Regression Analysis of the Level of Knowledge and Behavior of Parents in Cleaning the Teeth and Mouth of Children Aged 3-5 Years in KB and TK Sepuluh Nopember Surabaya

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ABSTRACT

Based on Bloom's theory, dental caries can be influenced by four important factors that support the occurrence of caries, namely environment, behavior, health services, and heredity. Of these four factors, behavior plays an important role in dental and oral health. Research conducted by Afiati (2017) states that knowledge is the basis for the formation of behavior. This study generally aims to determine the Regression Analysis Level of Knowledge and Behavior of Parents in Cleaning the Teeth and Mouth of Children Aged 3-5 Years in KB and TK SepuluhNopember Surabaya. The type of research used is observational analytical research. The statistical test in this research is a regression test.In this study, the population taken was all KB and Kindergarten students in SepuluhNopember Surabaya in the 2022/2023 school year aged 3 to 5 years along with the parents and guardians of these students for a total of 58 students. This research is TKT 3 where to prove the hypothesis, in collecting data using primary data methods, namely giving questionnaires to the sample. It is hoped that this research can be a source of information on the importance of dental health knowledge on tooth cleaning behavior in children aged 3-5 years.

KEYWORDS: dental caries, parental knowledge, teeth cleaning behavior

INTRODUCTION

The World Health Organization (WHO) reports that 60-90% of children suffer from dental caries with a higher risk than adults (Kale et al., 2020). The prevalence of people with dental and mouth problems in Indonesia according to Riskesdas in 2018 was 57.6% with a National DMF-T index of 7.1 (Ryzanur et al., 2022). Based on age categories, caries' prevalence in children aged 3-4 years reached 81.5%, while in children aged 5 years, the prevalence was 90.2% (Riskesdas, 2018).

Early Childhood Caries (ECC) is defined as caries in primary teeth among children under 71 months of age. The prevalence of ECC for children aged 2 to 3 years in Jakarta is 52.75%. ECC is a major dental and oral health problem that needs serious attention because it can interfere with masticatory function and affect the growth and development of children, it can also cause speech disorders in children and children with low self-esteem (Susi et al., 2018).

Based on Bloom's theory, dental caries are influenced by four important factors, namely environment, behavior, health services, and heredity. Of these four factors, behavior plays an important role in dental and oral health (Astannudinsyah, et al., 2019). In previous research by Maria Listya (2022), it was found that there was a significant relationship between parental behavior regarding teeth cleaning and the severity of ECC in children aged 3-5 years in KB and TK SepuluhNopember Surabaya. Behavior in early childhood cannot be separated from parental assistance because it will be an example and imitated by their children. At this time, parents must teach children about positive things, one of which is teaching them how to clean their teeth to maintain oral hygiene (Afiati et al., 2017).

Someone who has the basic knowledge and a good attitude will also take good action related to cleaning teeth. Parents' actions in accompanying, teaching, and providing good examples can reduce the risk of severe ECC in children which will become a problem if it continues into adulthood (Cahyaningrum, 2017). A person can be said to have good knowledge if he can recognize, explain, and analyze a situation. The role of parents has an important role as the basis

for forming children's behavior in maintaining oral hygiene (Afiati et al., 2017). The habit of cleaning teeth and mouth is a form of behavior that is based on the knowledge that it will influence good or bad oral hygiene which will also influence the severity of ECC (Astannudinsyah et al., 2019). Based on this, researchers want to know"Regression Analysis of Parental Knowledge and Behavior Levels in Cleaning the Teeth and Mouth of Children Aged 3-5 Years in KB and TK SepuluhNopember Surabaya".

RESEARCH METHODS

The type of research used is observational analytic research because researchers will examine the relationship between two or more variables and only observe without carrying out any intervention on the sample to be studied (Harlan and Johan, 2018). In this study, 44 samples were taken from Ten November Surabaya KB and TK students in the 2022/2023 school year who were aged 3 to 5 years and sat in KB and TK class A along with the guardian parents of these students who met the inclusion criteria of the total 58 students.

The tool used for data collection in this research was a questionnaire. This research was conducted at the KB and TKSepuluhNopember Surabaya, which was held directly from June to July 2023.

The method of work and data collection procedures will be carried out non-experimentally, namely with the method in the form of a survey that studies the behavior of parents in cleaning the teeth and mouth of children aged 3-5 years in the KB and TK SepuluhNopember Surabaya. In collecting data, the method used is to use primary data, namely giving a questionnaire or questionnaire to the sample.

A questionnaire was created as the main instrument in the data collection process in this research. The questions in the questionnaire are made as simple as possible so that the meaning of the questions in the questionnaire can be easily understood by respondents.

