JNK

JURNAL NERS DAN KEBIDANAN
http://ojs.phb.ac.id/index.php/jnk

Sunrise Model "Transcultural Nursing Leininger" on Toddler Stunting Incidents

[CA]Raden Roro Dewi Rahmawaty Aktyani Putri, Wimar Anugrah Romadhon
STIKes Patria Husada Blitar, Indonesia
[CA]Corresponding Author

Article Information

History Article:
Received, 26/09/2024
Accepted, 13/12/2024
Published, 16/12/2024

Keyword:
Sunrise Model, Transcultural Nursing, Toddler, Stunting

Abstract

Stunting is chronic malnutrition due to prolonged lack of nutrients, short or very short stature based on length/height for age. It is estimated that nearly a quarter of children in Indonesia are stunted. Stunting is an unresolved nutritional problem in Indonesia. The purpose of this study was to analyze the factors of stunting in toddlers based on the Transcultural Nursing theory. The research was conducted in the working area of Puskesmas Panggungrejo, Margomulyo Village. The sampling technique used purposive sampling. The sample size of this study was 154 respondents. The dependent variable of this study is the incidence of stunting. Independent variables consisted of technological factors, religiosity and philosophy, social support, cultural values and lifestyles, politics and legal, economic and educational factors. Data were collected using a questionnaire and analyzed using the Spearman rank statistical test with a significance level of $\alpha < 0.05$. The results of this study indicate that there is a relationship between technological factors $p = 0.000$, religiosity and philosophy factors $p = 0.010$, social support factors $p = 0.002$, cultural values and lifestyle factors $p = 0.000$, political and legal factors $p = 0.000$, economic factors $p = 0.021$ with the incidence of stunting while the education factor $p = 0.128$ is not associated with the incidence of stunting.

✉Correspondence Address:
STIKes Patria Husada Blitar – East Java, Indonesia
Email: rrdewirahmawatyap@gmail.com
P-ISSN : 2355-052X
E-ISSN : 2548-3811
DOI: https://doi.org/10.26699/jnk.v11i3.ART.p263-275

INTRODUCTION

A key health indicator for achieving the Sustainable Development Goals (SDGs) is identifying sustainable strategies to eliminate hunger, address all types of malnutrition, and ensure food security by 2030. (Ika Indriyastuti et al., 2022). Health and nutrition is one of the essential needs of toddlers that must be met, with this expected toddlers can grow and develop optimally (Ina et al., 2021). Stunting is defined as a condition where a child's length or height-for-age falls below minus 2 standard deviations (SD) on the WHO growth chart. (Kemenkes, 2022). Stunting itself is an unresolved nutritional problem in Indonesia (Amri Yasir Program Studi et al., 2023). Many studies have been conducted to analyze the incidence of stunting, especially in areas with high prevalence, but there are several factors that have not been studied by previous researchers, namely related to community culture or habits.

Indonesia's stunting status is still ranked 4th in the world and 2nd in Southeast Asia for under-five stunting cases (Yunitasari et al., 2020). Data from the World Health Organization (WHO) in 2020 shows that 5.7% of children under five in the world are overnourished, 6.7% are undernourished and malnourished, and 22.2% suffer from stunting (chronic malnutrition). The global rate of stunting remains significantly high, ranging from 20% to just under 30%. Data from the 2022 Indonesian Nutritional Status Survey or Survei Status Gizi Indonesia (SSGI) revealed that 21.6% of toddlers in Indonesia experienced stunting. According to the results of the Indonesian Health Survey 2023, it was reported that the prevalence of stunting in Blitar Regency reached 20.3% in 2023. This figure is actually higher than in 2022, which was 14.3% (Kemenkes, 2023).

Several programs to reduce the prevalence of stunting continue to be carried out in the first 1000 days of life or windows of opportunity (from conception to 2 years of age) since long ago to prevent the emergence of the impact of stunting. The first 1,000 days of life represent a critical or golden window for a child's growth and development (Indah Yun Diniaty Rosidi & Rajia, 2022; Yunitasari et al., 2022). The government has also included stunting in the 2020-2024 National Medium-Term Development Plan (RPJMN) with a significant reduction target from 24.4% in 2021 to 14% in 2024, but several programs have not had a significant impact on reducing stunting rates in Indonesia (Octavia et al., 2023). Nutritional issues, particularly malnutrition in children under five, which impacts their growth and development, can stem from cultural practices, dietary habits, and societal norms related to food, including eating patterns and dietary restrictions (Ina et al., 2021; (Rahayu & Atmojo, 2020). A number of community traditions inherited by ancestors are still applied today. Transcultural Nursing theory itself can be used to find out the factors that influence culture related to health behavior in an effort to prevent and also provide appropriate nursing care for toddlers with stunting.

