



Patient-Centered Outcomes in Orthodontics: A Questionnaire-Based Evaluation of Expectations and Satisfaction

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KEYWORDS

Aesthetic perception, fixed appliances, orthodontist-patient communication, patient compliance, psychological impact, treatment satisfaction, treatment duration.

ABSTRACT:

Purpose of the study: Aesthetic concerns significantly influence individuals' self-perception and social acceptance, particularly in those with malocclusion or dentofacial anomalies. These conditions can affect psychological well-being and social confidence, making orthodontic treatment a vital component of holistic care. Patient expectations regarding treatment outcomes, duration, and discomfort vary widely and are shaped by demographic and psychosocial factors. Understanding and managing these expectations through effective communication is essential to improving satisfaction, treatment compliance, and overall clinical success. This study explores patient expectations prior to orthodontic treatment to better align clinical approaches with individual patient needs.

Methodology: This cross-sectional study aimed to evaluate the expectations of orthodontic patients prior to treatment and assess their alignment with realistic clinical outcomes. A structured questionnaire was administered to 100 new patients aged 15–30 years, all with no prior orthodontic treatment. The survey explored expectations regarding diagnosis, treatment type and duration, anticipated side effects, follow-up visits, aesthetic outcomes, and the orthodontist's demeanour.

Results: Results indicated considerable variability in patient expectations. Most participants preferred fixed appliance therapy and expected their first visit to involve diagnosis and treatment discussion. A one-year treatment duration and monthly visits were commonly anticipated. Key motivations included improved dental appearance and self-confidence, while discomfort and relapse were major concerns. Additionally, patients placed high value on orthodontists exhibiting supportive and confident behaviour.

Conclusion: The findings underscore the importance of understanding patient expectations to enhance treatment satisfaction and compliance. By identifying discrepancies between anticipated and realistic outcomes, clinicians can tailor communication strategies, align treatment goals, and improve overall care. Directly assessing patient expectations, especially among adolescents and young adults, is essential for delivering personalized and effective orthodontic treatment.

INTRODUCTION

Aesthetics play a significant role in shaping how individuals are perceived within society, influencing assumptions about their social status and overall well-being [1]. Malocclusion and dentofacial anomalies can have a profound impact not only on an individual's physical appearance but also on their social interactions and psychological health [2]. These conditions often lead to decreased self-esteem and social confidence, making orthodontic care an important aspect of holistic health.

In the context of orthodontic treatment, achieving optimal clinical outcomes and ensuring patient satisfaction while maintaining affordability requires a comprehensive approach. This includes effective screening, thorough patient education, and the provision of appropriate treatment tailored to individual needs. Studies have indicated that patients who receive care from orthodontic specialists tend to report higher levels of satisfaction compared to those treated by general dental practitioners [3]. Furthermore, the expectations and satisfaction levels of both patients and their parents play a crucial role in treatment planning and outcomes.



Clear and open communication about the course of treatment and anticipated results is essential for enhancing clinical efficiency and patient cooperation [4]. It is also important to acknowledge the discomfort often associated with orthodontic treatment. Patients may experience pain, functional limitations, and other treatment-related inconveniences, which can impact their overall treatment experience and satisfaction [5,6].

Notably, expectations and satisfaction vary according to demographic factors. Age influences how patients perceive their dental and facial aesthetics [7], while gender-based differences suggest that females typically place greater emphasis on aesthetic outcomes [8]. Considering the duration of treatment, there is a growing emphasis on addressing patients' chief complaints by focusing on functional corrections and minimizing treatment time, without compromising the quality of care [9–14].

AIM OF THE STUDY

The primary objective of this study is to evaluate patient expectations regarding orthodontic treatment using a structured questionnaire. The study also aims to determine whether these expectations align with realistic treatment outcomes, thereby helping clinicians manage patient satisfaction and optimize treatment planning.

METHODOLOGY

A total of 100 new patients were selected for this study, all of whom were mentally and physically healthy individuals diagnosed with malocclusion. Importantly, none of the selected participants had a history of previous orthodontic treatment, ensuring that their expectations were based solely on their initial experience with orthodontic care. This investigation was designed as a cross-sectional study and was conducted at the Department of Orthodontics and Dentofacial Orthopaedics of a dental institution. The study sample comprised 100 patients, including both male and female participants, with ages ranging from 15 to 30 years. This age range was chosen to represent both adolescent and young adult patients, as expectations and aesthetic concerns may vary significantly across these developmental stages.

