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**THE CORRELATION BETWEEN PARENTING STYLE AND STUDENT  
 DEF-T INDEX**

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**ABSTRACT**

**Background:** Children at primary school age have a special phase in their oral cavity, namely transition phase which is marked by the change of deciduous teeth to permanent teeth. Damage that occurs during this period can affect the condition of the oral cavity and cause various diseases in the future. One of the diseases that often occurs is caries. Based on Riskesdas, the prevalence of caries in Indonesia on 2018 is 57.6% and 59.6% in South Kalimantan. The incidence of caries in children cannot be separated from the parenting provided by parents. Parenting styles are divided into authoritative, authoritarian, and permissive parenting styles. **Purpose:** To analyze the relationship between parenting style and def-t index of students at SDN Kebun Bunga 4 Banjarmasin. **Material and Method:** This study used an analytical observational method with a cross-sectional approach. The research sample was 33 students in grades 1-3rd at SDN Kebun Bunga 4 Banjarmasin. Data collection included primary data obtained through direct examination of the students' oral cavity and filling out the PSDQ (Parenting style and Dimensional Questionnaire) to determine parenting styles. The data then processed and analyzed using the SPSS application with Spearman test. **Results:** The results showed that most parents practice authoritative parenting. The def-t index of students is 6.3 in high category, and there are no parents with authoritarian parenting. Spearman's correlation test showed there was no relationship between parenting style and students' def-t index ( $p$  value = 0.371). **Conclusion:** There is no relationship between parenting styles and students' def-t index.

**Keywords :** Authoritarian, authoritative, parenting style, permissive, student def-t index

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**INTRODUCTION**

Children who are in elementary school do not yet have the habit of consuming healthy snacks, but tend to eat food sold by traders outside of school which tends to contain a lot of sugar. Children who are at school age have a special phase in their oral cavity, namely the transition phase or the change from milk teeth to permanent teeth. This phase is important in the child's growth and development because if there is damage to the child's teeth, it can affect the condition of the oral cavity and cause various diseases in the future. Diseases that arise can reduce the function and activity of the oral cavity as well as general health.<sup>1,2</sup> The most common dental and oral disease in children is caries. Caries is a disorder that occurs due to the involvement of various etiological factors, including host factors (saliva and teeth), substrate or diet, microorganisms and time.<sup>3,4</sup> Untreated caries can cause children to have difficulty on sleeping, eating, weight loss, lack of nutrition, even able to

make children reluctant to socialize. In addition, the condition of the oral cavity of children who are in the transitional phase is important to note because damage in this phase affects the growth and development of the child's jaw arch, developmental process, masticatory function and speech function.<sup>3</sup> Based on Riskesdas in 2013, the prevalence of dental and oral diseases in Indonesia was 25.9% and in South Kalimantan was 36.1%.<sup>5</sup> There was an increase at the prevalence in 2018, which being 57.6% in Indonesia and 59.6% in South Kalimantan.<sup>6</sup> In the same year, the prevalence caries in the city of Banjarmasin showed a percentage of 37.62%.<sup>7</sup>

The incidence of caries experienced by children at school age cannot be separated from the pattern of habits taught to children, which in this case can be interpreted as parenting styles. Parents have obligations and play an important role in shaping children's habits in everyday life, including maintaining oral health.<sup>8</sup> Parenting styles are

divided into authoritative, authoritarian, and permissive parenting. Authoritative parenting provides a lot of support and understanding for children in dealing with problems, guides children to keep on the right track and provides reasons when forbidding children from doing something. Authoritarian parenting is characterized by parents who provide strict monitoring and regulation of behavior in children, giving love to children, but there is an intervention given by parents in determining decision-making for children, so that children are less able to make decisions for themselves. Permissive parenting is characterized by parents giving full freedom to children in carrying out activities and making decisions without certain evaluation and control. Nayyar's research shows that the percentage of children with the lowest caries risk is owned by children with authoritative parenting of 7.83%, authoritarian of 86.49% and permissive of 93.75%. This can be related to the characteristics of authoritative parenting, namely controlling children but accompanied by freedom that is able to make children feel more relaxed and not pressured.<sup>9</sup>

SDN Kebun Bunga 4 Banjarmasin is one of the elementary schools located in East Banjarmasin District, Banjarmasin City, South Kalimantan Province. Based on the preliminary study, data were obtained from the SDN Kebun Bunga 4 Banjarmasin and the Puskesmas Kebun Bunga, which contain oral health data for students at SDN Kebun Bunga 4 Banjarmasin in grades 1-3. This data describes the that children in grades 1-3 as many as 156 people with cavities as many as 99 people or 63.46% in 2021. Based on this background, the researchers are interested in conducting research to determine the relationship between parenting patterns and the index of def- t students in grades 1-3 at SDN Kebun Bunga 4 Banjarmasin. This study aims to determine the relationship between parenting and the def-t index of students in grades 1-3 at SDN Kebun Bunga 4 Banjarmasin.

