JPPIPA 11(5) (2025)

Jurnal Penelitian Pendidikan IPA

http://jppipa.unram.ac.id/index.php/jppipa/index

Exploring Nutritional Status, Complementary Feeding Quality, and Parenting Styles in Toddlers

Iffah Indri Kusmawati[1*], Angesti Nurgraheni[1], Ika Sumiyarsi Sukamto[1], Noviyati Rahardjo Putri[1], Niken Bayu Argaheni[1]

[1] Bachelor of Midwifery and Midwifery Professional Education Program, Faculty of Medicine, Universitas Sebelas Maret, Surakarta, Central Java, Indonesia.

Received: January 11, 2025
Revised: March 24, 2025
Accepted: May 25, 2025
Published: May 31, 2025

Corresponding Author:
Iffah Indri Kusmawati
iffahindri@staff.uns.ac.id

DOI: 10.29303/jppipa.v11i5.10966

Abstract: This study aimed to describe the nutritional status of toddlers and examine its association with the quality of complementary feeding (MPASI) and caregiver parenting styles in a rural setting. A descriptive observational design was used, involving 93 children aged 6–59 months in the working area of Puskesmas Jenawi, Karanganyar Regency, Central Java. Nutritional status was assessed using WHO weight-for-height z-scores, MPASI quality was determined based on food variety and frequency, and parenting styles were classified into authoritative, authoritarian, indulgent, and uninvolved categories. Results showed that 90.3% of children had normal nutritional status, 6.5% were overweight, 2.2% were wasted, and 1.1% were severely wasted. Half of the toddlers received appropriate MPASI (50.5%), and the most common parenting style was indulgent (32.3%). While this study did not establish statistical associations, children with wasting or severe wasting were more frequently found under authoritarian or uninvolved caregiving styles, suggesting a possible pattern worth further exploration. These findings emphasize the importance of responsive parenting and adequate complementary feeding in promoting child health. The study contributes to science-based educational practices by providing evidence to inform nutrition education and caregiver training programs, particularly in rural communities, where scientific understanding of child nutrition and responsive parenting remains limited.

Keywords: Child nutrition; Feeding practices; Nutritional assessment; Parenting styles

Introduction

The nutritional status of toddlers is a crucial determinant of their growth and development (Ndraha et al., 2023). This research provides a detailed description of the nutritional status of toddlers, the quality of complementary feeding, and the various parenting styles that influence these aspects. Nutritional status is typically assessed through anthropometric measurements, such as height and weight, often expressed in terms of Body Mass Index (BMI) or z-scores. The World Health Organization emphasizes that adequate nutrition during early childhood is vital for cognitive and physical development (Zhu et al., 2021). Insufficient nutrient intake can lead to malnutrition, characterized by both undernutrition and overnutrition. The prevalence of malnutrition among toddlers varies significantly across different socio-economic groups and geographical regions (Alvear-Vega et al., 2022).

Complementary feeding refers to the transition from exclusive breastfeeding to the introduction of family foods (Dwijayanti et al., 2024). The timing, frequency, and quality of complementary foods are essential to ensure that toddlers receive the necessary

How to Cite:
Kusmawati, I. I., Nurgraheni, A., Sukamto, I. S., Putri, N. R., & Argaheni, N. B. (2025). Exploring Nutritional Status, Complementary Feeding Quality, and Parenting Styles in Toddlers. *Jurnal Penelitian Pendidikan IPA*, *11*(5), 657-663. https://doi.org/10.29303/jppipa.v11i5.10966

nutrients for healthy growth (Ekholuenetale et al., 2020; Lutter et al., 2021). Introducing complementary foods around six months of age was recommended, focusing on nutrient-dense options to meet the growing energy and nutritional needs of toddlers (Masuke et al., 2021). Research indicates that the quality of complementary feeding directly influences nutritional status. A study highlights that the adequacy of complementary foods can mitigate the risk of stunting and underweight among toddlers (Boswell, 2021). In Indonesia, ensuring optimal nutrition for infants and young children remains a significant public health challenge, particularly due to suboptimal complementary feeding practices (Samuel et al., 2020). The 2018 National Basic Health Survey found that only 38.6% of children aged 6–23 months received appropriate complementary feeding based on minimum dietary diversity and meal frequency (Simatupang et al., 2022). This low coverage highlights ongoing implementation challenges, especially in rural areas, and points to the need for community-specific interventions that consider socioeconomic and cultural factors (Karomah et al., 2024).

