

ARTICLE INFORMATION

Received: February, 28, 2024

Revised: May, 12, 2024

Available online: May, 30, 2024

at : <https://ejournal.malahayati.ac.id/index.php/minh>

Nutritional status of toddlers, education level, and habitual hygiene behavior among mothers in West Java, Indonesia

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermianti

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

Abstract

Background: Malnutrition in toddlers can cause impaired growth and become one of the risk factors for morbidity and mortality. Mothers with a good level of education will affect their ability to select and serve foods with balanced nutrition for toddlers. Meanwhile, maternal hygiene behavior related to the cleanliness of food, drinks, body, and the environment is an important factor in preventing various diseases that can influence the nutritional status of children under the age of five.

Purpose: To identify the correlation between maternal education level and hygiene behavior with the nutritional status of toddlers in Hamlet III Sukamulya Village.

Method: Cross-sectional. The data used is primary data collected through a questionnaire. Data include maternal demographics, toddler characteristics, and maternal hygiene behaviors. The population of this study consisted only of mothers with toddlers from Hamlet III Sukamulya village using a total sampling technique with a total of 145 respondents. Data were analyzed with univariate analysis and bivariate analysis using Spearman rho test.

Results: Showed that the majority of mothers had a basic education level (79.3%), and had good hygiene behavior (90.3%), and most toddlers had normal nutritional status (63.4%). This study found a p-value of 0.772 on the mother's education level variable and a p-value of 0.085 on the hygiene behavior variable.

Conclusion: there is no correlation between maternal education level and nutritional status of toddlers and there is no correlation between hygiene behavior and nutritional status of toddlers.

Keywords: Hygiene Behavior; Maternal Education; Nutritional Status of Toddlers.

INTRODUCTION

Malnutrition remains a major problem both nationally and internationally. Nutrition is also included in the Sustainable Development Goals (SDGs) with the second goal of 'zero hunger', which is to address undernutrition, improve child health and reduce child mortality caused by malnutrition. Parts of the world's population suffer from chronic food insecurity and are unable to access enough food to meet their minimum energy requirements. In a time of food insecurity, hunger, and social unrest, millions of children under the age of five are endure suffering from chronic or acute malnutrition, and the number is

growing (Demak Regency Communication and Information Service, 2022).

The United Nations International Children's Emergency Fund (UNICEF) estimates that 45.4 million children under five globally will be acutely malnourished (wasted) by 2020 (United Nations International Children's Emergency Fund, 2021). Malnutrition in children under five can also be found in developing countries, including Indonesia. Indonesia has the third highest prevalence in the Southeast Asia Region (SEAR) after Timor Leste (50.5%) and India (38.4%) (Ministry of Health of the Republic of

Indonesia, 2019). According to FAO (Food of Agriculture Organization of the United Nations) as many as 2.4 million toddlers in Indonesia in 2022 experienced nutritional problems (Food of Agriculture Organization of the United Nations, 2022). According to Basic Health Research, 17.7% of children under five years old experience nutritional problems. The prevalence is divided into 3.9% of under-fives who are malnourished and 13.8% of under-fives who are malnourished. The number of under-fives who are malnourished with the BB/U index based on districts/cities in West Java Province for the 2019-2021 period reached 159,941 under-fives with 25.3% of them in Bandung Regency (West Java Provincial Health Office, 2021). This data explains that the prevalence of nutritional problems both nationally and internationally is still quite high. Bandung Regency has the second-largest total number of underweight toddlers after Bogor Regency with 14,063 toddlers (Bandung Regency Health Office, 2021).

The role of parents especially mothers is really important to achieve normal nutritional status for toddlers. Mothers are the closest people to the child's care environment and get involved in the growth and development process from the nutrients given to children. In Indonesia, mothers have a role in the process of buying food, processing, and serving food or nutrition aimed at their toddlers (Husnaniyah, Yulyanti, & Rudiansyah, 2020). This can be reflected in the feeding pattern of the mother towards her toddler. Children are passive consumers, and children only get food served by their mothers. Normal nutritional intake in children is often not met due to several factors (Nurmaliza & Herlina, 2019).

Several factors influence the nutritional status of children under five, including the mother's level of education, nutritional knowledge, history of exclusive breastfeeding, hygiene behavior, parenting and economic status (Jasmawati, 2020; Dewi, 2019). The existence of these factors indicates the need for attention in feeding children because the behavior and attitudes formed in feeding habits can affect children's nutritional intake (Nurmaliza & Herlina, 2019).

