

Challenges and Motivating Factors of Orthodontic Treatment among Patients Attending Komfo Anokye Teaching Hospital

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Abstract

Background: Orthodontic treatment poses challenges such as discomfort, aesthetic concerns, dietary restrictions, time commitment, and financial considerations for patients. These challenges can deter individuals from pursuing treatment or cause anxiety during the process. However, patients are motivated by the desire to improve their appearance, boost self-confidence, and enhance oral health. They also value the long-term benefits of treatment, including improved dental function and overall well-being. Professional recommendations from dentists and orthodontists, along with social support from family and friends, further encourage patients to undergo treatment. Understanding these challenges and motivating factors is crucial for orthodontic professionals to tailor treatment plans and ensure positive experiences and successful outcomes for their patients. **Objective:** To determine the challenges and motivating factors of orthodontic treatment among patients attending Komfo Anokye Teaching Hospital. **Method:** The study was conducted at Komfo Anokye Teaching Hospital in Kumasi, Ghana, with a sample size of 60 orthodontic patients. Data was collected using self-administered questionnaires and analyzed using SPSS software. Ethical approval was obtained, and the findings were shared with stakeholders. **Results:** Findings showed a higher representation of females (63.3%) seeking orthodontic treatment. Common motivations for seeking orthodontic treatment included aesthetic concerns (38.2%), misaligned teeth (28.1%) and recommendation from dentist (19.2%). Challenges reported included pain and discomfort (36.7%), difficulty chewing (15%), expensive treatment (14.4%) and missed appointments (11.7%). Factors motivating treatment continuation were visible improvements (30%), achieving optimal results (23%), reducing pain and discomfort (17%). External influences, such as family pressure, also played a role. Patients appreciated

the support of healthcare providers during treatment but suggested better pain management and education. **Conclusion:** The study provided valuable insights into patient motivations, challenges and factors influencing satisfaction and adherence to orthodontic treatment at KATH.

Keywords

Orthodontic Treatment, Aesthetics, Motivation, Chewing, Cross-Sectional Design

1. Background of the Study

Orthodontics is the specialty of dentistry concerned with the management and treatment of malocclusion. Malocclusion is frequently just a deviation from the ideal rather than a pathological state [1]. Andrews redefined the idea of a static occlusion by breaking it down into six distinct keys. Orthodontists have centered their treatment on these fixed objectives ever since. The goal of orthodontic treatment is to enhance dental occlusion, which can lead to a well-functioning and aesthetically pleasing dentition that is in harmony with the face. It is known that the face predicts overall beauty slightly more accurately than the body [2]. Facial appearance appears to have a substantial impact on how people perceive themselves and others [3]. Those who are considered to be attractive are seen as being more outgoing, clever, intriguing, and social, giving them overall happier personality. Physical attractiveness affects human life in various ways to a significant extent [2]. The attractiveness, aesthetics, and quality of life are all significantly impacted by irregularities in the position of the teeth and jaws. Orthodontic treatment may be used to treat these abnormalities. According to S.J. Davies, malocclusion is defined as mal-alignment or incorrect relation between the teeth of the upper and lower dental arches when they approach each other as the jaws close [4]. De Souza *et al.* in 2015 stated that, malocclusion is a public health problem that affects 39% - 93% of the world's population and despite this high prevalence, the etiology is still controversial. Malocclusion has a multifactorial etiology, being caused by hereditary factors, environmental or a combination of both [5]. The persistence of malocclusion without any treatment may negatively affect the quality of life of sufferers due to the physiological and social changes caused by this abnormality [6]. Malocclusion can cause appearance discrimination, and oral function problems such as difficulty in jaw movements, pain, difficulty in swallowing, dysphasia, caries, and periodontal disease. Depending on the classification of the malocclusion, the symptoms of the disorder may be subtle or severe. Typical symptoms of malocclusion include: improper alignment of teeth, changes in the appearance of the face, frequent biting of your inner cheeks or tongue, discomfort when chewing or biting, speech changes, mouth-breathing and among others [7]. Malocclusion affects the quality of life of an individual; therefore, it is necessary to correct this problem. The way to correct malocclu-

sion is through orthodontic treatment. In recent times, the correction of malocclusions by orthodontic treatment has gained a lot of popularity with increasing demand [8]. According to Samsonyanova *et al.*, orthodontic treatment just like other medical procedures has numerous factors that call for the procedure to be carried out. Some of these include dissatisfaction with one's dental and facial aesthetics, straightening one's teeth, dentist recommendation, interest and worries of parents, peer influence, improved speech, improved occlusion, crowded teeth, missing teeth, and maxillary anterior irregularities [2]. This study focuses on identifying the challenges faced by patients undergoing orthodontic treatment as well as identifying the motivating factors influencing the treatment in KATH.

