FACTORS ASSOCIATED WITH THE NUTRITIONAL STATUS OF PRESCHOOL CHILDREN

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ABSTRAK : FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN STATUS GIZI ANAK PAUD

Latar Belakang: Status gizi adalah keadaan tubuh yang mengakibatkan makanan yang dikonsumsi dan penggunaan gizi yang baik diperoleh dari pola makan yang seimbang, yang akan berdampak pada pertumbuhan fisik, perkembangan otak, dan kesehatan anak. Status gizi yang tidak seimbang akan memberikan pengaruh yang berbahaya bagi tubuh, yaitu dapat menimbulkan efek toksik. Di Indonesia, prevalensi status gizi balita dilihat dari indeks berat badan menurut umur (BB/A) diketahui mengalami gizi kurang sebesar 3,9%, gizi kurang 13,8%, gizi baik 79,2%, dan gizi lebih. sebesar 3,1%.

Tujuan: untuk mengetahui hubungan pendidikan ibu, pola makan balita, dan riwayat penyakit balita dengan status gizi balita di Desa Karya Mukti Kecamatan Sinar Peninjauan Kabupaten OKU Kabupaten OKU. 2021.

Metode: Desain penelitian kuantitatif, dengan metode survei analitik melalui pendekatan cross sectional. Populasi adalah seluruh ibu dengan anak usia 4-5 tahun di Desa Karya Mukti Kecamatan Sinar Peninjauan Kabupaten OKU periode Juni 2021 berjumlah 35 balita. Teknik pengambilan sampel dalam penelitian ini adalah total sampling. Kemudian, analisis data univariat dan bivariat dan uji statistik Chi-Square

Hasil: Dari uji statistik Chi-Square pada variabel pendidikan ibu didapatkan nilai p-value 0,001 (< = 0,05), dan variabel pola makan anak didapatkan nilai p-value 0,003 (< = 0,05). Hal ini menunjukkan adanya hubungan yang signifikan antara pendidikan ibu, pola makan anak, dan status gizi anak prasekolah di Desa Karya Mukti. Sedangkan riwayat penyakit pada balita memiliki p-value sebesar 0,221 (< = 0,05).

Kesimpulannya, tidak ditemukan hubungan yang signifikan antara riwayat penyakit dengan status gizi anak prasekolah di Desa Karya Mukti.

Saran: Kepada Desa Karya Mukti disarankan untuk lebih aktif memberikan penyuluhan kepada ahli kebidanan tentang status gizi anak prasekolah.

Kata kunci: Pendidikan, Diet, Riwayat Penyakit, Status Gizi

ABSTRACT

Background: Nutritional status is a condition of the body that results in the food consumed and the use of good nutrition obtained from a well-balanced diet, which will impact children's physical growth, brain development, and health. An unbalanced nutritional status will have a dangerous influence on the body, which can cause toxic effects. In Indonesia, the prevalence of nutritional status of children under five, as seen from the weight index for age (W/A), revealed that they suffered from malnutrition by 3.9%, undernutrition by 13.8%, good nutrition by 79.2%, and overnutrition by 3.1%.

Objectives: This study aims to determine the relationship between mothers' education, children under-fives diet, and children under-fives history of illness and the nutritional status of preschool children in Karya Mukti Village, Sinar Peninjauan Sub-district, OKU Regency, in 2021.

Method: This study's design was quantitative, with an analytical survey method through a cross-sectional approach. The population was all mothers with children aged 4-5 years in Karya Mukti Village, Sinar Peninjauan Sub-district, OKU Regency, for the period of June 2021, totaling 35 children under five. The sampling technique in this research was total sampling. Then, the univariate and bivariate data analyses and Chi-Square statistical tests were employed.

Results: From the Chi-Square statistical test on the mothers' education variable obtained a p-value of 0.001 (< α = 0.05), and the children's diet variable got a p-value of 0.003 (< α = 0.05). It denotes a significant relationship between mothers' education, children's diet, and the nutritional status of preschool children in Karya Mukti Village. Meanwhile, the history of illness in children under-five had a p-value of 0.221 (< α = 0.05). In

conclusion, no significant relationship was found between the history of illness and the nutritional status of preschool children in Karya Mukti Village.

Suggestions: The Karya Mukti Village is advised to be more active in providing counseling to midwifery experts on the nutritional status of preschool children.

Keywords: Education, Diet, History of Illness, Nutritional Status

INTRODUCTION

Nutritional status is a condition of the body that results in the food consumed and good nutrition obtained from a well-balanced diet, which will impact children's physical growth, brain development, and health (Fajriani, 2020). An unbalanced nutritional status will negatively influence the body, which can cause toxic effects (Mustayidin, 2018).

