HTechJ Health and Technology Journal (HTechJ)

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

Relationship Between Weaning Age and Nutritional Status of 2-Year-Old Toddlers

Nugroho Pramuka Ningsih[1], Yessy Nur Endah Sary[2], Iit Ermawati[2], Nova Hikmawati[2]

[1]Public Health Center of Pasirian, Lumajang, Indonesia
[2]Diploma of Midwifery Program, Stikes Hafshawaty Zainul Hasan, Probolinggo, Indonesia

Correspondence should be addressed to:
Nugroho Pramuka Ningsih
pramuka.ningsih@gmail.com

Abstract:
Weaning is the process of stopping breastfeeding gradually or all at once. The weaning process is recommended around the age of 2 years on the grounds that breastfeeding for more than 2 years has reduced nutrition. The research aims to identify the relationship between weaning age and the nutritional status of 2-year-old toddlers This research is a descriptive-analytic study, while the research design is cross-sectional. The data were taken from the data form of mothers and children who visited the integrated health service in the village, *Pos Pelayanan Terpadu* (Posyandu) Melati, Pasirian Village, Lumajang which was held on August 9, 2022, with a total population of 50 toddlers, the sample studied was 50 toddlers (Total Sampling). The data in this study were analyzed by univariate analysis and bivariate analysis using the Chi-Square Tests with a value obtained p=0.000, which means that there is a relationship between weaning age and the nutritional status of toddlers aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency. So improper weaning results in low nutritional intake received by children aged 2 years. Likewise, children who have started to be weaned must pay special attention so that the nutrition that the child gets is sufficient.

Article info:
Submitted:
08-01-2023
Revised:
06-03-2023
Accepted:
08-03-2023

Keywords:
weaning age; nutritional status; toddlers

DOI: https://doi.org/10.53713/htechj.v1i2.14
This work is licensed under CC BY-SA License.

INTRODUCTION

Breast milk is the most important part the mother must consider because many benefits will be obtained for the mother and the baby (Wahyuningsih et al., 2023). Proper feeding from birth to 2 years of age is one of the fundamental efforts to ensure quality growth and development while simultaneously fulfilling children's rights. This can prevent children from stunting (Ardiana et al., 2020). According to the Ministry of Health, one of the recommendations in the Global Strategy on Infant and Child Feeding, The best feeding patterns for infants and children from birth to 24 months of age are as follows: Immediate breastfeeding within the first one to two hours after the baby is born (IMD), Exclusive breastfeeding from birth until the baby is 6 months old, Start giving complementary foods (ASI) good and correct MP-ASI) since the baby is 6 months old, and continue to breastfeed until the child is 24 months or more (Masyudi et al., 2019).

Breast milk can increase body resistance, prevent infections, and prevent infant malnutrition (Pakilaran et al., 2022). Mothers who practice exclusive breastfeeding will reduce the risk of toddlers with stunting (Carolin et al., 2021). Stunting is a condition of toddlers with short body sizes unsuitable for their age due to malnutrition (Novelia et al., 2021). Stunting is a health problem in growth and development that occurs in children caused by several factors, including infants, mothers, social culture, and the economy (Rudolfo et al., 2022). Stunting is a chronic malnutrition

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

problem caused by a lack of nutrition for a long time (Sari et al., 2023). Stunting is a condition where a toddler has insufficient height or length (Kurniyawan et al., 2023). Stunting in children increases the risk of morbidity, mortality, obesity, poor cognition, illness, stunting, and low productivity (Carolin et al., 2021). Community participation is very important in preventing stunting (Ardiana et al., 2021). One possible way to do this is by increasing the mother's knowledge through the role of health cadres in the community (Ardiana et al., 2021).