2. Objective of the Study

To determine the challenges and motivating factors among patients undergoing orthodontic treatment at KATH.

Specific Objectives

- To determine the motivations for seeking orthodontic treatment.
- To determine the challenges associated with orthodontic treatment in KATH.
- To determine the motivational factors to complete orthodontic treatment despite the challenges they face during treatment at KATH.

3. Limitations of the Study

While the study recognized the influence of geographical location on patient experiences, it did not delve deeply into specific cultural or regional influences that could impact treatment motivation and support. Future research could explore these factors more comprehensively to provide a nuanced understanding.

The study focused on patient experiences during orthodontic treatment but did not differentiate between different phases of treatment (e.g., initial, intermediate, or final stages). Patient motivations and challenges may vary at different stages, and further investigation could provide a more detailed picture.

The study primarily assessed short- to medium-term outcomes of treatment motivation and support. Future research could consider evaluating the long-term effects of these factors on treatment adherence, patient satisfaction, and overall treatment success.

4. Literature Review

4.1. Orthodontics

The choice of orthodontic treatment modality depends on various factors, including the severity of the orthodontic problem, patient preferences, lifestyle considerations, and budget. Patients are encouraged to consult with qualified orthodontists who can assess their specific needs and recommend the most

suitable treatment option [8]. Within the specialty of orthodontics, there has been a significant increase in the demand for adult orthodontic treatment. This has been thought to result, in part, from an increased public awareness of the potential perceived benefits of improved dental esthetics, the availability of a range of alternate esthetic appliances, the more traditional fixed labial metal appliances [9]. Metal braces, the traditional variant, are cost-effective, robust, but conspicuous, requiring frequent adjustments. Traditional metal braces are a widely recognized orthodontic option. They consist of metal brackets bonded to teeth connected by wires, exerting gentle pressure to shift teeth into alignment. Ceramic braces offer aesthetics, strength, and comfort but are more brittle than metal [10]. Lingual braces, positioned behind the teeth, cater to those self-conscious about appearance. While offering discretion, lingual braces can be challenging to maintain and may cause initial discomfort due to proximity to the tongue [5]. Self-ligating braces, smaller and more comfortable, eliminate elastic ties [11]. Clear aligners, like Invisalign, provide an invisible alternative, offering enhanced aesthetics, shorter appointments, and precise treatment planning [12]. However, patient compliance, cost, dietary restrictions, and extended treatment times are drawbacks. Orthodontic headgear, such as cervical, high-pull, and reverse-pull, applies pressure to correct malocclusions, targeting upper teeth, overbites, and underbites [13]. Orthodontic history reflects advanced methods from ancient cultures, and while modern braces use cutting-edge technology, their roots remain deeply historical [14]. The choice among braces depends on factors like aesthetics, cost, and treatment goals. Metal braces offer reliability, ceramics enhance aesthetics, lingual braces provide discreetness, and clear aligners offer invisibility with certain trade-offs. Headgear, though less common today, remains a valuable tool for specific malocclusions. In the evolving landscape of orthodontics, a variety of options cater to diverse patient needs, blending historical foundations with contemporary technology and patient-centric considerations. Understanding the pros and cons of each modality ensures informed decisions tailored to individual preferences and treatment requirements [8].