A structured and pre-formulated questionnaire was developed specifically for this study to assess the expectations of patients regarding orthodontic treatment. Prior to data collection, each participant was thoroughly informed about the purpose of the study and the content of the questionnaire. Written informed consent was obtained from all participants to ensure ethical compliance and voluntary participation. Once consent

was secured, the participants were asked to complete the questionnaire independently. The responses were then collected and analysed to evaluate the nature of patient expectations and to determine whether these expectations were realistic or unrealistic in the context of clinical orthodontic practice.

RESULTS

As part of the study, a structured questionnaire was administered to participants to evaluate their expectations concerning various aspects of orthodontic treatment. The questionnaire included specific questions related to their expectations for the initial consultation or first visit, the type of treatment they anticipated receiving, the estimated duration of the treatment, possible complications they expected to encounter, the number of visits they believed would be required, the perceived benefits of undergoing orthodontic treatment, and their expectations regarding the demeanour and communication style of the orthodontist.

The responses provided by the participants revealed a broad and diverse range of expectations across all the areas assessed. Table 1 summarizes the distribution of participant responses, highlighting the variability in patient perceptions and expectations prior to the commencement of orthodontic treatment.

This study is centered on exploring the expectations that patients have prior to undergoing orthodontic treatment. Through a structured questionnaire, we aimed to gain insights into their anticipated outcomes, motivations, and concerns. The following is a summary of the key expectations expressed by the participants in the study, as represented in Figure 1 – Figure 5:

- 44% of the patients preferred examination and diagnosis at their first visit, and 27% of patients expected a discussion regarding their treatment to be carried out in their first visit. Additionally, 60% of the patients preferred fixed appliance therapy and 28% were concerned with removable appliance therapy (Fig. 1).
- Among the side effects mentioned, pain and discomfort in teeth showed a prevalence of 36%, difficulty in cleaning teeth was reported by 24%, and restriction of eating and drinking by 14%. Improved appearance of teeth was viewed as a major expectation by 36% of patients and an improved smile was expected by 31% (Fig. 2).
- Regarding treatment duration, 42% of participants assumed a one-year treatment period, and 77% expected a positive response from others regarding the outcome of treatment (Fig. 3).



- 64% of patients preferred orthodontic visits once a month. Furthermore, 45% of patients expected their orthodontist to be supportive, whereas 40% expected their orthodontist to be confident regarding treatment execution (Fig. 4).
- 42% of patients anticipated recurrence of their orthodontic problem as a major complication of treatment (Fig. 5).

This variation underscores the importance of individualizing patient communication and treatment planning, as patients enter orthodontic care with differing assumptions and levels of understanding about the process. Recognizing these differences is crucial for improving patient satisfaction and ensuring alignment between clinical outcomes and patient expectations.

DISCUSSION

In many previous studies investigating expectations surrounding orthodontic treatment, the primary focus has been placed on gathering information from parents or guardians, particularly when the patients are adolescents or children. Parents are often considered the main decision-makers; however, this approach may not fully reflect the perceptions and motivations of the patients themselves. Bennett et al. [15] highlighted that while parents generally express expectations related to improvements in oral health, function, and psychological well-being, patients often possess their own unique motivations and priorities. Directly assessing patient expectations, regardless of age, provides more accurate and meaningful insights and contributes to improved patient-centered care.

The findings of the present study are consistent with those reported by Sergl, Klages, and Zentner [16,17], who observed that orthodontic treatment is frequently accompanied by significant discomfort, which can influence patient compliance and overall satisfaction. Similarly, our results correlate with the study conducted by Tung and Kiyak [18], which suggested that many patients anticipate improvements in self-confidence and facial appearance as primary outcomes of orthodontic treatment. These findings emphasize that psychological and aesthetic motivations often play a greater role in patients seeking orthodontic care than purely functional considerations. Phillips et al. [19] also reported that correction of dentofacial irregularities was the primary motivating factor for seeking orthodontic treatment. This supports our findings, in which a considerable proportion of patients expected improvement in their smile and facial appearance.

Interestingly, while previous research has placed limited emphasis on treatment duration and appointment frequency, our study revealed an increased awareness among patients regarding the expected length of treatment and the number of required visits. This trend may be influenced by increased access to information through the internet, social media, and improved clinician–patient communication in modern dental practice [20-22]. Another important observation from our study relates to the expected attitude of the orthodontist. A positive, empathetic, and confident clinician approach was a major expectation among patients. This emphasizes that the orthodontist–patient relationship significantly influences the overall treatment experience and satisfaction.

