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RESEARCH ARTICLE

Parent's Oral and Dental Health Behavior as Predictors of Children's Oral and Dental Health Status

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ABSTRACT

Background: *Knowledge Parents are considered to have the to teach their children basic things about maintaining a healthy body. The implantation of oral health behavior should start at an early age and start from the family environment. Childhood is the beginning of behavior formation, therefore parents are expected to be able to educate their children to behave properly to maintain healthy teeth and mouth.* ***Objective:*** *The purpose of this study was to determine the oral health behavior of parents to determine the oral health status of children in the pedodontics department of the Baiturrahmah University Dental Hospital.* ***Methods:*** *This research type is quantitative with analytic survey method with cross sectional research design. The population was pediatric patients who took care at the Paedodonti Department of the Baiturrahmah Hospital in July 2020.* ***Result:*** *The results showed that the educational status, tooth brushing behavior, eating sweet eating behavior, the habit of bringing children to the dentist and complaints in the oral cavity of the parents gave a picture. Predictions for their children about oral health.* ***Conclusion:*** *Parents' behavior will have an effect on their children because indirectly the habits of parents will be imitated and made an example for their children.*

Keywords: *Parental behavior, Predictors, Children's oral health.*

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INTRODUCTION

Dental health is an integral part of overall health which can affect the quality of life. Poor oral hygiene can continue to be a risk factor for the emergence of various diseases in the oral cavity such as caries and

periodontal tissue disease. The Household Health Survey Report (SKRT) of the Ministry of Health of the Republic of Indonesia1 states, of the ten groups of diseases that the public complains about, dental and oral diseases rank first with a prevalence rate of 61% of the population.[1]

Parents are considered to have the knowledge to teach their children basic things about maintaining a healthy body. The cultivation of oral health behavior should start at an early age and start in the family environment. Childhood is the beginning of behavior formation, therefore parents are expected to be able to educate their children to behave properly to maintain healthy teeth and mouth.

Parents' knowledge can be obtained naturally or in a planned manner, namely through the educational process. Parents with low knowledge of dental health are a predisposing factor for behavior that does not support children's dental health. Knowledge, attitudes and behavior of mothers towards dental health will determine the dental health status of children in the future. Knowledge is not enough, it needs to be followed by caring and acting. Starting to grow teeth is an important process of growing a child. [1]

It is widely recognized that the behavior of parents, and especially mothers, affects the health of their children[8]. Also regarding oral health the role of parents is very important, because they are the main caregivers of oral health for their children during the first three years of life, even in preschool, parents are still the main supplier of children's oral health[2]. Several factors such as mother's education, occupation, age, current knowledge, attitudes, and behavior can indirectly provide insights to improve their health habits and the health of their children[3]. The relationship between maternal dental health and dental caries in their children can be explained by the influence of wrong diet and hygiene habits in infants as well as by infection of the child's mouth by mother's bacteria49 Therefore, brushing habits in mothers, dietary habits, and dietary choices directly related to the habits of their children. [8]

Rogers (1974) states that before a person adopts a new behavior, a process occurs, namely: [11]

1. Awareness (awareness): a person is aware of the object stimulus
2. Interest: someone begins to be attracted to the object (stimulus)
3. Evaluation: respondent's attitude is better. Respondents began to consider whether or not the stimulus was good for themselves.
4. Trial: someone starts trying the new behavior
5. Adoption: someone has new behavior in accordance with the knowledge, awareness, and attitude towards the object (stimulus).

According to Holdsan, behavior change is essentially the same as the learning process. This behavior change describes the individual learning process.

Mother's knowledge about dental health will greatly determine the dental health status of her child in the future. A mother plays an important role in a family, both as a wife and as a mother of her children. The first figure a child knows when he is born is his mother. Mother's behavior and habits can be imitated by children, but knowledge alone is not enough to be followed by the right attitudes and actions.

METHODS

This research type is quantitative with analytic survey method with cross sectional research design. The population was pediatric patients who took care at the Paedodonti

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Department of the Baiturrahmah Hospital in July 2020. Sampling in this study used the total sampling method, which means that all members of the population were sampled. Materials and tools used were questionnaire sheets, stationery and computers with statistical software.

Table 1. Operational Definition

No.	Variable	Operational definition	Measuring instrument	Measurement results	Scale
1.	Parental education	Parents' last education level	Questionnaire	1. SD 2. Junior High 3. High school 4. Bachelor	Ordin al
2.	Quantity brushing te eth Ortu	The behavior of parents in brushing their teeth every day.	Questionnaire	1. One time 2. Twice 3. > 2 times	Ordin al
3.	Eat sugary foods	Parents' behavior in consuming sw eet foods	Questionnaire	1. Never 2. Sometimes 3. Always	Ordin al
4.	Dentist visit	Parents routinely come to the dentist to maintain healthy teeth and mouth	Questionnaire	1. Never 2. Once in 6 months 3. Once 1 year	Ordin al
5.	Complaints cavity of mouth	Oral health conditions of the parents	Questionnaire	1. There is 2. There is no	

Research variable

1. The dependent variable: The oral health behavior of the parents
2. Independent variable: dental and oral health status of children.