4.2. Reasons for Orthodontic Treatment

Orthodontic therapy aims to achieve optimal dental occlusion for both functional and aesthetic purposes [15]. The motivations for seeking orthodontic treatment can be categorized into esthetic, functional, and social factors [15]. Aesthetic considerations play a central role in driving individuals to pursue orthodontic intervention. Rectifying dental irregularities, improving facial aesthetics, achieving a flawless smile, and addressing spacing anomalies are among the spectrum of aesthetic concerns influencing treatment-seeking behaviour [16]. Studies consistently highlight the prominence of aesthetics as a primary determinant for choosing orthodontic treatment, with a substantial emphasis on teeth straightening and facial profile enhancement [17]. Aesthetics is particularly pivotal for adult orthodontic patients, with motivations ranging from enhancing facial aes-

thetics to fostering attractive and healthy gum conditions [18]. Evidentiary trends across various studies underscore the centrality of aesthetics, with a majority of patients emphasizing its importance as a compelling impetus for orthodontic treatment [19]. The resonance of aesthetics as a pivotal consideration further reverberates across diverse patient cohorts, emphasizing the enduring significance of aesthetic aspirations in orthodontic treatment-seeking behaviour [20] [21] [22].

4.3. Functional Reasons

Orthodontic treatment addresses various functional concerns such as malocclusion, pronunciation impediments, challenges in eating, respiratory issues, and temporomandibular joint (TMJ) disorders [16]. Functional motivations also include enhancing chewing efficiency, speech improvement, alleviation of joint symptoms, and the aspiration for healthy gums [18]. Studies reveal that a subset of individuals seeks orthodontic intervention primarily for functional needs, with occlusal irregularities being a salient driver [5]. Improved oral function, including enhanced chewing efficiency and speech, is consistently reported as a significant motivator for adults pursuing orthodontic treatment [23].

4.4. Social Reasons

It was observed and recorded that some people obtain orthodontic treatment due to certain social reasons and these include; improving one's self-confidence and self-esteem, enhancing better social interactions, getting better social opportunities, gaining popularity, and also to improve issues related to one's professional career [16]. According to a study in a Jordanian population, he concluded that majority had treatment for psychological reasons, that is, to improve their dental appearance and aesthetic image in the society [24].

4.5. Challenges Faced by Patients during Treatment

Pain and discomfort

Orthodontic treatment frequently entails significant pain, a notable challenge for patients. Pain, as defined by the International Association for the Study of Pain, is a prevalent and unpleasant emotional experience linked to actual or potential tissue impairment throughout various orthodontic procedures [25]. The degree of pain that orthodontic patients experience varies significantly over time, and it is mostly unknown why this variety exists between individuals. Potential explanations for this diversity include sex, age, clinical activations, psychosocial variables, and genetic variants of potential genes [26]. Bond ups accounted for more than 20% of the range in pain response, and they had the biggest impact on the perceived pain experienced on teeth throughout orthodontic treatment [26]. Johal *et al.*'s longitudinal study in 2018 involving 58 adults undergoing fixed appliance treatment identified pain within the 24 to 72-hour

window following appliance placement and adjustments [27]. Antonio-Zancajo *et al.* found that around 90% of patients considered pain and discomfort as primary detriments to their orthodontic experience, impacting quality of life within the initial 24 to 48 hours post-treatment. Lingual orthodontic patients reported lower pain levels than those with conventional or Invisalign treatment [28]. Banerjee *et al.* emphasized that 87% - 95% of adolescents experience pain, particularly in the first 24 hours of fixed orthodontic treatment, with significant subsets facing pain during various stages, including post-appliance removal [29]. Kruke-meyer *et al.* reported 58.8% of adolescents experiencing pain post-orthodontic appointments [30], while Rakhshan *et al.* documented generalized dento-gingival discomfort in 65.7% and localized dento-gingival pain in 34.3% of 67 orthodontic patients. Pain and discomfort persist for more than four weeks following the start of fixed orthodontic treatment, according to Rakhshan and Rakhshan, and including softer foods into one's diet is advised to reduce pain [31]. Sew Hoy *et al.* highlighted pain as the most challenging aspect for over 90% of patients [32]. These findings collectively underscore the recurrent and impactful nature of pain in orthodontic experiences, emphasizing its potential to influence treatment discontinuation. Costa *et al.*'s study with conventional braces corroborated pain as a prominent side effect, peaking 24 hours post-activation [33].