Parenting styles significantly shape children's dietary habits and nutritional status. A typology of parenting styles—authoritative, authoritarian, permissive, and neglectful—provides a framework for understanding how parenting behaviors can influence children's eating patterns (Balantekin et al., 2020; Hampshire et al., 2022; Ningning et al., 2023). Authoritative parenting, characterized by warmth and structure, has been linked to healthier dietary practices in children (Burnett et al., 2021). In contrast, authoritarian and permissive styles may lead to less favorable eating habits and poorer nutritional outcomes (Morales et al., 2024). Previous research shows that parents' approaches to feeding, including control and responsiveness, significantly impact toddlers' acceptance of various foods and their overall dietary diversity (Mahmood et al., 2021). Furthermore, cultural factors shape parenting styles and subsequently affect the feeding practices adopted by caregivers (Wood et al., 2020). Parenting practices have a significant impact on children's nutritional status, as shown in both global and Indonesian studies (Fitriami et al., 2021; Lontoh et al., 2021). In Indonesia, cultural norms such as collectivism and hierarchical family structures shape parenting styles, which in turn influence children's eating behaviors and growth outcomes (Puspitasari et al., 2020). These dynamics, combined with regional disparities in stunting, underscore the need for context-specific nutrition interventions that integrate parenting, culture, and socioeconomic factors (Pitoyo et al., 2022; Syofyanengsih et al., 2022).

The novelty of this research lies in its descriptive exploration of parenting styles, the quality of complementary feeding (MPASI), and toddlers' nutritional status within the unique socio-cultural and geographical context of Kecamatan Jenawi, Karanganyar Regency. Unlike previous studies, which focused on controlling risk factors of stunting through variables like birth weight, parental education, and family income (Dolang et al., 2024) or which examined the relationship between birth history, exclusive breastfeeding, infectious diseases, and early complementary feeding (MP-ASI) in coastal communities (Eva et al., 2024) this study provides a detailed description of local feeding practices and caregiving styles in a rural, agriculturally-dominated setting.

Kecamatan Jenawi, situated in Karanganyar Regency, Central Java, is located on the slopes of Mount Lawu, characterized by its mountainous topography and cool climate. The region is highly suitable for horticultural activities, including the cultivation of vegetables, fruits, as well as tea and coffee plantations. The majority of the population is employed in agriculture, with a significant proportion falling within the productive age group. However, outward migration is prevalent due to limited opportunities in formal employment. The local production of vegetables contributes to the community's nutritional needs, particularly in terms of vitamin intake. Despite this, access to healthcare services remains a challenge due to insufficient infrastructure. Public health initiatives, particularly those addressing nutrition and maternal and child health, are delivered through community health centers (puskesmas), though issues related to accessibility persist.

Investigating the nutritional status, quality of complementary feeding, and parenting styles in toddlers at Puskesmas Jenawi is significant due to the intersection of geographical challenges and socio-economic conditions. By focusing on this population, the study seeks to bridge knowledge gaps in understanding rural nutrition dynamics. To date, there is a lack of integrated research that specifically explores the relationship between parenting styles, MPASI quality, and nutritional status within highland, agriculture-based communities in Indonesia. Most existing studies either isolate these variables or focus on urban or coastal populations, leaving a contextual gap in regions like Jenawi. Therefore, this research aims to provide a detailed, locally grounded description of caregiving and feeding practices that can inform more effective public health and educational interventions.

Method

This study used a descriptive observational methodology to examine the nutritional status of toddlers, the quality of complementary feeding (MPASI), and the parenting styles of their caregivers. Conducted in the working area of Puskesmas Jenawi, Karanganyar Regency, Central Java, from June 2024 to July 2024, the research targeted children aged 6 months to 5 years. The inclusion criteria required children to be within the specified age range, have no congenital diseases affecting their nutritional status or caregiving patterns, and for their parents or guardians to provide consent. A total sampling method was employed, resulting in 93 respondents, ensuring that the sample was representative of the population.

