JURNAL
PANGAN GIZI DAN KESEHATAN

E- ISSN : 2745-6536
DOI : 10.51556/ejpazih

Article

Effectiveness of Multimedia Nutrition Education on Nutritional Intake in Children Aged 6–24 Months: A Study in Jayapura City

Christin Debora Nabuasa[1]*, Mesri Kartika[2], Grouse Oematan[3]

[1] Public Health Faculty, Cendrawasih University; christin.nabuasa@gmail.com
[2] Public Health Faculty, Cendrawasih University; mesrikartika@gmail.com
[3] Public Health Faculty, Nusa Cendana University; grouseoematan@staf.undana.ac.id
* Correspondence: christin.nabuasa@gmail.com

Abstract

Background: The practice of providing complementary feeding (MP-ASI) for children aged 6–23 months in Indonesia still faces several challenges. According to Presidential Regulation No. 72 of 2021, the national target for 2024 is that 80% of children aged 6–23 months receive appropriate complementary feeding. Monitoring is conducted quarterly, assessing food diversity and the consumption of eggs, fish, or meat. If feeding practices are found lacking, health cadres provide education to mothers or primary caregivers. One major cause of low animal protein intake is the limited knowledge and awareness among mothers about its nutritional importance. Conventional one-way education methods are often ineffective in changing behavior. Therefore, technology-based approaches such as multimedia education are considered more effective due to their visual, auditory, and interactive elements. **Objective:** To determine the effect of multimedia education on animal-protein-rich complementary feeding on the nutritional intake of children aged 6–24 months in Jayapura City. **Methods:** A quantitative study using a pre-experimental one group pretest-posttest design was conducted at Hamadi Public Health Center, Jayapura City. The study used total sampling, involving 170 mothers of children aged 6–24 months who visited posyandu in the area. Data were analyzed using the Paired Samples t-test. **Results:** Multimedia education significantly improved maternal knowledge, attitudes, and the intake of energy, protein, and calcium ($p < 0.05$). **Conclusion:** Multimedia-based education on animal-protein-rich complementary feeding effectively enhances knowledge, attitudes, and nutrient intake, supporting IGF-1 hormone production and contributing to stunting reduction efforts.

Keywords: education, multimedia, animal protein rich complementary feeding, nutrient intake

Academic Editor: Soleman Landi

Received: 3 March 2025
Revised: 15 May 2025
Accepted: 30 May 2025
Published: 1 Juni 2025

Citation: Vancouver Style

Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (https://creativecommons.org/licenses/by-sa/4.0).

1. Introduction

Exclusive breastfeeding (EBF) is recognized as the cornerstone of infant nutrition. The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, followed by continued breastfeeding alongside appropriate complementary feeding (CF) up to two years or beyond[1,2]. While breastmilk alone meets the energy needs of infants aged 0–6 months, an energy gap arises after this period. This gap increases with age, making the provision of CF essential from six months onward. If

CF is not introduced at this stage, a significant decline in nutritional status may occur. Therefore, improving CF practices is an urgent intervention. From six months, infants should receive diverse and nutritionally adequate CF, consisting of carbohydrates, plant-based proteins, animal-source proteins, vegetables, and fruits. Animal protein is prioritized due to the high-fat composition of breastmilk and formula, and its role in IGF-1 hormone activation, which supports growth. High-quality protein sources such as mackerel, minced beef, chicken, eggs, and milk offer complete amino acid profiles. A deficiency in animal protein during this critical period may lead to stunting, obesity, hypertension, and diabetes.

Improving CF practices in children aged 6–23 months is a specific intervention indicator for stunting reduction in Indonesia under Presidential Regulation No. 72 of 2021. The national target for 2024 is that 80% of children aged 6–23 months receive adequate CF. However, existing data reveal suboptimal practices. The 2023 SUSENAS survey indicated only 73.97% of children under two received exclusive breastfeeding, and 59.33% met the minimum dietary diversity [3,4]. Headey et al. (2018), in a study across 49 countries involving 130,432 children aged 6–23 months, found that stunting was strongly associated with low intake of animal-source foods[5]. Their findings emphasized that diverse consumption of animal protein significantly reduces the risk of stunting compared to reliance on a single protein source.