Oral Hygiene

Maintaining effective oral hygiene during orthodontic treatment is challenging due to braces or aligners trapping food particles, leading to plaque accumulation and potential tooth decay. Proper oral hygiene is particularly crucial in fixed appliance orthodontic treatment, where biofilm formation can cause enamel demineralization, gingival inflammation, and caries, affecting 50-70% of patients and impacting overall quality of life [21]. A randomized controlled trial involving 130 patients demonstrated the efficacy of motivational interviewing alongside conventional education in enhancing oral hygiene among orthodontic patients [34]. Both fixed and removable orthodontic appliances pose challenges in adhering to daily oral hygiene, contributing to biofilm accumulation on tooth surfaces, brackets, and wires. Biofilm accumulation can lead to gingival inflammation, dental caries, and compromise periodontal health, potentially prolonging treatment or causing premature termination [35]. Orthodontic interventions, such as braces and arches, hinder oral hygiene, resulting in tooth damage in 32% and unfavourable periodontal tissue conditions in 92% of cases. A significant percentage (65% - 67%) of orthodontic patients exhibit inadequate oral hygiene. The initiation of orthodontic treatment often leads to a swift deterioration in oral hygiene status [36]. In Saudi Arabia, 60% of orthodontic patients displayed poor oral hygiene, exacerbated by fixed appliances, increasing the risk of gingivitis and dental caries [19]. Studies reveal suboptimal oral hygiene behaviour among orthodontic patients, emphasizing the need for comprehensive oral hygiene instructions for successful treatment outcomes [37]. A survey in India found that 78% of orthodontic patients did not adhere to oral hygiene recom-

mentations despite receiving advice, indicating a gap in knowledge, attitude, and practice [38]. Evaluation of orthodontic treatment effects on oral status demonstrated an increase in the Decayed, Missing, Filled Teeth (DMFT) index and Plaque Index (PI) among young dental patients, highlighting the compromised oral hygiene inherent to orthodontic treatment [39]. While some studies report good oral hygiene (62.8%) among orthodontic patients [40]. Challenges persist, with 5% - 10% forced to discontinue treatment prematurely due to oral hygiene issues [41].

Diet restriction

Orthodontic patients face dietary restrictions due to the potential damage or dislodgment of braces or aligners by certain foods. Sticky, chewy, and hard foods are advised against to prevent appliance breakage or bracket debonding. Studies by Sharma *et al.* highlight that orthodontic patients often encounter difficulties in eating and are recommended to follow a soft diet [42]. Research by Carter *et al.* explored the impact of orthodontic appliances on eating habits among adolescents. Participants reported limiting meal choices due to concerns about breaking appliances, prolonged meal times, difficulty chewing, flavour changes, and fear of embarrassment [43]. Abed *et al.* conducted a qualitative study with adolescent patients, revealing challenges in biting and chewing hard foods, discomfort from food lodged in braces, and changes in eating habits. Orthodontic patients are commonly advised to adhere to a soft diet, leading to modifications in dietary intake [44].

Speech difficulties

Orthodontic treatment, particularly with braces or aligners, can impact speech, creating difficulties in enunciating specific words or sounds. Speech-related concerns are salient side effects, arising from pressure on the palate and tooth surfaces, altering tongue mobility and oral cavity dimensions [45]. Distortions affect vowels and consonants, with s sounds potentially persisting for over three months. Lingual and labial fixed appliances induce speech difficulty, with a longer recovery period for lingual systems. Aligners and conventional appliances both influence speech clarity, normalizing after 30 days. Fixed labial appliances may lead to transient or persistent speech challenges, particularly with the /s/ sound [46]. Lingual appliances and Invisalign can exacerbate speech difficulties, impacting articulation. Patients commonly report oral impairment and varying degrees of discomfort, emphasizing the impact on quality of life during orthodontic treatment [46] [47] [48].

5. Methodology

5.1. Study Area

The target area for this study was Komfo Anokye Teaching Hospital (KATH). Komfo Anokye Teaching Hospital is the second largest hospital in Ghana and a tertiary referral hospital in Kumasi which is found in the Ashanti Region. KATH has a 1200-bed capacity. The hospital receives referrals from 13 out of the 16 regions of

the country. The hospital currently has 13 clinical directorates and 2 non-clinical directorates. Oral health Directorate is one of the 13 clinical directorates.

5.2. Study Type and Design

Descriptive cross-sectional study design which took place from April 2023 till June 2023.

5.3. Study Population

Patients undergoing fixed orthodontic treatment at KATH.