Nutritional status was measured using the World Health Organization's weight-for-height z-score (WHZ), and categorized as severely wasted, wasted, normal, or overweight. The quality of complementary feeding (MPASI) was assessed through a structured questionnaire adapted from national feeding guidelines and the WHO Infant and Young Child Feeding (IYCF) indicators. The instrument measured two core components: minimum dietary diversity (receiving ≥4 food groups per day) and minimum meal frequency (based on age and breastfeeding status). Children who met both criteria were classified as receiving appropriate MPASI, while others were classified as inappropriate.

Parenting styles were assessed using the Caregiver's Feeding Styles Questionnaire (CFSQ), following the typological scoring approach (Hughes et al., 2012). The instrument measures two key dimensions: demandingness (mean of 19 items) and responsiveness (ratio of 7 child-centered items over the total score). Based on median splits of these two dimensions, caregivers were categorized into one of four styles: authoritative, authoritarian, indulgent, or uninvolved. The questionnaire was reviewed by two public health experts for content validity and pilot-tested on 10 respondents outside the study area to ensure clarity and cultural suitability.

Data collection was conducted by trained enumerators who participated in a one-day orientation and field simulation. Structured interviews were administered face-to-face at participants' homes or local health posts. All participants were informed about the objectives and procedures of the study and provided written informed consent prior to participation. Ethical principles, including voluntary participation, confidentiality, and anonymity, were strictly upheld. Data were analyzed descriptively using Stata 17 software, and results were presented in both tabular and narrative formats (Stata, 2021).

Result and Discussion

This results section will provide an overview of the research findings, encompassing: Descriptive Analysis of Respondent Characteristics (Table 1), Distribution of Nutritional Status by Appropriateness of MPASI (Table 2), and Distribution of Nutritional Status by Parenting Style (Table 3).

Table 1. Descriptive Analysis of Respondent Characteristics

Variable	Number of Observations n (%) N = 93	Mean (SD) N = 93
Age (in months)		28.3 (15.3)
Sex		
Boys	52 (55.9%)	
Girls	41 (44.1%)	
Nutrition status		
Severe Wasting	1 (1.1%)	
Wasting	2 (2.2%)	
Normal	84 (90.3%)	
Overweight	6 (6.5%)	
Complementary Feeding		
Inappropriate	46 (49.5%)	
Appropriate	47 (50.5%)	
Caregiver's feeding styles		
Uninvolved	18 (19.4%)	
Indulgent	30 (32.3%)	
Authoritarian	28 (30.1%)	
Authoritative	17 (18.3%)	

Note: Age is represented as a numerical scale, so the mean and standard deviation are used. Other variables are categorical data, thus proportions are reported.

Table 1 shows that the average age of the children in the study is 28.3 months, with considerable variability around this mean. Most children (90.3%) fall within the normal nutritional range, with only a small percentage experiencing wasting or overweight. The distribution of complementary feeding practices is nearly even, with a slight majority having appropriate feeding practices. The most common caregiver feeding style is indulgent, followed by authoritarian, while uninvolved and authoritative styles are less prevalent. This overview provides a clear picture of the children's nutritional status, feeding practices, and the range of caregiver styles, all of which may influence the overall development and well-being of the children.

These results are consistent with research on maternal autonomy, which suggests that better access to healthcare and nutrition services can improve children's nutritional status (Paul et al., 2022). However, the 6.5% of overweight children observed in this study reflects the growing concern of childhood obesity, a trend noted in both global and national studies, particularly in middle-income populations (Abay et al., 2022). This shift from

undernutrition to overnutrition in certain populations underscores the double burden of malnutrition (Popkin et al., 2020).

Table 2. Distribution of Nutritional Status by MPASI Appropriateness

Nutritional Status	Appropriate MPASI	Inappropriate MPASI	Total
Severe Wasting	1	0	1
Wasting	2	0	2
Normal	40	44	84
Overweight	3	3	6
Total	46	47	93

Table 2 illustrates the distribution of nutritional status categories based on the appropriateness of complementary feeding practices. The data reveals that among children with severe wasting and wasting, all had appropriate MPASI, indicating no association with inappropriate feeding practices. For children with normal nutritional status, the distribution of MPASI appropriateness is nearly equal, suggesting that MPASI practices alone do not strongly influence normal nutritional outcomes. Similarly, the distribution of appropriate and inappropriate MPASI among overweight children is balanced, implying that MPASI appropriateness does not significantly affect overweight status. Overall, these findings suggest that while most children are classified as having a normal nutritional status, the appropriateness of MPASI does not show a strong correlation with extreme nutritional outcomes, pointing to the potential influence of other factors on nutritional status.

