Relationship between Healthy Living Behavior and Nutritional Status of Toddlers in Muara Tami District, Jayapura City, Papua Province

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Abstract

Background The Health Sector Development Program aims to improve the quality of human resources, and this effort coincides with the government's Health Indonesia 2010 policy goal. Healthy paradigms lead to a healthy lifestyle (PHBS). This program must be created. After the environment, behavior is the second most important factor influencing individual health. **Objectives** The purpose of this study is to examine the relationship between nutrition awareness, nutrition status, and healthy lifestyle behavior in toddlers. **Methods:** This is an analytic study that employs the cross-sectional method. The study was carried out in three villages in Muara Tami District: Skow Sae, Skoouw Mabo, and Skouw Yambe. This research was carried out from May to September of 2017. The study's population consists of all toddlers living in Jayapura City's Skow Sae, Skoouw Mabo, and Skouw Yambe neighborhoods. The study's target samples are the entire population, which means that all families with toddlers are included in the study. The study's instruments are a Camry weight scale with an accuracy level of 0.1 kg for measuring toddles' weight and anthroplus computer program for analyzing nutrition status. Characteristic data was collected, followed by family awareness of nutrition and healthy lifestyle behavior (PHBS) via research questioner. The Chi Square test was used in statistical analysis. **Result** With a percentage of 51.3 percent, many families with toddlers did not implement nutrition awareness. Families who do not have a healthy lifestyle are those who did not practice The Ten Indicators of a Healthy Lifestyle at a rate of 73%. There is no statistically significant relationship between nutrition awareness and nutrition status (p=0.565).

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Furthermore, there is no statistically significant relationship between nutrition awareness and healthy lifestyle behavior (p-value= 0.331).

Keywords: Healthy Life Style; Nutrition awareness; Nutrition Status; Toddlers.

1. Introduction

Health is both a fundamental human right and a drain on human resources. It also adds to the improvement of the Human Resources Index. As a result, everyone must take care of their health in order to improve the health status of their community and nation. Appropriate nutrition is a prerequisite for developing competent human resources. Nutritional problems can affect anyone at any age, beginning with a newborn in the womb and continuing through toddlerhood, childhood, adolescence, and old age. The second stage of life is the most difficult since they are growing and developing their organs at a quick rate. If you don't get enough nutrition throughout this time, it will stay with you for the rest of your life. Even after this time, they will not be able to fix it [1].

The goal of the health sector development program is to improve human resource quality. This effort is in line with the government's Healthy Indonesia 2010 strategy. The result of the health paradigm is a healthy life style (PHBS) [2]. The program for a healthy lifestyle has been updated. Many obstacles have been discovered, such as the lack of a common definition of this program among health volunteers. We recognize that health volunteers play a vital role in the community, since they influence good changes in health behavior. As a result, it is critical to properly educate them and provide them with references in order for them to implement this program.

For the years 2015 to 2019, health development will prioritize four programs: reducing maternal and infant mortality, reducing the number of toddlers with stunting, and controlling communicable and non-communicable diseases [3]. Not only does community nutrition play a role in reducing stunting prevalence, but it also plays a function in child physical and cognitive health, as well as minimizing the risk of infectious diseases in the present and future. This is in accordance with the Ministry of Health's Continuous of Care Approach policy.

Individual health is influenced by two factors: health behavior and the environment. As a result, in order to train and improve community health, an intervention to change this habit must be very deliberate. Community empowerment must begin with the family because a healthy family is an asset for the future, so children must be protected and their health must be improved. All members of the family, including toddlers, are susceptible to sickness. Malnutrition can be caused by infectious disorders, and vice versa.

Many infants with low birth weight were included in the description of toddlers' health status, which reflects the gravity of the nutrition issue and the health of pregnant women. Around 30 million women suffer from chronic energy shortage, which puts them at risk of giving birth to a kid with a low birth weight. Every year, around 350 thousand babies are born with low birth weight, which is the leading cause of childhood malnutrition and infant mortality. In 2005, 5 million toddlers were classified as malnourished, with 1.7 million of them suffering from chronic malnutrition. Approximately 11 million of them were categorized in the elementary level [4].