5.4. Inclusion Criteria

All patients undergoing orthodontic treatment at KATH were considered in the study. Patients who have consented to be part of this study.

5.5. Exclusion Criteria

Patients who do not approve to be part of the study were not included in the study.

5.6. Sampling, Sample Size and Technique

Averagely the number of people that visit the orthodontic clinic is about 70 for a month.

A total of 60 orthodontic patients were used. This sample is representative of the number of orthodontic patients visiting Komfo Anokye Teaching Hospital in the Ashanti region of Ghana.

The sample size was calculated using the Yamane formula.

$$N = N/1 + N(e)^2$$

where n = sample size, N = sample population (70), e = margin of error (0.05).

$$n = 70/1 + 70(0.05)^2$$

$$n = 60$$

A convenient sampling technique was used.

5.7. Plan for Data Collection

Self-administered questionnaires were handed to the patients. Questionnaires were modified from a study conducted by Utomi *et al.* in 2007 on the topic challenges and motivating factors of treatment among orthodontic patients in Lagos, Nigeria where they surveyed 75 patients aged 10 - 28 years undergoing orthodontic treatment with fixed appliances at the Lagos University Teaching Hospital.

5.8. Plan for Data Processing

For data management and analysis, the Statistical Package for Social Sciences (SPSS) software version 21.0 was used. Tables, pie charts and bar charts were used to display the study's findings.

6. Results and Analysis

6.1. Socio-Demographics

Among the participants (**Table 1**), a clear gender disparity was observed, with 63.3% being female and 36.7% male. This indicates a higher representation of females seeking orthodontic treatment at the hospital. The age distribution (**Table 2**) revealed that 35% of the participants belonged to the 11 - 20 years age group, while 65% were in the 21 - 30 years age group. This highlights the predominance of young adults seeking orthodontic care. The participants' educational background varied (**Table 3**), with 66.7% having tertiary education, 30% having secondary education, and only 3.3% having basic education. This suggests that a majority of orthodontic patients at the hospital have pursued higher education. The overwhelming majority (98.3%) of the participants identified as Christians, while a small percentage (1.7%) identified as Muslims. This reflects the religious (**Table 4**) diversity among orthodontic patients at Komfo Anokye Teaching Hospital. While religion may not directly influence the decision to seek orthodontic treatment, it provides valuable insights into the cultural and religious composition of the patient population. The ethnic distribution (**Table 5**) showed that the Akan ethnic group constituted the largest proportion (76.7%) of

Table 1. Sex distribution.

		Sex			
		Frequency	Percent	Valid %	Cumulative %
Valid	Female	38	63.3	63.3	63.3
	Male	22	36.7	36.7	100.0
	Total	60	100.0	100.0	

Table 2. Age distribution.

		Age			
		Frequency	Percent	Valid %	Cumulative %
Valid	11 - 20 years	21	35.0	35.0	35.0
	21 - 30 years	39	65.0	65.0	100.0
	Total	60	100.0	100.0	

Table 3. Educational background.

		Educational Background			
		Frequency	%	Valid %	Cumulative %
Valid	Basic Education	2	3.3	3.3	3.3
	Secondary Education	18	30.0	30.0	33.3
	Tertiary Education	40	66.7	66.7	100.0
	Total	60	100.0	100.0	

Table 4. Religious affiliation.

		Religion			
		Frequency	%	Valid %	Cumulative %
Valid	Christian	59	98.3	98.3	98.3
	Muslim	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

Table 5. Ethnicity.

		Ethnicity			
		Frequency	%	Valid %	Cumulative %
Valid	Akan	46	76.7	76.7	76.7
	Ewe	2	3.3	3.3	80.0
	Ga	11	18.3	18.3	98.3
	Others	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

the participants. The Ga ethnic group accounted for 18.3% of the participants, followed by the Ewe ethnic group (3.3%). A small percentage (1.7%) identified as Muslim. These findings highlight the ethnic diversity among orthodontic patients. The observed variations in ethnicity may be influenced by factors such as regional demographics and cultural preferences, which can impact healthcare-seeking behaviours.