Data analysis

The data were analyzed using the chi square test to see the relationship between the level of patient satisfaction and the quality of service on the SPSS computer program with an error rate of 5% (0.05) and a confidence level of 95% (0.95).

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RESULTS

Frequency Distribution of Father's Educational Characteristics

Table 1. Frequency Distribution of Father's Educational Character as Predictors of Children's Oral and Dental Health Status in the Pedodonti Department of the Baiturrahmah University Dental Hospital

Father's Education	Frequency	Percentase
SD	3	4.0%
Junior High	6	8.0%
High school	17	22.7%
Bachelor	49	65.3%
Total	75	100.0%

Based on table 1 of the results of the research of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Dental Hospital, the results of the father's education at the elementary level were 3 people (4.0%), junior high school level were 6 people (8.0%), high school level were 17 people (22.7%) and undergraduate level as many as 49 people (65.3%).

Frequency Distribution of Mother Education Characteristics

Table 2. Frequency Distribution of Mother's Educational Character as Predictors of Children's Oral and Dental Health Status in the Pedodonti Department of the Baiturrahmah University Dental Hospital.

Father's Education	Frequency	Percentase
SD	6	8.0%
Junior High	7	9.3%
High school	26	34.7%
Bachelor	36	48.0%
Total	75	100.0%

Based on table 2 of the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Hospital, the results of maternal education at the elementary level were 6 people (8.0%), junior high school level were 7 people (9.3%), high school level were 26 people (48.0%) and undergraduate level as many as 36 people (48.0%).

Frequency Distribution of Parents' Tooth Brushing Quantity

Table 3. Frequency Distribution of Parents' Teeth Brushing Quantity as a Predictor of Children's Dental and Oral Health Status in the Pedodonti Department of the Dental Hospital of Baiturrahmah University

Brushing Teeth	Frequency	Percentase
Twice a day	49	65.3%
More than twice a day	20	26.7%
Once a day	6	8.0%
Total	75	100.0%

Based on table 3 of the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Dental Hospital, it was found that the quantity of parents brushing their teeth twice a day was 49 people (65.3%), more than twice a day as many as 20 people (26.7%) and those who brushed their teeth once a day were 6 people (8.0%).

Frequency Distribution of Parents' Behavior Consuming Sweet Foods

Table 4. Frequency Distribution of Parents Consuming Sweet Foods as a Predictor of Children's Oral and Dental Health Status in the Pedodonti Department of the Baiturrahmah University Dental Hospital

Consume Sweet Foods	Frequency	Percentase
Sometimes	55	73.3%
Always	10	13.3%
Never	10	13.3%
Total	75	100.0%

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Based on table 4 of the results of the research of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Dental Hospital, it is found that 55 people sometimes consume sweet foods (73.3%), always consume 10 people (13.3%).) and those who never consumed sweet foods were 10 people (13.3%).

Frequency Distribution of Parents' Behavior Visiting a Dentist

Table 5. Frequency Distribution of Parents Visiting a Dentist as a Predictor of Children's Oral and Dental Health Status in the Pedodonti Department of the Baiturrahmah University Dental Hospital

To the Dentist	Frequency	Percentase
1x 6 months	27	36.0%
1x a year	42	56.0%
not pern	6	8.0%
Total	75	100.0%

Based on table 5 of the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Dental Hospital, the results of parents who routinely visit the dentist once in 6 months are 27 people (36.0%), 42 people routinely visit the dentist once a year. (56.0%), who never visited a dentist were 6 people (8.0%).

Frequency Distribution of Parents' Oral Cavity Complaints

Table 6. Distribution of Complaints Frequency of the Oral Cavity as a Predictor of Children's Oral and Dental Health Status in the Pedodonti Department of the Baiturrahmah University Hospital.

Complaints of the Oral Cavity	Frequency	Percentase
There is	29	38.7
There is no	46	61.3
Total	75	100.0%

Based on table 6 of the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah Hospital, the results of the oral complaints were 29 people (38.7%), 46 people (61.3%) had no oral complaints.

DISCUSSION

Based on research from 75 respondents of children's parents in the Paedodonti Department of the Baiturrahmah University Dental Hospital, the results obtained from research on the behavior of parents' oral health as a predictor of children's oral health status, where the father's education is the highest at undergraduate level, namely 49 people and education. the highest level of mothers is the level of 36 people.

