

DENTINO
JURNAL KEDOKTERAN GIGI
Vol VII. No 1. March 2022

**RELATIONSHIP OF PARENTS ROLE TO CARIES INCIDENT IN
 ADOLESCENTS AT SUNGAI LOBAN SUBDISTRICT**

Nindica Ayu Soviarini¹⁾, R. Harry Dharmawan Setyawardhana²⁾, Galuh Dwinta Sari³⁾

1) Dentistry Study Program, Faculty of Dentistry, University of Lambung Mangkurat, Banjarmasin,

2) Department of Public Dental Health, Faculty of Dentistry, Lambung Mangkurat University,
 Banjarmasin

3) Department of Psychology, Faculty of Dentistry, Lambung Mangkurat University, Banjarmasin

ABSTRACT

Background: Caries can be caused by a lack of individual knowledge about dental health and attitudes to pay attention to dental hygiene. Parents have the most important role in determining the personality, habits and behavior of the child in taking care of the teeth and mouth. Every action taken by the parents will have an influence on the character of the child. Parents who provide a positive parenting pattern to their child, will form good personality, habits and behavior towards the child. But on the contrary, parents who are less attentive and do not care will form negative personalities, habits and behaviors. **Purpose:** To find out relationship of parents role to caries incident in adolescents at Sungai Loban Subdistrict. **Methods:** This study used an observational analytic method in the form of cross-sectional research and a simple random sampling technique. The research population was grade VII students at SMP Negeri 1 Sungai Loban as many as 63 respondents. **Results:** The Spearman test obtained significant score results of $0.000 < 0.05$ which means there is a correlation between the role of parents to the incidence of caries in children. The correlation value is -0.927 and includes a very strong correlation in the negative direction (-), it can be interpreted that the relationship is opposite or if the child's caries is high then the role of parents tends to be low. **Conclusion:** There is a relationship of parents role to caries incident in adolescents.

Keywords: Adolescents, caries, parent role.

Correspondence: Nindica Ayu Soviarini; Dentistry Study Program, Lambung University Mangkurat, Jalan Veteran No. 128B, Banjarmasin, South Kalimantan, email: nindicaayuu@gmail.com

INTRODUCTION

Caries is a disease that affects the hard tissues of the teeth, namely enamel, dentin and cementum. The process of caries is a regressive and chronic process that begins with the dissolution of minerals in the enamel caused by the fermentation of microorganisms in carbohydrates. Several factors involved in the process of dental caries formation are host and saliva, microorganisms, substrate and time. Caries is a major problem in the field of dental and oral health. Caries can occur due to one of the factors, namely the level of knowledge and habits of the individual himself.^{1,2} The 2018 Basic Health Research stated that critical indicators occurred in children aged 12-15 years, which was around 76.97%. Based on Riskesdas data in 2018, the percentage of dental and oral cases was 57.6% with cavities 45.3%. South Kalimantan Province is a province that has quite high dental and oral

problems, namely 59.6% with 46.9% cases of cavities.³

Based on Riskesdas South Kalimantan 2018, the highest percentage of dental and oral cases by district is Hulu Sungai Tengah with a percentage of 75.98%, Barito Kuala 68.66% and Tanah Bumbu 64.86%. Data from the Tanah Bumbu Health Office (2019) stated that 64.86% of cavities were obtained from 14 Puskesmas The largest action data for dental fillings is in the Sebamban I Health Center, Sungai Loban District, covering an area of 2,900.47 Ha with a population of 24,255 people who are handled by 1 dentist.⁴

Performing dental care as early as possible is very important as an effort to prevent tooth decay. Caries can be caused by a lack of individual knowledge about the impact of dental caries, a good time to brush your teeth, how many months you should have a dental check-up at the dentist, as well as an attitude to pay attention to dental and oral hygiene, including often consuming sweet

foods and not brushing your teeth before bed. Another thing is that parents pay less attention to how to brush their teeth properly and how to choose a toothbrush so that children tend to choose toothbrushes with medium and hard bristles.⁵

Parents have the most important role in determining the personality, habits and behavior of children. Parents who provide positive parenting and special attention to their children will form good personality, habits and behavior towards the child. On the other hand, parents who pay less attention and do not care will form negative personality, habits and behavior towards the child.⁶

Preliminary survey results the highest number of caries rates for children aged 12 years out of six SMP/MTs was experienced by students of SMP Negeri 1 Sungai Loban. Differences in the social status of parents and geographical location close to the beach is one of the factors that influence the occurrence of caries. The school has UKGS (School Dental Health Unit) facilities that support dental health in schools, but there are many snack places in the school location which is one of the causes of the many caries cases in this school. Based on the problems above, the researcher will conduct research on the relationship between the role of parents and the incidence of caries in adolescents in Sungai Loban District.

