

Original Article

Culture “NIRMENIRAN” (Herbal Medicine) on Improving The Nutritional Status Of Toddlers

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ABSTRACT

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Background: The region is known for its high prevalence of malnutrition cases, making it a significant concern for public health. The local health center has noted instances of malnutrition in certain areas, prompting efforts to investigate potential contributing factors and solutions. This study aims to explore the relationship between the culture of consuming local food, "Nirmeniran," and its potential impact on improving the nutritional status of toddlers in the community.


Methods: Quantitative with correlation or association research type. The respondents of this study were mothers of toddlers in Longos Village. The sampling technique used the Random Sampling technique, with a sample of 63 mothers of toddlers. Data collection used questionnaires and BB/TB observations. Statistical tests used Spearman's Rho Correlation test.

Results: Part Big mother toddlers in Village Longos often give drinks or herbal medicine containing local food, "Nirmeniran," to their children, and most toddlers have good nutritional status. The results of statistical tests show ρ value = 0,000 with mark $\alpha = 0.05$, So $\rho (0,000) < \alpha (0.05)$, which means There is a connection between culture consumption food local "Nirmeniran" towards improving the nutritional status of toddlers in Longos Village.

Conclusion: The cultural consumption of "Nirmeniran" is linked to improved nutritional status in toddlers. Most mothers in the area frequently provide drinks or herbal medicine containing this local ingredient, showing its potential benefits.

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
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Introduction

The success of health development can be measured through various indicators such as nutritional status, mortality rate, and morbidity rate. One essential aspect of health development is children's health because it directly affects the quality of human resources in the future. Therefore, special attention from the government is

needed in this matter. Good nutrition is a key factor supporting the optimal growth of infants and toddlers. Adequate nutrition can affect the development of body organs and their functions, nerve function, and the immune system. There is a very close relationship between nutritional status and food consumption. Providing food that does not meet dietary standards can cause nutritional disorders in infants, such as



obesity, malnutrition, poor nutrition, and stunting. This nutritional disorder can reduce intelligence and the body's resistance to various diseases, especially infectious diseases such as ARI, diarrhoea, and typhoid ([Sari et al., 2023](#))

According to UNICEF, in 2021, The number of people suffering from malnutrition globally reached 767.9 million, an increase of 6.4% from the previous year, which was 721.7 million people. In Indonesia, based on SSGI (Indonesian Nutritional Status Study) data, the prevalence of malnutrition in toddlers was 7.1% in 2021 and increased to 7.7% in 2022. In East Java province, the prevalence of malnutrition in toddlers reached 7.2% in 2022. Sumenep Regency is one of the areas in East Java with a high number of malnutrition sufferers, with a prevalence rate reaching 29.4% in 2022. In Longos Village, the Gapura Health Center recorded an incidence of malnutrition of 8% in 2022. The causes of malnutrition in toddlers can be divided into direct and indirect factors ([Amalika et al., 2023](#))

Direct factors include diets that do not meet nutritional standards, which cause protein and energy deficiencies, and infectious diseases that reduce children's appetite. Indirect factors include knowledge, environment, And pattern foster. Pattern Parenting plays a vital role in child growth. Communicable diseases caused by microorganisms can reduce appetite or cause difficulty swallowing and digesting food, thereby reducing food consumption and resulting in malnutrition ([Afdhal & Arsi, 2023](#); [Alvi & Gupta, 2020](#); [Nurmawati et al., 2019](#); [Pietravallo et al., 2021](#); [Talwar et al., 2020](#))

The government is trying to overcome the problem of malnutrition through the Supplementary Food Provision program, which is aimed at children aged 6-59 months or toddlers. This program is expected to

help restore nutrition and complete children's daily nutritional needs in addition to staple foods. Supplementary Food Provision is given for 90 consecutive days with monthly monitoring during the program implementation. Monitoring includes implementing Supplementary Food Provision and monthly weighing and measuring length or height at the beginning and end of Supplementary Food Provision. Studies show that Supplementary Food Provision can increase toddler weight ([Fadilah et al., 2020](#); [Findawati et al., 2022](#); [Lidya et al., 2021](#); [Miguel Kim et al., 2021](#); [Osaki et al., 2019](#); [Sujianti & Pranowo, 2021](#); [Yuliastanti et al., 2023](#))

Since ancient times, people worldwide have used traditional medicine to treat health problems. Every Asian country has a traditional medicine system as part of its culture. In Longos Village, the community still maintains the cultural heritage of conventional medicine, including the consumption of local foods such as "Nirmeniran," which is believed to increase children's appetite and indirectly improve their nutritional status ([Bhagawan et al., 2023](#))

Methods

Research Design

This type of research is quantitative research. The quantitative approach views human behaviour as a predictable, objective, and measurable social reality. The quantitative method includes experimental and survey research methods.