Regarding the appropriateness of MPASI, the study found an almost equal split between children receiving appropriate (50.5%) and inappropriate MPASI (49.5%). Interestingly, no clear pattern was observed between MPASI appropriateness and extreme nutritional statuses (severe wasting, wasting, and overweight). For instance, all children with severe wasting and wasting had received appropriate MPASI, while children with normal nutritional status were almost equally distributed between appropriate and inappropriate MPASI. This finding is somewhat inconsistent with previous studies that have identified appropriate complementary feeding as a key factor in preventing malnutrition (Feng et al., 2022). This discrepancy may be due to differences in contextual factors such as caregiver education levels, cultural food preferences, or access to health and nutrition services in rural highland areas like Jenawi. In some cases, even when feeding is classified as "appropriate," actual intake may be inadequate due to limited food variety or portion size. However, other research suggests that MPASI appropriateness alone may not explain nutritional outcomes, as other factors, such as food frequency, quality, diversity, household food security, and caregiver knowledge, also significantly contribute to a child's nutritional status (Motebejana et al., 2022).

Table 3. Distribution of Nutritional Status by Parenting Style

Nutritional Status	Uninvolved	Indulgent	Authoritarian	Authoritative	Total
Severe- Wasting	0	0	1	0	1
Wasting	1	0	1	0	2
Normal	15	30	23	16	84
Overweight	2	0	3	1	6
Total	18	30	28	17	93

Table 3 presents the distribution of nutritional status categories according to caregiver feeding styles. The data shows that children with severe wasting are exclusively under an authoritarian caregiver style, with no cases in other styles. For children with wasting, one is under an uninvolved style and another under an authoritarian style, suggesting a potential link between these styles and wasting. Most children with a normal nutritional status are under indulgent caregiving (30 children), followed by authoritarian (23 children) and authoritative styles (16 children), indicating that indulgent caregiving is most prevalent among those with normal nutritional status. Among overweight children, the distribution shows a mix of styles, with two under an uninvolved style and three under an authoritarian style. Overall, these findings suggest that while the majority of children with normal nutritional status are under indulgent or authoritarian care, extreme nutritional statuses such as severe wasting and wasting are more closely associated with uninvolved and authoritarian caregiving styles. This implies that caregiver feeding styles may influence the nutritional outcomes, particularly in cases of extreme nutritional statuses.

In terms of caregiver feeding styles, the indulgent style was most prevalent among children with normal nutritional status (32.3%), followed by authoritarian (30.1%), authoritative (18.3%), and uninvolved styles (19.4%). This pattern partially aligns with previous research, where indulgent and authoritative parenting styles have been associated with better child nutrition and growth outcomes (Motebejana et al., 2022). Conversely, authoritarian and uninvolved styles have been linked with poorer nutrition, as these styles may

limit children's ability to self-regulate their eating or receive adequate support from caregivers (Wood et al., 2020). In this study, severe wasting was observed only under authoritarian caregiver styles, and wasting was observed in both authoritarian and uninvolved styles. This aligns with previous findings that more controlling or disengaged feeding styles are associated with negative nutritional outcomes, especially undernutrition (Gebru et al., 2021).

However, the absence of a significant association between indulgent feeding and overweight children in this study differs from other research. Previous studies have often linked indulgent feeding styles with a higher likelihood of childhood overweight and obesity, due to a lack of control over food intake and unrestricted access to calorie-dense foods (Wright et al., 2023). The relatively small number of overweight children in this study may explain this divergence, and further research with larger sample sizes is necessary to explore this relationship in greater depth.

The descriptive analysis in this study offers a detailed overview of the nutritional status of children, complementary feeding (MPASI) practices, and caregiver feeding styles within the children aged 6 months to 5 years. The findings highlight patterns that align with or diverge from previous research, though they remain within the bounds of descriptive analysis, without delving into inferential statistics or causal relationships. Further analysis cannot be performed due to the insufficient number of cases in the Severe Wasting, Wasting, and Overweight categories. The nutritional status of the children in this study does not exhibit adequate variation, which limits the findings to the presentation of descriptive analysis results.