METHODS

This study employs a descriptive-analytic design with a cross-sectional approach, focusing on the observation of data related to independent variables. This study identifies technological factors, social support, cultural values and lifestyles, political and legal factors, economic factors, and educational factors, religiosity factors, and political and legal factors on the incidence of stunting in toddlers based on Transcultural Nursing theory. The study was conducted in the working area of Puskesmas Panggungrejo, Margomulyo Village with the highest incidence of stunting. The study's population consisted of 251 respondents who had toddlers. The sampling technique used purposive sampling. The sample size of this study based on the Slovin formula was 154 respondents with inclusion criteria: 1. Parents (father or mother) who live with children under five, 2. Parents (father or mother) who can read, write and are not mentally disabled. Exclusion criteria: 1. Parents who have children under five who experience recurrent chronic or acute infectious diseases (diarrhea, dysentery, etc.) starting from infancy until the study is conducted, 2. Parents who have toddlers allergic to certain foods / drinks. Independent variables are Transcultural

Nursing including technological factors, social factors, cultural values & lifestyles, economic factors, educational factors, religiosity factors and political and legal factors. The dependent variable is the incidence of stunting in toddlers. The instrument in this study was the Transcultural Nursing Questionnaire which was adopted from previous research related to 7 factors that influence the incidence of stunting through questionnaires of technological factors, social factors, cultural values & lifestyles, economic factors, educational factors, religiosity factors and political and legal factors (Yunitasari et al., 2020). The stunting incidence questionnaire is a standardized child anthropometry that has been calibrated in accordance with Permenkes No.2 Th. 2020. This research has been ethically tested by the Patria Husada Blitar Health Research Ethics Committee on July 16th with number: 06/PHB/KEPK/240/07.24.

RESULTS

1. Data and Research Analysis Results

Table 1. Demographic Characteristics of Respondents in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

No	Respondent Characteristics	Category	f	%
1.	Child Gender	Male	85	55.2
		Female	69	44.8
2.	Child Age	0 to 23 months	54	35.1
		24 to 35 months	29	18.8
		36 to 47 months	30	19.5
		48 to 59 months	41	26.6
3.	Immunization status	Less than 6 times	33	21.4
		Complete 6 times	121	78.6
4.	Mother Age	Less than 20 years	4	2.6
		20 to 35 years	94	61.0
		More than 35 years	56	36.4
5.	Mother's job	Housewife	123	79.9
		Teacher	12	7.8
		Self-employed	7	4.5
		Private employees	9	5.8
		Midwifery	1	0.6
		Police	1	0.6
		Government employees	1	0.6
6.	Family form	Nuclear Family	84	54.5
		Extended Family	70	45.5
Total			**154**	**100.0**

Based on the analysis of the data presented in table 1, the gender of most toddlers is male (55.2%). The largest age group was toddlers aged 0 to 23 months (35.1%) of the total respondents and the smallest group was toddlers aged 24 to 35 months (18.8%). In terms of immunization status, 78.6% of respondents had completed the recommended immunization schedule 6 times. Most of the mothers' ages, 61%, were within the age range of 20 to 35 years, and only 2.6% of the mothers were in the young category, with ages below 20 years. Most (46.8) of the mothers had completed high school or equivalent. Regarding the mother's occupation, 79.9% of respondents were housewives. Others were self-employed (17%), private employees (5.8%), midwives, policewomen and civil servants

(0.6% each). In terms of family structure, the majority of respondents (54.5%) came from nuclear families consisting of father, mother and children. Meanwhile, 45.5% of respondents were members of extended families that included grandparents, siblings, father, mother and children.

Table 2. The Relationship between Technological Factors in the Sunrise Model "Transcultural Nursing Leininger" with the Incidence of Stunting in Toddlers in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

Technological Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Good	58	37,7	28	18,2	86	55,8	0,000
Enough	64	41,6	4	2,6	68	44,2	
Total	122	79,2	32	20,8	154	100,0	

Respondents who utilize technology elements well with toddlers who are not stunted are 37.7%, while 18.2% of respondents have stunted toddlers. Respondents who adequately utilize technology and have toddlers who are not stunted are 41.6%, while 2.6% of respondents have stunted toddlers. Spearman's rho statistical test resulted in a p value of 0.000 ($\alpha < 0.05$) which indicates a significant relationship between technological factors and the incidence of stunting.