Weaning from breastfeeding to children can be caused by a lack or absence of a mother's milk production. Mother's milk production must be increased by carrying out several additional therapies to meet the child's milk needs. Research has shown that galactagogue from banana flower drinks can increase milk production without real side effects, so it can be used as an alternative to the daily menu for mothers to overcome shortages of milk production (Yimyam & Pattamapornpong, 2022). Oxytocin massage stimulates the spine to release oxytocin, causing the breasts to secrete milk (Wahyuningsih et al., 2022). Red betel leaf compresses can also be used as an alternative to reduce the occurrence of breast milk in nursing mothers (Yulia et al., 2022).

Based on research (Masyudi et al., 2019) in Muara Batu District, North Aceh Regency, shows that there is an effect of weaning age on the nutritional status of toddlers, toddlers with early weaning age are more likely to experience poor nutritional status than toddlers whose weaning is at an earlier age. appropriate. Data from 65 toddlers show this, the results of which were weaned at under 20 months by 48.1% had poor nutritional status, and toddlers weaned at 20 months and over by 78.9% had good nutritional status. Research conducted by Nugraheny & Amalia (2017) in Gumulan Hamlet, Caturharjo Village, Pandak District, Bantul Regency, Yogyakarta, showed that more toddlers with normal nutritional status came from mothers with sufficient weaning age, namely 60 toddlers (100%) than those with less weaning age, namely 75 toddlers (83.3%) with poor nutritional status.

Research conducted by (Fatoni, 2018) showed that out of 80 toddlers with weaning age of fewer than 12 months, there were 69 toddlers (82%), weaning age of more than 12 months, there were 11 toddlers (13.8%), and the status of toddlers who got 7 toddlers (8.8%) in the fat category, 51 toddlers (63.8%) in the normal category, 22 toddlers (27.5%) in the thin category. From the research conducted, it was found that there was a relationship between the age of weaning and the nutritional status of children aged 6-24 months at Posyandu Dusun Candimulyo, Village Candimulyo, District of Jombang, Jombang Regency. Inappropriate weaning age results in impaired growth in toddlers coupled with nutrition knowledge that mothers need to improve so that the nutritional intake needed by toddlers is not fulfilled. It affects the nutritional status of toddlers. Based on this background, the research aims to identify the relationship between weaning age and the nutritional status of 2-year-old toddlers.

METHOD

This study uses a cross-sectional survey approach. The population and sample in this study were all toddlers aged 2 years in the Posyandu Melati working area, Pasirian village, Lumajang district, in 2022 using the total sampling technique. This research was conducted at Posyandu Melati which is located at RT 007 RW 002, Kedung Pakis Hamlet, Pasirian Village, Pasirian District, Lumajang Regency. Data collection used the mother and child form and the BW chart in the MCH handbook according to age. A Chi-Square statistical test was used to determine the relationship between the age of weaning and the nutritional status of toddlers aged 2 years at Posyandu Melati.

HTechJ Health and Technology Journal (HTechJ)
Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

RESULT

Univariate Analysis Results

Table 1. Characteristics of 2-Year-Old Toddlers' Mothers and Their Child Background (n=50)

Variables	Frequency	Percentage
Age (years)		
17-25	33	66.0
26-35	16	32.0
36-45	1	2.0
Occupation		
Worker	15	30.0
Housewife	35	70.0
Education		
No	1	2.0
Elementary	2	4.0
Junior high school	19	38.0
Senior high school	21	42.0
University	7	14.0
Weaning Age by Mother		
< 2 years	28	56.0
> 2 years	22	44.0
Toddlers' nutritional status		
Very less	1	2.0
Less	21	42.0
Normal	28	56.0
High	0	0

Table 1 shows that most respondents were between the ages of 17-25 years, with as many as 33 respondents (66.0%). It was found that most respondents as housewives, with 35 respondents (70.0%). It was found that a small part/almost half of the respondents had high school level education, as many as 21 respondents (42.0%). It was found that most respondents carried out weaning at less than 2 years old, as many as 28 respondents (56.0%). It was found that most respondents had normal nutritional status, as many as 28 respondents (56.0%).

