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Factors Affecting Interest in Orthodontic Treatment Among Adults in Jakarta

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ORIGINAL ARTICLE

Factors Affecting Interest in Orthodontic Treatment Among Adults in Jakarta

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ABSTRACT

Objectives: The misalignment of teeth and/or jaws caused by abnormalities in the dynamic process of craniofacial growth and development is known as malocclusion. Over half of children and adolescents worldwide experience some form of malocclusion. Orthodontic treatment is the process of adjusting the position of teeth and jaws to achieve optimal occlusion. In recent decades, there has been a global surge in the need for orthodontic treatment among adults. This study aims to evaluate the factors affecting interest in orthodontic treatment among adults in Jakarta. **Methods:** This cross-sectional study was conducted from October to December 2023. A total of 196 adults were retrieved by purposive sampling from public places located in Jakarta. Self-administered questionnaire was used to collect data on demographic characteristics, knowledge regarding orthodontic treatment, self-perception, psychosocial, and oral disorder factors. Logistic regression analysis was carried out with a level of significance less than 0.05. **Results:** Majority of respondents had a good level of knowledge regarding orthodontic treatment (63.3%) and were interested in undergoing orthodontic treatment (85.7%). There was a significant association between other opinions about respondents' dental arrangement and interest in orthodontic treatment ($p = 0.018$; 95% CI = 0.135 – 0.826). Self-perception factors, oral disorder factors, and demographic characteristics were not significant in predicting interest in orthodontic treatment. **Conclusion:** For adults in Jakarta, other people's opinion about respondents' dental arrangements is the only psychosocial factor correlated with interest in orthodontic treatment. The importance of orthodontic care still needs to be improved for adults in Jakarta.

Keywords: adults, malocclusion, orthodontic treatment

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INTRODUCTION

The misalignment of teeth and/or jaws caused by abnormalities in the dynamic process of craniofacial growth and development is known as malocclusion. Due to compromised dentofacial aesthetics, this disorder may result in psychosocial issues, including trouble interacting with others or disruptions in oral processes like speech, swallowing, and mastication. While good dental appearance might result in a better social function, untreated malocclusions are linked to an increased detrimental influence on the psychosocial and health profile.¹

In order to obtain representative data on the burden of malocclusion, a number of studies have evaluated its prevalence across geographical areas.² A study indicates that over half of children and adolescents worldwide experience some form of malocclusion, with little to no improvement, distinctions between men and women.³ Other study notes how the prevalence of malocclusion features varies by region. For example, the mean prevalence of Angle Class II malocclusion in Africa was $8.80 \pm 10.36\%$, whereas it was almost 25% in America, Asia, and Europe. Angle Class III malocclusion was found to be more common in Asian populations, with a mean prevalence of $7.8 \pm 4.2\%$.⁴ In Indonesia, malocclusion is the third most common dental and oral health issue, behind

periodontal disease and dental caries, and affects almost 80% of the population. In ethnic Malay people, bimaxillary protrusion anomalies were observed in 62.9% of cases, while Class III malocclusion was found in as much as 15.8% of cases.^{5,6}

Malocclusion can be treated with orthodontic appliances, which should be performed by an orthodontist to ensure the proper treatment procedure and that no harm is done.⁷ In recent decades, there has been a global surge in the need for orthodontic treatment among adults. According to data from the American Association of Orthodontists (AAO) in 2020, the demand for adult orthodontic treatments in the US is rising annually. The data revealed that 1 in 5 orthodontic treatment patients were adults, with an increase of 40% over the previous ten years. Over the last five years, there has been a rise in the demand for orthodontic treatment among adults, according to another survey conducted in the United Kingdom.⁸

The expense of treatment was prohibitively high for many patients, making it the fundamental barrier to receiving orthodontic treatment. The second most prevalent reason for avoiding orthodontic treatment was the duration of time it would take, followed by the level of discomfort it would create.⁹ The level of care needs subjectively can be assessed based on several factors such as gender, age, socioeconomic status, perception or knowledge about oral health, and an individual's psychological perspectives. Differences in perception when assessing malocclusion are related to orthodontic treatment, where nowadays it is often found that someone has malocclusion but does not undergo orthodontic treatment because they do not feel they have malocclusion, or do not know that they need orthodontic treatment.¹⁰ Studies in the US showed that one of the main factors hindering adults from undergoing orthodontic treatment is concern about their appearance during the treatment.¹¹ In Asia, the main factors hindering adults from undergoing orthodontic treatment are the lack of knowledge about the benefits of the treatment, the high costs, and the perception that they are too old to undergo orthodontic treatment.¹²

Studies have indicated that undergraduate students' self-awareness of malocclusion and the need to seek orthodontic treatment remains relatively low. However, a preliminary descriptive study conducted in the greater Jakarta area discovered that most adults aged 35-50 years are interested in undergoing orthodontic treatment.^{7,8} This study aims to determine the factors affecting interest in undergoing orthodontic treatment among adults in Jakarta.