Table 3. Relationship between Religiosity and Philosophy Factors in the Sunrise Model "Transcultural Nursing Leininger" with the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

Religiosity and Philosophy Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Positive	83	53.9	29	18.8	112	72.7	0.010
Negative	39	25.3	3	1.9	42	27.3	
Total	122	79.2	32	20.8	154	100.0	

Based on the table above, it shows that of the 79.2% of mothers who have toddlers who are not stunted, most (53.9%) have positive religiosity and philosophy. Mothers who have stunted toddlers and have positive religiosity and philosophy are 18.8%. The results of statistical tests using Spearman's rho obtained a value of $p = 0.010$ ($\alpha < 0.05$), so it is said that there is a relationship between religious factors or religiosity and philosophy with the incidence of stunting in toddlers.

Table 4. Relationship between Family and Social Support Factors in the Sunrise Model "Transcultural Nursing Leininger" with the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Work Area, Blitar in August 2024

Family and Social Support Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Good	71	46.1	28	18.2	99	64.3	0.002
Enough	51	33.1	4	2.6	55	35.7	
Total	122	79.2	32	20.8	154	100.0	

Mothers who have toddlers who are not stunted get good social support from family and community as much as 46.1% of the 79.2% of toddlers who are not stunted. Mothers who have stunted toddlers get good social support from family and community as much as 18.2% of the 20.8% of stunted toddlers. The findings of the Spearman's rho statistical test obtained at the significance level of p = 0.002 (α < 0.05), can show that there is a relationship between social factors and family support with the incidence of stunting.

Table 5. Relationship between Cultural Values and Lifestyle Factors in the Sunrise Model of "Transcultural Nursing Leininger" with the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

Cultural Values and Lifestyle Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Positive	84	54.5	32	20.8	116	75.3	0.000
Negative	38	24.7	0	0	38	24.7	
Total	122	79.2	32	20.8	154	100.0	

Positive attitudes towards cultural values and lifestyle, the majority of respondents 54.5% did not experience stunting. However, 20.8% experienced stunting. Based on the results of the Spearman's rho statistical test, the p-value is 0.000 (α < 0.05), there is a relationship between cultural values and lifestyle factors on the incidence of stunting among toddlers.

Table 6. Relationship between Economic Factors in the Sunrise Model "Transcultural Nursing Leininger" and the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

Economic Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
High Income	104	67.5	32	20.8	136	88.8	0.021
Low Income	18	11.7	0	0	18	11.7	
Total	122	79.2	32	20.8	154	100.0	

The percentage of toddlers who were not stunted was 79.2% and most (67.5%) had a high economic level. In contrast, the percentage of respondents who were stunted and had a high economy was quite low, namely 20.8%. The results showed that there was a relationship between economic factors and the occurrence of stunting, where the p value was 0.021 (α < 0.05).

Table 7. Relationship between Political and Legal Factors in the Sunrise Model of "Transcultural Nursing Leininger" with the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Working Area, Blitar in August 2024

Political and Legal Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Positive	51	33.1	32	20.8	83	53.9	0.000
Negative	71	46.1	0	0	71	46.1	
Total	122	79.2	32	20.8	154	100.0	

There were 33.1% of mothers whose toddlers were not stunted who had a positive attitude towards politics and law. Mothers who had stunted toddlers and a positive attitude towards politics and law were 20.8%. The results showed that there was a relationship between political and legal factors with the occurrence of toddler stunting, where the p value was 0.000 (α < 0.05).

Table 8. Relationship between Maternal Education Factors in the Sunrise Model of "Transcultural Nursing Leininger" with the Incidence of Toddler Stunting in Margomulyo Village, Panggungrejo Health Center Work Area, Blitar in August 2024

Maternal Education Factors	Stunting Incident				Total		*P-Value*
	Not Stunting		Stunting				
	f	%	f	%	f	%	
Elementary School	1	0.6	0	0	1	0.6	0.128
Junior High School	45	29.2	8	5.2	53	34.4	
Senior High School	56	36.4	16	10.4	72	46.8	
Bachelor	20	13	8	5.2	28	18.2	
Total	122	79.2	32	20.8	154	100.0	

Based on the table above, 32 maternal respondents who have stunted toddlers mostly (10.4%) have a high school / equivalent education level. Statistical test results using Spearman's rho with α < 0.05 obtained ρ-value = 0.128. Based on these results it can be said that there is no relationship between maternal education and feeding patterns in stunted toddlers.

DISCUSSION

Technological Factors

Technological factors as one of the factors of stunting incidence show a relationship to the incidence of stunting. This can be seen from the results of the Spearman ro statistical test which obtained a p-value of 0.000 (with a significance level of < 0.05). Most mothers can utilize technology with a total of 86 people (55.8%). Based on the results of the questionnaire on technology variables, the majority of mothers are able to utilize technology well. This means they can use technological media such as the internet, Google, YouTube, and other applications to get information about stunting in toddlers.