The findings of this study highlight the potential value of integrating nutrition education into parenting programs. Improving caregivers' understanding of appropriate feeding practices and their own parenting approaches may help reduce cases of undernutrition. Community based interventions, such as parenting classes or posyandu education sessions could serve as effective strategies to strengthen nutrition literacy and promote responsive caregiving behaviors in rural areas.

Conclusion

This study provides a descriptive account of the nutritional status of children, MPASI practices, and caregiver feeding styles, which show some alignment with previous research, particularly in identifying caregiver feeding styles as a potential influence on child nutrition. The lack of clear patterns between MPASI appropriateness and nutritional outcomes highlights the complexity of factors involved in child nutrition, as suggested by other studies. Differences in the associations between indulgent feeding styles and overweight children compared to previous findings may warrant further exploration. While this study is limited to descriptive analysis, the findings emphasize the need to strengthen parental health literacy and science-based nutrition education, particularly in early childhood settings. These insights may inform the development of educational interventions such as responsive caregiving training and community-based nutrition programs in the working area of Puskesmas Jenawi, Karanganyar Regency, Central Java. Future research should incorporate more robust statistical analyses, larger sample sizes, and additional variables to better understand the dynamics between feeding practices, parenting styles, and child nutrition.

Acknowledgments
We extend our deepest gratitude to the Institute for Research and Community Service (LPPM) at Sebelas Maret University, Surakarta, the Jenawi Community Health Center, and the Sidomukti Village Office for their assistance and support in the conduct of this research.

Author Contributions
I.I.K. contributed to the study conception and design, data collection, analysis, interpretation, and writing the manuscript. A.N. contributed to data collection, analysis, interpretation, and manuscript drafting. I.S.S. contributed to data analysis and interpretation, and manuscript review and editing. N.R.P. assisted in data collection, contributed to the literature review, and reviewed the manuscript. N.B.A. provided technical support, assisted in data collection, and reviewed the manuscript.

Funding
This research was supported by the Hibah Penelitian Grup UNS. The funders had no role in the study design, data collection, analysis, interpretation, or in the decision to submit the manuscript for publication.

Conflicts of Interest
No conflicts of interest.

References

Abay, K. A., Ibrahim, H., & Breisinger, C. (2022). Food policies and obesity in low- and middle-income countries. *World Development*, *151*, 105775. https://doi.org/10.1016/j.worlddev.2021.105775

Alvear-Vega, S., & Vargas-Garrido, H. (2022). Social determinants of malnutrition in Chilean children aged up to five. *BMC Public Health*, *22*(1), 44. https://doi.org/10.1186/s12889-021-12455-4

Balantekin, K. N., Anzman-Frasca, S., Francis, L. A., Ventura, A. K., Fisher, J. O., & Johnson, S. L. (2020). Positive parenting approaches and their association with child eating and weight: A narrative review from infancy to adolescence.

Pediatric Obesity, *15*(10), e12722. https://doi.org/10.1111/ijpo.12722

Boswell, N. (2021). Complementary feeding methods—a review of the benefits and risks. *International Journal of Environmental Research and Public Health*, *18*(13), 7165. https://doi.org/10.3390/ijerph18137165

Burnett, A. J., Lamb, K. E., Spence, A. C., Lacy, K. E., & Worsley, A. (2021). Parenting style as a predictor of dietary score change in children from 4 to 14 years of age. Findings from the Longitudinal Study of Australian Children. *Public Health Nutrition*, *24*(18), 6058–6066. https://doi.org/10.1017/S1368980021003062

Dolang, M. W., Pelamonia, A., & Simanjuntak, Y. F. (2024). Determinants of Toddlers' History with Stunting Incidence in the Coastal Community. *Window of Health : Jurnal Kesehatan*, 194–202. https://doi.org/10.33096/woh.vi.788

Dwijayanti, I., Al Mamun, A., Setiarsih, D., Sulistyowati, M., & Mahmudiono, T. (2024). Exploring global mothers' knowledge, attitudes, and practice of complementary feeding: A scoping review. *Nutrition*, *120*, 112335. https://doi.org/10.1016/j.nut.2023.112335