CONCLUSION

The majority of patients expected their initial orthodontic visit to involve examination, diagnosis, and discussion of the proposed treatment plan. Fixed appliances were more commonly preferred than removable appliances. Pain, discomfort, and difficulty in maintaining oral hygiene were commonly anticipated side effects. Improvement in dental appearance and smile aesthetics were the primary expected benefits of orthodontic treatment. Most patients assumed that treatment duration would be approximately one year and preferred monthly follow-up visits. They also expected positive feedback from others after the completion of treatment. With regard to clinician interaction, a supportive and confident attitude was highly valued in an orthodontist. A notable concern among patients was the possibility of relapse or recurrence of their orthodontic problem. These findings highlight the critical importance of effective communication, patient education, and realistic expectation management during the initial stages of orthodontic treatment to enhance compliance and satisfaction.

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TABLE 1. A Structured Questionnaire on Patient Expectations in Orthodontic Care.

S.No.	Questions	Percentage Of Responses (%)	No. Of Responses Obtained
1	What are your expectations of first visit?		
	a) Examination and diagnosis	44	42
	b) Discussion	27	26
	c) Get braces	10	9
	d) X-rays	2	2
	e) Impressions	4	4
	f) History taking	13	12
	g) unanswered		5
2.	What types of orthodontic treatment do you expect?		
	a) Extraction of teeth	11	10
	b) Fixed braces	60	57
	c) Jaw surgery	1	1
	d) Removable appliances	28	27
	e) unanswered		5
3.	What experiences/side effects do you expect from Orthodontic treatment?		
	a) Embracement with appliances	6	06
	b) Pain/discomfort in teeth	36	34
	c) Restrict eating/drinking	14	13
	d) Speech problems	4	04
	e) Difficulty cleaning teeth	24	22
	f) Problems of Gums	4	04
	g) Headache	3	03
	h) Ulcers in mouth	9	08
	i) unanswered		06
4.	What benefits of Orthodontic treatment do you expect?		
	a) Improved appearance of teeth	36	34
	b) Improved function (Chewing, Speech)	3	03
	c) Improved smile	31	29
	d) Improved psycho-social well being	4	04
	e) Break habits	2	02
	f) Gain confidence	15	14
	g) Improved oral and Dental Health	6	05
	h) Decrease showing too much Gums	3	03
	i) unanswered		06
5.	What duration of Orthodontic treatment do you expect?		
	a) 4 years	4	04
	b) 3 years	2	02
	c) 2 years	18	17
	d) 1 year	42	39
	e) 6 months	27	25
	f) 2 months	7	07
	g) unanswered		06
6.	What reaction do you expect from others / public towards your treatment?		
	a) None	22	20
	b) Positive	77	70
	c) Negative	1	04



	d) unanswered		06
7.	What do you expect about frequency of Orthodontic visits?		
	a) 6 months	13	12
	b) 4 months	5	05
	c) 2 months	16	15
	d) once a month	64	60
	e) twice a month	1	01
	f) once a week	1	01
	g) unanswered		06
8.	What do you expect about the attitude of Orthodontist?		
	a) Supportive	45	42
	b) Neutral	14	13
	c) Critique	1	01
	d) Confident	40	38
	e) unanswered		06
9.	What complications of treatment do you expect?		
	a) Root shortening	6	05
	b) Relapse (Return of Orthodontic problem)	42	38
	c) Tooth decay	8	07
	d) Pain in Jaw Muscles and Joints	19	17
	e) Bleeding and Swollen Gums	12	11
	f) Mobility of teeth	13	12
	g) unanswered		10