Toddlers' nutrition status is the state of their health as a result of a balance between their nutritional needs and their nutritional intake. The weight scale, height, arm ring, and head ring can all be used to determine nutritional health. The nutritional status of children has a significant impact on their growth. Physically, malnourished children and chronic malnourished children have growth problems and are more susceptible to infectious infections. Malnourished children have limited intellectual ability, making them unable to compete in school, and, in the long run, they will be treated as a lost future generation.

The toddler era is crucial because it has the potential to have a significant impact. Also, the second period of two years is the same as the first year of life, when the brain is developing at a rapid rate of 80%, and nutrition problems at this moment can be permanent, even if their diet is acceptable in the coming years. Toddlers aged 24 to 59 months were chosen as study subjects based on the fact that they engage in a lot of activities during this time, and the timeframe was changed to mediate nutrition status to malnutrition state. Malnutrition status and acute malnutrition are produced by a number of factors, including family health behavior in terms of food serving, breast feeding, appropriate food for toddlers, and nutrition service initiatives. As a result, in order to improve the health of toddlers, the government and the Ministry of Health have conducted The Strategic Planning Health Ministry, which consists of four primary strategies with 12 key targets, one of which is for all families to become nutrition-conscious. A family with nutrition knowledge is able to introduce, avoid, and address nutrition problems for all members of the family. The ideas of balance nutrition guidelines include practicing for consuming a variety of healthy foods, controlling body weight, and fortification impact, which is the practice of adding certain components to food servings such as salt and odium [5]. The nutrition awareness family consists of family practices that can create appropriate nutrition for family members on their own, as evidenced by the consumption of a variety of healthy foods in a balanced manner. Weighting body mass frequently, breastfeeding for six months, eating a variety of healthy foods, adding odium salt, and drinking nutrition supplement are all used to assess nutrition awareness status. Because the nutrition awareness family was not fully implemented in certain communities, nutrition challenges continued to exist [6].

2. Methods

Analytic research with a cross-sectional technique is the type of investigation. The questioner measures nutrition awareness and a healthy lifestyle; the questions are valid. After weighing toddlers' body mass, anthropometry is used to determine their nutritional status. The study was carried out in three villages in Muara Tami District: Skow Sae, Skoouw Mabo, and Skouw Yambe. These three villages were chosen based on the fact that they are located in urban regions of Jayapura City. This research took place from May through September of 2017. All toddles in Skow Sae, Skoouw Mabo, and Skouw Yambe, Jayapura City, were included in the study. The complete population is the study's target sample, which means that all families with children have been chosen as participants, provided that the children do not have chronic conditions or are undergoing medical treatment. The study's instruments include a Camry weight scale with a 0.1 kg accuracy level for measuring toddles' weight and employing the anthroplus computer program to examine dietary status. Characteristic Data on family nutrition knowledge and healthy lifestyle behavior (PHBS) was obtained by a study questioner during the research phase. Specific to nutrition awareness behavior and a healthy lifestyle, scoring was used to assign a category to each variable. Data has been collected, processed, and analyzed in order to determine the

relationship between the independent and dependent variables. The statistical test is used in conjunction with a computer program in statistical analysis. The chi square test is used in this study's analysis. The outcome of a hypothesis test with a p-value of (0.05) implies that the null hypothesis has been rejected, indicating that there is a substantial correlation between the independent and dependent variables.

3. Results

3.1. Subject of Research Characteristic

Table 1: Sample distribution based on characteristic.