RESEARCH RESULT

Case Processing Summary

		N	Marginal Percentage
Perilaku	Perilaku Tidak Baik	1	2.3%
	Perilaku Cukup Baik	12	27.3%
	Perilaku Baik	31	70.5%
Pengetahuan	Pengetahuan Sedang	2	4.5%
	Pengetahuan Tinggi	42	95.5%
Valid		44	100.0%
Missing		0	
Total		44	

In Table 1, it is found that the majority of respondents have a high level of knowledge, with a percentage of 95.5% and the majority of respondents have a good level of behavior, with a percentage of 70.5%.

Cell Information

Frequency

Pengetahuan		Perilaku Tidak Baik	Perilaku Perilaku Cukup Baik	Perilaku Baik
Pengetahuan Sedang	Observed	0	2	0
	Expected	.335	1.330	.335
	Pearson Residual	-.635	1.004	-.635
Pengetahuan Tinggi	Observed	1	10	31
	Expected	.603	10.503	30.894
	Pearson Residual	.515	-.179	.037

Link function: Logit.

In table 2 above there are 31 respondents who have high knowledge and also have good behavior. There is a tendency that the higher the knowledge, the better the behavior.

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	[Perilaku = 1.00]	-4.229	1.157	13.368	1	.000	-6.496	-1.962
	[Perilaku = 2.00]	-1.023	.350	8.559	1	.003	-1.708	-.338
Location	[Pengetahuan=2.00]	-2.626	1.602	2.686	1	.101	-5.766	.514
	[Pengetahuan=3.00ᵃ]	.	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

In the Parameter Estimate table above, pay attention to the Wald value and significance value. The knowledge variable is 2,686 with sig. 0.101 (<0.05). This shows that the knowledge factor does not affect behavior, because it has a sig value greater than <0.05.

DISCUSSION

This study aims to carry out regression analysis on the level of parental knowledge in the behavior of cleaning the teeth and mouth of children aged 3-5 years in KB and TK SepuluhNopember Surabaya. The type of research used is observational analytic research because the researcher examines the relationship between two or more variables and only observes without carrying out any intervention on the sample to be studied. The statistical test in this research is a regression test.

Knowledge is the basis of the formation of behavior. A person can be said to be well-informed when he or she can recognize, explain, and analyze a situation (Afiati et al., 2017). Based on the research results, it was found that of the 44 parents, 42 parents (95.5%) had a high level of knowledge, 2 parents (4.5%) had a medium level of knowledge and there were no parents who had a low level of knowledge in teeth cleaning behavior. In the knowledge domain, the duration of brushing and using toothpaste is less. This is shown by parents' lack of understanding about how long it takes to brush their teeth, namely two minutes, and the amount of toothpaste used.

Parents are very influential in shaping children's

behavior. The process of forming behavior requires time and the ability of parents to be able to teach children (Afiati et al., 2017). The behavior of the parents in question such as guiding, giving directions, and supporting children directly so that children can keep their teeth clean (Jhirin and Guntur, 2020). The results of a survey conducted at Ten November Surabaya KB and Kindergarten found that out of 44 parents, 31 parents (70.5%) had good behavior, 12 parents (27.3%) had fairly good behavior and 1 parent (2.3%) had bad behavior. A knowledge and attitude possessed by parents may not necessarily materialize into an action. This is evident in the behavioral domain with incomplete dental and oral cleaning actions taught by the respondent's parents. The majority of parents never or do not routinely tell and teach their children about cleaning the tongue and using dental floss.

The habit of cleaning teeth and mouth is a form of behavior that is based on knowledge that it will influence good or bad oral hygiene (Astannudinsyah et al., 2019). Knowledge will influence parents' attitudes toward teeth cleaning. In other words, the better the parents' knowledge, the more positive attitudes will be formed and can direct children to clean their teeth. A person with a strong knowledge base coupled with a good attitude will carry out good actions related to teeth cleaning. However, the results of this study show that the knowledge factor does not affect behavior. According to Notoadmodjo(2014), several factors influence behavior, including biological, sociopsychological, attitudes, emotions, and cognitive components. So knowledge is not the main factor influencing a person's behavior.

CONCLUSION

At parents' level of knowledge and behavior in cleaning the teeth and mouths of children aged 3-5 years at KB and TK Sepuluh November Surabaya, 31 respondents were found who have high knowledge and also had good behavior. There is a tendency that if knowledge is high, then the behavior will also be better. It requires the application of the knowledge that parents have in daily actions so that it becomes a habit of cleaning teeth in children.

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