METHODS

This cross-sectional study was conducted from October to December 2023. The study sample consists

of 196 adults taken by purposive sampling from public places located in Jakarta. Inclusion criteria were adults between 35 and 50 years old, who were willing to participate, had never received orthodontic treatment, and had a job or fixed income above the regional minimum wage of Jakarta (>Rp5,000,000). This age range was chosen because it is the period when a person is in the middle of adulthood, and considered to have significant family responsibilities, including caring for dependent children or elderly parents. Individuals in middle adulthood often reflect on their life achievements, evaluate the goals they have reached, and plan for their future.¹³ Adults aged 35–50 who work as doctors or dentists were excluded.

The questionnaire used is a development from previous studies that have been retested for validity and reliability on the current research population.^{1,7} Respondents who agreed to the informed consent were requested to fill out the validated questionnaire by completing Google Forms (Google LLC, Mountain View, CA). The questionnaire form was organized into four sections representing demographic characteristics, knowledge regarding orthodontic treatment, self-perception, psychosocial, and oral disorder factors. Demographic characteristics consist of age, gender, educational level, and interest in orthodontic treatment. Knowledge regarding orthodontic treatment was measured using 16 questions, which were divided into good and fair categories. The knowledge level is categorized as good if the score is greater than 50% of the population's mean score. The respondents' interest in undergoing orthodontic treatment was determined by the answer choices of interested or not interested. Self-perception was measured using 5 questions with yes or no answers, while psychological and oral disorder factors were each measured using 3 questions. This study was approved by the Ethics Committee of the Faculty of Dentistry, Universitas Trisakti, with ethical clearance No.667/S1/KEPK/FKG/2023.

The statistical analysis was performed using the Statistical Package of the Social Sciences 24.0 (SPSS Inc., Chicago, IL). Descriptive statistics were obtained for all measured variables. Logistic regression was carried out to determine the interest in orthodontic treatment based on demographic characteristics, knowledge regarding orthodontic treatment, self-perception, psychosocial, and oral disorder factors. A level of significance ($p < 0.05$; 95% CI) was used for the statistical test.

RESULTS

The distribution of demographic characteristics is presented in Table 1. The majority of respondents were female (58.2%) and aged between 35 to 40 years (65.8%). The majority of respondents had a high level of education (92.3%), a good level of knowledge

regarding orthodontic treatment (63.3%), and were interested in undergoing orthodontic treatment (85.7%).

Logistic regression between self-perception factors and interest in orthodontic treatment was presented in Table 2. Respondent' satisfaction regarding their dental arrangement ($p = 0.243$; 95% CI = 0.198 – 1.506), need for orthodontic treatment ($p = 0.214$; 95% CI = 0.688 – 5.308), feeling that orthodontic treatment requires long-term period ($p = 0.413$; 95% CI = 0.142 – 2.230), fear of undergoing orthodontic treatment ($p = 0.190$; 95% CI = 0.752 – 4.184), feeling that orthodontic treatment may cause pain ($p = 0.253$; 95% CI = 0.632 – 5.709) were not significantly associated with their interest in orthodontic treatment.

Table 2 also presents the logistic regression between psychosocial factors and interest in orthodontic treatment. There was a significant association between other opinions about respondents' dental arrangement and interest in orthodontic treatment ($p = 0.018$; 95% CI = 0.135 – 0.826). Furthermore, there was no significant association between problems while speaking ($p = 0.536$; 95% CI = 0.234 – 2.125), sense of pain/clicking sound around the temporomandibular

joint ($p = 0.369$; 95% CI = 0.605 – 3.870) and chewing problems when eating ($p = 0.681$; 95% CI = 0.410 – 3.918) with interest in orthodontic treatment. Logistic regression analysis revealed that all demographic characteristics were not significant in predicting interest in orthodontic treatment.