6.2. Orthodontic Treatment Experience

Treatment Duration and Motivations

According to the survey, the majority of respondents (71.7%) have been receiving orthodontic treatment for 1 - 2 years (**Figure 1**). This indicates that most individuals have undergone a significant duration of treatment. The motivations for seeking treatment varied among participants (**Figure 2**). The most common reasons included aesthetic concerns about the appearance of teeth (reported by 38.2% of respondents), crooked or misaligned teeth (reported by 28.1% of respondents), recommendation from dentist (19.2%), difficult in eating or speaking (reported by 11.1% of respondents), and self-consciousness or embarrassment (3.4%).

Challenges encountered during orthodontic treatment

A significant number of respondents (95%) reported facing challenges during their orthodontic treatment. The most frequently reported challenge (**Figure 3**) was pain and discomfort, highlighted by 36.7% of respondents. Other common challenges included difficulty chewing (reported by 15% of respondents), expensive treatment (reported by 14.4% of respondents) missing school or appointments (reported by 11.7% of respondents). Additional challenges mentioned by

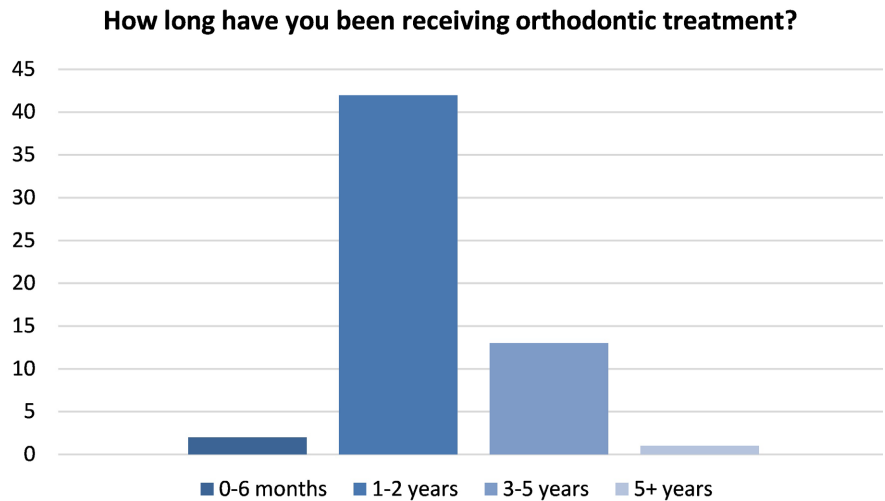


Figure 1. Duration of orthodontic treatment.

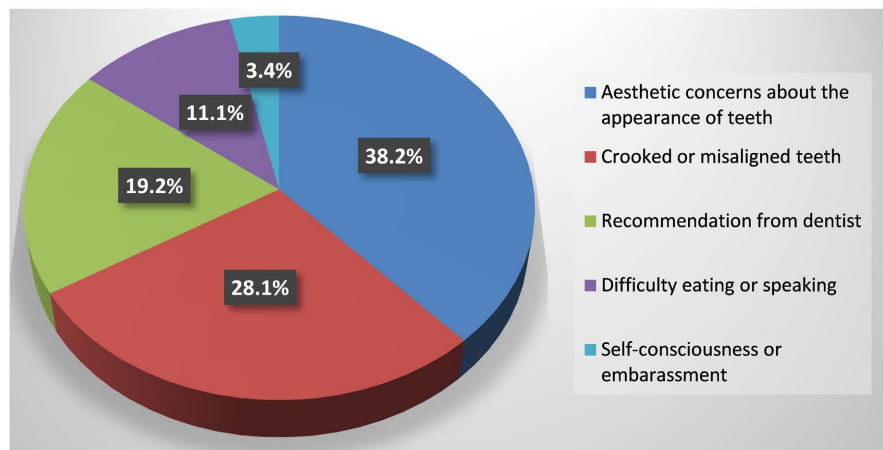


Figure 2. A pie chart showing that motivations for seeking orthodontic treatment.