MATERIAL AND METHODS

This research uses a cross sectional method and has received ethical clearance by the Health Research Ethics Commission, Faculty of Dentistry, University of Lambung Mangkurat with No. 059/KEPKG-FKGULM/EC/IV/2021. The research location was at SMP Negeri 1 Sungai Loban, Tanah Bumbu Regency on February 10, 2021 - April 9, 2021 with a population of 128 students at SMP Negeri 1 Sungai Loban. This study used a sample of 63 students who were taken using a simple random sampling technique. The sample was determined based on the inclusion and exclusion criteria obtained from calculation using the binomunal proportion formula and the predicted sample percentage was calculated 10%. The inclusion criteria in this study were parents who were able to read and write, respondents who filled out informed consent and seventh grade students at SMP Negeri 1 Sungai Loban. Then, the exclusion criteria for this study were parents who were unable to attend because of sudden interests and sick children.

Respondents who met the research criteria would be examined intra-orally to determine the value of the DMF-T index. To find out the value of the role of parents, a questionnaire on the role of parents was filled. Intra-oral examination of children and filling out questionnaires on the role

of parents by parents were carried out simultaneously. Measurement of the DMF-T index was carried out by intra-oral examination using level 3 personal protective equipment. The measurement results were based on the WHO criteria, namely very low with a value of 0.0-1.1, low with 1.2-2.6, moderate with 2.7-4.4, high with 4.5-6.5 and the last one is very high with a value >6.5. Meanwhile, the assessment of the role of parents was carried out using a questionnaire with 15 statements, one of which was selected by marking checklist. The scale used was the scale likert. The measurement results could be measured in the good category (42-60), sufficient (30-41) and less (0-29). Furthermore, the measurement results were carried out by univariate analysis, summarizing and analyzing the measurement results of the variables. In addition, bivariate analysis, an analysis by looking at the correlation between two variables using an ordinal data scale was carried out using the Spearman test.

RESULTS

This research was conducted on 63 respondents consisting of 29 boys and 34 girls grade VII students at SMP Negeri 1 Sungai Loban. The results of measuring the role of parents were presented in table 1. This table shows at least 30 respondents (47.6%) had roles with less category.

Table 1. Parental Role Assessment Results Respondent

No.	Parent Role	Frequency	Percentage
1.	Good	23	36,5
2.	Enough	10	15,9
3.	Less	30	47,6
	Amount	63	100

The results of the measurement of the DMF-T index in children were presented in table 2. This table shows that the highest DMF-T index was caries in the medium category, which was 27 respondents (43.1%).

Table 2. Children’s Dental Caries Measurement Results

No.	Dental Caries	Frequency	Percentage
1.	Very Low	10	15,9
2.	Low	13	20,3
3.	Medium	27	43,1
4.	High	6	9,5
5.	Very High	7	11,2
	Amount	63	100

Table 3 shows the relationship between the role of parents and the incidence of caries in adolescents. The table shows that of the 63 respondents, most of parents had a role in the less category with the child’s caries index being in the moderate category, as many as 17 respondents (27%). Test results of the Spearman test got a significance value $0.00 < 0.05$ (H_0 is rejected), which meant that there was a relationship between the role of parents and the incidence of dental caries in children. If the correlation and direction are negative (-) then there is no correlation or if the role of parents is good, the caries index of children tends to be low. It can be concluded that there was a relationship between the parents’ role and the incidences of caries in adolescents at SMP Negeri 1 Sungai Loban, Tanah Bumbu.

Table 3. The Relationship of The Parents’ Role with Adolescent Caries

Parent Role	Caries				Amount		Score Significance	Coefficient Correlation	
	Very Low	Low	Medium	High	Very Low	f %			
Good	10	13	0	0	0	23 36,5	0,000	-.927	
Enough	0	0	10	0	0	10 15,9			
Less	0	0	17	6	7	30 47,6			
Amount	f	10	13	27	6	7	63		
	%	15,9	20,3	43,1	9,5	11,2	100		

DISCUSSION

From the results of research on 63 parents of respondent at SMP Negeri 1 Sungai Loban, as many as 30 parents did not play a role in caring for their children’s teeth and mouth. The lack of parental roles in guiding, reminding and providing facilities to children is an indicator of the lack of parental roles in maintaining for children’s dental and oral health. The lack of parental role was shown by an indifferent attitude towards children’s dental and oral health. Roles are individuals who are able to control, influence and change the attitudes and behavior of others. The first and most important person who is fully responsible for the process of child growth and development and providing education to children is the parent. The development of a child will be influenced by the role of parents and the environment.⁷

According to Handayani et al (2016), oral hygiene and body health are inseparable, this is because overall body health will be influenced by oral dental hygiene. If the oral health is neglected, it will cause problems. One of them is tooth decay, commonly known as caries. Many parents do not understand well the importance of taking care of oral health. This is evidenced by the lack of parental roles in informing and supervising children not to consume a lot of cariogenic foods

and drinks.⁸ Parents who give attention and care to children’s behavior in caring for oral hygiene will create a sense of comfort in children. This is because parents have provided support for oral care, for example by giving praise to children who regularly take care of their teeth, strive to prevent cavities and regularly visit the dentist at least every 6 months. This opinion is supported by research by Mahmud et al (2020) which stated that the level of education, behavior, attention and attitudes affect the role of parents in caring for children’s dental and oral hygiene.⁹

The results of the study showed that from 63 respondents, 27 respondents (43.1) had moderate dental caries. The incidence of caries which is classified as moderate occurs because of the low behavior of daily dental and oral health care. The process of caries is caused by several factors that are directly related to the mouth, including the morphology of the teeth, the arrangement and structure of the teeth, the acidity of the saliva, oral hygiene, the consumption of cariogenic foods and, most importantly, the role of parents in maintaining the health of children’s teeth and mouth.. The results of this study are in accordance with Husna’s research (2016) which stated that children’s behavior is influenced by their parents.

