



THE RELATIONSHIP BETWEEN PERSONAL HYGIENE AND THE INCIDENCE OF DIARRHEA

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ABSTRACT

Diarrhea is a microorganism infectious disease characterized by defecation with a liquid consistency and frequency more than three times a day. The purpose of this study was to analyze the relationship between personal hygiene and the incidence of diarrhea in public elementary schools 016747 Range. This study used quantitative methods with a cross sectional approach accompanied by data collection using questionnaires. The statistical test used in this study used univariate & bivariate test analysis to determine the relationship between personal hygiene attitude behavior towards diarrhea. The incidence of diarrhea in elementary schools 016747 in 2024 shows that some respondents who suffer from diarrhea, namely 41 people (58%) and 29 people (41%) do not experience diarrhea. The results of this study show that diarrhea occurs in personal hygiene behavior related to defecation behavior, hand washing behavior and nail hygiene behavior.

Keywords: diarrhea; hand washing behavior; nail hygiene behavior; personal hygiene

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INTRODUCTION

Diarrhea is a condition where a person defecates with a liquid consistency and more frequently (usually three times or more) in one day (Ministry of Health, 2023). Based on the World Health Organization (WHO) in 2023, diarrhea ranks fifth out of ten diseases that cause death in this world. Diarrhea is a disease caused by infection with microorganisms in the environment, its transmission is related to clean living habits and its spread is almost global. Because the morbidity and mortality rates are categorized as high, the problem of diarrhea in Indonesia is still a health problem and is included in the form of an extraordinary event (KLB) (Haenisa & Surury, 2022) There are several factors that cause diarrhea cases, one of which is poor personal hygiene coverage. Rotavirus It is one of the causative agents of acute diarrhea that enters the hospital about 50% between 5% and 10% of children who enter the hospital because of enteric adenovirus infection and the other 15% are caused by bacteria (Nurul et al., 2023).

In everyday life personal hygiene or (Personal hygiene) is a very important thing and must be considered because cleanliness will affect a person's health and psychic health. Personal hygiene is personal hygiene and health that aims to prevent the onset of disease in oneself and others, both physically and psychologically. The growth and development period in elementary school-age children is treated with supervision about health, especially Personal hygiene (Noorhidayah et al., 2023). Factor Personal hygiene Effect on the incidence of

diarrhea. Personal hygiene needs to be applied to oneself and family to avoid disease and better self-productivity. There are several factors related to the incidence of diarrhea, namely the unavailability of clean water supplies or water polluted by feces, lack of hygiene facilities, unhygienic fecal disposal, personal hygiene and poor environment and improper preparation and storage of food. Personal hygiene is a risk factor that causes diarrhea in children (Hamzah, 2020)

The high incidence of diarrhea in children is caused by many factors, including lack of personal hygiene, not cutting nails, and not washing hands before and after eating. Children suffering from diarrhea can be aggravated by malnutrition conditions, where malnutrition is also a complication of untreated diarrhea (Suherman & 'Aini, 2018). School-age children are a special group that is vulnerable to health problems. Health problems in school-age children are often related to: Personal Hygiene or personal hygiene which includes hair hygiene, hand and toenail hygiene, skin hygiene, clothing hygiene, dental and oral hygiene, and overall body care. Inability to keep Personal hygiene, A person will easily get an infection (Hamzah, 2020). The aim of this study was to investigate the relationship between personal hygiene practices, especially the habit of washing hands and maintaining clean nails, with the incidence of diarrhea in elementary school-aged children in Indonesia, identify other factors that contribute to the incidence of diarrhea, and develop appropriate intervention recommendations for reduce the burden of diarrheal disease in the primary school age population.

METHOD

This study uses a type of Quantitative research with an Observational Analytical research model approach Cross sectional with the type of primary data taken by filling out a questionnaire. The statistical test used by the author uses Univariate and Bivariate tests to determine the relationship between personal hygiene attitudes towards diarrhea. This study was conducted at SD Negeri 016747 with a population of 140 people, then the author took a sample of 70 people consisting of grades 1, 2, 3, 6 using the Godman scale and Likert scale. This research was carried out in March 2024 by visiting SD Negeri 016747 schools to collect data on diarrhea. The independent variable in this study is Personal Hygiene and the Dependent Variable in this study is the occurrence of diarrhea.

RESULTS

Univariate Analysis

Table 1.

Characteristics of Respondents at State Elementary School 016747

Variable	F	%
Class		
1-2 Elementary School	37	53%
3-6 Elementary School	33	47%
Age		
6-10 Year	37	53%
11-14 Year	33	47%
Gender		
Man	31	44%
Woman	39	56%

Table 1. shows information that the respondents in this study are elementary school students grade 1-2 elementary school with a total of 35 people and the least sampled are grade 3-6 elementary school students with a total of 33 people. The elementary school students aged 6-

10 years with a total of 37 people and those aged 11-14 years totaled 33 people. The gender of the students consisted of men and women with 39 women and 31 men.