## MATERIAL AND METHODS

This research was conducted after obtaining ethical approval from the Ethical Committee of the Dentistry Faculty, Lambung Mangkurat University with No. 026/KEPKG-FKGULM/EC/IV/2022. This research is a correlational analytic research with cross sectional method. The subjects of this study were students of grades 1-3 at SDN Kebun Bunga 4 Banjarmasin as many as 33 people. Data collection in this study included primary data obtained through direct examination of the students' oral cavity and filling out the PSDQ (Parenting Style and Dimensional Questionnaire) questionnaire to determine parenting styles. This

research instrument uses a Robinson modified PSDQ questionnaire which has been tested for validity and reliability as many as 26 statements to classify parenting styles. Other tools and materials used are PPE hazmat, goggles, N95 masks, head coverings, shoe covers, hand scoons, disposable diagnostic sets, head flashlights and a def-t index sheet. The use of tools and materials using level 3 PPE to prevent the spread of Covid-19.

Data retrieval was carried out through direct examination of the oral cavity of students to see the caries possessed by each student and filling out the PSDQ questionnaire by parents. The data then analyzed using the Spearman test using the Statistical Package for the Social Sciences (SPSS) application to determine the relationship between parenting styles and the student's def-t index.

## RESULTS

The number of student samples in this study was 33 students consisting of 20 male students and 13 female students.

**Table 1.** Amount of student respondents classified by gender

Gender	Amount	Percentage
Male	20	61%
Female	13	39%
<b>Total</b>	33	100%

Based on table 1, it is known that most of the students who were selected as respondents were male students as many as 20 people (61%).

**Table 2.** Amount of parent respondents classified by gender

Gender	Amount	Percentage
Male	5	15%
Female	28	85%
<b>Total</b>	33	100%

Table 2 shows that the parents as respondents in this study were mostly female as many as 33 people (85%).

**Table 3.** Characteristics of respondents based on parents' education level

Education Level	Amount	Percentage
SMA, MA, SMK	18	52%
D2, S1	15	48%
<b>Total</b>	33	100%

Based on table 3, it is known that most of the Orespondents' education levels are SMA, MA, SMK with a total of 18 people (52%).

**Table 4.** Characteristics of respondents based on parents' job

Job	Amount	Percentage
Government employee	9	27%
Entrepreneur	4	12%
BUMD employee	2	6%
Housewife	18	55%
<b>Total</b>	<b>33</b>	<b>100%</b>

Table 4 shows that parents as respondents in this study are mostly housewives with a proportion of 18 people (55%).

**Univariate Analysis**

Parenting styles were obtained through filling out the PSDQ questionnaire which contained 26 statements. This questionnaire was filled out directly by the parents. The results of the filling are then calculated and grouped based on each parenting pattern. The student's def-t index was obtained through direct examination of the oral cavity, the results obtained were then recorded and grouped according to each category.

**Figure 1.** Parenting Style

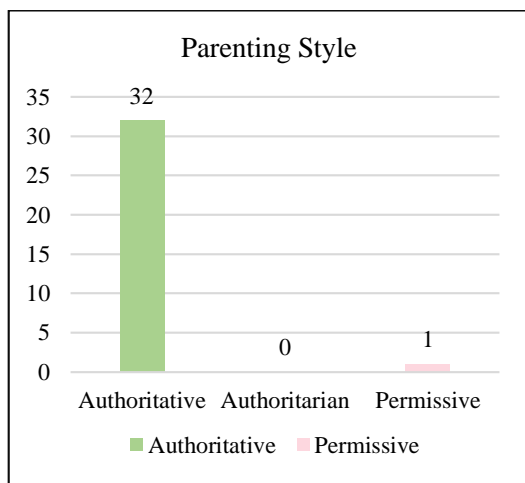


Figure 1 shows that as many as 32 parents practice authoritative parenting (97%).