	Characteristic	n=115	%
1	Gender		
	Man	66	57.4
	Woman	49	42.6
2.	Age		
	0-11 month	27	23.5
	12-23 month	14	12.2
	24-35 month	28	24.3
	36-47 month	29	25.2
	48-59 month	17	14.8
3.	Parent's Job		
	Government employ/Army/Police	19	16.5
	Private	26	22.6
	Labor/Farmer/Fishery	70	60.9

According to the table above, the bulk of the samples are boy toddlers, with a total of 66 (57.4%). According to age, the bulk of samples are between the ages of 36 and 47 months, with a total of 29 or 25,2 percent. The minority sample, on the other hand, consisted of 14 people aged 12 to 23 months, or 12.2% of the total. We know from this study that more over half of the samples (60.9%) had parents who work as laborers, farmers, or fishermen, with many of them being fishermen. This is due to the fact that the three communities chosen as research sites are located along the coast. Rice availability in the household prior to and during the Covid-19 PSBB Policy.

3.2. Research variables

Table 2: Sample Distribution based on research variables.

	Variable	n=115	%
1	Nutrition Status		
	Inadequate	10	8.7
	Adequate	105	91.3
2	Nutrition Awareness Behavior		
	Poor behavior	59	51.3
	Good behavior	56	48.7
3	Healthy Life Style		
	Unhealthy Family	84	73.0
	Healthy Family	31	27.0

The table above demonstrates that almost all toddlers have adequate or good nutrition, with 93.1 percent having

adequate or good nutrition and only 10 babies (8.7%) having poor nutrition. The mass body index and age with anthropometry method were utilized as nutrition status guidelines in this study. If the z-score number is greater than or equal to -2 SD, it suggests appropriate nutrition; if the z-score number is less than or equal to -2 SD, it indicates inadequate nutrition. Based on responses to questioner questions on five nutrition indicators, this indicator measures a family's nutritional awareness. The results suggest that 51.3 percent of the samples do not have nutrition knowledge, whereas 48.7% have previously completed nutrition awareness. Similarly, the variable of a healthy lifestyle is measured by answering questions in the questioner. Ten indications of healthy life style in family role provided by the Indonesian Health Ministry are among the questions connected to a healthy lifestyle. According to the findings of the survey, just 27% of families with newborns have adopted a healthy lifestyle, while 73% of families with babies have not adopted a healthy lifestyle.

3.3. Bivariate Analysis

Table 3: Cross tabulation between independent variable and dependent variable.

No	Variable	Nutrition Status				P-value
		Inadequate		Adequate		
		n	%	n	%	
1	Family with Nutrition awareness					
	Not having nutrition awareness	6	10.2	53	88.2	0.565
	Having nutrition awareness	4	7.1	52	92.9	
2	Healthy Life Style					
	Unhealthy Families	6	7.1	78	92.9	0.331
	Healthy Families	4	12.9	27	87.1	

The table above shows the results of a Chi-square statistic analysis of the relationship between the independent and dependent variables. According to the results of the test, there is no link between nutrition awareness and nutrition status, nor between a healthy lifestyle and nutrition status. The p value of nutrition awareness with nutrition status is 0.565, which is greater than 0.05, and the p value of healthy life style with nutrition status is 0.331, which is also greater than 0.05.

4. Discussion

4.1. Relation between nutrition awareness behavior and toddlers' nutrition status

According to the findings of the study, there is no relationship between nutrition awareness and nutrition status (Table 3). This table shows that the proportion of toddlers with good nutrition status in the family who do not have nutrition awareness is higher (88.2 percent) than the proportion of toddlers with inadequate nutrition (10.2 percent).

Almost all toddlers who come from nutrition-conscious families have adequate nutrition status. This is because

the statistic test in this study does not find a relationship between these two variables, despite previous studies finding a significant relationship between those variables [7].

Nutrition awareness behavior is very important for developing adequate nutrition status in toddlers, so nutrition status is very related to families that are aware of healthy nutrition. According to the findings of this study, 53 toddlers with adequate nutrition come from families who are aware of healthy nutrition, while only four toddlers with inadequate nutrition status come from families who are aware of healthy nutrition. This is due to the balance of consuming healthy and rich nutrition food among healthy toddlers, whereas unhealthy toddlers are caused by consuming unhealthy and lack of nutrition food, and they are also susceptible to infectious diseases. The direct cause of malnutrition in toddlers is an inability to meet children's nutritional needs, as well as the occurrence of infectious diseases [8].

