

# Orthodontic treatment and patient's expectations

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## Abstract

**Introduction:** It is paramount to know the expectations of the patients in terms of the type of treatment provided, problems associated with treatment, duration and frequency of attendance, benefits of treatment, attitude of orthodontist and complications of treatment. Hence the aim of this study was to assess the expectations of patients from orthodontic treatment.

**Material and Methods:** A total of 50 physically and mentally healthy participants in the age range of 15 to 30 years were included in the study. A valid and reliable questionnaire was used to measure the patients' responses. Questions were asked about expectations of their initial visit, the type of treatment expected, problems associated with treatment, duration and frequency of attendance, benefits of treatment, attitude of orthodontist and complications of treatment. The statistical evaluation of the data was performed using the Statistical Package for the Social Sciences version 19. Descriptive analyses were used to calculate the responses of the patients.

**Results:** Patient's expectations regarding orthodontic treatment were different as shown by their responses.

**Conclusions:** It was concluded from this study that patients were well aware of every aspect of the orthodontic treatment and their expectations could be easily met leading to more patient satisfaction.

**Keywords:** Treatment satisfaction; Pain perception; Benefits of orthodontic treatment

## Introduction

The fulfillment of patient expectations has become one of the main objectives of health care systems.<sup>1</sup> Patients' expression of desires is important because health professionals often underestimate them for care. The clinician with an awareness of a patient's demands is better able to satisfy the patient's justified desires and to initiate frank discussions about those expectations that are unrealistic, leading to more productive clinical negotiations.<sup>2</sup> Assessment of patients' expectations is central to understanding oral health needs, patient satisfaction with treatment, and ultimately the perceived overall quality of health systems.<sup>3</sup> Mismatch between patient desires and the service received is related to decreased satisfaction.<sup>4</sup>

The overall aim of orthodontic care should be good treatment results and satisfied patients but at a reasonable cost. To reach this goal it is important that the quality of care is continuously and systematically evaluated and documented by means of professional clinical assessments and patient questionnaires or interviews.<sup>5</sup> Patients with inappropriately high expectations may be dissatisfied with the optimal care and those with inappropriately low expectations may be satisfied with deficient care.<sup>6</sup>

From a policy perspective, understanding patients' concerns and requests is important for the measurement of health care quality, the delivery of health services, and the costs of care.<sup>7</sup>

Correlations between satisfaction with dental and facial appearance and expectations of orthodontic treatment appear to be age but not gender related.<sup>8,9</sup>

The aim of this study was to assess patients' expectations from orthodontic treatment in

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order to provide the optimal service for the realistic expectations and negotiations/counseling for the unrealistic expectations.

## Material and Methods

The study included new patients presenting to the orthodontic OPD, Internally motivated, with anatomical/morphological problem of teeth/jaws and no previous history of orthodontic treatment. Mentally handicapped, psychologically ill and patients with craniofacial syndromes or anomalies were excluded from the study. It was a cross-sectional study conducted from August to September 2012, at Orthodontic Department of Khyber College of Dentistry (KCD), Peshawar. Ethical approval for the study was obtained from the ethical review committee of KCD. The study group consisted of a total of 50 subjects (both males and females), with age range 15-30 years.

A structured questionnaire was formulated. For validity and reliability the questionnaire was first piloted on 10 subjects who were not part of the study. Based on the results of the pilot survey, the questionnaire was modified to make it more simple and relevant. Study protocol was explained to the participants of the study. The participants had given a written informed consent as part of the study. The questionnaire was completed and returned by the participants. Non-probability consecutive sampling technique was used. The statistical evaluation of the data was performed using the Statistical Package for the Social Sciences; version 19.

## Results

The participants of the study were asked closed questions about expectations of their initial visit, the type of treatment expected, problems associated with treatment, duration and frequency of attendance, benefits of treatment, attitude of orthodontists and complications of treatment. Descriptive

analyses were used to calculate the responses of the participants.

Patient's expectations regarding orthodontic treatment were different as shown by their responses in table I. The study measured different types of patient's expectations of orthodontic treatment on their first visit. They had no history of previous orthodontic consultation or treatment.