Low education levels in mothers will also cause mothers to have difficulty accepting nutritional guidance and mothers often do not want or do not believe that meeting nutritional needs and other health services is important in supporting and helping children grow and develop (Wati, 2019). A good level

of education in mothers will affect the preparation, purchase, and choice of nutritious foods for children, especially those under five. Mothers with high levels of education can make their knowledge and attitude towards nutrition and health information increases (Berhe, Seid, Gebremariam, Berhe, & Etsay, 2019).

Another maternal factor that have an effect on the nutritional status of toddlers is the hygiene behavior of the mothers. Several studies have shown that clean food, drink, body, and environment are the main factors in preventing infection with various diseases that can affect the nutritional status of toddlers (Midu, Putri, & Wibowo, 2021). Therefore, mothers need to pay attention to hygiene behavior and environmental sanitation in caring for children because it is important to improve the nutritional status of toddlers (Zairinayati & Purnama, 2019).

Sukamulya Village is part of Rancaekek Sub-district, Bandung Regency which is part of the priority locus for reducing stunting in Rancaekek Sub-district. Based on the Suara Pemerintah news portal (2022), states that the prevalence of stunting in Hamlet III of Sukamulya Village will reach 11 percent in 2022 (Septiana, 2022). Especially in Hamlet III of Sukamulya Village, which is located very far from the sub-district and has difficult access to travel. In this hamlet, there are 202 mothers with toddlers. The existence of this phenomenon causes concern about the nutritional status of other toddlers who may experience problems. This study aims to identify the correlation between maternal education level and hygiene behaviour with the nutritional status of toddlers.

RESEARCH METHOD

Cross-sectional study, the population was all mothers with toddlers who live in Hamlet III Sukamulya Village using a total sampling technique of 145 respondents. Data in this study were collected by three instruments namely demographic data questionnaire (name, age, mother's education level is the last level of education completed by the mother), toddler characteristics questionnaire (weight, height, and age), and nine questions regarding child hygiene behaviors performed by mothers in child care include tableware hygiene, hand hygiene, bathing, food hygiene, nail hygiene, and dental hygiene. The mother's education level are divided into three categories, namely primary education (elementary

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran
Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

school and junior high school), secondary education (senior high school), and higher education (university). The hygiene behaviors are divided into three categories, namely bad (when the mother answered "Yes" to 1-3 questions out of a total of 9 questionnaire questions), enough (when the mother answered "Yes" to 4-6 questions out of a total of 9 questionnaire questions), and good (when the mother answered "Yes" to 7-9 questions out of a total of 9 questionnaire questions). An instrument obtained from research by Rahayuwati, et al. (2023) entitled "Environmental Modification through Sanitation, Clean Water, Hygiene and Nutrition for Stunting Prevention" is utilized in this study. The results of the validity test with the value of $r_{count} > r_{table}$ are declared valid. The reliability test demonstrated strong reliability with a Cronbach's Alpha value (>0.800) of

0.859 for the instrument question items, confirming its reliability.

This research has received ethical approval with number 37/UN6.KEP/EC/2023. This study used ethical research with respect for autonomy, confidentiality, and justice. In this study, data were analysed using univariate analysis to identify the frequency distribution of each variable of maternal education level, hygiene behavior, and nutritional status of toddlers and bivariate analysis using the Spearman Rho test aimed at identifying the correlation between maternal education level and hygiene behavior with the nutritional status of toddlers. This study was conducted in Hamlet III Sukamulya Village, Rancaekek Subdistrict, Bandung Regency from July to December 2023.

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiati

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

RESEARCH RESULTS

Table 1. Characteristics of Respondents (N = 145)

Variable	Result
Characteristics of Mother (n/%)	
Age (Mean±SD)(Range)(Years)	(32.75±7.731)(17-45)
Late Adolescence: 17-25 Years	47/32.4
Early Adulthood: 26-35 Years	75/51.7
Late Adulthood: 36-45 Years	23/15.9
Education Level	
Primary Education	115/79.3
Secondary Education	25/17.2
Higher Education	5/3.5
Family Income	
< Regency/City Minimum Wages	96/66.2
Equivalent to Minimum Wage - IDR 5.000K	47/32.4
> IDR 5.000K	2/1.4
Hygiene Behaviour	
Poor	1/0.7
Fair	13/9.0
Good	131/90.3
Characteristics of Toddlers (n/%)	
Age (Mean±SD)(Range)(Month)	(17.22±8.645)(0-59)
0 - 6 month	8/5.5
> 6 - 12 months	14/9.7
> 12 months	123/84.8
Gender	
Female	77/53.1
Male	68/46.9
Nutritional Status	
Malnutrition	3 /2.1
Undernourished	2/1.4
Normal	92/63.4
At Risk of Overweight	28/19.3
Overweight	12/8.3
Obese	8/5.5