This study uses a methodology with a cross-sectional approach, namely conducting research at one time. The cross-sectional approach uses a questionnaire to identify the presence or absence of a relationship between independent and

dependent variables in one study. This type of research is correlation or association, which means that the research seeks to examine the relationship between variables and aims to find, explain a relationship, estimate, and test based on the theory that There is. ([Rahmah Firdaus](#) et al., 2023)

Population, Sample, and Sampling Techniques

The population in this study was all mothers of toddlers in the Longos Village area, totaling 175 people. generalization area that includes objects or subjects from which conclusions can be drawn. A sample is a portion of a population that is the actual data source in a study. Sugiyono stated that a sample is a small number in a representative population.

The required sample size for this study is 63 mothers of toddlers. The inclusion criteria include mothers with toddlers aged 0-59 months at the time of data collection, those who can read, write, and communicate actively, and those willing to participate as study respondents. Conversely, the exclusion criteria are mothers with toddlers over 59 months, those lacking the ability to read, write, and communicate actively, and those unwilling to participate in the research. The sampling technique employed is Simple Random Sampling, in which samples are selected randomly from the population without considering population strata. From a total population of 175, 63 participants will be randomly chosen for the study.

Variable Identification

The variables in this study are divided into independent and dependent variables. Independent variables (free variables) influence or cause changes in dependent variables. The independent variable in this study is the local food consumption culture, "Nirmerin." A dependent variable (bound

variable) is a variable that is influenced or results from the independent variable. The dependent variable in this study is the nutritional status of toddlers.

Data Collection and Processing

The instruments used are questionnaires, digital scales, and microtones. The study will be conducted in Longos Village, Gapura Health Center area, for 4 months from April to June 2024. Data were collected by distributing questionnaires to respondents after obtaining permission from the relevant parties and the respondents' approval. The data that has been collected will go through the stages of editing, coding, scoring, tabulation, and data interpretation.

Data analysis

Univariate analysis was conducted to explain the characteristics of each variable studied. Bivariate analysis was used to determine the relationship between independent and dependent variables using the Spearman Rank test with a significance level of meaning $\rho < 0.05$.

Research Ethics

Respondents were explained the study and asked to sign a consent form. The names of the respondents were not included to protect their privacy. Information from respondents was kept confidential, and the study results were presented in aggregate.

Results

Table 1. Respondent Characteristics Based on Mother's Age

Age	Frequency (f)	Percentage (%)
17 - 25 Year (Adolescent End)	5	8
26 - 35 Year (Adult Beginning)	58	92
Total	63	100%

Table 1 shows that most mothers in Longos Village are between 26-35 years old (92%).

Table 2. Respondent Characteristics Based on Children's Age

Age	Frequency (f)	Percentage (%)
1 - 2 Year	28	44%
3 - 5 Year	35	56%
Total	63	100%

Table 2 shows that most respondents' children are aged 3-5 years (56%).

Table 3 Respondent Characteristics Based on Child Gender

Age	Frequency (f)	Percentage (%)
Man	24	38%
Women	39	62%
Total	63	100%

Table 3 shows that most respondents' children were girls (62%).

Table 4 Local Food Consumption Culture "Nirmeniran"

Local Food Consumption Culture "Nirmeniran"	Frequency (f)	Percentage (%)
Never	3	5
Sometimes	5	8
Often	38	60
Always	17	27
Amount	63	100

Table 4 shows that 60% of mothers give their children drinks or herbal medicine containing the local food "Nirmeniran."

Table 5 Nutritional Status of Toddlers

Nutritional status	Frequency (f)	Percentage (%)
Malnutrition	3	5
Not Enough	6	10
Good Nutrition	35	56
More Nutrition	19	30
Total	63	100

Table 5 shows that 56% of toddlers in Longos Village have good nutritional status.