**Table I**

QUESTIONS	NO. OF RESPONSES
Q1. What are your expectations of first visit?	
a. Examination & diagnosis	21
b. Discussion	05
c. Get braces	13
d. X-rays	07
e. Impressions	02
f. History taking	02
Q2. What types of orthodontic treatment do you expect?	
a. Extraction of teeth	08
b. Fixed braces	32
c. Jaw surgery	02
d. Removable appliances	06
Q3. What experiences/side effects do you expect from orthodontic treatment?	
a. Embarrassment with appliances	09
b. Pain/discomfort in teeth	09
c. Restrict eating/drinking	10
d. Speech problems	05
e. Difficulty cleaning teeth	13
f. Problems of gums	04
g. Headache	00
h. Ulcers in mouth	00
Q4. What Benefits of orthodontic treatment do you expect?	
a. Improved appearance of teeth	27
b. Improved function (chewing, speech)	09
c. Improved smile	02
d. Improved psycho-social well being	03
e. Break habits	00
f. Gain confidence	07
g. Improved oral and dental health	01
h. Decrease showing too much gums	01

Q5. What duration of orthodontic treatment do you expect?	
a. 4 years	00
b. 3 years	11
c. 2 years	18
d. 1year	14
e. 6 months	06
f. 2 months	00
Q6. What reaction do you expect from others/public towards your treatment?	
a. None	00
b. Positive	37
c. Negative	13
Q7. What do you expect about frequency of orthodontic visits?	
a. 6 months	00
b. 4 months	00
c. 2 months	07
d. Once a month	30
e. Twice a month	09
f. Once a week	02
Q8. What do you expect about the attitude of orthodontist?	
a. Supportive	20
b. Neutral	09
c. Critique	00
d. Confident	20
Q9. Which complications of treatment do you expect?	
a. Root shortening	00
b. Relapse (return of orthodontic problem)	00
c. Tooth decay	06
d. Pain in jaw muscles and joints	16
e. Bleeding and swollen gums	17
f. Mobility of teeth	07

## Discussion

Review of the literature shows that patients' expectations of orthodontic treatment have been greatly analyzed. The majority of studies regarding patients' expectations about orthodontic treatment have directed their questions to the parents of the children involved. Very few studies have measured patient's expectations. Bennett et al found that parents of orthodontic patients expected orthodontic treatment to enhance their

children's oral health and self-esteem.<sup>10</sup> In contrast our study was on patient's expectations and most of the study sample expected improved appearance of the teeth and the responses were more inclined towards the realistic approach. Our study was in agreement with the findings of Tung and Kiyak<sup>11</sup> and most subjects in our sample expected an improvement in appearance. According to Phillips et al. patients' main reason for seeking orthodontic treatment is to correct dento-facial disharmony. But males have different expectations of orthodontic treatment than females. Males focus more on social well-being while females concentrate more on their improved appearance.<sup>12</sup>

According to Awaisi ZH et al. majority of the patients were concerned about their self being and felt that orthodontic treatment would improve their dento-facial concerns which is in agreement with our study.<sup>13</sup>

In the previous studies about expectations of orthodontic treatment, the response to the problems and complications associated with the orthodontic treatment and frequency and duration of treatment have not been measured greatly. In this study we found that patients are now well aware of the possible problems and complications with the orthodontic treatment and also the duration and frequency of treatment.

Before starting the treatment, orthodontists should always ask their patients what they expect from the orthodontic treatment. Knowing and meeting their demands may lead to more satisfaction and less disappointment.<sup>14</sup>

Reliability and validity of the study were threatened by the small sample size and different types of biases. In our study, bias could have resulted from mood bias, non-responder bias, random measurement error and response style bias. Also bias could have resulted due to response fatigue in completing the long questionnaire. The bias that threatens our results the most is the random measurement error.

## Conclusions

From the responses of different types of expectations, it was concluded that patients are now well aware of every aspect of orthodontic treatment and their expectations can be easily met leading to more patient satisfaction.

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