**Table 5.** Students def-t Index

Student def-t Index	Amount	Percentage
Very low	2	6%
Low	2	6%
Moderate	7	21%
High	5	15%
Very high	17	52%
<b>Total</b>	<b>33</b>	<b>100%</b>

Table 5 shows majority of students has very high def-t index, as many as 17 students (52%).

**Table 6.** Students' def-t index based on parenting styles

Parenting Style	n	def-t Index	Category	%
Authoritative	32	6,1	High	97%
Permissive	1	13	Very high	3%
<b>Total</b>	<b>33</b>			<b>100%</b>

Based on table 6, it is known that the average def-t index of students with authoritative parenting is 6,1 with a high category and children with permissive parenting have a very high def-t index of 13 categories.

**Bivariate Analysis**

**Table 7.** Correlation Test Results between Parenting Parenting and Student def-t Index

		Students' def-t Index					r score	p value
		Very low	Low	Moderate	High	Very high		
Parenting Style	Authoritative	2 (100%)	2 (100%)	7 (100%)	5 (100%)	16 (94%)	.161	.371
	Permissive	0	0	0	0	1 (6%)		
	Total	2 (100%)	2 (100%)	7 (100%)	5 (100%)	17 (100%)		

The results of the Spearman correlation test show p value 0.371 ( $p > 0.05$ ), which means that

there is no relationship between parenting styles and the student's def-t index.

## DISCUSSION

Parenting styles could be defined as behavioral patterns applied to children that are relatively consistent and sustainable over time. Parenting styles include how to look after, care for, and educate children.<sup>10</sup> The results of the research conducted on 33 respondents showed that 32 (97%) parents applied authoritative parenting and 1 (3%) parent applied permissive parenting. Parents with authoritative parenting style admit that they often give appreciation in the form of praise to children when children behave well, provide comfort to children through active actions such as responding to children's feelings and needs and providing understanding to children when children are feeling sad. Children are allowed to participate in rule-making and decision-making in the family, and when there are different opinions, parents respect the opinion of the child and invite the child to express their opinion.<sup>11</sup> Meanwhile, permissive parenting is different from authoritative parenting which is characterized by parents who find it difficult to discipline their children and the low active role given to children. Permissive parents tend to use threats to punish their children, rarely bond or spend time with their children and rarely respond to their children's feelings. This causes parents to often threaten their children as a form of punishment with little or no consideration.<sup>12</sup>

The student's def-t index (decayed, extraction, filled teeth) describes the number of caries a person suffers from. Def-t assessment is calculated per tooth, meaning that if one tooth has more than one caries, for example, there is proximal and buccal caries, the caries will still be counted as one.<sup>13,14</sup> The results showed that most of the students had a very high def-t index (52%). A very high def-t index is a bad condition, because it indicates there are many carious teeth. The high def-t index experienced by students can be influenced by several factors, one of which is the student's gender. The results showed that most of the research respondents were male students. The high incidence of caries in male students compared to female students is in line with Mukhbitin's research in 2018. Based on this research, it is known that of the 28 students who were selected as respondents, there were 15 male students and 10 of them experienced caries. Meanwhile, for the other 13 female students, only 2 students had caries. This can happen because boys tend to have more activities that trigger hunger and increase appetite, but are not selective in choosing food. The behavior of maintaining oral hygiene in boys is also not as good as for girls, which results in boys being lazy or not wanting to maintain oral hygiene and brush their teeth.<sup>15</sup>

Parents with authoritative parenting have special characteristics in the form of giving love

accompanied by giving rules and controls. Authoritative parents provide opportunities for children to express opinions, give autonomy to children and encourage children to be independent but still under supervision.<sup>16</sup> The results of direct examination of research respondents showed 32 parents applied authoritative parenting, and 32 students had a def-t index of 6,1 with high category. These results are in line with Sukanya's research which shows a high incidence of caries in parents with authoritative parenting. Based on Sukanya's research, it is known that children with authoritative parenting have a 4.1% higher caries incidence percentage than children with authoritarian or permissive parenting.<sup>16</sup> In some literature, it is stated that parents with authoritative parenting tend to have children with low def-t index, but there are other factors that can influence this to make this not the case for some parents indeed. One of the factors that can influence is parental knowledge about oral health. Knowledge of parents can affect the actions and behavior of maintaining dental health, because knowledge is the basis for the formation of one's actions. Parents with good dental and oral health knowledge are able to manifest attitudes and actions to maintain good dental and oral health for their children. This is supported by the results of Elianora's research which states that there is a relationship between the level of parental knowledge and dental caries based on the def-t index (known p value = 0.000). The better the knowledge of parents about dental and oral health, the smaller the risk of children experiencing dental caries.<sup>17</sup>