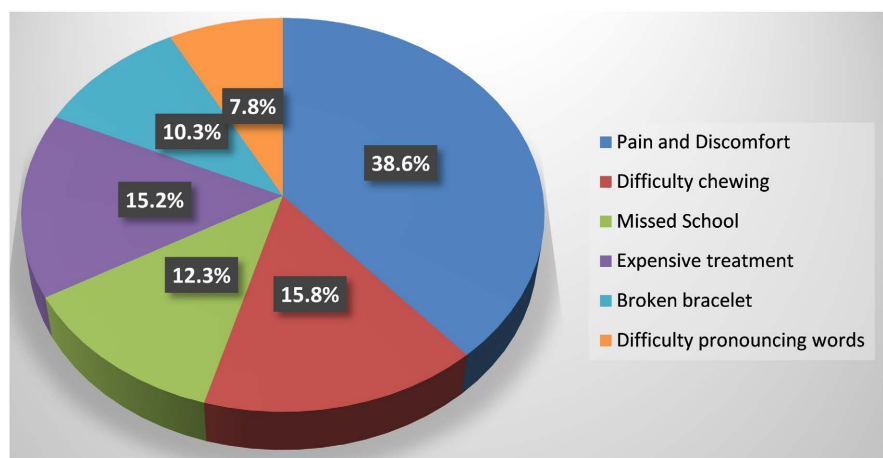


Figure 3. A pie chart showing the challenges encountered during orthodontic treatment.

the participants were broken brackets (9.80%), and difficulty pronouncing words initially (7.40%).

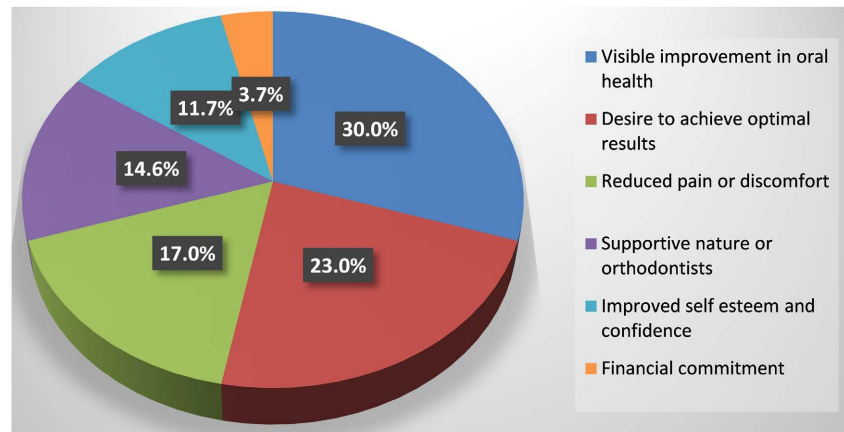


Figure 4. A pie chart showing factors that motivated patients to continue treatment.

Motivating Factors

Understanding the factors that motivate patients to continue with orthodontic treatment is crucial for treatment success. The pie chart revealed several factors that motivated patients to continue with orthodontic treatment (Figure 4). The most commonly reported factors were visible improvements in teeth alignment or oral health (30%), the desire to achieve optimal results (23%) and reduced pain and discomfort (17%). The supportive nature of orthodontists and dentists (14.6%) played a vital role, providing encouragement and guidance throughout the treatment process. Increased self-esteem and improved self-confidence (11.7%) and financial commitment (3.7%) were also cited as motivators for continuing the treatment. These findings indicate that tangible improvements and positive psychological outcomes serve as significant motivators for patients to persist with treatment.

7. Discussion

This chapter provides a thorough analysis of results from a study on orthodontic treatment motivation and support, emphasizing participants' socio-demographic characteristics and geographical locations. The study encompassed diverse data from various locations, ensuring broad applicability. Noteworthy socio-demographic factors such as age, gender, educational background, and socio-economic status were considered due to their significant impact on treatment perceptions and access. For instance, age influences motivation, with younger patients often prioritizing aesthetics, while older patients focus on functionality. Gender differences exist, with females showing higher aesthetic concerns and motivation. Educational background correlates with better understanding and motivation, while socio-economic status affects affordability and access. Geographical locations contribute to distinct cultural norms and healthcare infrastructures, influencing treatment expectations.