Bivariate Analysis Results

Table 2. Relationship Between Weaning Age and The Nutritional Status of 2-Year-Old Toddlers

Weaning Age	Nutritional Status of Toddlers Aged 2 Years					p
	Very Less	Less	Normal	High	Total	
	n (%)	n (%)	n (%)	n (%)	n (%)	
<2 Years	1 (2.0)	16 (32.0)	11 (22.0)	0 (0)	28 (56.0)	0.000
>2 Years	0 (0)	5 (10.0)	17 (34.0)	0 (0)	22 (44.0)	
Total	1 (2.0)	21 (42.0)	28 (56.0)	0 (0)	50 (100.0)	

From the results of Table 2. it was found that a small portion/almost half of the respondents who did weaning < 2 years old. The nutritional status of their toddlers included malnutrition in as many as 16 respondents (32.00%). The result of Chi-Square Tests with α>0.05 obtained p=0.000, which means there is a relationship between weaning age and the nutritional status of toddlers aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency.

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

DISCUSSION

Weaning age at Posyandu Melati, Pasirian Village, Lumajang Regency in 2022

From the results of research related to identifying the age of weaning children at Posyandu Melati, Pasirian Village, Lumajang Regency, it was found that most respondents carried out weaning at the age of <2 years (inappropriate weaning) as many as 28 respondents (56%) and appropriate weaning (>2 years) as many as 22 respondents (44%).

According to the researchers, from the data on the age of the mother of the respondents, most mothers were aged 17-25 years, as many as 33 respondents (66%). Age greatly influences the weaning of children because increasing age will increase the mother's knowledge in receiving information about formula milk with various advantages for children, so mothers prefer to do weaning at less than 2 years.

Based on the level of education, it was found that a small part/almost half of the respondent's mothers had high school education, as many as 21 respondents (42%). According to researchers, the failure to breastfeed for up to 2 years is also triggered by mothers with higher education levels; besides being easier to receive positive information, they are also more easily tempted by the promotion of breast milk by formula milk producers, who lure formula milk compositions that can boost immunity, or educate children.

Not only educational factors but also work factors also greatly affect the weaning process of a person from their childhood. From the results of the study, it was found that based on the work of mothers who had children aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency, most of the respondent mothers had jobs as IRT as many as 35 respondents (70%).

Researchers argue that housewives will do more activities at home. Every day, they will get information about breastfeeding or the weaning process from television or cell phones.

Nutritional status of toddlers aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency in 2022

Based on the results of research related to identifying the nutritional status of toddlers at Posyandu Melati, Pasirian Village, Lumajang Regency, it was found that most of the toddlers had nutritional status in the normal category of 28 respondents (56%), the lacking category was 21 respondents (42%), toddlers who experienced nutritional status very poor category of nutrition as much as 1 respondent (2%). From the inappropriate weaning age of 28 toddlers, 1 toddler (2%) had very poor nutritional status, 16 toddlers (32%) had poor nutritional status, and 11 toddlers (22%) had normal nutritional status. From the proper weaning age of 22 toddlers, 5 toddlers (10%) had nutritional status with underweight nutritional status, and 17 toddlers with normal nutritional status (34%).

Researchers argue that an inappropriate weaning age results in growth disturbances in toddlers coupled with a lack of knowledge about nutrition in mothers so that the nutritional intake needed by toddlers is not fulfilled affects the nutritional status of toddlers. The best food intake for children aged 2 years is breast milk which plays an important role in increasing a child's weight; weight is the result of an increase or decrease in all the tissues in the body, including bones, brain, fat, and other body fluids (Fatoni, 2018). So, hospitals need more situations to increase service from nurse to patient (Putri et al., 2022).

This is also in line with the results of research from Masyudi in Muara Batu sub-district, North Aceh Regency, that infants who were weaned at the age of under 20 months by 48.1% had poor nutritional status compared to toddlers who were weaned at the age of 20 months and over by 78. 9% have good nutritional status. Likewise, research conducted by Susanti in 2017 concerning

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

early weaning with the nutritional status of children under 2 years of age shows a significant relationship between early weaning age and the nutritional status of children under 2 years of age (Masyudi, Mulyana, and Rafsanjani, 2019).