Respondents who rarely used technology showed the highest prevalence of stunting. Based on the author's observations during the distribution of questionnaires and oral debriefings, it was found that most of the respondents owned android phones or internet-based devices. However, these devices are mostly used for their children's games. In addition, many respondents are still unfamiliar with certain applications to access health services and rely on manual methods. There was also a tendency to be reluctant to use electronic tools, such as blenders for juicing.

Other studies have shown an association between technological factors and the occurrence of stunting. Most mothers are able to utilize technology, especially by utilizing available health care facilities. In addition, the majority of mothers actively visit the posyandu every month. Most of them also use electronic media to obtain information on age-appropriate feeding patterns (Weti et al., 2024); (Ina et al., 2021).

Based on the explanation of Leininger's Transcultural Nursing theory, it is explained that technology is one of the factors that influence individual behavior in a cultural context. Technology as a source of information acts as a link that conveys information and influences a person's abilities. The rapid development of technology today makes it easier for mothers to access information about proper feeding patterns according to the age of the child so that it can prevent stunting (Eisen et al., 1975).

The rapid development of media technology provides opportunities to improve well-being, such as through public service announcements promoting healthy lifestyles, health program publications, and

dietary supplement advertisements disseminated through the media. The use of these media technologies affects society in various ways. However, there are also negative impacts, such as the encouragement for mothers to wean their babies before six months of age due to the constant advertising of formula milk and instant oats. This can lead to digestive problems in the child, which risks various diseases, including recurrent infections and stunting (Yunitasari et al., 2020).

Health technology includes facilities and infrastructure that enable individuals to choose or obtain solutions in health services. The government, through puskesmas, has made various efforts to prevent stunting, including by providing technological facilities for stunting prevention, such as posyandu, free immunization, and distribution of deworming drugs every six months (Cahyani et al., 2019).

Religiosity and Philosophy Factors

Religiosity serves as a powerful motivator, prioritizing truth above everything, even over one's own life, which can make a person have a humble and open nature. Religious and philosophical aspects can be examined through factors such as adherence to a specific religion, perspectives on illness and treatment approaches, as well as religious practices that positively impact health. (Melo, 2013).

Religiosity and philosophy encompass the practiced religion, perspectives on illness, and treatment methods or religious traditions that positively influence health. An individual's religiosity can shape their behavior, including health-related practices, such as feeding toddlers. This study found that most respondents exhibited positive religiosity and philosophy, which influenced appropriate maternal behavior in feeding toddlers with stunting. The findings suggest that a mother's religiosity impacts her calm pattern in child care and the type of food he gives to her children (Maulina et al., 2024).

The findings from the study indicate that the majority of mothers demonstrate positive religiosity and philosophy, reflected in their perspectives and the care they provide for their infants. There is a relationship between religiosity and philosophy factors on the incidence of stunting toddlers. This can be seen from the research data obtained with most mothers who have a positive value of religiosity and philosophy of 72.7%.

Leininger's transcultural nursing theory (2002) suggests that religiosity serves as a powerful motivator, encouraging individuals to prioritize truth above all, even their own lives, fostering humility and openness. Religiosity and philosophy encompass adherence to a particular religion, perspectives on illness, and approaches to treatment or religious practices that positively influence health. (Sriyanah et al., 2022). An individual's religiosity can influence various aspects of their behavior, including health-related actions, particularly in the care of toddlers (Ina et al., 2021). In this research, the majority of respondents exhibited positive attitudes toward religiosity and philosophical factors in caring for and providing a good diet for their children, the perspective and treatment methods of respondents on health behavior in this case related to nutritional status in toddlers, as well as the way respondents prayed for their children's health, providing nutritious food as a form of gratitude to respondents and the calmness of the respondent's soul in caring for their children. Good religiosity and philosophy in mothers can affect the pattern of calmness of mothers caring for children, and affect what mothers give to their children, including in providing good food and a positive perspective in mothers in caring for children.

Family and Social Support Factors

Support is an important factor that can motivate a person to behave. This support can come from the surrounding environment, both family and workplace. Social support refers to the capacity of families and communities to offer time, care, and assistance in physical, mental, and social aspects. This support includes family involvement in addressing the mother's needs, particularly in areas such as nutrition, psychosocial stimulation, and health practices for infants (Wati et al., 2022).

Based on the results of the study, it is known that there is a relationship between family and social support factors with the incidence of stunting as evidenced by the p-value of 0.002 ($\alpha < 0.05$). Social support encompasses demonstrations of empathy, compassion, and attention toward the individual, along with assistance provided through recognition, information, and instrumental assistance. Social and family support factors are the most influential factors in providing specific nutrition interventions (Cahyani et al., 2019).