Moreover, nutritional problems are vital for human survival. Nutrition also severely impacts the quality of human resources (HR), which is currently still a concern in Indonesia. Specifically, malnutrition is one of the issues that are still relatively high in Indonesia (Hudoyo, 2018).

For children under five, an essential health indicator is a nutritional status. They are a group very vulnerable to health and nutrition. Anthropometrically, nutritional status is measured by looking at the index of W/A (weight for age), H/A (height for age), and W/H (weight for height) (Khoeroh and Indriyanti, 2017).

Good nutrition is crucial to achieving a more optimal level of health. However, various diseases of nutritional disorders and malnutrition due to poor quality of food and the amount of food that is not in accordance with the body's needs are still found in Indonesia (Ningrum, 2021). Low nutritional status eventually affects the quality of human resources. In addition, malnutrition is the most common nutritional problem in Indonesia. In this case, the 0-5 years age group is the one who most often suffers from malnutrition or is one of the people vulnerable to nutrition (Berlian, 2018).

In 2015, the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), and the World Bank Group (WBG) reported that about 61% of children were overweight, and 2.4% of children were underweight. In Africa, the incidence of malnutrition showed 25% of overweight children and 28% of underweight children. Meanwhile, 48% of children in Asia were overweight, and 68% were underweight (Syafika, 2019).

In Indonesia, the prevalence of the nutritional status of children under five as seen from the weight for age index (W/A) uncovered that they experienced malnutrition by 3.9%, undernutrition by 13.8%, good nutrition by 79.2%, and overnutrition by 3.9% (Riskesdas, 2018).

More specifically, in South Sumatra, the prevalence of malnutrition was 0.04%, while the national malnutrition rate was 3.9% (Dinkes Propinsi Sumsel, 2019).

From the results of weighing and monitoring the nutritional status of children under five in Karya Mukti Village, in the Karya Mukti Health Center working area, the data obtained demonstrated that one person experienced malnutrition in 2018, two people suffered undernutrition in 2019, and one person experienced undernutrition in 2020. Meanwhile, from January to June 2021, it was revealed that one person underwent undernutrition, and two people experienced malnutrition. From the data above, it can be seen that there was an increase in cases of undernutrition and malnutrition in UPTD Karya Mukti Health Center in 2021.

Based on the above background, the researchers are interested in conducting a study entitled "Factors Associated with Nutritional Status of Preschool Children in Karya Mukti Village, Sinar Peninjauan Sub-district, OKU Regency, in 2021."

RESEARCH METHODs

This study's quantitative design used an analytical survey method through a cross-sectional approach. A cross-sectional research design is one in which the researcher collects data from many different individuals at one point in time.

This study's population was all mothers with children aged 4-5 years in Karya Mukti Village, Sinar Peninjauan Sub-district, OKU Regency, for June 2021, totaling 35 children under five. Meanwhile, the sampling technique in this study used total sampling. Since the total population was less than 100, the entire population was involved as the research sample, all of whom were 35 children under five.

Then, primary data were obtained through interviews using a questionnaire to all mothers with preschool children aged 4-5. On the other hand, secondary data in this study were attained from the Village Health Post records, Karya Mukti Village, in 2021. Furthermore, univariate analysis was employed to obtain an overview of the frequency

distribution and percentage of all research variables, i.e., the dependent variable (preschool children's nutritional status) and independent variables (mothers' education, children's diet, and children's history of illness). In addition, the Chi-Square statistical test was utilized to determine the relationship between the independent and the dependent variables. The limit of significance used in this study was 0.05. Also, statistical decision-making follows the requirements of Hastono (2021).

RESEARCH RESULTS
Univariate Analysis
Table 1
Frequency Distribution of Respondents Based on Nutritional Status of Preschool Children in Karya Mukti Village in 2021

Nutritional Status of Preschool Children	Frequency (N)	Percentage (%)
Good Nutrition Status	27	77.1
Undernutrition Status	8	22.9

Table 2
Frequency Distribution of Respondents Based on Education in Karya Mukti Village in 2021

Education	Frequency (N)	Percentage (%)
High	26	74.3
Low	9	25.7

From Table 1 above, it can be seen that out of 35 respondents, 27 respondents (77.1%) had preschool children with good nutritional status.

From Table 2 above, it can be known that of 35 respondents, 26 (74.3%) respondents had higher education.