Table 1. Demographic characteristics of respondents

Variables	n	%
Gender		
Female	114	58.2
Male	82	41.8
Age (in years)		
35–40	129	65.8
40–50	67	34.2
Education level		
Intermediate (high school/diploma)	15	7.7
High (bachelor/master/doctoral)	181	92.3
Knowledge regarding orthodontic treatment		
Fair	72	36.7
Good	124	63.3
Interest in orthodontic treatment		
Interested	168	85.7
Not Interested	28	14.3

Table 2. Association between self-perception, psychosocial, oral disorder, and demographic characteristics factors and interest in orthodontic treatment among adults in Jakarta

Variables	Interested (%)	Not Interested (%)	p	Exp (B)	95% CI
Are you satisfied with your dental arrangement?					
Yes	62 (31.6)	16 (8.2)	0.243	0.547	0.198 – 1.506
No	106 (54.1)	12 (6.1)			
Do you feel that you need orthodontic treatment					
Yes	125 (63.8)	15 (7.7)	0.214	1.912	0.688 – 5.308
No	43 (21.9)	13 (6.6)			
Do you feel that orthodontic treatment requires a long-term period?					
Yes	143 (73)	25 (12.7)	0.413	0.562	0.142 – 2.230
No	25 (12.8)	3 (1.5)			
Are you afraid of undergoing orthodontic treatment?					
Yes	84 (42.9)	11 (5.6)	0.190	1.774	0.752 – 4.184
No	84 (42.9)	17 (8.6)			
Do you feel that orthodontic treatment may cause pain?					
Yes	141 (71.9)	2 (11.2)	0.253	1.900	0.632 – 5.709
No	27 (13.8)	6 (3.1)			
Do you think poor dental alignment is related to decreased social attractiveness?					
Yes	153 (78.1)	22 (11.2)	0.093	0.384	0.126 – 1.172
No	15 (7.7)	6 (3)			
Do you feel any discomfort with your appearance when treated with orthodontics?					
Yes	110 (56.1)	18 (9.2)	0.414	1.476	0.580 – 3.757
No	58 (29.6)	10 (5.1)			

* $p < 0.05$

Table 2. Continues

Variables	Interested (%)	Not Interested (%)	<i>p</i>	Exp (B)	95% CI
Do people around you (colleagues, relatives, and friends) think your dental arrangement is irregular?	138 (70.4)	17 (8.7)			
Yes	30 (15.3)	11 (5.6)	0.018*	0.334	0.135 – 0.826
No					
Do you have any problems while speaking?					
Yes	33 (16.8)	6 (3.1)	0.536	0.706	0.234 – 2.125
No	135 (68.8)	22 (11.2)			
Do you sense any pain/clicking sound around your ears (at the TMJ joint)?					
Yes	85 (43.4)	11 (5.6)	0.369	1.530	0.605 – 3.870
No	83 (42.3)	17 (8.7)			
Do you have chewing problems when eating?					
Yes	53 (27)	7 (3.6)	0.681	1.267	0.410 – 3.918
No	115 (58.7)	21 (10.7)			
Gender					
Female	100 (51.1)	14 (7.1)	0.333	0.672	0.301 – 1.503
Male	68 (34.7)	14 (7.1)			
Age (in years)					
≤ 40	110 (56.1)	19 (9.7)	0.711	0.849	0.357 – 2.021
>40	58 (29.6)	9 (4.6)			
Education level					
Intermediate	12 (6.1)	3 (1.5)	0.490	1.614	0.414 – 6.291
High	156 (79.6)	25 (12.8)			
Knowledge regarding orthodontic treatment					
Fair	62 (31.6)	10 (5.1)	0.915	1.047	0.449 – 2.439
Good	106 (54.1)	18 (9.2)			

**p* < 0.05

DISCUSSION

This study found that the majority of respondents had a good level of knowledge regarding orthodontic treatment and were interested in undergoing orthodontic treatment. This finding is consistent with several studies in the Asian region that found that the interest of young adults in orthodontic treatment is above 50%, despite concerns about cost and treatment duration.^{12,14} Many adults were also concerned that their appearance would be impaired because of orthodontic treatment, which is understandable given their lack of understanding regarding the many available types of fixed orthodontic appliances. This implies a lack of information about orthodontic breakthroughs, such as the availability of invisible braces. It is critical to promote knowledge about updated orthodontic technology and its significance.¹⁴ Successful orthodontic treatment also depends on patients' compliance with appointment schedules, maintaining adequate oral hygiene, and limiting appliance damage. Sufficient knowledge regarding orthodontic treatment improves compliance and leads to better clinical outcomes.¹⁵

