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Patients' Expectations from Orthodontic Treatment

Hastaların Ortodontik Tedavi Beklentileri

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ÖZET

Amaç: Yaşam kalitesi, tedavi sonuçlarının değerlendirilmesinde önemli bir bileşendir ve beklenti ile deneyimimiz arasındaki uyumsuzluk olarak tanımlanmıştır. Bu çalışmanın amacı, hastaların tedavi öncesi beklentilerini tanımlamaktır.

Materyal ve Metod: Dahil etme kriterlerini; 12-18 yaş arası, ortodontik tedavi öyküsü olmayan danışman kliniğine başvuran yeni hastalar oluşturmaktadır. Anket, otuz dokuz yeni hasta üzerinde test edilmiştir. Anketi doldurma süresi yaklaşık 5 dakikadır. Cevaplamak için yirmi iki soru ve üç seçenek (evet, hayır, bilmiyorum) vardır.

Bulgular: İlk randevuda hastaların % 84.6'sı kontrol edilmeyi ve tanı konulmasını ve % 87.2'si tedaviyle ilgili görüşme yapmayı umuyordu. Ortodontik tedavi; daha iyi bir gülümseme, yemek yemenin kolaylaşması ve sosyal olarak güven sağlamaktadır.

Sonuç: Bulgularımız, bu anketin hastaların ortodontik tedavi konusundaki beklentilerini belirlemek için yararlı bir yöntem olduğunu doğrulamaktadır. Hastaların tedavi konusundaki beklentilerine odaklanarak, klinisyenler hastaların endişelerini daha iyi anlayabilir.

Anahtar kelimeler: Beklentiler, ortodontik tedavi, ortodonti, anket, ölçüm

ABSTRACT

Objectives: Quality of life is an important component of the evaluation of treatment outcomes and has been described as the disagreement between orthodontists' expectation and experience. The objective of this study was to describe patients' expectations before the orthodontic treatment.

Materials and methods: Inclusion criterias were new patients admitted to the orthodontic clinic, aged between 12-18 years, with no former history of orthodontic treatment. The questionnaire was tested on thirty nine new patients. The time for completing of questionnaire was approximately 5 minutes. There were twenty-two questions and three options to answer them (yes, no, don't know).

Results: At the initial appointment, 84.6% of patients expected to check-up and diagnosis, and 87.2% of them to have an interview about treatment. They thought that the orthodontic treatment proved to have a better smile, make it easier to eat and give them confidence socially.

Conclusion: Our findings confirm that this questionnaire is a useful method for determining patients' expectations about orthodontic treatment. By focusing on patients' expectations about treatment, clinicians can better understand the concerns of patients.

Key words: Expectations, orthodontic treatment, orthodontics, questionnaire, measure

INTRODUCTION

In recent years, the impact of oral health and disease, the appearance of teeth, malocclusion and the treatment of these conditions on the psychological and welfare levels has attracted the attention of clinicians and researchers (Kiyak, 2008). What a patient expects during treatment may affect many factors such as treatment outcomes, patient satisfaction, cooperation and compliance. Assessing patient expectations is the focus of understanding oral health needs, patient satisfaction, and perceived quality of health systems (Zhang et al., 2007).

The alignment of the teeth greatly affects the facial aesthetics and the individuals with malocclusion do not feel comfortable about their teeth socially. Malocclusion has a negative effect on the daily activities of the patients with psychological and social effects. Thus, both children and parents believe that orthodontic treatment will provide cosmetic recovery and it will increase the social acceptance and self-esteem of the affected individuals (Obilade et al., 2017).

There is little research on the effect of orthodontics and orthodontic treatment on quality of life, and clinicians are curious about the effectiveness of treatment and the impact on patients' lives. Carr et

al. (2001), in the model used to measure health-related quality of life; showed that people have different expectations, that their diseases are in different stages and that expectations change over time. Furthermore, valid orthodontic expectations for patients presenting with unrealistic requests help in orthodontic treatment planning, informed consent and quality of treatment outcomes (Sayers and Newton, 2006).

There are few studies that have investigated patients' expectations of orthodontic treatment in Turkey. This study was aimed to examine patients' expectations of orthodontic treatment, prior to their first consultation with a modified questionnaire developed by Sayers and Newton (2006). The null hypothesis was that patients would have high expectations from orthodontic treatment before the treatment.

MATERIALS and METHODS

The study was conducted in accordance with the Helsinki Declaration 2008 Principles. The patients were invited to participate in the questionnaire and were asked to sign the consent form.

Subject Selection

Thirty nine volunteers (28 females, [mean: 13.5 years] and 11 males [mean: 14.5 years]) who presented for orthodontic treatment between September 2014 and October 2014 in the Department of Orthodontics, Faculty of Dentistry, Çanakkale Onsekiz Mart University University were included (Table 1). Inclusion criterias were; new patients presenting to the orthodontic consultant clinic, patients aged 12-18 years, patients with no previous history of orthodontic treatment, consent obtained from the child. The patients completed their questionnaires apart from their parents and then, their first examinations were performed by an orthodontist working in the Department of Orthodontics.