Other studies have shown that increased family support has a positive correlation with the incidence of stunting (Ibrahim et al., 2021). The family members who provide the most support in lactation management are the husband and the mother (the baby's grandmother). The role of a grandmother is very important in providing guidance to mothers about breastfeeding and establishing infant feeding routines, as well as encouraging maternal behavior to provide exclusive breastfeeding. Mothers who received family support were more likely to carry out lactation management and provide exclusive breastfeeding compared to mothers who received less support (Mardiana et al., 2018). However, many mothers who receive sufficient family and social support do not have adequate skills to implement targeted nutrition interventions.

Based on demographic data, most families have more than five members living in the same house because they live with grandparents. This meant that other family members, such as grandmothers or grandfathers, often provided motivation, listened to mothers' complaints, assisted in childcare, and often accompanied mothers to the posyandu or puskesmas to monitor toddler growth (Ina et al., 2021).

Cultural Values and Lifestyle Factors

The culture in a society directly influences how one responds to health needs, including feeding patterns in young children. This aligns with the theory of culturally based or transcultural nursing, which emphasizes that culture, values, and beliefs shape an individual's health-related behaviors (Ahmad, 2023).

Multiple studies have shown that sociocultural factors within the family can impact the likelihood of stunting in children. Research conducted in Indonesia found that family sociocultural factors that influence the risk of stunting include socioeconomic status, mother's education level, diet, and parenting patterns (Sutarto et al., 2022).

Differences in social settings, as well as cultural and ethnic backgrounds, influence diets, actions and social systems within a group. Various diverse health practices are implemented in Indonesia. The Javanese community has a rich tradition and culture that has been passed down through generations. Some cultural norms and lifestyles can have systemic negative impacts. For example, in Javanese culture, pregnant women are prohibited from consuming the meat of animals born breech, cannibal fish, warm-blooded animals such as goats, as well as fruits that are spicy or produce gas, such as durian and pineapple. In addition, for breastfeeding mothers, practices such as giving babies complementary foods too early, discarding colostrum from new mothers, and consuming non-lacteal foods are also examples of traditions that are carried out (Weti et al., 2024).

Different cultural or ethnic backgrounds and social life systems influence the behavior, social networks, and behavioral patterns of a community, including their eating habits. Nutritional problems, especially malnutrition in young children, can have a significant impact on their growth and development (Yunitasari et al., 2020).

Economic Factors

The study findings indicated a connection between economic factors and the occurrence of stunting. This finding is consistent with the conclusions of the study. Based on the Spearman ro statistical test, a p-value of 0.021 ($\alpha < 0.05$) was obtained, which indicates a significant effect. In addition, from the results of the study, there were 104 (67.5%) respondents whose toddlers were not stunted and had high economic conditions. Only 32

(20.8%) respondents whose toddlers experienced stunting and had high economic conditions.

Children born into families with low socioeconomic status, inadequate nutrition, and poor parenting are at higher risk of stunting (van Tuijl et al., 2021). Low economic level has an impact on meeting nutritional needs. Lack of intake of animal food sources, and moderate and poor household diet variations are directly related to stunting (Fufa, 2022).

Food consumption levels are affected by the cost of food items and household income. Increased income plays a role in expanding access to buy better quality food and in sufficient quantities, while decreased income can reduce purchasing power for food. Parents with high incomes are able to support the growth and development of children because they can meet their children's needs, both primary and secondary. The economic condition of the family is relatively easy to measure and has a significant impact on food consumption, especially for low-income people. This is because most of the income of the poor is used to meet food needs. Two economic changes that have a very influential effect on determining food consumption are purchasing power and the price of basic commodities (Adhani et al., 2024).

Family income plays an important role in the ability of households to meet their basic needs, both primary, secondary, and tertiary. Families with high incomes find it easier to meet their daily needs, while families with low incomes tend to face difficulties. Low incomes impact the quality and quantity of food consumed by families, which can ultimately affect their health and well-being.

Political and Legal Factors (Regulations and Policies)

The results of the study indicate that there is a relationship between regulatory and policy factors on the incidence of stunting in toddlers. This can be seen from the research data obtained with the majority of mothers who comply with regulations and policies. Based on demographic data on active attendance at the integrated health post, it was found that 83% of mothers routinely attend the integrated health post.