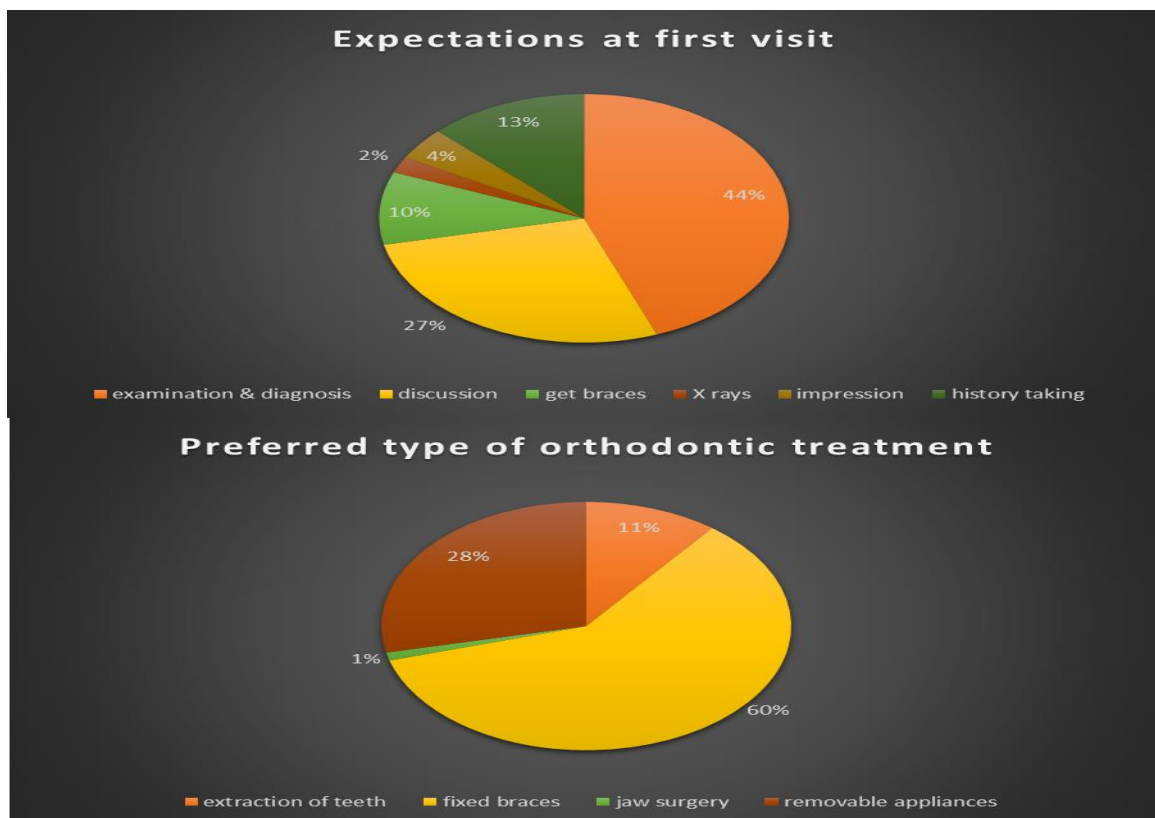


Figure 1. Expectations At First Visit and Preferred type of orthodontic treatment