Referring to Table 1, it is known that the mean and standard deviation of maternal age is (32.75 ± 7,731) with an age range of 17-45 years, and the majority are in early adulthood (26-35 years) as many as 75 (51.7%). The majority of respondents had primary education, 115 (79.3%), and the majority of families had incomes below the city/district minimum wage, 96 (66.2%). Most of the hygiene behavior of mothers who have children under five is good hygiene behavior, namely 131 (90.3%).

Meanwhile, for toddlers, the mean and standard deviation of age is (17.22 ± 8.645) with a range between 0-59 months, and the majority of toddlers are over 12 months old, 84.8%, the majority are female (53.1%) and out of a total of 145 toddlers, the majority have normal nutritional status for toddlers status with the number 92 (63.4%), but a small number of toddlers still experience poor nutrition, malnutrition, risk of being overweight, overweight and obese.

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

Tabel 2. Tabulation of Mother's Education Level with Nutritional Status of Toddlers (N = 145)

Variable	Nutritional Status						Spearman's Rho	p-value
	Malnutrition (n=3)	Undernourished (n=2)	Normal (n=92)	At Risk of Overweight (n=28)	Overweight (n=12)	Obese (n=8)		
Mother's Education Level (n/%)								
Primary Education	2/66.7	2/100	72/78.2	23/82.1	9/75.0	7/87.5	-0.024	0.772
Secondary Education	1/33.3	0/0	17/18.5	5/17.9	1/8.3	1/12.5		
Higher Education	0/0	0/0	3/3.3	0/0	2/16.7	0/0		
Hygiene Behaviour (n/%)								
Poor	0/0	0/0	0/0	1/3.6	0/0	0/0	-0.144	0.085
Fair	0/0	0/0	6/6.5	5/17.8	2/16.7	0/0		
Good	3/100	2/100	86/93.5	22/78.6	10/83.3	8/100		

Referring to Table 2, the majority of toddlers have normal nutritional status in all categories of education levels, the percentage of toddlers with good nutrition in mothers with primary education levels is 72 toddlers (78.2%), secondary education is 17 toddlers (18.5%), and higher education are 3 toddlers (3.3%). The analysis of the correlation between mother's education level with nutritional status of toddlers using the Spearman Rho showed that the value of correlation coefficient is -0.024 and *p* value of 0.772. this means that there's no correlation between mothers' education level with nutritional status of toddlers.

The majority of toddlers have normal nutritional status in all categories of hygiene behavior, with a percentage of well-nourished toddlers in mothers with good hygiene behavior as many as 86 toddlers (93.5%), in mothers with sufficient hygiene behavior as many as 6 toddlers (6.5%), and there are 1 toddler (3.6%) at risk of overweight nutrition in mothers with poor hygiene behavior. The analysis of the correlation between hygiene behavior with nutritional status of toddlers using the Spearman Rho showed that the value of correlation coefficient is -0.144 and *p* value of 0.085. this means that there's no correlation between hygiene behavior with nutritional status of toddlers.

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

DISCUSSION

The Correlation between Maternal Education Level with Nutritional Status of Toddlers

Referring to table 2, the results of bivariate analysis using the Spearman Rho statistical test obtained a correlation value of 0.772, this shows that H_a is rejected and H_0 is accepted, which means that there is no correlation between maternal education level with nutritional status of toddlers. The results of this study are from previous research showing that there is no correlation between the level of education and knowledge of mothers with the nutritional status of toddlers. Education is strongly influenced by socio-cultural factors. The lower the socio-culture in an area, will be difficult for people to accept new things including in terms of education. If education is low, insight and experience are also lacking so it will be difficult to understand the information received (Nurhidayati, 2019).