As of 2024, MP-ASI practices are monitored quarterly based on three indicators: dietary diversity, consumption of eggs/fish/meat, and overall adequacy of CF. Caregivers are interviewed using image aids to report what the child consumed the previous day. When insufficient diversity or animal protein intake is identified, health cadres provide targeted education to mothers or primary caregivers.

To support these efforts, health cadres are equipped with printed information materials such as pocketbooks containing images of protein-rich MP-ASI. However, multimedia has emerged as a more effective educational tool, integrating text, images, audio, video, and animation to improve message clarity and retention. One major reason for poor animal protein intake is mothers' limited knowledge and awareness. Traditional one-way education often fails to change behavior, while technology-based approaches are more engaging and interactive. According to Mayer's Multimedia Learning Theory (2014), combining text, images, and sound enhances comprehension and retention[6]. A study by Rahayu (2022) in Bireuen showed a significant relationship between audiovisual media and maternal knowledge of MP-ASI ($p = 0.003$)[7].

Nutritional status reflects the balance between nutrient intake and physiological requirements, which are influenced by factors such as metabolic rate, growth rate, physical activity, digestion, absorption, and nutrient utilization or loss. Individual dietary intake is assessed through qualitative and quantitative methods. The qualitative method evaluates eating frequency, types of food consumed, and food acquisition patterns.

Hamadi Health Center, located in a coastal region of Jayapura City, has relatively better access to animal-source foods than other areas. It also serves the second-largest under-five population (616 children) among 14 public health centers in Jayapura. This study aims to assess the impact of multimedia-based education on animal protein-rich MP-ASI on nutrient intake among children aged 6–24 months in the Hamadi Health Center area.

2. Materials and Methods

2.1 Study Design

This research employed a pre-experimental study design using the one group pretest-posttest approach. In this design, a single group of subjects is observed and measured before and after the intervention. The pretest is conducted prior to the treatment, followed by a posttest after the intervention, allowing for more accurate measurement of the intervention's impact [9].

2.2 Population and Sampling

The population in this study consisted of mothers with children aged 6–24 months who resided within the working area of Hamadi Public Health Center, totaling 170 individuals. The sampling technique used was total sampling, in which all eligible subjects within the population were included in the study.

2.3 Data Collection

To measure maternal knowledge and attitudes regarding animal protein-rich complementary feeding (MP-ASI), a structured questionnaire consisting of 22 items was utilized. Nutrient intake was assessed using a Semi-Quantitative Food Frequency Questionnaire (Semi-Quantitative FFQ). The multimedia education intervention was delivered through a 10-minute educational video on animal protein-rich MP-ASI, administered over the course of one month.

3. Results

3.1. Characteristic Subject and Bivariate analyses

Respondents in this study were mothers of children aged 6–24 months, with a total of 170 participants. Data collection involved the use of an educational video on animal protein-rich complementary feeding (MP-ASI), a knowledge and attitude questionnaire, and a Semi-Quantitative Food Frequency Questionnaire (Semi-FFQ). The characteristics of the respondents were assessed based on age, occupation, education level, number of children in the household, and family income.

Table 1. Frequency Distribution of Subject and Family Characteristics

Variable	n	%
Child Age Group (months		
6 – 11	83	48,8
12 – 24	87	51,2
Mother's Age (years)		
20 – 35	154	90,6
36 – 45	16	9,4
Mother's Employment Status		
Employed	37	21,8
Unemployed	133	78,2
Mother's Education Level		
Low	15	8,9
High	155	91,1
Number of Children		
1 – 3	135	79,4
4 – 6	35	20,6
Family Income (IDR/month)		
1,0 - 3.9 million	65	38,2
4,0 - 6 million	105	61,8

Based on the study involving 170 respondents, the distribution of child age groups, maternal age, employment status, education level, number of children, and household income is presented in Table 1. The majority of children were aged 12–24 months, accounting for 87 participants (51.2%). Most mothers were between 20–35 years old (90.6%). A total of 37 mothers (21.8%) were employed, while the vast majority (78.2%) were not. In terms of educational background, most mothers (91.1%) had attained a higher level of education. Regarding family structure, the majority of households (79.4%) had 1–3 children, and 20.6% had 4–6 children. In terms of monthly income, 61.8% of families reported earning between IDR 4.0–6.0 million.