Questionnaire

A questionnaire was used to measure patients' expectations of orthodontic treatment (Appendix 1). The questionnaire, developed by Sayers and Newton (2006), was translated into Turkish and modified for 8 questions. The questions have three options to answer (yes, no, don't know). All responses were recorded by the patient and each interview took about 5 minutes to complete.

Statistical Analysis

Descriptive statistics were applied to the data and given using numbers and percentages and comparison is not relevant or possible. The data were analyzed using SPSS Version 22.0 (IBM, NY, USA).

RESULTS

Thirty nine patients (71.79 % females, 28.20 % males) completed the questionnaire, eleven patients refused to participate. While 38.5% of the participants expected to have braced at the first appointment; 35.9% do not know and 25.6% didn't expect. Participants had high expectations of having a check-up and diagnosis and having a discussion about treatment at the first appointment. While 43.6% of the participants expected to have X-rays at the first appointment, 35.9% of the participants didn't expect. 41% of the participants expected to have impressions at the first appointment and 35.9% of the participants didn't. At the first appointment, 74.4% of the participants expected in the control of oral hygiene, 15.4% of the participants did not (Table 2).

While 64.1% of the participants expected to be treated with braces, 17.9% of the participants did not know. Participants had low expectations of tooth extraction, of wearing a head brace and jaw surgery. And also, they had very low expectations of possible problems with orthodontic treatment. While 43.6% of the participants expected that it would be painful to wear a bracket, 28.2% of the participants did not. While 35.9% of the participants expected that orthodontic treatment would produce problems with eating, 43.6% of the participants did not. 38.5% of the participants expected that orthodontic treatment would cause restrictions in eating and drinking, while 35.9% of the participants did not.

46.2% of the participants expected that people will react to them about wearing brackets, while 25.6% of the participants did not. The participants had great expectations that orthodontic treatment would straighten their teeth, have a better smile and give them social confidence. Most participants had high expectations that orthodontic treatment would make it easier to eat, speak and keep their teeth clean. While 64.1% of the participants expected that orthodontic treatment would improve their chances of a good career, 20.5% of the participants did not.

Table 1: Age and gender distribution of the sample

Gender	Number	Mean Age
Male	11	14.5
Female	28	13.5

Table 2: Descriptive statistics of patient responses

Questions	I don't know	No	Yes
	n (%)	n (%)	n (%)
1a	14 (35.9)	10 (25.6)	15 (38.5)
1b	3 (7.7)	3 (7.7)	33 (84.6)
1c	0	5 (12.8)	34 (87.2)
1d	8 (20.5)	14 (35.9)	17 (43.6)
1e	9 (23.1)	14 (35.9)	16 (41)
1f	4 (10.2)	6 (15.4)	29 (74.4)
2a	7 (17.9)	7 (17.9)	25 (64.1)
2b	18 (46.2)	17 (43.6)	4 (10.2)
2c	9 (23.1)	22 (56.4)	8 (20.5)
2d	10 (25.6)	20 (51.3)	9 (23.1)
3	19 (48.7)	14 (35.9)	6 (15.4)
4	11 (28.2)	11 (28.2)	17 (43.6)
5	8 (20.5)	17 (43.6)	14 (35.9)
6	10 (25.6)	14 (35.9)	15 (38.5)
7	11 (28.2)	10 (25.6)	18 (46.2)
8a	3 (4.9)	3 (4.9)	33 (84.6)
8b	5 (12.8)	2 (5.1)	32 (82.1)
8c	6 (15.4)	4 (10.2)	29 (74.4)
8d	5 (12.8)	6 (15.4)	28 (71.8)
8e	4 (10.3)	5 (12.8)	30 (76.9)
8f	6 (15.4)	8 (20.5)	25 (64.1)
8g	6 (15.4)	3 (7.3)	30 (76.9)

0: I don't know, 1: No, 2: Yes.

DISCUSSION

This study measured patients' expectations for orthodontic treatment in pre-treatment patients and result of the study revealed that most of the participants thought that the orthodontic treatment straighten their teeth, provide to have a better smile, make it easier to eat and give them confidence socially.

An important factor in the decision to receive orthodontic treatment is the desire to develop dentofacial aesthetics. It was recommended that general dentists and orthodontists should communicate clearly with the patients about the advantages and disadvantages of orthodontic treatment, determine whether a patient wants such a treatment and the expected benefits are realistic (Kiyak, 2008). The general dentist and

the orthodontist should listen carefully to the thoughts of each patient on the malocclusion and its effect on the quality of life such as oral function and facial profile (Kiyak, 2008). However, patient education and informed consent process can be completed successfully. Males and females apply to the clinic with different expectations from orthodontic treatment. While males have a motivation for social well-being, females have focused on self-development (Hiemstra et al., 2009). Females are generally not more satisfied with the appearance of their teeth and need orthodontic treatment more often than men. Also, the body image satisfaction with the face decreases with age; are not satisfied with the expectations other than orthodontic treatment, and older patients expect

more recovery than smaller patients (Bos et al., 2003).