Good parenting patterns and providing proper nutrition to children are closely related to the general knowledge received by mothers, so that through routine visits to the integrated health post, they can increase their knowledge about nutrition and health (Putri & Rong, 2021). Posyandu in the working area of Margomulyo Health Center, Panggungrejo Village is held routinely once a month, toddlers who actively attend the posyandu every month get weight checks, health checks, additional food and nutrition counseling. The activities carried out help health services for mothers and toddlers. Toddlers identified as stunted based on height-for-age measurements are recorded by posyandu cadres. The village midwife then reports these cases to the nutritionist at the Puskesmas, enabling respondents to consult with nutritionists and receive supplementary feeding (PMT) for their toddlers. In addition, health services at the posyandu for toddlers include immunization. According to research (Tsaralatifah, 2020) stated that the emergence of stunting nutritional status is not only due to inadequate food but also due to disease. Toddlers who have weak immunity tend to get sick easily. Repeated infections can gradually inhibit their growth process until they become stunted.

The government has made significant efforts to prevent stunting, as supported by the Republic of Indonesia's Ministry of Health Regulation Number 12 of 2017 on immunization implementation. This regulation emphasizes the importance of disease prevention through immunization to achieve the highest standards of public health. In this study, most mothers had given complete basic immunization to toddlers. However, some mothers said that the immunization schedule was sometimes not appropriate because the toddler was sick when the immunization schedule was scheduled so they had to wait for the toddler to be healthy first and rescheduled the immunization. Utilization of integrated health posts, provision of additional food and complete immunization are factors related to the incidence of underweight, stunting and wasted,

therefore it is important for parents to always utilize the health facilities that have been provided by the government (Octavia et al., 2023).

Education Factors

A proper level of education leads to comprehensive knowledge, which in turn shapes positive behavior. It is expected that someone with a high level of education has extensive knowledge too. Mothers who have a higher education will have a tendency to have good thoughts in terms of improving the health and development of children, seeking information will be broader, because people who have a higher education background find it easier to understand and comprehend the information they receive when compared to those with lower education (Yunitasari et al., 2020).

The results of the study showed that there was no statistically significant relationship between maternal education factors and the incidence of stunting in toddlers. This can be seen from the data that most mothers in the Margomulyo Health Center work area, especially in Panggung Rejo village, have a basic education level, namely graduating from elementary school/graduating from junior high school/high school and college, while the incidence of stunting in toddlers was found to be one parent with an elementary school graduate having a healthy and normal baby. However, 8 out of 20 parents with college education graduates have children with stunting or short conditions. The findings of this study align with research by (Maulina et al., 2024) which indicates no significant correlation between maternal education and the nutritional status of toddlers in relation to stunting. Despite many mothers having only an elementary school education, their toddlers maintain good nutritional status. This may be influenced by the mother's knowledge and her ability to comprehend health information, allowing her to provide proper care for her child.

A mother's level of education significantly influences a child's growth and development, as mothers are primarily responsible for the majority of childcare activities. However, stunting in Panggungrejo Village can occur in several highly educated mothers of toddlers because mothers of toddlers have jobs that require them to work outside the home so they cannot always accompany and accompany their toddlers. Mothers who have higher education, after being traced, the education they have taken is not based on Health or nutrition science so that understanding related to nutrition has not been applied to their children. Working mothers do not have enough time to pay attention to the adequacy and suitability of food consumed by children, and cannot control their children's food consumption patterns, resulting in unbalanced nutritional intake for children (Yumna, 2023).

In this study, although most mothers have low education, the pattern of feeding toddlers in Panggungrejo village is mostly correct. Insight into knowledge about nutrition and health can be obtained by mothers through routine visits to the Posyandu. Health workers in Panggungrejo village and Posyandu cadres play an active role in providing informal education such as counseling on proper feeding patterns through information or health counseling held once a month during routine Posyandu activities. So that mothers' knowledge about feeding patterns for toddlers increases and mothers can apply feeding patterns for toddlers correctly.

CONCLUSION

Education variables do not affect the incidence of stunting. Important factors that need to be considered in handling stunting are technological factors where the rapid development of media technology provides opportunities to improve welfare, such as through public service advertisements that promote a healthy lifestyle. Religious factors and positive philosophy increase the right parental behavior in caring for toddlers. Good social support factors can motivate someone to behave healthily. Cultural values and lifestyle factors influence how someone responds to health needs. Political and legal factors where government policies in preventing stunting have an optimal impact on preventing stunting, Economic factors play an important role in the ability of households to meet their living needs.

SUGGESTION

Awareness of the importance of preventing stunting must start from the deepest point, namely the role of parents. Parents have a central role in overcoming stunting because the main environment for the growth and development of children. For parents who have stunted toddlers, it is advisable to stop habits that are contrary to health science and routinely visit health services to monitor the child's health status. For mothers who do not have stunted toddlers, it is advisable to maintain healthy lifestyle habits and invite the surrounding environment to do positive things for the sake of child growth and be more active in utilizing the right technology to reduce the incidence of stunting.

ACKNOWLEDGEMENT

This research received a grant from the Ministry of Education and Culture and the authors would like to thank the Ministry of Education and Culture, Stikes Patria Husada and anyone involved in this research.