Table 2.
Knowledge of Children at Public Elementary School 016747

Knowledge	f	%
Bad	52	75
Good	18	25

Table 2. Shows that the knowledge of SD Negeri students 016747 2024. In the table, the knowledge of elementary school students is poor with a presentation of 75% with a total of 52 people which causes high diarrhea rates. Meanwhile, for elementary school students with good knowledge, there are 25% of 18 people.

Table 3.
Regarding the Personal Hygiene Behavior of Children at Public Elementary School 016747

Variable	Diarrhea	Non Diarrhea	f	%
Defecation behavior				
Bad	35	12	47	67
Good	5	18	23	33
Hand washing behavior with soap				
Bad	43	8	51	73
Good	7	12	19	27
Behavior of Maintaining Nail Cleanliness				
Bad	30	9	39	56
Good	9	22	31	44

Table 3 concerning Personal Hygiene Behavior of 016747 State Elementary School Students in 2024, namely having high bad qualities, is listed in Defecation Behavior, there are 47 children who are bad and who have diarrhea as many as 35 children with a presentation of 67%, while Handwashing with soap behavior is bad 51 children and those who experience diarrhea as many as 43 children with a presentation of 73% and Nail Hygiene Behavior, there are 39 children who are bad and who have diarrhea as much as 30 children with 56% presentation.

Table 4.
Bivariate Analysis

Variable	Diarrhea Occurrence				Total		P Value
	Diarrhea		Non Diarrhea		f	%	
	f	%	f	%	f	%	
Defecation behavior							
Bad	16	77.2	11	22.8	27	100	0,041
Good	22	70	21	30	43	100	
Hand washing behavior with soap							
Bad	32	100	0	0	32	100	0,001
Good	0	0	38	100	38	100	
Behavior of Maintaining Nail Cleanliness							
Bad	32	100	0	0	32	100	0,001
Good	0	0	38	100	38	100	

Test results Statistical analysis at p value = 0.041 can be concluded that there is a relationship between the incidence of diarrhea and defecation behavior. The results of statistical tests at p value = 0.001 can be concluded that there is a relationship between the incidence of diarrhea with hand washing behavior and nail hygiene behavior. In this study, there are 3 relationships

between personal hygiene and diarrhea events, namely defecation behavior, hand washing behavior and nail hygiene behavior.

DISCUSSION

Diarrhea is one of the leading causes of pain and death. In the incidence of diarrhea to defecation behavior (defecation) there is p value = 0.041 with information that defecation behavior has a relationship where the cause of open defecation is not in place. This is also found in previous findings, namely the cause of diarrhea due to open defecation. (Dista et al., 2018). At p value = 0.001 the incidence of diarrhea with hand washing behavior and nail hygiene behavior has a very significant relationship because hands are one of the media for germs entering the body. Diarrhea can be transmitted through food with dirty hands or contaminated with diarrhea bacteria. For this reason, the habit of washing hands before preparing food for someone can reduce the risk of transmission of diarrheal diseases (Ragil & Dyah, 2017).

The Relationship between Personal Hygiene Behavior and the Occurrence of Diarrhea

Statistical analysis shows that there is a significant relationship between the incidence of diarrhea and defecation behavior, washing hands with soap, and keeping nails clean in children at SD Negeri 016747 in 2024. This finding is consistent with the results of previous research which shows that Poor personal hygiene can increase the risk of diarrhea in children. Defecation behavior (defecation) is the main focus in this research because the results of univariate analysis show that the majority of respondents have poor defecation behavior. The relationship between poor defecation behavior and the incidence of diarrhea has been found in previous research (Dista et al., 2018), which confirms that bad habits in handling body waste can increase the risk of developing diarrhea.

Apart from that, the practice of washing hands with soap is also a significant factor related to the incidence of diarrhea. This finding is in line with previous research which shows that washing hands with soap can reduce the risk of transmitting diarrheal disease, especially through food contamination (Ragil & Dyah, 2017). Therefore, it is important to raise awareness of the importance of washing hands regularly, especially before preparing food. Apart from that, maintaining clean nails has also proven to be important in preventing the spread of diarrheal diseases. Dirty hands can become a medium of transmission for germs that cause diarrhea, and nails that are not kept clean can become a gathering place for these germs. Thus, the practice of maintaining nail cleanliness also needs to be emphasized in efforts to prevent diarrhea in children.

Thus, the results of this discussion emphasize the importance of good personal hygiene practices in an effort to prevent diarrhea in elementary school children. It is hoped that better knowledge and awareness of the importance of these practices will reduce the burden of diarrheal disease in society.

CONCLUSION

In this study the author found a relationship between Personal Hygiene incidence of diarrhea. Then there is a relationship between the incidence of diarrhea to defecation behavior, hand washing behavior and nail hygiene behavior. With a very high incidence of diarrhea, the author made a solution to reduce the number of diarrhea in SD Negeri 016747 schools by providing direction and education related to the importance of hand washing and maintaining nail hygiene.

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