



RESEARCH ARTICLE

Relationship Between Perception of Dental and Smile Aesthetics and Adolescent Self-Confidence in Jakarta

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Abstract

Introduction: Adolescents are unique individuals who go through different phases of psychological development and identity from childhood to adulthood. In this period, adolescents have an important part in their lives, namely self-confidence. This can be seen when the teenager begins to pay attention to the condition of his teeth and smile. **Objectives:** This research was conducted to examine the relationship between the perception of the aesthetics of teeth and smile with the self-confidence of adolescents in Jakarta by using a random sampling research method. **Material and Methods:** This research is quantitative with a cross-sectional study. **Results:** The results indicate that there are still many teenagers in Jakarta who feel less confident about the aesthetics of their teeth and smile. A significant positive correlation was found between the perception of dental and smile aesthetics and adolescent self-confidence ($p = 0.000$, $r = 0.471$). Female adolescents showed greater concern for appearance compared to males. **Discussion:** The correlation coefficient ($r = 0.471$) demonstrates a moderate positive relationship, suggesting that better perception of dental and smile aesthetics is associated with higher self-confidence among adolescents. **Conclusion:** It can be concluded that the perception of the aesthetics of teeth and smile significantly affects adolescent self-confidence, with statistical evidence showing a positive correlation. High quality care with aesthetic values should be provided by the dentist to ensure patient satisfaction and successful treatment outcomes.

Keywords: adolescents, perception of the aesthetics of teeth and smile, self-confidence

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INTRODUCTION

Adolescents are unique individuals who go through phases of psychological and identity development that differs from childhood as they grow into adulthood. The adolescent period is a unique phase in a person's life.¹

Adolescents begin to develop self-esteem as they learn self-respect and to feel comfortable with themselves at this age. This self-esteem grows and develops during puberty and continues into adulthood. Therefore, self-confidence is very important for adolescents.²

Self-confidence is greatly needed by adolescents, therefore they can develop optimally in life.³ A person's self-confidence can affect their productivity, decision-making ethics, moral values, perspective on things, and the hopes they desire.⁴

A perspective and actions done by the thought process about something seen, heard, experienced, or read is known as *perception*. Perception affects a person's actions, conversations, and emotions. A positive perception influences one's satisfaction with health care in terms of attitude and behaviour, while a negative perception can be reflected through performance. Each person has a different perception.⁵ According to Silva (2012), who conducted research at a dental school in Brazil, there is a difference in perception between adolescent females and males.⁶

Perception or opinion regarding smiling among adolescent males and females can be seen in the study by de Oliveira (2012), which found that 97% of females are more critical in assessing smile aesthetics.⁷ Particularly, females tend to be less satisfied with the aesthetics of their smiles compared to males.⁸ It is concluded from these studies that females place more importance on and think more critically about the aesthetic appearance of their teeth than males do.⁹

Several studies link adolescent perception of the aesthetics of teeth and smile to self-confidence. A study conducted by Akarslan et al. (2009) showed that age has an impact on dissatisfaction with the aesthetic appearance of teeth and smiles. The research was conducted at the Department of Oral Diagnosis at the Dental School in Ankara, Turkey, on 1,014 subjects consisting of 551 females and 463 males. Compared to those aged 20 and above, adolescents under the age of 19 were the most dissatisfied and least confident with the appearance of their teeth and smile.¹

According to a study by Silva et al. (2012) involving 172 students at a dental school in Brazil, the students' self-confidence was linked to the aesthetics of their teeth. The study found that satisfaction with smile aesthetics was associated with self-awareness, and that the aesthetics of teeth had a significant impact on self-confidence. Females were found to have lower self-confidence regarding their teeth and smile compared to males.⁶

Based on the above statements and previous studies, the researchers are interested in conducting a study aimed at understanding and exploring the perception of dental and smile aesthetics and its relationship with adolescent self-confidence in Jakarta. The goal is to determine whether there is a connection between adolescents' perception of dental and smile aesthetics and their self-confidence

MATERIAL AND METHODS

This research is quantitative, using a correlational cross-sectional study design. The population used in this study consists of adolescents in Jakarta who assess the aesthetics of teeth and smiles in relation to their level of self-confidence. The adolescent population in Jakarta from 2018–2020 was 1,643,897, with 841,784 male adolescents and 802,113 female adolescents. The sample was taken randomly (*random sampling*) from the adolescent population in Jakarta to evaluate the perception of dental and smile aesthetics in relation to their self-confidence levels. Based on calculations, the required number of samples was determined to be 400.

The inclusion criteria were adolescents aged 11–24 years living in Jakarta who consented to participate and completed the electronic questionnaire. Exclusion criteria were individuals outside this age range, incomplete responses, or medical/developmental conditions that could affect dental aesthetics perception or self-confidence. The 11–24 age range was selected in accordance with the World Health Organization (WHO) definition of adolescence and young adulthood, representing a key developmental stage where self-confidence and appearance are particularly significant.

The research was conducted in Jakarta, from January to February 2022. The tools and materials used in this study included an electronic questionnaire and electronic devices. A Data analysis was carried out after identifying the perceptions of dental and smile aesthetics in relation to adolescent self-confidence. The data analysis method used in this study was correlation analysis to determine the relationship between the perception of smile aesthetics and adolescent self-confidence. The stronger the relationship, the more likely it is that the two variables are causally related. A descriptive test using Pearson's test was performed first, followed by a correlation test using Kendall's tau-b correlation, as the data was categorical ordinal–ordinal in nature.