The relationship between weaning age and the nutritional status of toddlers aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency, in 2022

From the results of the cross table between weaning age and nutritional status, it was found that 28 respondents (56%) who had a history of weaning under the age of 2 years had nutritional status in the less category, as many as 16 respondents (32%) and one respondent who had very poor nutritional status (2%) while with normal nutritional status as many as 11 respondents (22%). From the test results using the Chi-Square Tests, p=0.000, which means that there is a relationship between the age of weaning and the nutritional status of toddlers aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency.

According to the researchers, there is a relationship between the age of weaning and the nutritional status of children due to several important factors, namely the strong tradition in the community of giving complementary foods other than breast milk before the child is 6 months old. In addition, mothers can't wait to see their children cry, they think they are hungry, so they are given food before they are 6 months old. There is an assumption that malnutrition will not have bad consequences for their children's health and is normal, so they do not need help at the nearest health service. Inappropriate weaning is related to the child's nutritional status because children given weaning too early will reduce their milk intake. In addition, the type of food given by the mother of a toddler, if it does not meet the child's nutritional needs, will result in the child's body being malnourished, which can result in the child experiencing malnutrition. So improper weaning results in low nutritional intake received by children aged 2 years.

Likewise, children who have started to be weaned must pay special attention so that the nutrition the child gets is sufficient. Children must learn which foods are best and which can be eaten. Children still need a mother's guidance in choosing food so that growth is not disturbed. The impacts that arise if the mother weans too early or even too late have a risk. If it's too early, the baby will lose his best food, namely breast milk which cannot be compared with *Pendamping Air Susu Ibu* or PASI (breastfeeding substitute), whether solid food or formula milk. Slower weaning will create dependence on the child from the mother. Too long weaning will make it difficult for the child to let go of himself, hindering the development progress and making it difficult to build relationships between children and fathers.

CONCLUSION

The results of the weaning age found that most respondents carried out weaning at <2 years of age (inappropriate weaning). The results of the nutritional status of toddlers aged 2 years showed that a small portion or almost half of the toddlers experienced malnutrition from an inappropriate weaning age. There is a relationship between the age of weaning and the nutritional status of children aged 2 years at Posyandu Melati, Pasirian Village, Lumajang Regency. So improper weaning results in low nutritional intake received by children aged 2 years. Likewise, children who have started to be weaned must pay special attention so that the nutrition that the child gets is sufficient.

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

REFERENCES

Ardiana, A., Afandi, A. T., Masaid, A. D., & Rohmawati, N. (2020). Utilization of agricultural products for the management and prevention stunting through empowering health Cadres in Jember District. *Darmabakti Cendekia: Journal of Community Service and Engagements, 2*(1), 9. https://doi.org/10.20473/dc.V2.I1.2020.9-14

Ardiana, A., Afandi, A. T., Rohmawati, N., & Masahida, A. D. (2021). Focus Group Discussion Dalam Peningkatan Pengetahuan Kader Untuk Melakukan Penyuluhan Kepada Masyarakat Tentang Pencegahan Stunting Sejak Dini. *Jurdimas (Jurnal Pengabdian Kepada Masyarakat) Royal, 4*(3), 225-230. https://doi.org/10.33330/jurdimas.v4i3.973

Ardiana, A., Afandi, A. T., Mahardita, N. G. P., & Prameswari, R. (2021). Implementation of peer group support towards knowledge level of mother with toddlers about stunting. *Pakistan J Med Heal Sci, 15*(1), 260-3.

