9. What is the expected cost for orthodontic treatment?</b>		
a) 100-500rs	7	14%
b) Above 1000rs	18	36%
c) Above 5000rs	13	26%
d) Above 10000rs	6	12%
e) Don't know	6	12%
f) _____		
<b>10. What do you expect the outcome of the treatment would be?</b>		
a) Satisfied	8	16%
b) Doubtful	11	22%
c) Not satisfied	7	14%
d) Hopeless	10	20%
e) Don't know	0	0%
f) _____		

## References

- [1] Becker A, Shapira J, Chaushu S. Orthodontic treatment for disabled children: motivation, expectation, and satisfaction. *Eur J Orthod* 2000; 22: 151–58.
- [2] Bennett EM, Michaels C, O'Brien K, Weyant R, Phillips C, Vig KD. Measuring beliefs about orthodontic treatment: a questionnaire approach. *J Public Health Dent* 1997; 57: 215–23.
- [3] Shaw WC, Gabe MJ, Jones BM. The expectations of orthodontic patients in South Wales and St Louis, Missouri. *Br J Orthod* 1979; 6: 203–5.
- [4] Tung AW, Kiyak AH. Psychological influences on the timing of orthodontic treatment. *Am J OrthodDentofacialOrthop* 1998; 113: 29–39.
- [5] Firestone AR, Scheurer PA, Burgen B. Patients' anticipation of pain and pain-related side effects and their perception of pain as a result of orthodontic treatment with fixed appliances. *Eur J Orthod* 1999; 21: 387–96.
- [6] Jenny J. A social perspective on need and demand for orthodontic treatment. *Int Dent J* 1975; 25: 248–56.
- [7] Khan FA, Williams S. Cultural barriers to successful communication during orthodontic care. *Community Dent Health* 1999; 16: 256–61.
- [8] Bowling A. *Research Methods in Health—Investigating Health and Health Services*, 2nd Edn. Buckingham: Open University Press, 2002.
- [9] Thompson AG, Sunol R. Expectations as determinants of patient satisfaction: concepts, theory and evidence. *Int J Qual Health Care* 1995; 7: 127–41.
- [10] Bos A, Hoogstraten J, Prah Andersen B. Expectations of treatment and satisfaction with dentofacial appearance in orthodontic patients. *Am J OrthodDentofacialOrthop* 2003; 123: 127–32.