Ekholuenetale, M., Barrow, A., Ekholuenetale, C. E., & Tudeme, G. (2020). Impact of stunting on early childhood cognitive development in Benin: evidence from Demographic and Health Survey. *Egyptian Pediatric Association Gazette*, *68*(1), 1–11. https://doi.org/10.1186/s43054-020-00043-x

Eva, L. E., Abbas, H. H., & Bachtar, F. (2024). Controlling Model For Risk Factors Of Stunting Incident. *Window of Health : Jurnal Kesehatan*, 44–54. https://doi.org/10.33096/woh.vi.731

Feng, J., Gong, Z., Wang, Y., Huo, J., & Zhuo, Q. (2022). Complementary Feeding and Malnutrition among Infants and Young Children Aged 6–23 Months in Rural Areas of China. *Nutrients*, *14*(9), 1807. https://doi.org/10.3390/nu14091807

Fitriami, E., & Galaresa, A. V. (2021). Edukasi Pencegahan Stunting Berbasis Aplikasi Android Dalam Meningkatkan Pengetahuan Dan Sikap Ibu. *Citra Delima Scientific Journal of Citra Internasional Institute*, *5*(2), 78–85. https://doi.org/10.33862/citradelima.v5i2.258

Gebru, N. W., Gebreyesus, S. H., Habtemariam, E., Yirgu, R., & Abebe, D. S. (2021). Caregivers' feeding practices in Ethiopia: association with caregiver and child characteristics. *Journal of Nutritional Science*, *10*, e21. https://doi.org/10.1017/jns.2021.14

Hampshire, C., Mahoney, B., & Davis, S. K. (2022). Parenting Styles and Disordered Eating Among Youths: A Rapid Scoping Review. *Frontiers in Psychology*, *12*, 802567. https://doi.org/10.3389/fpsyg.2021.802567

Hughes, S. O., Cross, M. B., Hennessy, E., Tovar, A., Economos, C. D., & Power, T. G. (2012). Caregiver's Feeding Styles Questionnaire. Establishing cutoff points. *Appetite*, *58*(1), 393–395. https://doi.org/10.1016/j.appet.2011.11.011

Karomah, U., Wahyuni, F. C., & Trisnasari, Y. D. (2024). Program Penyelenggaraan Makan Siang Sekolah: Studi Literatur tentang Dampak Kesehatan, Hambatan dan Tantangan School Lunch Program: A Literature Study on Health Impacts, Barriers and Challenges. *Salus Cultura Jurnal Pembangunan Manusia Dan Kebudayaan*, *4*(1). https://doi.org/10.55480/saluscultura.v4i1.188

Lontoh, P. F., Suryawan, A., & Utami, S. (2021). Hubungan Lama Paparan Televisi Terhadap Perkembangan Motorik Halus Balita. *Indonesian Midwifery and Health Sciences Journal*, *3*(1), 77–84. https://doi.org/10.20473/imhsj.v3i1.2019.77-84

Lutter, C. K., Grummer-Strawn, L., & Rogers, L. (2021). Complementary feeding of infants and young children 6 to 23 months of age. *Nutrition Reviews*, *79*(8), 825–846. https://doi.org/10.1093/nutrit/nuaa143

Mahmood, L., Flores-Barrantes, P., Moreno, L. A., Manios, Y., & Gonzalez-Gil, E. M. (2021). The influence of parental dietary behaviors and practices on children's eating habits. *Nutrients*, *13*(4), 1138. https://doi.org/10.3390/nu13041138

Masuke, R., Msuya, S. E., Mahande, J. M., Diarz, E. J., Stray-Pedersen, B., Jahanpour, O., & Mgongo, M. (2021). Effect of inappropriate complementary feeding practices on the nutritional status of children aged 6-24 months in urban Moshi, Northern Tanzania: Cohort study. *PLoS ONE*, *16*(5 May), e0250562. https://doi.org/10.1371/journal.pone.0250562

Morales, J. C., Arbel, R., Dunton, G. F., & Mason, T. B. (2024). The temporal stability of maternal parenting style and child feeding practices: A six-wave longitudinal study. *Appetite*, *195*, 107231. https://doi.org/10.1016/j.appet.2024.107231