Table 3
Frequency Distribution of Respondents Based on Diet in Karya Mukti Village in 2021

Diet	Frequency (N)	Percentage (%)
Good	27	77.1
Not good	8	22.9

Table 3 above shows that from 35 respondents, it was found that respondents with good diet preschool children were 27 people (77.1%).

Table 4
Frequency Distribution of Respondents Based on History of Illness in Karya Mukti Village in 2021

History of Illness	Frequency (N)	Percentage (%)
No	21	60.0
Yes	14	40.0

From Table 4 above, it can be known that from 35 respondents, it was revealed that the respondents with children with a history of illness were 21 (60.0%).

Bivariate Analysis

Table 5
The Relationship between Education and Nutritional Status of Preschool Children in Karya Mukti Village in 2021

Education	Nutritional Status of Preschool Children				Total	Sig.	OR
	Yes	%	No	%			
High	24	92.6	2	7.7	26	0.001	24.000
Low	3	33.3	6	66.7	9		

Based on Table 5 above, it was found that from 26 respondents, 24 people with good nutritional status children had higher education (92.6%), more significant than respondents with undernutrition status children as many as two (7.7%).

According to the chi-square test, p-value = 0.001 < 0.05 was obtained. It indicates a significant relationship between a mother's education and the nutritional status of preschool children.

Then, the Odds Ratio results attained an OR value of 24.000, meaning that respondents with higher education tended 24.000 times to have good nutritional status children compared to respondents with low education.

Table 6
Relationship between Diet and Nutritional Status of Preschool Children in Karya Mukti Village in 2021

Diet	Nutritional Status of Preschool Children				Total	Sig.	OR
	Yes	%	No	%			
Good	25	89.3	3	10.7	28	0.003	20.833
Not good	2	28.6	5	71.4	7		

Based on Table 6 above, it was known that from 28 respondents, 25 people with good diet children had preschool children with good nutritional status (89.3%), more significant than respondents with children with undernutrition nutritional status as many as three (10.7%).

Furthermore, the chi-square test obtained p-value = 0.003 <0.05. It signifies a significant relationship between diet and the nutritional status of preschool children.

In addition, the Odds Ratio results yielded the value of OR: 20.833. It denotes that respondents with good diet children tended 20.833 times to have children with good nutritional status compared to respondents with a not good diet.

Table 7
The Relationship between History of Illness and Nutritional Status of Preschool Children in Karya Mukti Village in 2021

History of Illness	Nutritional Status of Preschool Children				Total	Sig.	OR
	Yes	%	No	%			
No	18	85.7	3	14.3	21	0.221	3.333
Yes	9	64.3	5	35.7	14		

Based on Table 7 above, out of 21 respondents, 18 people (85.7%) who did not have children with a history of illness had children with good nutritional status, more significant than three respondents with undernutrition children (14.3%).

From the chi-square test, p-value = 0.221 > 0.05 was obtained. It shows no significant relationship between a history of illness and the nutritional status of preschool children. Thus, the hypothesis, which stated a significant relationship between the history and nutritional status of preschool children, was rejected statistically.

Moreover, the Odds Ratio results obtained the OR value of 3.3333. It means that respondents who did not have children with a history of illness tended 3.333 times to have children with good nutritional status compared to respondents with a history of illness.

DISCUSSION

Based on Table 5, it was found that out of 26 respondents, 24 people (92.6%) with higher education had children with good nutritional status, more significant than respondents with undernutrition status children as many as two people (7.7%).

The results of this study align with the research results conducted by Ranityas Kinasih, Era Revika, and Diyah Yuliantina (2016), stating the relationship between the mother's education level and the nutritional status of children under five at the Pleret Health Center. The same result was also reported by Nurmaliza (2019), showing a relationship between mothers' education and the nutritional status of children under five. Also, it is supported by the research results by Susi Prehanawati (2018) that there was a relationship between the level of mother's education and the nutritional status of children under five based on body weight for age (W/A) aged 1-5 years in Duwet Village, Wonosari Sub-district, Klaten Regency (p=0.017).

Related to that, parents' education level is the formal education level that parents have attended. A person's level of education will be closely associated with knowledge about sources of nutrition and good types of food for family consumption. For example, educated homemakers tend to choose better quality and quantity of food than mothers with lower education (Nengah, 2019). In addition, another study in rural areas revealed that the nutritional status of children under five showed that out of 96 children under five, most mothers had secondary education, i.e., 78 (81.2%) of those mothers who had children under five with good nutritional status were 64 (66.7%). Of the 15 (15.6%) mothers who had elementary education, ten (10.4%) mothers had children under five with

good nutrition, four (4.2%) mothers had children under five with undernutrition, and one mother (1.0%) had children under five with malnutrition. Of the three (3.1%) mothers with higher education, all children under five had good nutritional status. Furthermore, the statistical test results using Kolmogorov Smirnov uncovered no significant relationship between mothers' education and the nutritional status of children under five in rural areas (p=0.778 > 0.05) (Astuti, F. D. & Sulistyowati, T. F., 2013).