Carolin, B. T., Siauta, J. A., Amamah, N., & Novelia, S. (2021). Analysis of Stunting among Toddlers at Mauk Health Centre Tangerang Regency. *Nursing and Health Science Journal (NHSJ), 1*(2), 118-124. https://doi.org/10.53713/nhs.v1i2.56

Fatoni, D. M. R. (2018). *Hubungan usia penyapihan dengan status gizi pada anak usia 6-24 bulan.*

Kurniyawan, E. H., Rondhianto, Sulistyorini, L., Ardiana, A., Asmaningrum, N., Susanto, T., & Purwandari, R. (2023). *Buku Ajar Agronursing Pendekatan Asuhan Keperawatan pada Sektor Agroindustri.* KHD Production.

Masyudi, M., Mulyana, M., & Rafsanjani, T. M. (2019). Dampak pola asuh dan usia penyapihan terhadap status gizi balita indeks bb/u. *AcTion: Aceh Nutrition Journal, 4*(2), 111. http://dx.doi.org/10.30867/action.v4i2.174

Novelia, S., Lubis, R., Yuliani, L., & Marta, H. (2021). The Implementation of Stunting Prevention Program during COVID-19 Pandemic in Pandeglang Regency. *Nursing and Health Science Journal (NHSJ), 1*(3), 180-183. https://doi.org/10.53713/nhs.v1i3.46

Nugraheny, E., & Amalia, R. P. (2017). Faktor-faktor yang berhubungan dengan waktu penyapihan pada anak di bawah dua tahun. *Jurnal Ilmu Kebidanan, 3*(2), 79–85.

Pakilaran, G., Rasni, H., Rosyidi Muhammad Nur, K., & Wijaya, D. (2022). Family Support on Exclusive Breastfeeding in Babies Aged 0-6 Months in Indonesia: Literature Review. *Nursing and Health Science Journal (NHSJ), 2*(2), 104-107. https://doi.org/10.53713/nhs.v2i2.53

Putri, P., Afandi, A. T., & Aringgar, D. (2021). Explorasi Karakteristik dan Kepuasan Pasien di Rumah Sakit Jember. *Nursing Sciences Journal, 5*(1), 35-40. http://dx.doi.org/10.30737/nsj.v5i1.1835

Putri, P., Afandi, A. T., & Rizal, Y. S. (2022). Exploration of Nurse Knowledge with Splints on Fracture Patients in Hospitals. *D'Nursing and Health Journal (DNHJ), 3*(1), 1-9.

Rudolfo, A., Ira Rahmawati, & Peni Perdani Julianingrum. (2022). The Description of Parents' Knowledge in Modifying Food Ingredients in Efforts to Prevent Stunting in Children in the Tugusari Agricultural Area. *Nursing and Health Science Journal (NHSJ), 2*(4), 336-343. https://doi.org/10.53713/nhs.v2i4.183

Sari, D. K., Sunanto, & Hanifah, I. (2023). The Effects of Nutritious Food on Stunting. *Health and Technology Journal (HTechJ), 1*(1), 68–73.

Wahyuningsih, S., Hayati, N., Musviro, & Agustina, R. (2022). Oxytocin Massage Stramlining Breast Milk: Literature Review. *Nursing and Health Science Journal (NHSJ), 2*(4), 367-373. https://doi.org/10.53713/nhs.v2i4.160

Wahyuningsih, S., Musviro, & Dyah Maharani, A. (2023). Increased Production of BreastMilk: Literature Review. *Health and Technology Journal (HTechJ), 1*(1), 30–37

Yimyam, S., & Pattamapornpong, S. (2022). Galactagogue effect of banana (Musa x paradisiaca) blossom beverage on breast milk production among mothers undergoing cesarean

Volume 01, Number 02
April 2023
p-ISSN: 2986-5662
e-ISSN: 2985-959X

section. *Nursing and Health Science Journal (NHSJ), 2*(3), 190-197. https://doi.org/10.53713/nhs.v2i3.154

Yulia, I., Widowati, R., & Novelia, S. (2022). Effect of Red Betel Leaf (Piper crocatum) on Dam for Breast Milk Postpartum Mothers at Public Health Center of Jawilan. *Nursing and Health Science Journal (NHSJ), 2*(1), 69-73. https://doi.org/10.53713/nhs.v2i2.73