Mother's education is closely related to the nutritional status of children because mothers directly care for children, including preparing and feeding children (Septikasari & Septiyaningsih, 2016). However, in this study the mother's education level was not related to the nutritional status of toddlers, this could occur because the level of education is indirectly related to nutritional status. Most mothers have obtained sources of information about stunting from cadres / Empowerment of Family Welfare (PKK) members, health services (hospitals/Integrated Healthcare Center/health centers), students, and media (Internet/TV/newspapers/leaflets/posters). Therefore, although some mothers have a basic level of education, they already know the nutritional status and what is related to the development and nutrition of toddlers so that toddlers avoid nutritional problems. In this case, the researcher concludes that the information obtained by mothers about nutrition affects the mother's knowledge about balanced nutrition which is important for toddlers.

A mother's nutritional knowledge is the mother's ability to understand all information related to nutrition for early childhood. This is supported by cybernetic theory, which explains that a person's knowledge is strongly influenced by information received and processed to increase understanding and can determine a person in taking actions or decisions (Chaaban, Hallal, Carroll, & Tondeur, 2021). Someone who is often exposed to information will

experience an increase in knowledge (Hinonaung, Mahihody, & Wuaten, 2021). There's research shows that information about stunting obtained by mothers can come from various sources and health workers are one of the main sources, especially community nurses (West, Syafiq, Crookston, Bennett, Hasan, Dearden, Linehan, Hall, & Torres, 2018).

In theory, mothers need to have a higher education, because mothers with higher education tend to have better knowledge about nutrition and nutrition so that they can provide better and balanced food intake for their toddlers. Well-educated mothers are more aware of available health services and their receptivity to utilizing such services is better (Murarkar, Gothankar, Doke, Pore, Lalwani, Dhumale, Quraishi, Patil, Waghachavare, Dhobale, Rasote, Palkar, & Malshe, 2020). Women with more education are well known to be more responsive to health knowledge, develop autonomy to access healthcare facilities, control fertility, and improve the health of their children (Mensch, Chuang, Melnikas, & Psaki, 2019). Highly educated mothers have the opportunity to live and grow better and can easily gain a more comprehensive insight into nutrition. Education does not necessarily determine the mother's level of knowledge (Sutrisno & Tamim, 2023). A well-educated mother can also influence the preparation, source, and choice of nutritious foods for her children, especially those under the age of five. Mothers with high levels of education can make their knowledge and attitude towards nutrition and health information increases (Berhe et al., 2019).

The Correlation between Hygiene Behavior with Nutritional Status of Toddlers

The results of bivariate analysis using the Spearman Rho statistical test on hygiene behavior obtained a correlation value of 0.085, this indicates that H_a is rejected and H_0 is accepted which means that there is no correlation between maternal hygiene behavior with nutritional status of toddlers. Based on the data, the majority of toddlers with good nutrition have mothers with good hygiene behavior and have implemented hygiene behaviors including mothers washing dishes and glasses with running water and soap, bathing children 2 times a day, children washing their hands after eating, mothers wash their hands after helping children defecate, mothers wash their

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

hands when they are going to breastfeed or give food to children, children wash their hands with soap after defecating, mothers always wash food ingredients first before processing them, mothers routinely clean children's nails (if long), mothers help brush children's teeth more than 2 times a day.

There is a significant correlation between hygiene/hygiene and environmental sanitation with the nutritional status of toddlers (Mauliza, Sawitri, & Desti, 2023). However, this study shows that there is no correlation between hygiene behavior and the nutritional status of toddlers, this is because hygiene behavior is indirectly related to the nutritional status of toddlers. Other than that, other factors have an effect on the nutritional status of toddlers such as the majority of mothers' education level is still at the primary education level which will affect the understanding and acceptance of information as well as good childcare, good use of health care facilities and maintaining environmental hygiene. Not only that, the large workload that mothers need to do every day can also affect how mothers carry out their hygiene practices, this is supported based on observations, the majority of mothers are housewives who focus on caring for their toddlers, not only that mothers also need to clean the house, prepare food, and other activities related to household activities.

The results of this study showing that there is no significant correlation between the hygiene practices of mothers and toddlers with the nutritional status of toddlers. This study explains that there are six factors related to mothers as infant and child caregivers, namely poor or poor maternal health; low education or wrong beliefs; low mental health and self-confidence; lack of social encouragement from the community, family, and husband; large maternal workload and lack of resources or low ability of mothers to control available resources (Masita, Biswan, & Puspita, 2018). The practice of food hygiene behavior can be done daily by washing hands before and after handling food and the cleanliness of eating facilities and personal health (Bili, Nur, & Kenjam, 2022). Good hygiene behavior can prevent toddlers from the risk of infectious diseases which in turn can affect the nutritional status of toddlers (Masita et al., 2018). Poor hygiene behavior to prevent infectious diseases is one of the direct causes of poor nutritional status of children under five (Bili, Nur, & Kenjam, 2022). Therefore, mothers need to pay attention to hygiene

behavior and environmental sanitation in caring for children to improve the nutritional status of toddlers (Zairinayati & Purnama, 2019).