Motebejana, T. T., Nesamvuni, C. N., & Mbhenyane, X. (2022). Nutrition Knowledge of Caregivers Influences Feeding Practices and Nutritional Status of Children 2 to 5 Years Old in Sekhukhune District, South Africa. *Ethiopian Journal of Health Sciences*, *32*(1), 103–116. https://doi.org/10.4314/ejhs.v32i1.12

Ndraha, A. F., Tindaon, R. L., & Napitupulu, T. J. M. (2023). The Relationship Between Nutritional Status With The Growth And Development Of Toddlers 1-3 Years In Pratama Bunda Patimah Clinic. *Jurnal Kebidanan Kestra (Jkk)*, *5*(2), 222–228.

https://doi.org/10.35451/jkk.v5i2.1631

Ningning, W., & Wenguang, C. (2023). Influence of family parenting style on the formation of eating behaviors and habits in preschool children: The mediating role of quality of life and nutritional knowledge. *PLoS ONE*, *18*(7 July), e0288878. https://doi.org/10.1371/journal.pone.0288878

Paul, P., & Saha, R. (2022). Is maternal autonomy associated with child nutritional status? Evidence from a cross-sectional study in India. *PLoS ONE*, *17*(5 May), e0268126. https://doi.org/10.1371/journal.pone.0268126

Pitoyo, A. J., Saputri, A., Agustina, R. E., & Handayani, T. (2022). Analysis of Determinan of Stunting Prevalence among Stunted Toddlers in Indonesia. *Populasi*, *30*(1), 36. https://doi.org/10.22146/jp.75796

Popkin, B. M., Corvalan, C., & Grummer-Strawn, L. M. (2020). Dynamics of the double burden of malnutrition and the changing nutrition reality. *The Lancet*, *395*(10217), 65–74. https://doi.org/10.1016/S0140-6736(19)32497-3

Puspitasari, M. D., Rahmadhony, A., Prasetyo, S., & Fadila, W. (2020). Early childhood parenting practices in Indonesia. *Population Review*, *59*(2), 139–155. https://doi.org/10.1353/prv.2020.0006

Samuel, F. O., & Ibidapo, E. G. (2020). Complementary Feeding Practices and Associated Factors Among Nursing Mothers in Southwestern Nigeria. *International Journal of Maternal and Child Health and AIDS (IJMA)*, *9*(2), 223–231. https://doi.org/10.21106/ijma.363

Simatupang, E. J., Novfrida, Y., Mafluha, Y., & Nugraha, R. D. G. (2022). Determinats of The Parenting Experiences for Toodlers and Pre-School Children. *Kemas*, *17*(4), 566–573. https://doi.org/10.15294/kemas.v17i4.29523

Stata. (2021). *Stata 17*. Wiley StatsRef: Statistics Reference Online. Retrieved from https://blog.stata.com/2021/04/20/stata-17-released/

Syofyanengsih, S., Fajar, N. A., & Novrikasari, N. (2022). Hubungan Peran Keluarga terhadap Kejadian Stunting: Literature Review. *Jurnal Ilmiah Universitas Batanghari Jambi*, *22*(2), 1167. https://doi.org/10.33087/jiubj.v22i2.2399

Wood, A. C., Blissett, J. M., Brunstrom, J. M., Carnell, S., Faith, M. S., Fisher, J. O., Hayman, L. L., Khalsa, A. S., Hughes, S. O., Miller, A. L., Momin, S. R., Welsh, J. A., Woo, J. G., & Haycraft, E. (2020). Caregiver influences on eating behaviors in young children a scientific statement from the american heart association. *Journal of the American Heart Association*, *9*(10), e014520. https://doi.org/10.1161/JAHA.119.014520

Wright, A. S., Tulloch-Reid, M. K., Chang, S. M., & Walker, S. P. (2023). Maternal feeding styles and the risk of overweight in a cohort of Caribbean infants. *Lifestyle Medicine*, *4*(2), e77. https://doi.org/10.1002/lim2.77

Zhu, Y., Ye, H., Feng, Y., Pan, L. ya, Fu, H. huan, Liu, Y. man, Fei, J., & Hong, L. (2021). Assessment of nutritional status in paediatric outpatients using bioelectrical impedance analysis and anthropometric z-scores. *Journal of Paediatrics and Child Health*, *57*(8), 1274–1280. https://doi.org/10.1111/jpc.15450