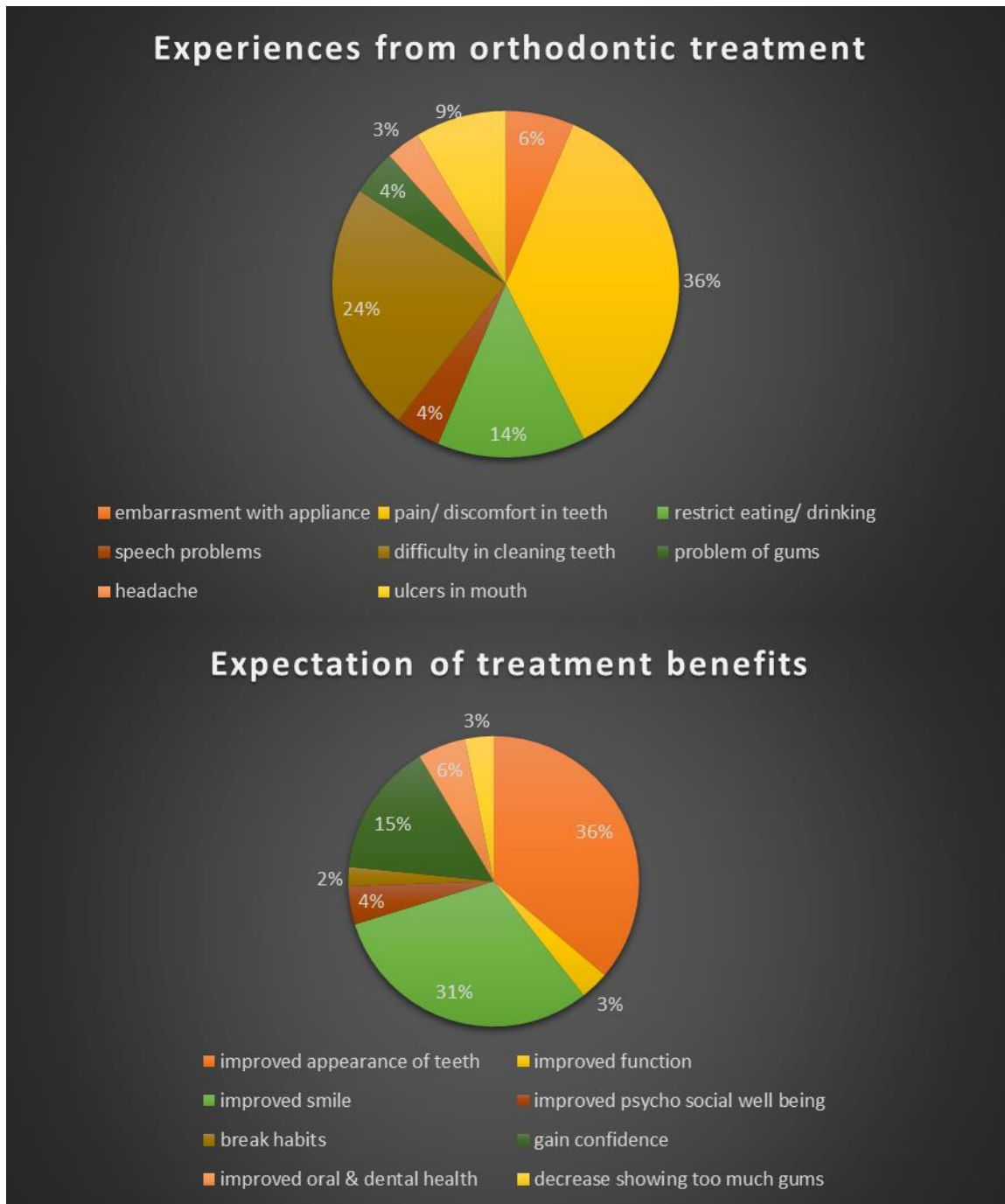


Figure 2. Experiences from orthodontic treatment and Expectation of treatment benefits