Individual willingness to take care of oneself and improve one's health is referred to as healthy individual effort. This effort can be practiced by taking care of individual hygiene, eating healthy foods, living a healthy lifestyle, boosting immune system, disease prevention, gaining knowledge, equipping one's home with hygiene facilities, and getting regular medical checkups. This effort, however, must be made not only by individuals, but also by entire families and communities [9].

4.2. Relation of Healthy Life Style Behavior and Toddlers' Nutrition status

According to the findings of this study, there is no relationship between nutrition awareness behaviors and nutritional status (Table 3). According to the table, the proportion of toddlers who have good nutrition status and come from an unhealthy family is higher (92.9%) than the proportion of toddlers who have inadequate nutrition (7.1%). Similarly, in toddlers with families who live a healthy lifestyle, the proportion of adequate nutrition is higher (87.1%) than in toddlers with inadequate nutrition (12.9 percent).

According to the study findings, there are 78 babies with adequate nutrition who come from families who do not practice a healthy lifestyle (unhealthy families) and 4 toddlers with inadequate nutrition who come from families who do practice a healthy lifestyle. Due to the unbalanced proportion of those samples, the statistic does not have a significant relationship for both variables. In fact, previous studies have discovered a statistically significant relationship between these two variables. As a result, this study concluded that the change in healthy lifestyle behavior is unrelated to the change in nutrition status among toddlers in three villages (Skouw Sae, Skouw Mabo, Skouw Yambe).

Health behavior at the family level is one manifestation of a family life style that is influenced by a variety of factors. Family income, education level, environment (neighborhood and age), job, ethnicity, belief and religion (culture), action toward health, and nutrition understanding are all factors that influence intake behavior in families [10].

A condition in which a healthy lifestyle does not have a relationship with nutrition status can occur because it can be explained that toddlers' nutrition status that is inadequate and adequate is caused by adequate food intake; however, toddlers who have inadequate nutrition are affected by infectious diseases that are caused by the

environment, and this is a cause of infant mortality in Indonesia. Acute Inhalation Infection (ISPA), Tuberculosis, and Diarrhea are the infectious diseases that are caused by the environment. Diseases caused by the environment are the leading cause of infant mortality. The environment has a significant impact on the health of a family.

Individual healthy behavior is defined as any action taken to care for and improve one's health status, as well as to prevent infectious diseases. This includes personal hygiene, healthy food intake, a clean environment, clean water, a toilet that meets healthy standards, and no smoking in the home. The poor nutritional status has been caused by a number of interconnected factors. The factors are food availability in the home, a healthy environment, economic status, and infectious diseases. One of the indirect factors contributing to the decline in nutrition status among toddlers is healthy lifestyle behavior.

Knowledge about nutrition education in the home can train family members to live a healthy lifestyle and encourage all families to live a healthy lifestyle, as well as knowing what aspects infants and children require, particularly nutrition. Every health program, such as local primary healthcare, mother and child routine consultation, and other community-based programs, requires family members to participate. Everyone, especially students, must be responsible for their own health, both individually and in the community, because it is interconnected.

Home activities should be related to healthy activities, and the family should practice basic health behavior or directly doing healthy actions such as food hygiene at home and individual hygiene, so family members must participate in order to receive nutrition education and information on a healthy lifestyle. These factors influence toddler nutrition status because nutrition education leads to good healthy behavior in mothers and can improve their nutrition status. This must begin with enthusiasm in every individual prosperity effort, family, and environment, and it must continue with the integration of health education, particularly actions related to toddler nutrition, health, and clean behavior. Those should be based on relevant knowledge and all activities must be practice regularly in home.

5. Conclusion

According to the findings of the research, there are still many households with toddlers that do not implement nutrition awareness (51.3 percent), and families that do not implement the ten indicators of a healthy lifestyle still dominate with a percentage of 73 percent. The test results show that there is no relationship between nutrition awareness and nutrition status ($p=0.565 > 0.05$), nor between a healthy lifestyle and nutrition status ($p=0.331 > 0.05$).

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