RESULTS

Table 1. Number of Respondents Based on Age

Age	N	%
11-14 years	5	1.2%
15-18 years	127	31.5%
19-21 years	187	46.4%
22-24 years	84	20.8%
Total	403	100.0%

Based on the table above, the number of respondents was 403. Respondents aged 11–14 years were 5 (1.2%), aged 15–18 years were 127 (31.5%), aged 19–21 years were 187 (46.4%), and aged 22–24 years were 84 (20.8%).

Table 2. Number of Respondents Based on Gender

Gender	N	%
Male	80	19.9%
Female	323	80.1%
Total	403	100.0%

Based on the table above, the number of male respondents was 80 (19.9%) and female respondents was 323 (80.1%).

Table 3. Number of Respondents Based on Level of Self-Confidence

Self-confidence	N	%
Low	1	0.2%
Moderate	262	65.0%
High	140	34.7%
Total	403	100.0%

Based on the table above, respondents with high confidence were 140 (34.7%), moderate confidence were 262 (65.0%), and low confidence were 1 (0.2%).

Table 4. Kendall's tau-b Test of Perception of Dental and Smile Aesthetics with Adolescent Self-Confidence

Variable	Self-confidence		
	e		
	r	p-value	n
Perception of dental and smile aesthetics	0.471	0.000	403

Based on the table above, if the $p\text{-value} < 0.05$, it is considered a significant relationship. Positive or negative r values determine the direction of the relationship between variables. In this study, the perception of dental and smile aesthetics and self-confidence had a $p\text{-value}$ of 0.000, $r = 0.471$, and positive r . It can be stated that there is a significant positive relationship between the perception of dental and smile aesthetics and self-confidence. The better the perception, the higher the adolescent's self-confidence.

DISCUSSION

Based on this study, subjects were given a questionnaire containing demographic data, statements about the perception of dental and smile aesthetics, and statements about self-confidence. These statements included perception factors such as tooth position, age, and gender. The self-confidence questionnaire covered influencing factors such as self-esteem, self-concept, life experience, and education. Statements were categorized into favorable (agree/strongly agree) and unfavorable (disagree/strongly disagree).

The questionnaire was given to adolescents aged 11–24 years living in Jakarta. After responses were collected, univariate and bivariate tests were conducted.

Before the bivariate test, univariate analysis was conducted for each variable. The most frequent respondents were aged 19–21, with 187 responses (46.4%). This is because many respondents in that age group reported dissatisfaction with their teeth. This matches previous research, which stated that adolescents at this age become more concerned with physical appearance to appear more aesthetic in social interactions.¹⁰

Male respondents were 80 (19.9%), while females were 323 (80.1%). Female respondents were more numerous because females are more concerned with their appearance. This is supported by Silva et al. (2012), who found that females often feel dissatisfied with their smile compared to males and are more sensitive and more concerned to their aesthetic appearance⁶. This is supported by Silva et al. (2012), who found that females often feel dissatisfied with their smile compared to males and are more sensitive and more concerned with their aesthetic appearance⁶. In Jakarta and broader Indonesian culture, this gender difference may be further reinforced by social expectations and cultural norms that place greater emphasis on female appearance and attractiveness. After identifying the perception of dental and smile aesthetics among the research subjects, the level of self-confidence in adolescents can be seen through self-concept, self-esteem, life experience, and education.¹¹ Based on the questionnaire, most Jakarta adolescents with 262 responses (65.0%) had moderate self-confidence. This correlates with Pratiwi's 2013 study, which found that adolescents felt insecure due to crooked teeth and desired to improve their appearance. However, dental misalignment is not the sole factor for low self-confidence.¹²

The bivariate test used was Kendall's tau-b due to the ordinal data. Results showed a significant positive relationship between the perception of dental and smile aesthetics and self-confidence ($p = 0.000$, $r = 0.471$), and a positive correlation coefficient. It can be stated that there is a significant and positive relationship between the perception of dental and smile aesthetics and self-confidence. The better the perception of dental and smile aesthetics, the higher the level of self-confidence among adolescents in Jakarta. This finding is consistent with previous research conducted by Silva et al. (2012) on 172 students at the Dental School in Brazil. Their study showed that female students had lower self-confidence compared to male students regarding their smiles. Similarly, in Indonesia, cultural values that emphasize female appearance, combined with strong social media exposure, may explain why female adolescents are more critical of their smiles and report lower self-confidence compared to males.

CONCLUSION

Based on data from 403 respondents, many adolescents in Jakarta have a fairly good perception of their dental and smile aesthetics, and generally show moderate self-confidence. A significant positive relationship was found between the perception of dental and smile aesthetics and adolescent self-confidence, where better perception is associated with higher confidence. These findings emphasize the importance of dental health education and public health campaigns that promote good oral hygiene and regular dental care, as such efforts can help improve adolescents' perception of their dental appearance and support their overall self-confidence. Dentists should focus on delivering high-quality care with consideration of aesthetics values, ensuring patient satisfaction and successful treatment outcomes.

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