Table 2. Analysis of the Effect of Multimedia Education on Mothers' Knowledge about Animal Protein-Rich MP-ASI in Children

Mother Knowledge	Category				Mean	Mean Diff	*P Value*
	Enough		Less				
	n	%	n	%			
Children age 6-11 months							
Pretest	15	18.1	68	80.7	55.90	18.2	0.000
Posttest	67	81.9	16	19.3	74.10		
Children age 12-24 months							
Pretest	21	24.1	66	75.9	58.62	19.89	0.000
Posttest	70	80.5	17	19.5	78.51		

Based on the results of the analysis of the effect of multimedia education on the knowledge of mothers of children aged 6-11 months in Table 2 and children aged 12-24 months (Table 2) before being given education Most mothers have insufficient knowledge in children aged 6-11 months, namely 68 (75.9%) with an average knowledge score of 58.62. After being given an intervention through multimedia education, the mother's knowledge has increased from 20 people to 67 people who have sufficient knowledge with an average score of 74.10, an increase in score of 18.2. From the significant value (p-value) = 0.000 < p 0.05 which means that there is an effect of multimedia education on the knowledge of mothers. In mothers of children aged 12-24 months also experienced a significant effect p-value 0.000 where before being given education 20 people who had sufficient knowledge after being given education increased to 70 people who had special knowledge with an average score of 78.51 and an increase in score of 19.89.

Table 3. Analysis of the effect of multimedia education of animal protein-rich complementary food on the attitude of feeding practices of mothers of children.

Practice Attitudes Feeding complementary foods	Category				Mean	Mean Diff	*P Value*
	Enough		Less				
	n	%	n	%			
Children age 6-11 months							
Pretest	20	24.1	63	75.9	57.83	22.29	0.000
Posttest	78	80.5	5	6.0	80.12		
Children age 12-24 months							
Pretest	20	23	78	89.7	57.24	21.04	0.000
Posttest	67	77	9	10.3	78.28		

The results of the analysis in Table 3 show that there is an effect of multimedia education on the attitudes of mothers in feeding practices for children aged 6-11 months where before being given education mothers who have attitudes in the category of quite appropriate as many as 20 people and after being given education has increased by 78 people (80.5%) with an average score of 80.12 and an increase of 22.29 and has a significant value of p value <0.05. The table above also shows data on children aged 12-24 months, where the mother's attitude before being given education was in the less appropriate category as many as 78 people (89.7%). After being given education, it has increased as many as 67 people (77.0%) in the moderately appropriate category with an increase in the average score of 21.04 and has a significant value of p value <0.05.

Table 4. Effect of Multimedia Education on Energy Intake of children with animal protein-rich complementary foods

Nutrient Intake	Category				Mean	Mean Diff	*P Value*
	Enough		Less				
	n	%	n	%			
Children age 6-11 months							
Pretest	23	27.7	60	72.3	620.352	32.777	0.000
Posttest	58	69.9	25	30.1	653.129		
Children age 12-24 months							
Pretest	23	26.4	64	73.6	1066,132	75.479	0.000
Posttest	82	94.3	5	5.7	1141.611		

The results of the analysis in Table 4 show that there is an effect of multimedia education on carbohydrate intake of children aged 6-11 months where before being given multimedia education on animal protein-rich complementary foods, the carbohydrate intake was sufficient as many as 23 people (27.7) after being given education increased to 58 people (69.9%) in the sufficient category with an average amount of energy of 653,129 kcal and an increase of 32,777 kcal with a significant value of p value <0.05. The data above also shows the amount of carbohydrate intake in children aged 12-24 months after being given education has increased from 23 people to 82 people in the sufficient category (94.3%) with an average amount of carbohydrates of 1141.611kcal and an average increase of 75.479kcal.

Table 5. Effect of Multimedia Education on the Protein Intake of children with animal protein-rich complementary foods

Protein Intake	Category				Mean	Mean Diff	*P Value*
	Enough		Less				
	n	%	n	%			
Children age 6-11 months							
Pretest	12	14.5	71	85.5	10.559	1.313	0.000
Posttest	59	71.1	24	28.9	12.272		
Children age 12-24 months							
Pretest	20	23	67	77	15.447	1.182	0.000
Posttest	72	82.8	15	17.2	16.629		

The results of the analysis in Table 5 show that there is an effect of multimedia education on the protein intake of children aged 6-11 months where before being given multimedia education on animal protein-rich complementary foods the amount of protein intake is sufficient for 12 people (14.5%) and less for 71 people (85.5%) after being given education has increased to 59 people (71.1%) in the sufficient category with an average amount of protein of 12,272g with an increase of 1,313g, a significant value p value <0.05. The data above also shows the amount of protein intake in children aged 12-24 months after education has increased from 20 people to 72 people in the sufficient category (82.8%) with an average amount of protein of 16,629g and an average increase of 1,182g.