Table 6 Cross Tabulation of Local Food Consumption Culture "Nirmeniran" on Toddler Nutritional Status

Local food consumption culture "Nirmeniran"	Malnutrition		Not enough		Good Nutrition		More Nutrition		Total	
	n	%	n	%	n	%	n	%	n	%
Never	3	100	0	0	0	0	0	0	3	100
Sometimes	0	0	5	100	0	0	0	0	5	100
Often	0	0	1	2.6	35	92.1	2	5.3	38	100
Always	0	0	0	0	0	0	17	100	17	100
Amount	3	4.8	6	9.5	35	55.6	19	30.2	63	100

Spearman's Rank Test p value = 0.000 < α (0.05)

Spearman's Rank Test p value = 0.000 < α (0.05)

Based on Table 6, toddlers who often consume drinks or herbal medicine with local food content "Nirmeniran," almost (92.1%) have good nutritional status. The results of statistical analysis with the Spearman rank test show ρ value = 0.000 with an α value = 0.05, so that ρ (0.000) < α (0.05), which means that there is a significant relationship between the local food consumption culture "Nirmeniran" and the nutritional status of toddlers in Longos Village in 2024, with a correlation value of 0.943 which indicates a powerful and positive relationship.

Discussion

The results of a study in May 2024 in Longos Village showed that 60% of mothers of toddlers often gave their children drinks or herbal medicine. Local food content "Nirmeniran" to their children. The drink or herbal medicine is believed to increase children's appetite, related to traditional values and the community's lifestyle. Elia Saberti Surbakti and Maida Pardosi (2024), in their book "Social Culture Basics of Health," state that humans can consider what is proper and reasonable based on their reason, taste, and will. Ria Yurlianti (2023), in "Literature Review of Public Health on Complements to Health," states that culture and tradition are essential to maternal and child health services. Zahroh, Erko Muljadi, and Aurlia (2023) also emphasized that drinking Herbal medicine has become a tradition in Madurese society (Chandra Alim, n.d.)

Mothers of toddlers in Longos Village hold fast to the culture passed down from generation to generation, which states that giving drinks or herbal medicine containing local food, "Nirmeniran," can increase children's appetite. This aligns with the theory of culture-based care, which states that culture, values, and beliefs influence a person's behaviour in responding to health needs.

The study results showed that 56% of toddlers in Longos Village had good nutritional status. According to the WHO, nutritional status is a health condition arising from the balance between dietary needs and children's nutritional intake.

Stated that the nutritional status of toddlers is influenced by various factors such as maternal education, family income, knowledge, family environment, disease, nutrient consumption, parenting patterns, and social culture.

The local culture that emphasizes the consumption of drinks or herbal medicine containing the local food "Nirmeniran" appears to play a significant role in improving the nutritional status of toddlers in Longos Village. The statistical analysis results show a substantial relationship between the local food consumption culture, "Nirmeniran," and the nutritional status of toddlers in Longos Village. Nur Aini Abdulrahman Ali (2023), in "Utilization of Traditional-Based Appetite-Enhancing Medicinal Plants as an Effort to Improve Nutritional Status in Toddlers," states that giving concoctions or herbal medicines from appetite-enhancing medicinal plants can increase body weight—toddler (Apulina Ginting et al., 2023). The results of the study in Longos Village showed that mothers of toddlers who were often given drinks or herbal medicine containing local food, "Nirmeniran," had toddlers with good nutritional status. This indicates that local culture has a strong influence on the health and nutritional status of toddlers.

Conclusion

Most mothers of toddlers in Longos Village frequently provide their children drinks or herbal medicine containing the local food ingredient "Nirmeniran."

Additionally, most toddlers in the village are reported to have good nutritional status. A significant relationship has been identified between the culture of consuming local foods like "Nirmeniran" and improving nutritional status among toddlers. Future research is recommended to explore the specific dietary components and health benefits of "Nirmeniran," as well as its potential applications in broader nutritional and public health strategies.

Authors Contributions

The author carries out tasks from data collection, data analysis, and discussions to making manuscripts.

Conflicts of Interest

There is no conflict of interest.

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