FUNDING

Providing financial support by the Ministry of Education and Culture.

CONFLICTS OF INTEREST

All authors actively participated in the community service activity, from conceptualizing the program, organizing data tabulation, drafting the manuscript, and conducting analysis. Each author contributed significantly throughout the process, from initiation to completion, including the publication of the article in this journal.

AUTHOR CONTRIBUTIONS

Raden Roro Dewi Rahmawaty served as data collection and performance reporting, Wimar Anugrah Romadhon served as supervising proposals and writing and producing articles.

REFERENCES

Adhani, J. P., Lahdji, A., & Faizin, C. (2024). ANALISIS FAKTOR RISIKO KEJADIAN STUNTING PADA BALITA DI WILAYAH KERJA PUSKESMAS KARANGANYAR I KABUPATEN DEMAK. *Jurnal Ilmu Kedokteran Dan Kesehatan*, *11*(2), 430–439. https://doi.org/10.33024/jikk.v11i2.10600

Ahmad, R. (2023). Analisis Faktor Sosial Budaya Mempengaruhi Kejadian Stunting: Studi Literatur Review. *Jurnal Endurance*, *8*(1), 79–85. https://doi.org/https://doi.org/10.22216/jen.v8i1.1835

Amri Yasir Program Studi, L. S., Kesehatan, A., Yarsi Mataram, S., Putri Isnani Hertin Program Studi, I. S., Bq Dwi Arika Martiana Program Studi, I. S., Nabila Program Studi, H. S., & Erniwati Program Studi, L. S. (2023). Cultural Abstinence in Food for Breastfeeding Mothers on Stunting Incidents in Batu Tinggang Hamlet, Labulia Village, Jonggat District, Central Lombok Regency, West Nusa Tenggara. *UrbanGreen Journal Avalaible Online at Www.Journal.Urbangreen.Ac.Id*, *5*(1), 19–27. https://doi.org/https://doi.org/10.55756/hm.v5i1

Cahyani, V. U., Yunitasari, E., Indarwati, R., & Keperawatan, F. (2019). Social Support as the Main Factor in Providing Specific Nutrition Interventions for ChildrenAged 6-24 Months with Stunting Events based on Transcultural Nursing. *Pediomaternal Nursing Journal*, *5*(1), 77–88. http://e-journal.unair.ac.id/PMNJ%7C77JournalHomepage:https://e-journal.unair.ac.id/PMNJ/index

Eisen, O., Rang, S., & Talvari, A. (1975). ANALISIS FAKTOR POLA PEMBERIAN MAKAN PADA BALITA STUNTING USIA 24-59 BULAN DI PUSKESMAS KARANGANYAR 1 KABUPATEN DEMAK. *Jurnal Medika Malahayati*, *24*(2), 168. https://doi.org/10.3176/chem.geol.1975.2.10

Fufa, D. A. (2022). Determinants of stunting in children under five years in dibate district of Ethiopia: A case-control study. *Human*

Nutrition and Metabolism, *30*, 200162. https://doi.org/10.1016/j.hnm.2022.200162

Ibrahim, I., Alam, S., Syamsiah Adha, A., Jayadi, Y. I., Fadlan, M., Studi, P., Masyarakat, K., & Makassar, A. (2021). Sociocultural Relationship with Stunting Incidents in Toddlers Aged 24-59 Months in Bone-Bone Village, Baraka District, Enrekang Regency in 2020. *Public Health Nutrition Journal*, *1*(1), 16–26.

Ika Indriyastuti, H., Tri Kartono, D., & Studi Sosiologi Fakultas iLmu Sosial Dan Politik, P. (2022). Implementation of the Sustainable Development Goals (SDGs) Program on the Management of Stunting Cases in Indonesia. *International Journal of Recent Research in Interdisciplinary Sciences (IJRRIS)*, *9*(2), 60–65.

Ina, R., Lestari, B., Sutria, E., & Irwan, M. (2021). POLA PEMBERIAN MAKAN PADA BALITA STUNTING BERDASARKAN TEORI TRANSCULTURAL NURSING. *IJCNP (INDONESIAN JOURNAL OF CLINICAL NUTRITION PHYSICIAN)*, *4*(1), 36–45. https://doi.org/10.54773/ijcnp.v4i1.54

Indah Yun Diniaty Rosidi, & Rajia, R. (2022). Optimalisasi Gizi Dan Kesehatan Dalam Periode Emas 1000 Hari Pertama Kehidupan. *Abdimas Polsaka*, 73–78. https://doi.org/10.35816/abdimaspolsaka.v1i2.21