7.1. Orthodontic Treatment Experience

The study conducted a comprehensive survey on orthodontic treatment expe-

riences, covering treatment duration, motivations, satisfaction levels, challenges, resolution strategies, information adequacy, and improvement suggestions. The majority of participants (71.7%) underwent orthodontic treatment for 1 - 2 years, aligning with average durations in existing literature [7]. Motivations varied, with aesthetic concerns and misaligned teeth being prominent, reflecting primary treatment goals [49]. Satisfaction levels varied, with most participants moderately positive, emphasizing the importance of addressing patient expectations. Challenges included pain, discomfort, chewing difficulties, cost, and missed appointments, echoing established research [49]. Expensive treatment emerged as a notable challenge, suggesting the need for financial strategies [50]. To address challenges, the hospital employed pain management, treatment plan adjustments, enhanced education, and more frequent appointments. This multidimensional approach aligns with holistic patient care principles. Most respondents felt well-informed about their treatment, but a small percentage indicated lingering questions, emphasizing the ongoing need for improved patient education [17]. Participants offered suggestions for improvement, including enhanced pain management, better education, flexible scheduling, affordable alternatives, and increased support access, aligning with patient-centred care principles [17] [49]. Comparisons with existing literature by Sharma *et al.* and Bradley *et al.* provided additional insights, highlighting the universal emphasis on patient-centred care, pain management, and comprehensive support in orthodontic treatment experiences. The findings contribute to the broader understanding of orthodontic care and emphasize the continual efforts to enhance patient experiences and accessibility [17] [49].

7.2. Motivating Factors

Orthodontic treatment not only focuses on the physical aspects but also plays a crucial role in enhancing the psychological well-being of patients. The poll investigated the elements that affect the continuance of treatment, external influences, the impact of healthcare providers, patient recommendations, economic concerns, and the impacts on self-confidence and dental health. Observable enhancements in dental positioning, heightened self-assurance, a drive for optimal outcomes, less discomfort, and helpful orthodontic professionals appeared as crucial incentives. These correlate with the patient-centered care emphasis of Jeyaraj and Chakranarayan, which highlights the importance of addressing both aesthetic and functional concerns to enhance satisfaction. The study highlighted the significance of social support by acknowledging the influence of external variables such as family or peer pressure [51]. The healthcare providers, who play a vital role in this process, were seen favorably, highlighting the significance of robust patient-provider connections through efficient communication and tailored guidance [52]. The patients provided feedback regarding the need for better communication, increased education, and enhanced pain management, all of which support the patient-centered care approach. Implementing these tips can

improve overall experiences and outcomes. The study demonstrated the extensive favorable influence of orthodontic treatment on self-assurance, self-worth, mastication capability, verbal communication, and oral well-being. These findings are consistent with established dental data and reinforce the idea that orthodontics improves general oral health and quality of life [52]. There were no significant disparities in terms of age and educational background. On the other hand, females exhibited greater motivation than males to persist with the treatment. In summary, the results highlight the various advantages of orthodontic treatment and emphasize the significance of considering both the physical and psychological elements to enhance patient experiences.

8. Conclusion

The study found that the primary motivations for getting orthodontic treatment were related to concerns about the visual appeal of teeth, misaligned teeth, recommendations from dentists, and difficulties with eating or speaking. The study also found that patients were motivated to continue orthodontic treatment despite challenges due to several factors, including noticeable improvements in teeth alignment and oral health, the desire to achieve optimal results, the supportive nature of the orthodontist, reduced pain and discomfort, and increased self-esteem and confidence. Patients had a range of difficulties throughout therapy, such as pain, discomfort, impaired chewing ability, costly treatment, and missed visits. Notwithstanding these difficulties, patients were driven to finish their treatment, with external influences, support from healthcare personnel, and favorable results playing substantial roles. The research findings provide insights into the motives, obstacles, and factors that impact patient satisfaction and adherence to orthodontic treatment at KATH. Comprehending these elements is crucial for healthcare practitioners to improve patient experiences and treatment results.

Recommendations

- Enhancing patient understanding of the treatment process, potential challenges, and expected outcomes through comprehensive education and counseling sessions. This can help patients make informed decisions and better cope with challenges during treatment.
- Investing in improving pain management strategies to alleviate the discomfort associated with orthodontic treatment. This can include the use of new technologies, pain medications, and alternative treatment approaches to minimize patient discomfort.
- Increasing the frequency and consistency of communication between healthcare providers and patients. Regular updates on treatment progress, addressing patient concerns, and providing clear instructions can improve patient satisfaction and adherence. These recommendations are feasible, easy to implement and will enhance treatment outcomes at KATH.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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