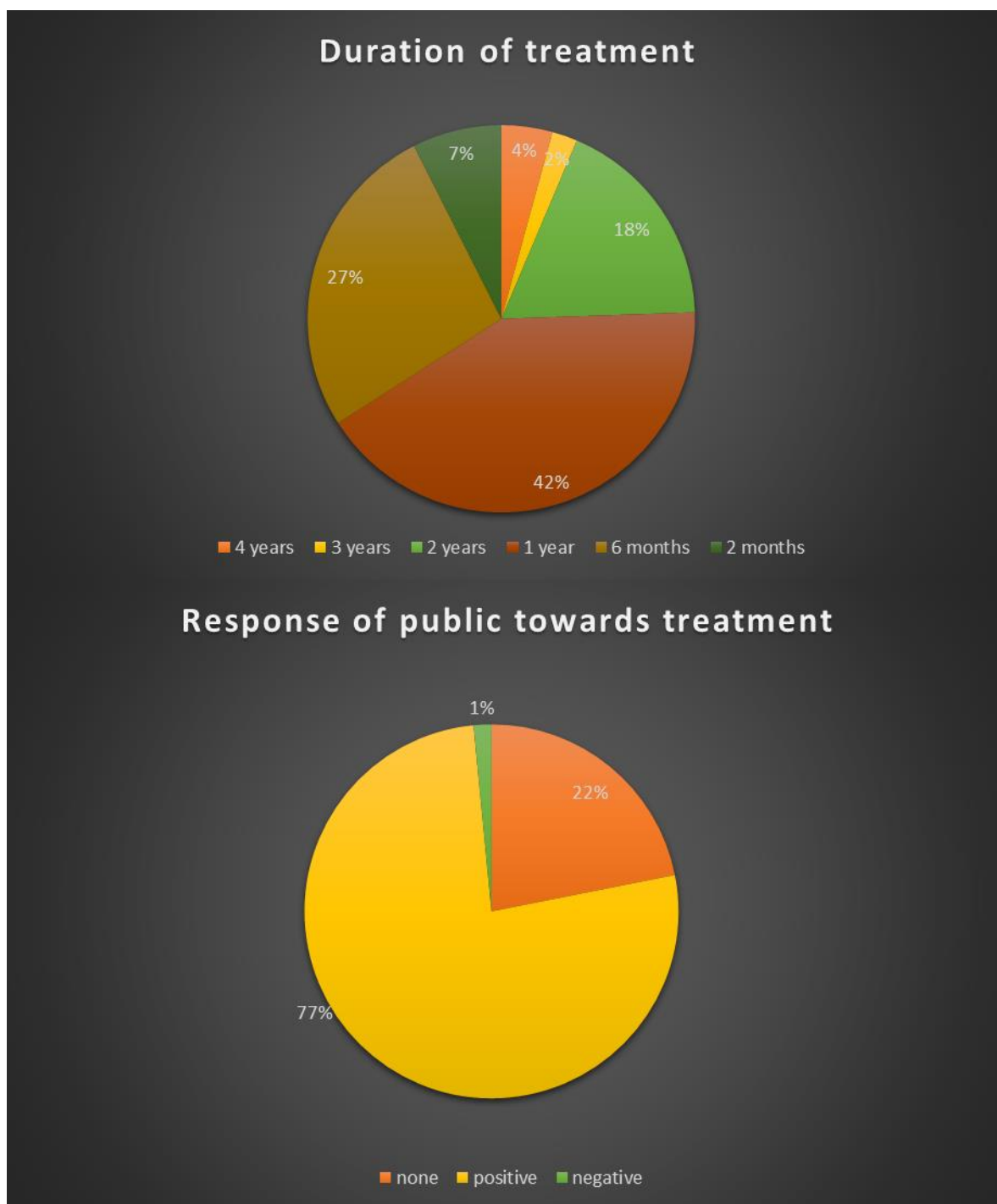


Figure 3. Duration of treatment and Response of public towards treatment

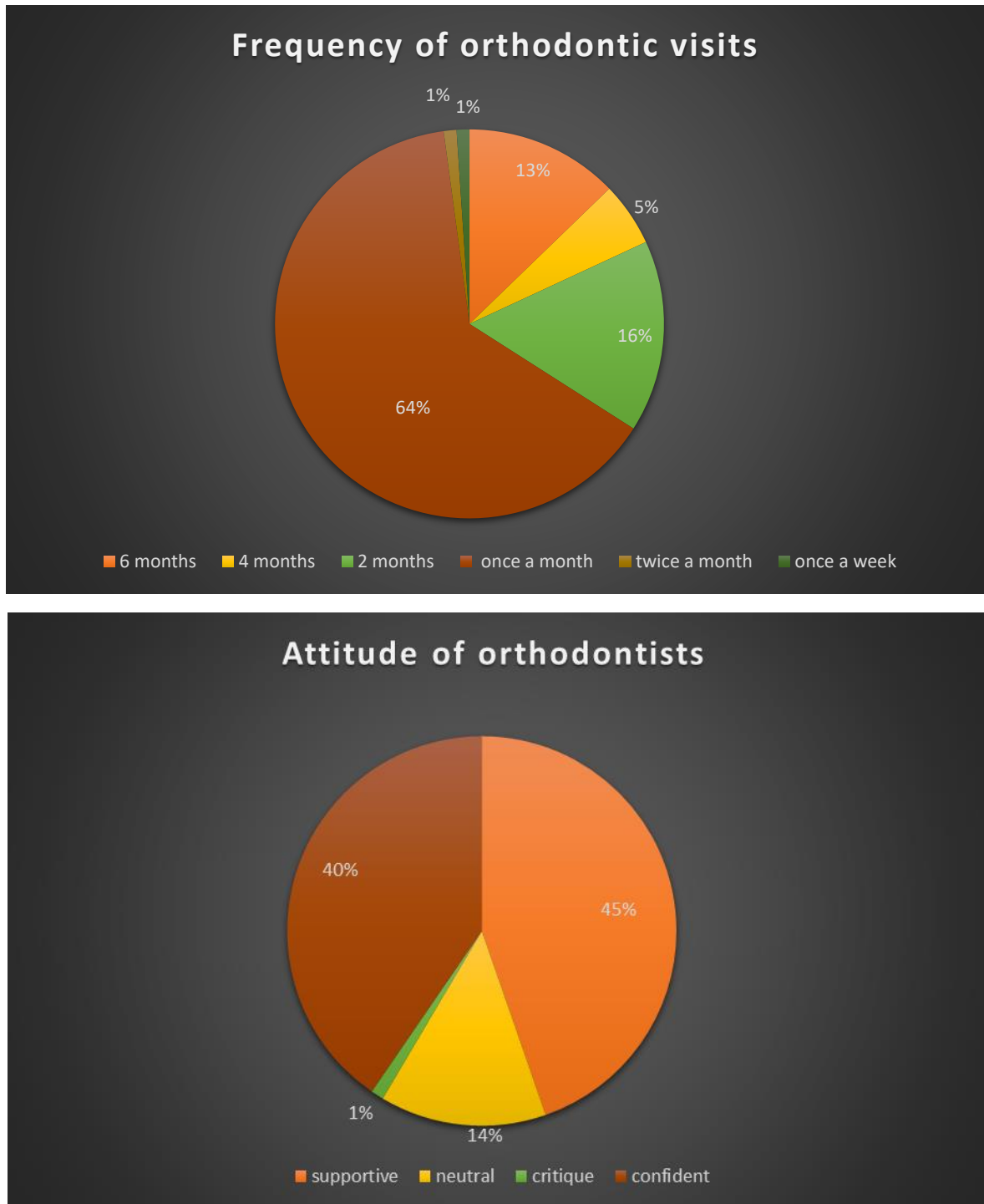


Figure 4. Frequency of orthodontic visits and Attitude of orthodontists

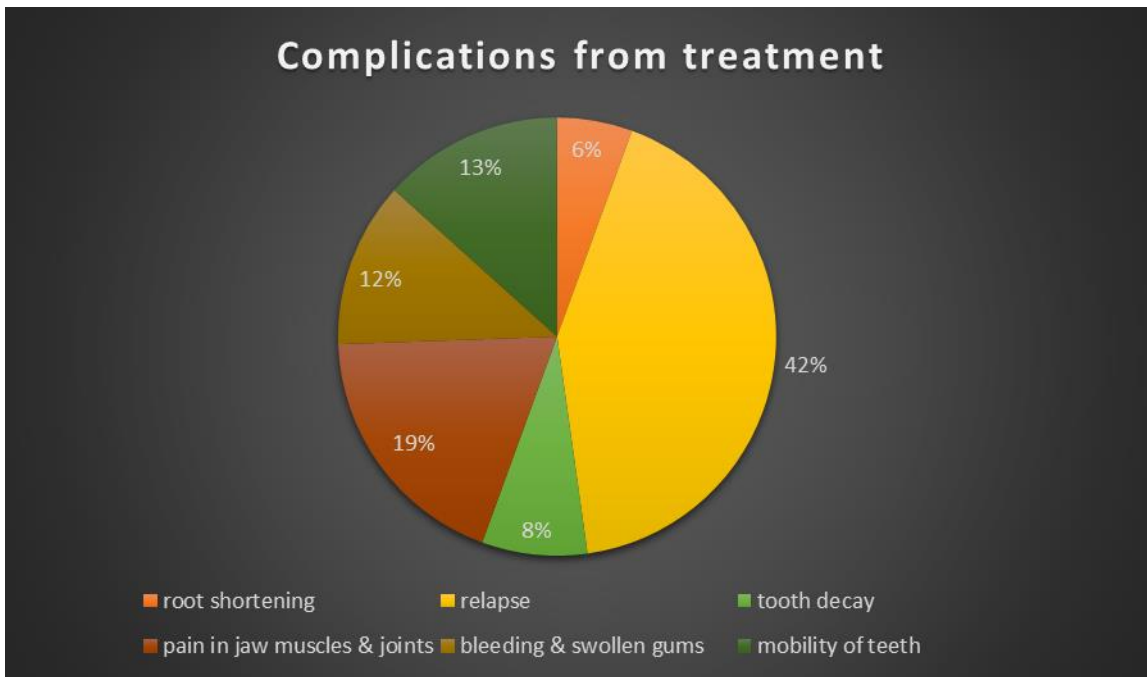


Figure 5. Complications from treatment

TABLE LEGENDS:

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FIGURE LEGENDS:

Figure 1. Expectations At First Visit and Preferred type of orthodontic treatment

Figure 2. Experiences from orthodontic treatment and expectation of treatment benefits

Figure 3. Duration of treatment and Response of public towards treatment

Figure 4. Frequency of orthodontic visits and Attitude of orthodontists

Figure 5. Complications from treatment