Kemenkes, R. (2022). *Buku Saku SSGI 2022*. https://drive.google.com/file/d/1tZuQNyUaKe0i_kyj1nbYx7aNo7KWjNZ8/view

Kemenkes, R. (2023). *Laporan SKI 2023*. https://drive.google.com/file/d/1rjNDG_f8xG6-Y9wmhJUnXhJ-vUFevVJC/view

Mardiana, Aryotochter, A. A. M., Prameswari, G. N., Azinar, M., Fauzi, L., & Nugroho, E. (2018). Association between exclusive breastfeeding with health belief model in working mothers. *Indian Journal of Public Health Research and Development*, *9*(12), 507–512. https://doi.org/10.5958/0976-5506.2018.01888.0

Maulina, R., Retnaningsih, R., Safitri, R., & Amalia, W. (2024). Factor Analysis of Stunting Toddler Feeding Patterns using Transcultural Nursing Approach. *Amerta Nutrition*, *8*(1), 98–103. https://doi.org/10.20473/amnt.v8i1.2024.98-103

Melo, L. P. de. (2013). The Sunrise Model: a Contribution to the Teaching of Nursing Consultation in Collective Health. *American Journal of Nursing Research*, *1*(1), 20–23. https://doi.org/10.12691/ajnr-1-1-3

Octavia, Y. T., Siahaan, J. M., & Barus, E. (2023). Upaya Percepatan Penurunan Stunting (Gizi Buruk dan Pola Asuh) Pada Balita yang Beresiko Stunting. *Journal Abdimas Mutiara*, *5*(1), 131–140. https://doi.org/https://doi.org/10.51544/jam.v4i2

Putri, A. P., & Rong, J. R. (2021). Parenting functioning in stunting management: A concept analysis. *Journal of Public Health Research*, *10*(2), 2160. https://doi.org/10.4081/jphr.2021.2160

Rahayu, D., & Atmojo, S. (2020). *Social Cultural Perspectives in Successful Exclusive Breastfeeding: Literature Review*. 149–157.

Sriyanah, N., Syam, I., Efendi, S., & Dardi, S. (2022). Description of Stunting Incident Factors in Children Based on Trancultural Nursing in the Work Area of Health Center. *Jurnal Keperawatan*, *14*(2), 333–340. https://doi.org/https://doi.org/10.32583/keperawatan.v14iS2

Sutarto, Yuliana, N., Nurdin, S. U., & Wardani, D. W. S. R. (2022). The Influence of Local Culture on Mothers During Pregnancy on Stunting Incidence. *Journal of Positive Psychology & Wellbeing*, *6*(1), 2172–2180. https://journalppw.com/index.php/jppw/article/view/2907

Tsaralatifah, R. (2020). Faktor yang Berhubungan dengan Kejadian Stunting pada Baduta di Kelurahan Ampel Kota Surabaya. *Amerta Nutrition*, *4*(2), 171.

https://doi.org/10.20473/amnt.v4i2.2020.171-177

van Tuijl, C. J. W., Madjdian, D. S., Bras, H., & Chalise, B. (2021). Sociocultural and economic determinants of stunting and thinness among adolescent boys and girls in Nepal. *Journal of Biosocial Science*, *53*(4), 531–556. https://doi.org/10.1017/S0021932020000358

Wati, E. K., Wahyurin, I. S., Sari, H. P., Zaki, I., & Dardjito, E. (2022). Stunting Incidence in Infant Related to Mother's History During Pregnancy. *Kemas*, *17*(4), 535–541. https://doi.org/10.15294/kemas.v17i4.29179

Weti, Nunik Andari, F., Kosvianti, E., & Febriawati, H. (2024). Analisis Faktor Kejadian Stunting Pada Balita : Berbasis Transcultural Nursing. *Citra Delima Scientific Journal of Citra Internasional Institute*, *8*(1), 32–38. https://doi.org/10.33862/citradelima.v8i1.398

Yumna, A. S. A. N. A. [2]. (2023). *Faktor-Faktor Yang Berhubungan Dengan Kejadian Kabupaten Blitar*. *5*(2).

Yunitasari, E., Lee, B. O., Krisnana, I., Lugina, R., Solikhah, F. K., & Aditya, R. S. (2022). Determining the Factors That Influence Stunting during Pandemic in Rural Indonesia: A Mixed Method. *Children (Basel, Switzerland)*, *9*(8). https://doi.org/10.3390/CHILDREN9081189

Yunitasari, E., Winasis, P., & Suarilah, I. (2020). The analysis of stunting event factors in children aged 24-59 months based on transcultural nursing. *EurAsian Journal of BioSciences Eurasia J Biosci*, *14*(August), 2715–2720. https://www.proquest.com/docview/2451868031?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly Journals