CONCLUSION

The proportion of toddlers with normal nutritional status is more commonly found in mothers with basic education levels and mothers with good hygiene behavior. The results of the Spearman Rho analysis showed that there was no correlation between the maternal level of education with the nutritional status of the toddlers and no correlation between hygiene behavior with the nutritional status of the toddlers.

REFERENCES

- Bandung Regency Health Office. (2021). Profil Kesehatan Kabupaten Bandung 2021. Accessed from: <https://opendata.jabarprov.go.id/id/dataset/jumlah-balita-bergizi-kurang-berdasarkan-kabupatenkota-di-jawa-barat>
- Berhe, K., Seid, O., Gebremariam, Y., Berhe, A., & Etsay, N. (2019). Risk factors of stunting (chronic undernutrition) of children aged 6 to 24 months in Mekelle City, Tigray Region, North Ethiopia: An unmatched case-control study. *PLoS ONE*, 14(6). <https://doi.org/10.1371/journal.pone.0217736>
- Bili, V., Nur, L. M., & Kenjam, Y. (2022). Correlation Between Parenting Patterns and Food Intake with The Nutritional Status of The Toddlers in Tena Teke Community Health Center. *Journal of Community Health*, 4(3), 2685–2438. <https://doi.org/10.35508/ljch>
- Chaaban, T., Hallal, R., Carroll, K., & Tondeur, M. R. (2021). Cybernetic Communications: Focusing Interactions on Goal- Centered Care. 34(1), 30–32. <https://doi.org/10.1097/01.nurse.00004618>
- Demak Regency Communication and Information Service. (2022). Mengakhiri kelaparan. *Satudata. SDGs*. Accessed from: https://satudata.demakkab.go.id/detail_sdgs?tujuan=2
- Dewi, D. P. K. (2019). Hubungan Perilaku Ibu dalam Mengasuh Anak dengan Status Gizi pada Anak

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran

Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

Nutritional status of toddlers, education level, and habitual hygiene behaviour among mothers in West Java, Indonesia