Responses to question 1 revealed that patients had low expectations with regard to an orthodontic appliance being fitted on the initial visit similar to previous studies (Hiemstra et al., 2009; Sayers and Newton, 2007). In contrast to these, patients expected to have braces fitted on their first visit in another study (Obilade et al., 2017). The participants thought that the clinician would talk about treatment with them at the first meeting with a more incidence than previous findings (Sayers and Newton, 2007; Hiemstra et al., 2009). Similar to the present study results, Obilade et al. (2017) found that the questions about the initial visit showed that they are aware of the procedure before the treatment. As in some other studies (Sayers and Newton, 2007; Hiemstra et al., 2009; Obilade et al., 2017) patients had low expectations of wearing a head brace, tooth extraction and having a jaw surgery as treatment options. Since these are not common treatment alternatives, this may have led to this reduction of awareness.

There may be pain, discomfort and functional limitations in the process of orthodontic treatment (Bernabe et al., 2008). Patients' self-confidence can be affected by speech impairment and the appearance of the device (Sergl et al., 2000). These conditions, which are caused by orthodontic treatment, may affect the compliance, satisfaction and stress of the patients. When the questions that orthodontic treatment causes problems in eating, restriction on eating or drinking were evaluated, it is seen that there are lower rates in this study compared to other studies (Sayers and Newton, 2007; Hiemstra et al., 2009).

Hiemstra et al. (2009) and Sayers and Newton (2007) reported that participants thought an improvement in cleaning teeth, eating, speaking, career potentiality and self-confidence after orthodontic treatment less than our results. Obilade et al. (2017) showed that patients had high expectations that orthodontic treatment would straighten their teeth and produce a better smile.

Gravely et al. (1990) stated that orthodontic appliance had become more acceptable than those with low levels of treatment in places where treatment levels were high. If the appliance is widespread, the person feels less attention and this may increase the demand for

orthodontic practitioners there. The health care systems of countries' and their scope vary and this also affects the expectations of patients (Hiemstra et al., 2009). In recent years, the increase of faculty numbers in Turkey has enhanced both the level of public awareness about treatment and the motivation of individuals to be treated. Similar to our finding, Hiemstra et al. (2009), found low expectations of negative reactions from other people about wearing braces.

One of the limitations of this study is that the opinion of the pilot group about orthodontic treatment may not reflect the general opinion. Another limitation is that the number of women in the sample is more than men. The majority of women in the patients who were examined and treated in the clinic may have affected this situation. And also, some patients may have friends wearing braces or they may be interested in them and these affect the answers.

Learning of expectations about orthodontic treatment by providing communication in accordance with the age of the patient is essential for good cooperation. The clinician is required to communicate by taking into account the difference in cognitive development between the patient and his / her parent. Before starting the treatment, orthodontists should always ask their patients what they feel about their dental appearance and what they expect from orthodontic treatment. Detailed information should be provided about what people can expect about suffering, limitations and discomfort. In this way, treatment quality can be improved by providing less frustration and more patient satisfaction.

Conflict of interest

None to declare.

CONCLUSIONS

This current study revealed that most of the participants thought that the orthodontic treatment straighten their teeth, provide to have a better smile, make it easier to eat and give them confidence socially. Clinicians can reduce patients' concerns by learning patients' expectations for treatment.

Appendix 1. Survey Questions

Personal Information

Age:

Gender: Female ☐ Male ☐

Q.1. What is your expectation at first appointment?

- a. Have brace fitted?
Yes () No () I don't know
- b. Have a checkup and diagnosis?
Yes () No () I don't know
- c. Have a discussion about treatment?
Yes () No () I don't know
- d. Have X-rays?
Yes () No () I don't know
- e. Have impressions?
Yes () No () I don't know
- f. Have oral hygiene checked?
Yes () No () I don't know
2. What type of orthodontic treatment do you expect?
 - a. Braces, don't know what type?
Yes () No () I don't know
 - b. Teeth extracted?
Yes () No () I don't know
 - c. Head brace?
Yes () No () I don't know
 - d. Jaw surgery?
Yes () No () I don't know
3. Do you think orthodontic treatment will give you any problems?
Yes () No () I don't know
4. Do you think wearing a brace will be painful?
Yes () No () I don't know
5. Do you think orthodontic treatment will produce problems with eating?
Yes () No () I don't know
6. Do you expect orthodontic treatment to restrict what you can eat or drink?
Yes () No () I don't know
7. How do you think people will react to you wearing a brace?
Yes () No () I don't know
8. Orthodontic treatment
 - a. Straighten your teeth?
Yes () No () I don't know
 - b. Produce a better smile?
Yes () No () I don't know
 - c. Make it easier to eat?
Yes () No () I don't know
 - d. Make it easier to speak?
Yes () No () I don't know
 - e. Make it easier to keep my teeth clean?
Yes () No () I don't know
 - f. Improve my chances of a good career?
Yes () No () I don't know
 - g. Give you confidence socially?
Yes () No () I don't know

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