This is because parents have an important role in determining children's behavior in dental health maintenance. The emergence of dental and oral health problems in children can be caused by a lack of parental attention to familiarize children with dental hygiene. This is supported by the Tarigan's research (2016) which said that caries can occur because it is influenced by factors oral hygiene, food and vitamins. This can be proven by the low role of parents in paying attention to the food consumed by children so that children tend to eat foods that are cariogenic.^{10,11}

The results of this study indicate that the role of parents is still lacking in providing facilities such as toothbrushes, as well as reminding and familiarizing children with taking care of dental health. This is certainly not something that can be ignored because based on Nurwati's research (2019), a poor oral condition will affect the function and activities of the oral cavity so that it will have an impact on nutritional status and quality of life. A low caries index tends to make a person's quality of life better. This is important because the quality of life of children is very influential on growth and development the child.¹² From the results of this study, it can be concluded that there is a relationship between the role of parents and the incidence of caries in adolescents at SMP Negeri 1 Sungai Loban, Tanah Bumbu.

Based on research that has been conducted at SMP Negeri 1 Sungai Loban, Tanah Bumbu, it showed that there is a relationship between the role of parents and the incidence of caries in adolescence. This can be seen from table 3 which shows that from 63 respondents, there were 17 respondents (26.9%) with less parental roles and moderate caries. In this study, the results of the Spearman statistical test were obtained with a significance value of $0.00 < 0.05$ (H_0 was rejected), meaning that there was a relationship between the role of parents and the incidence of dental caries. While the correlation coefficient value of -0.927 which is included in the category of very strong correlation and negative direction (-), then the relationship is contradictory or it can be interpreted that if the role of parents is good then the caries index tends to be low.

REFERENCES

1. Mustika MD. Insidensi Karies Gigi pada Anak Usia Prasekolah di TK Merah Mandiangin Martapura Periode 2012-2013. Dentino (Jurnal Kedokteran Gigi). 2014. 2(2); 201.
2. Rehena Z. Hubungan Jenis dan Frekuensi Konsumsi Makanan Kariogenik dengan Kejadian Karies Gigi pada Anak SD Negeri 5 aai Kabupaten Maluku Tengah. Jurnal Kesehatan UKIM. 2020. 2(1); 42.
3. Kemenkes RI. Riset Kesehatan Dasar: RISEKSDAS. Jakarta: Balitbang Kemenkes RI. 2018. p. 207.
4. Dinas Kesehatan Tanah Bumbu. Profil Dinas Kesehatan. Tanah Bumbu. 2019. p. 1-4.
5. Wibowo M, Alhidayati, Syukaisih. Hubungan Faktor Perilaku dengan Kejadian Karies Gigi Anak Usia 12 Tahun di SMP Bhakti Pekanbaru Tahun 2018. MENARA Ilmu. 2019. 13(1); 1-2.
6. Ardiati RK. Peran Orang Tua Dalam Perkembangan Kepribadian Anak Usia Dini. Indonesian Journal of School Counseling. 2018. 3(3); 73.
7. Suciari A, Arief YS, Rachmawati PD. Peran Orangtua Dalam Membimbing Menyikat Gigi Dengan Kejadian Karies Gigi Anak Prasekolah. PEDIOMATERNAL Nursing Journal. 2016. 3(20); 223-225.
8. Handayani H dan Arifah AN. Hubungan Pengetahuan, Sikap dan Tindakan Kesehatan Gigi dan Mulut Terhadap Status Kesehatan Gigi Siswa SMP/MTs Pondok Pesantren Putri Ummul Mukminin. Makassar Dent J. 2016. 5(2); 44-45.
9. Mahmud AT. Peran Oran Tua dalam Membentuk Karakter Anak di Era Globalisasi di Desa Masigit Kelurahan Citangkil Kota Cilegon. Jurnal Pendidikan Pancasila dan Kewarganegaraan. 2020. 3(2); 170.
10. Husna A. Peranan Orang Tua dan Perilaku Anak Dalam Menyikat Gigi dengan Kejadian Karies Anak. Jurnal Vokasi Kesehatan. 2016. 2(1); 18-19.
11. Tarigan R. 2013. Karies Gigi edisi 2. EGC. Jakarta. p. 1-79.
12. Nurwati B. Hubungan Karies Gigi dengan Kualitas Hidup pada Anak Sekolah usia 5-7 Tahun. Jurnal Skala Kesehatan. 2019. 10(1); 44-45.