This study found that the majority of respondents were interested in undergoing orthodontic treatment. Adult orthodontic patients, unlike teenagers, have distinct physical traits and a better ability to make decisions

for themselves; they also have extremely particular psychological perspectives on treatment motivation and needs. The decision to seek orthodontic treatment is more influenced by socioeconomic and psychological factors, such as improvements in appearance and interpersonal interactions, than by functional defects.¹⁶

The majority of respondents in this study were female and had a high level of education. Women are more interested in improving their teeth with orthodontic therapy than men, owing to their higher aesthetic standards. Furthermore, their increased interest in orthodontic treatment can be attributed not only to a greater desire for personal attractiveness but also to a more sensitive awareness of the objective smile aesthetic nuances that affect their mouth.¹⁷ Females are also found to be more conscious of the importance and demand for orthodontic treatment. Females demonstrated higher levels of knowledge, attitudes, and practice, as well as outperformed males in terms of retainer knowledge, brace attractiveness, cleaning aid usage, remembering appointments, and consistent attendance.¹⁸

Higher education allows people to have broader perspectives and access to more information. It is critical to acquire enough information before deciding to seek therapy and choosing the most appropriate treatment with the desired results. As numerous

studies have shown, deciding to begin orthodontic treatment is a complex process including physiological, esthetic, functional, social, and economic considerations.¹⁹

There was a significant association between other opinions about respondents' dental arrangement and interest in orthodontic treatment. Motivational factors are classified into two types: self-driven (functional or esthetic reasons) and externally motivated (by family, friends, peers, or dentists). Psychosocial factors may boost patients' motivation regarding interest in orthodontic treatment. Adults may be motivated to improve their health and appearance for reasons of psychological fulfillment and social image.²⁰ A study found that most respondents believed that their oral appearance had a negative impact on how others perceived them, which drove them to seek treatment. They reported examples of teasing and unpleasant comments made during social interactions with friends, peers, and relatives in their homes, schools, universities, and/or workplaces.²¹ The psychosocial impact of dental esthetics plays an essential role in adults' decision-making regarding orthodontic treatment. People with limited self-awareness of the potential psychological consequences tend to decline orthodontic treatment, despite the necessity for severe normative treatment.²²

There was no significant association between self-perception and interest in orthodontic treatment among adults in this study. However, most respondents who were dissatisfied with their dental arrangements expressed an interest in orthodontic treatment. Poor dental aesthetics have been linked to low self-esteem. There is a correlation between increasing age and improved degree of total self-esteem. People normally become more tolerant of who they are as they become older. They may still feel dissatisfied with their aesthetic appearance, but do not prioritize significant improvement efforts.²³

Oral disorder factors and demographic characteristics were not significant in predicting interest in orthodontic treatment among adults in this study. Several studies found that the primary motivation for receiving orthodontic treatment was esthetics. Eating and chewing were less commonly cited as functional problems. A previous study conducted in Saudi Arabia indicated that just 1% of respondents reported seeking orthodontic treatment due to difficulty in mastication.¹⁹ This outcome may vary in various regions or settings, particularly due to changes in demographic variables.

The main limitation of this study was the small sample size and was only taken from public places in Jakarta, which might be insufficient to represent the general population. Further research into larger and more representative samples to evaluate the interest in

orthodontic treatment is required. Future research could involve a clinical evaluation to determine the severity of malocclusion and the factors that influence whether orthodontic treatment is required.

CONCLUSIONS

The findings in this study indicate that most respondents had a good level of knowledge regarding orthodontic treatment and were interested in undergoing it. The only psychosocial factor associated with interest in orthodontic treatment was other people's opinions about respondents' dental arrangements. Self-perception factors, oral disorder factors, and demographic characteristics were not significant in predicting interest in orthodontic treatment. Education and promotion regarding the importance of orthodontic treatment still need to be enhanced across society, including adults in Jakarta.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper.