On the other hand, based on the study results, 66.7% of mothers with low education had children with undernutrition. According to the researchers' assumption, mother's education is influential on the nutritional status of children since a higher level of education will make it easier for individuals to implement their knowledge in behavior, especially in health and nutrition. Thus, the relatively low level of mothers' education will be related to their attitudes and actions in dealing with the undernutrition problem in their children under five.

Moreover, a good diet is reflected by the better food given to children under five. Efforts to improve nutrition are carried out by meeting the nutritional needs of children, one of which is through dietary regulation. Balanced nutritional intake from food plays a crucial role in the children's growth process, coupled with a good and regular diet, which needs to be introduced early on (Mochtar, N. & Ali, N. M., 2021).

The results of this study are consistent with the results of the study of Syavika et al. (2019), which obtained a relationship between feeding patterns and nutritional status in children under five (p = 0.006) in Curug Manis Village in the working area of Curug Health Center, Serang City. Tri Hartika et al. (2019) also found a relationship between diet and nutritional status in children under five in neighborhood association VII, Sidorejo Village, Medan Tembung Sub-district, with a p-value of 0.001. It is also reinforced by Muzayyaroh's (2017) research results that there was a relationship between feeding patterns and the nutritional status of children under five aged 3-4 years at the Irsyadus Salam Play Group, Sumbersari Megaluh, Jombang Regency, with a p-value of 0.003.

The diet here is related to the children's growth and development, where parents with a good level of knowledge about diet and growth (nutritional status) will be able to monitor and train children for optimal development; hence, if there is a developmental disorder in children, it can be detected early (Husnah, 2015).

In another study, the nutritional status of preschool and elementary school children mostly had normal nutritional status (82.6%). These results indicate that most respondents have obtained adequate nutrition from their food. Good or optimal nutritional status occurs when the body gets enough nutrients used efficiently, thus allowing physical growth, brain development, workability, and general health at the maximum possible level (Almatsier, 2003).

A good diet is reflected by the better food given to children under five. Efforts to improve nutrition are carried out by meeting the nutritional needs of children, one of which is through dietary regulation. In this case, balanced nutritional intake from food plays an essential role in the child's growth process, coupled with a good and regular diet, which needs to be introduced early (Nofiandri, 2021).

Further, a balanced diet, i.e., in accordance with the needs accompanied by the selection of the right food ingredients, will produce the best nutritional status. Food intake that exceeds the body's needs will cause overweight and other diseases caused by excess nutrients. Conversely, food intake less than needed will cause the body to become thin and susceptible to disease. Both conditions are equally bad, which is called wrong nutrition (Hartika, 2019).

According to the researchers' assumptions based on the study results, 89.3% of children with a good diet had good nutritional status because if the feeding pattern is carried out regularly, it will result in optimal growth and development of children under five. As stated before, children with inappropriate diets will have excessive nutritional intake and vice versa. Intake of less food than needed will cause the body to become thin and susceptible to disease.

Nevertheless, this study's results do not agree with the previous research results (Rohimah et al., 2015 in Syavika, 2019), which asserted the relationship between the history of illness and nutritional status in children under five. Namang Boling, Murti, and Sulaeman (2017) also revealed an association between infectious diseases and nutritional status in children under five. Both are supported by Rani Safitri's (2019) research results, which showed that the variable related to nutritional status is a history of diarrheal disease (p=0.001; OR=2.163; 95%CI=1.421-3.293) in the Talang Pangeran Health Center working area, Ogan Ilir Regency.

According to the researchers' assumption, no relationship between a history of illness and the

nutritional status of children from the study results was due to many other factors that can cause undernutrition, one of which is diet. Although the children have had a history of illness in the past month, a good diet will also improve their nutritional status.

CONCLUSION
There was a significant relationship between mothers' education and children's diet and the nutritional status of preschool children, while there was no significant relationship between the history of illness and the nutritional status of preschool children in Karya Mukti Village.

SUGGESTION
It is suggested to carry out efforts to improve health services, especially the handling of the nutritional status of preschool children in Karya Mukti Village.

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