- Balita Usia 6-24 Bulan Di Wilayah Kerja Puskesmas Minggir Kabupaten Sleman (Doctoral dissertation, Universitas Aisyiyah Yogyakarta).
- Food of Agriculture Organization of the United Nations. (2022). The State of Food Security and Nutrition in the World 2022. In *The State of Food Security and Nutrition in the World 2022*. FAO. <https://doi.org/10.4060/cc0639en>
- Hinonaung, J. S. H., Mahihody, A. J., & Wuaten, A. G. (2021). Description Of Mother's Knowledge About Stunting In Infants Under Two Years At Manganitu Health Center Sangihe Islands District.
- Husnaniyah, D., Yulyanti, D., & Rudiansyah. (2020). Hubungan Tingkat Pendidikan Ibu dengan Kejadian Stunting. In *The Indonesian Journal of Health Science* (Vol. 12, Issue 1).
- Jasmawati, R. S. (2020). Faktor-Faktor Yang Mempengaruhi Status Gizi Balita: Systematic Review. *Mahakam Midwifery Journal*, 15(402), 87-92
- Masita, M., Biswan, M., & Puspita, E. (2018). Pola Asuh Ibu dan Status Gizi Balita. *Quality: Jurnal Kesehatan*, 12(2), 23-32.
- Mauliza, M., Sawitri, H., & Desti, M. R. (2023). Hubungan pola asuh ibu dengan status gizi balita 12-59 bulan di Kecamatan Banda Sakti. *Jurnal Ilmiah Manusia Dan Kesehatan*, 6(1), 109-122.
- Mensch, B. S., Chuang, E. K., Melnikas, A. J., & Psaki, S. R. (2019). Evidence for causal links between education and maternal and child health: systematic review. In *Tropical Medicine and International Health* (Vol. 24, Issue 5, pp. 504–522). Blackwell Publishing Ltd. <https://doi.org/10.1111/tmi.13218>
- Midu, L. Y. A., Putri, R. M., & Wibowo, R. C. A. (2021). Pola Asuh Ibu Berhubungan Dengan Status Gizi Pada Balita.
- Ministry of Health of the Republic of Indonesia. (2019). Laporan Nasional Riskesdas 2018. Kementerian Kesehatan RI. Badan Pengembangan Penelitian dan Kesehatan. Accessed from: <https://repository.badankebijakan.kemkes.go.id/id/eprint/3514/1/Laporan%20Riskesdas%202018%20Nasional.pdf>
- Murarkar, S., Gothankar, J., Doke, P., Pore, P., Lalwani, S., Dhumale, G., Quraishi, S., Patil, R., Waghachavare, V., Dhobale, R., Rasote, K., Palkar, S., & Malshe, N. (2020). Prevalence and determinants of undernutrition among under-five children residing in urban slums and rural area, Maharashtra, India: a community-based cross-sectional study. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-09642-0>
- Nurhidayati, N. (2019). Hubungan tingkat pendidikan dan pengetahuan ibu dengan status gizi balita di Desa Uteuen Bunta Kecamatan Peusangan Kabupaten Bireuen Tahun 2019. *Jurnal Kesehatan Almuslim*, 5(9).
- Nurmaliza, N., & Herlina, S. (2019). Hubungan Pengetahuan dan Pendidikan Ibu terhadap Status Gizi Balita. *Jurnal Kesmas Asclepius*, 1(2), 106–115. <https://doi.org/10.31539/jka.v1i2.578>
- Septiana, S. (2022). Kesadaran Isu Stunting Perlu dibentuk Segini Mungkin, Minimal Sejak SMA. Accessed from: <https://suarapemerintah.id/2022/09/kesadaran-isu-stunting-perlu-dibentuk-segini-mungkin-minimal-sejak-sma/>
- Septikasari, M., & Septiyaningsih, R. (2016). Factors that Influence Parent to Giving Adequate Nutrition On Children Malnutrition. In *Jurnal Kesehatan Al-Irsyad (JKA): Vol. IX (Issue 2)*.
- Ututrisno, S., & Tamim, H. (2023). Hubungan Tingkat Pendidikan dan Pengetahuan Ibu Tentang Gizi dengan Status Gizi pada Balita di Posyandu Abung Timur Wilayah Kerja Puskesmas Bumi Agung Kabupaten Lampung Utara Tahun 2020. *Jurnal Ilmu Medis Indonesia*, 2(2), 77–83. <https://doi.org/10.35912/jimi.v2i2.1513>
- United Nations International Children's Emergency Fund. (2021). UNICEF Conceptual Framework on

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiami

Fakultas Keperawatan, Universitas Padjadjaran
Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>

Nutritional status of toddlers, education level, and habitual hygiene behaviour among mothers in West Java, Indonesia

- Maternal and Child Nutrition. Accessed from: <https://www.unicef.org/media/113291/file/UNICEF%20Conceptual%20Framework.pdf>
- Wati, S. P. (2019). Hubungan Tingkat Pendidikan, Pengetahuan Ibu Dan Pendapatan Orangtua Dengan Status Gizi Anak Balita Usia 1-5 Tahun Di Desa Duwet Kecamatan Wonosari Kabupaten Klaten.
- West Java Provincial Health Office. (2021). Profil Kesehatan Provinsi Jawa Barat 2021, Jawa Barat: Dinas Kesehatan Provinsi Jawa Barat. Accessed from:
- West, J., Syafiq, A., Crookston, B., Bennett, C., Hasan, M., Dearden, K., Linehan, M., Hall, C., & Torres, S. (2018). Stunting related knowledge: Exploring sources of and factors associated with accessing stuntingrelated knowledge among mothers in rural Indonesia. 10(9), 1250–1260.
- Zairinayati, Z., & Purnama, R. (2019). Hubungan Hygiene dan Sanitasi Lingkungan dengan Kejadian Stunting pada Balita. 10(1).
- <https://opendata.jabarprov.go.id/id/dataset/jumlah-balita-kurang-gizi-dengan-indeks-bbu-berdasarkan-kabupatenkota-di-jawa-barat>

Rahma Elfa Aulia*, Ristina Mirwanti, Lilis Mamuroh, Laili Rahayuwati, Theresia Eriyani, Ermiati

Fakultas Keperawatan, Universitas Padjadjaran
Corresponding author: *E-mail: rahma20002@mail.unpad.ac.id

DOI: <https://doi.org/10.33024/minh.v7i3.232>