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REFERENCES

1. Kusnoto J, Andayani LH, Kusnoto B. Factors affecting the preference of orthodontic appliances among undergraduate students in West Jakarta. *J Dent Indones*. 2023; 30(3):212–8.
2. Balachandran P, Janakiram C. Prevalence of malocclusion among 8-15 years old children, India – A systematic review and meta-analysis. *J Oral Biol Craniofac Res*. 2021; 11(2):192–9.
3. Lombardo G, Vena F, Negri P, Pagano S, Barilotti C, Paglia L, Colombo S, Orso M, Cianetti S. Worldwide prevalence of malocclusion in the different stages of dentition: A systematic review and meta-analysis. *Eur J Paediatr Dent*. 2020; 21(2):115–22.
4. De Ridder L, Aleksieva A, Willems G, Declerck D, de Liano-Perula MC. Prevalence of orthodontic malocclusions in healthy children and adolescents: A systematic review. *Int J Environ Res Public Health*. 2022; 19(12):7446.
5. Muttaqin Z, Hadi L, Hirdayanti W. The prevalence of bimaxillary protrusion in ethnic Malay, Medan, Indonesia. *BioSci Med J Biomed Transl*. 2023; 6(18):2990–3.
6. Halim H, Halim IA. Profile changes in Class III malocclusion using protraction facemask in Indonesian young patients (Cephalometric study). *Open Dent J*. 2023; 17(1):e187421062303100.

7. Yovanka V, Kusnoto J, Andayani LH. Characteristics of orthodontic appliance users based on demographics, self-perception, psychosocial, and oral disorders (Study among undergraduate students in West Jakarta). *J Indones Dent Association*. 2023; 6(1):9–14.
8. Jessica S, Kusnoto J, Andayani LH. Self-perception, psychosocial, functional, interest, and knowledge aspects regarding adults orthodontic treatment in Greater Jakarta. *J Indones Dent Association*. 2024; 7(1):27–32.
9. Alshammari AK, Siddiqui AA, Al Shammary NH, Malik YR, Alam MK. Assessment of perception and barriers toward orthodontic treatment needs in the Saudi Arabian adult population. *Healthcare*. 2022; 10(12):2488.
10. Goyal S, Gupta DK, Singla L, Krishan K. Comparison of motivating factors among adults' seeking versus not seeking orthodontic treatment. *J Adv Med Dent Sci Res*. 2024; 12(9):11–7.
11. Singh S, Prabhakar M, Nindra J, Sidhu MS, Shikha. Orthodontic limitations in adults: A Review. *J Clin of Diagn Res*. 2022; 16(2):ZE01–5.
12. Kim Y. Study on the perception of orthodontic treatment according to age: A questionnaire survey. *Korean J Orthod*. 2017; 47(4):215–21.
13. Sigelman CK, Rider EA, De George-Walker L. *Life-Span Human Development*. 9th ed. Boston: Cengage Learning; 2018. p. 7–9.
14. Mishra J, Kapoor S, Bhagchandani J, Agarwal S, Vashishta V, Singh AK. Determining orthodontic knowledge and awareness in young adults. *J Indian Orthod Soc*. 2022; 56(2):140–3.
15. Georgescu RS, Oancea R, Sfeatcu R. Perceptions and knowledge of orthodontic treatment by an adult group in Romania. *Timisoara Med*. 2024; 1(1):1.
16. Oh MH, Park AH, Kim MS, Kim EA, Cho JH. Part II. What drives Korean adults to seek orthodontic treatment: Factors contributing to orthodontic treatment decisions. *Korean J Orthod*. 2021; 51:3–14.
17. Saccomanno S, Saran S, Lagana D, Mastrapasqua RF, Grippaudo C. Motivation, perception, and behavior of the adult orthodontic patient: A survey analysis. *Biomed res Int*. 2022; 2754051.
18. Mathew R, Sathasivam HP, Mohamednor L, Yugaraj P. Knowledge, attitude and practice of patients towards orthodontic treatment. *BMC Oral Health*. 2023; 23:132.
19. Felemban OM, Alharabi NT, Alamoudi RA, Alturki GA, Helal NM. Factors influencing the desire for orthodontic treatment among patients and parents in Saudi Arabia: A cross-sectional study. *J Orthod Sci*. 2022; 11(1):25.
20. Zhang MJ, Sang YH, Tang ZH. Psychological impact and perceptions of orthodontic treatment of adult patients with different motivations. *Am J Orthod and Dentofac Orthop*. 2023; 164(3):e64–71.
21. Johal A, Damanhuri SH, Colonio-Salazar F. Adult orthodontics, motivations for treatment, choice, and impact of appliances: A qualitative study. *Am J Orthod and Dentofac Orthop*. 2024; 166(1):36–49.
22. Lin F, Ren M, Yao L, He Y, Guo J, Ye Q. Psychosocial impact of dental esthetics regulates motivation to seek orthodontic treatment. *Am J Orthod and Dentofac Orthop*. 2016; 150(3):476–82.
23. Bahar AD, Sagi MS, Zuhairi FAM, Hassan WNW. Dental aesthetics and self-esteem of patients seeking orthodontic treatment. *Healthcare*. 2024; 12(16):1576.

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