Permissive parenting shows affection with manifested in giving full freedom to children. Parents with this parenting style avoid direct confrontation with their children and place little or no demands on their children.<sup>18</sup> Based on this research, it is known that students' def-t index with permissive styles is 13 with a very high category. Permissive parents admit that it is difficult to discipline their children by often using threats as a form of punishment to children. The lack of guidance and control provided by permissive parents allows children to make decisions for themselves, even though sometimes the decisions taken by children are not right, parents let children continue these habits because permissive parents think that giving freedom to children is a way to show true affection to their children. child. This result is in accordance with a study conducted by Sari in 2021. In this study, it was found that children with permissive parenting had the highest caries percentage, which was 63.84%. Based on the same research, it is known that parents with permissive parenting provide little guidance about the benefits of healthy food to their children, thus enabling

children to choose and consume more sweet foods that contain lots of sugar. The very little control given by permissive parents also gives more freedom to children, because children do not get reprimands when consuming these foods, moreover there is no follow-up given by their parents.<sup>19</sup> The high incidence of caries in children with permissive parenting is also in line with the results of Howenstein's research in 2015. Based on the results of Howenstein's research, among 131 children selected as research respondents, which 33 children received permissive parenting, 32 children experienced caries and only 1 child free of caries. Permissive parents provide opportunities for children to let children make decisions for themselves. This can then result in children eating cariogenic foods all the time and choosing not to brush their teeth. The freedom that parents give to children allows children to repeat the same habits without worrying about being scolded because there is no follow-up or warning from their parents.<sup>20</sup>

The results of this study were then processed and tested using the SPSS application, with Spearman's test obtained a significance value of 0.371 which means that  $H_0$  is accepted and  $H_a$  is rejected or there is no relationship between parenting patterns and the student's def-t index. These results are in line with Alagla's research which states that there is no significant relationship between parenting patterns and the incidence of caries in children ( $p$  value = 0.379).<sup>21</sup> Although most parents have implemented authoritative parenting, the student's def-t index can be in the high category because caries is influenced by many factors, not only parenting patterns.

Factors that can affect the def-t index of students other than parenting is the factor of parental knowledge. Knowledge is a factor that influences the formation of somebody actions. The knowledge make person know and understand the consequences of the actions they taken. Knowledge can be influenced by the level of education, intelligence, attention and interest of a person. The higher a person's education level, the more knowledge they have.<sup>22</sup> The results of data collection of respondents are known that most of the respondents' parents have education up to high school, so they can be classified in the category of moderate education. The level of education affects a person's actions and attitudes, the higher the level of education the easier it is to understand information. The better a person understands the information, the better the formation of new behaviors that can be applied, such as the behavior of maintaining dental and oral health.<sup>23</sup> Prasuda's research in 2017 stated that there was a significant relationship between the education level of parents and the incidence of dental caries in children at

school age ( $p$  value = 0.000). Based on Prasuda's research, it is known that from 67 respondents' parents, most of the parents had high school education and most of the children had mild caries. This could be due to the moderate level of education owned by parents can affect the role of parents in carrying out the practice of maintaining the health of their children's oral cavity. A higher level of education allows parents to have more knowledge, so that parents are able to better practice oral health behavior for their children. This reason, in other hand, of course can support the behavior of maintaining oral health, so that children's dental caries can be prevented and can improve the development of the child's oral cavity in a better direction.<sup>24</sup>

In addition to the knowledge factor, parental education level, and student gender, there are other factors that can affect a student's def-t index, namely the factor of increasing the frequency of consuming cariogenic foods. Based on Llena's research in 2020, it was found that respondents with the frequency of consuming cariogenic foods more than 2 times a day were associated with caries incidence in most respondents (52%). If this goes continuously, it will have a negative impact on general health as well as for oral health, because cariogenic foods are high in sugar and pH levels. The sticky nature of cariogenic food on the tooth surface can last a long time if it is not cleaned properly, if the remnants are not cleaned thoroughly, the bacterial activity of the food that converts sugar to acid will increase, continuing to form plaque which can damage tooth structure and extinguish caries in children.<sup>25</sup> Based on the results of the study, it can be concluded that there is no relationship between parenting patterns and the student's def-t index.

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