In line with the research conducted by Dwi Eni Purwati (2017) on the Effect of Parents 'Education and Occupation on the Number of Dental Caries in Primary School Children, it is stated that there is a significant effect on the level of parents' latest education on the number of dental caries in students. The results of the study showed that most of the respondents' parents had the last secondary level of education (SMA), namely 45 out of 60 people (75%), while the dental caries condition of the students indicated that most of the respondents had the criteria for low caries count (1,2-2,6) namely as many as 20 out of 60 students (33.3%). [18]

The alignment between the majority of respondents and parents with high school education and the criteria for a low number of caries is in accordance with the opinion (Christiano and Rama, 2015) which states that the higher the level of education, the easier it is to absorb new information and innovations including dental health. (Afiati, et al., 2017) in their research also stated that when someone is at a higher level of knowledge, attention to dental health will be higher, and vice versa, when someone has less knowledge, dental attention and care are also low. [18]

Based on the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah University Dental Hospital, the highest number

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of parents brushing their teeth was 49 people (65.3%).

Research conducted by Adhya Rizaldy, et al. Regarding the behavior of parents towards maintaining children's dental health at Mekarjaya State Elementary School, it was revealed that 74.55% of respondents' knowledge about the right time to brush their teeth was in the sufficient category. This result can occur because information about the time to brush your teeth is easy to obtain either through print or electronic media. The right time to brush your teeth is after breakfast and before bed, brushing your teeth before going to bed aims to reduce plaque, when at night the amount of saliva in the mouth decreases this can cause an increase in the process of cavity formation in the teeth. 14 Many respondents do not know (83.64%) about the use of good toothpaste.

This can occur due to the lack of information regarding the maintenance of dental health, causing many respondents to not know about the use of toothpaste. The use of a good toothpaste is the size of a pea seed, it is important in children because using too much toothpaste can increase the risk of fluorosis. The use of toothpaste in children that is not supervised by parents, especially for children under 7 years of age can cause health problems, because toothpaste contains detergent or sodium lauryl sulfate (SLS) which can produce foam or froth. The amount of foam or froth when brushing your teeth can cause canker sores. Most of the respondents (70.91%) knew that toothpaste that was good for teeth contained fluorine. [19]

Based on the results of the research of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah Hospital, it was found that the parents who consumed the most sweet foods with the occasional category were as many as 55 people (73.3%).

In a study conducted by Ernawati revealed that the results of statistical tests showed that there was a relationship between sweet food consumption behavior and the incidence of dental caries with p-value = 0.007 ≤ α (0.05) and the correlation coefficient

(r) was 7.284 which means that it has a strong relationship. between the behavior of consuming sweet foods and the incidence of dental caries. [19]

Based on the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah Hospital, it was found that 42 people (56.0%) routinely visit the dentist once a year.

This study is in line with the research of Nuri Yuniar, et al. (2019) regarding Parents' Perspectives on Early Childhood Dental Health which states in the results of their research that according to the American Dental Association and the American Academy of Pediatrics, every child should be taken to a dentist before the age of one year or at the time of eruption of the first primary tooth (Abbas et al. al., 2017). Oral disease in children is higher among poor and disadvantaged population groups (Mahmoud, Kowash, Hussein, Hassan, & Al Halabi, 2017). A number of factors associated with children, mothers or dentists can cause poor collaboration during dental treatment (Fazli & Reza, 2015). Determining children's oral health is heavily influenced by their mother; as the primary caregiver. A partial lack of knowledge combined with behaviors and beliefs that lead to poor feeding practices, poor oral hygiene maintenance, and failure to seek professional dental care appears to put certain children at higher risk of developing caries than other children with more care (Mahmoud et al., 2017). [23,24]

Based on the results of the study of 75 respondents of parents of children in the Paedodonti Department of the Baiturrahmah Hospital, the results of the oral complaints were 29 people (38.7%), 46 people (61.3%) had no oral complaints. This means that many parents of children in the Pedodonti Department of the Baiturrahmah University Dental Hospital maintain their oral health so that this behavior becomes a role model for their children to always maintain oral health.

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CONCLUSION

Based on the results of research on Parents' Oral and Dental Health Behavior as a Predictor of Children's Dental and Oral Health Status in the Paedodonti Department of the Baiturrahmah Hospital, it is concluded that educational status, tooth brushing behavior, sweet eating behavior, habit of bringing children to the dentist and complaints of the oral cavity in parents provide a predictive picture for their children about oral health.

Parents will always be role models for their children. Parents' education, habits, and behavior will have an effect on their children because indirectly the habits of parents will be imitated and used as an example for their children, so that ultimately people's behavior and attitudes can portray predictions of oral health for their children.

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