Table 6. Effect of Multimedia Education on Calcium intake of children with animal protein-rich complementary foods.

Calcium Intake	Category				Mean	Mean Diff	*P Value*
	Enough		Less				
	n	%	n	%			
Children age 6-11 months							
Pretest	17	20.5	66	79.5	214.976	1.328	0.000
Posttest	60	72.3	23	27.7	216.304		
Children age 12-24 months							
Pretest	22	25.3	65	74.7	519.240	1.745	0.000
Posttest	68	78.2	19	21.8	520.985		

The results of the analysis in Table 6 show that there is an effect of multimedia education on calcium intake of children aged 6-11 months where before being given multimedia education on animal protein-rich complementary foods the amount of calcium intake is sufficient for 17 people (20.5%) and less for 66 people (79.5%) after being given education has increased to 60 people (72.3%) in the sufficient category with an average amount of calcium of 216.304g with an increase of 1.328g, a significant value of p value <0.05. The existing data shows the amount of calcium intake in children aged 12-24 months after being given education has increased from 22 people to 68 people in the sufficient category (78.2%) with an average amount of calcium of 520,985g and an average increase of 1,745g.

4. Discussion

4.1 The effect of multimedia education on the knowledge of mothers of children aged 6-24 months.

rom the results of the paired samples t-test study, there was a significant difference in maternal knowledge after being given multimedia education in the form of animal protein-rich complementary food videos on the practice of providing animal protein-rich complementary foods. Knowledge is one of the main factors that influence mothers' attitudes and practices in providing animal protein-rich complementary foods. Low maternal knowledge about the composition and benefits of animal protein in complementary foods is often the cause of inadequate child nutrient intake, especially protein, energy, and calcium.

Interesting educational videos tend to make mothers not bored in watching, which facilitates the acquisition of information and increases maternal knowledge. This is reflected in the improvement of scores regarding maternal knowledge, particularly in understanding the composition, benefits of protein sources, and the timing and method of providing animal protein-rich complementary foods for children aged 6–24 months. This increase in knowledge has a direct impact on changes in maternal behavior in preparing protein-rich complementary food menus for their children.

This study is in line with the results of research conducted by Yolahumaroh et al. in 2023, which showed that education using video media can increase maternal knowledge in providing complementary food[9]. These results are reinforced by the study of Rahayu in 2022, which demonstrated a relationship between audio-visual media and maternal knowledge about complementary feeding in Gampong Geudong-Geudong, Kota Juang District, Bireuen Regency, with a p-value = 0.003 < α = 0.05 [7].

The results of this study are also consistent with the Knowledge-Attitude-Practice (KAP) theory by Mayer, which states that knowledge will influence attitudes, and subsequently, behavior, as evidenced by the significant value obtained[8].

Furthermore, health education should be seen not merely as a cognitive transfer of information, but as a dynamic and empowering learning process that enables individuals to make well-informed health decisions. Knowledge is not only derived from understanding facts but is also shaped by personal experience, learning processes, social

interaction, and environmental factors. Interventions aimed at increasing knowledge can be transformational, especially when tailored appropriately to the context of the target audience and delivered through engaging media. These principles reinforce the strategic use of multimedia in public health education[9].

Increased knowledge is also influenced by the mother's level of education, age, and occupation, as shown in Table 1 (frequency distribution of family characteristics). The majority of the mothers in this study (n = 155) had higher education, which supports Notoadmodjo's assertion that the higher a person's education, the easier it is to receive and understand information[11]. Educated individuals are more likely to access information from others as well as from multimedia platforms . Hurlock also emphasized that with increasing age comes greater maturity and capacity to process information and make thoughtful decisions[12]. Moreover, maternal occupation also plays a role. Working mothers often have limited time and may unintentionally overlook certain aspects of personal and child health[13].

4.2 The effect of multimedia education on the attitudes of mothers of children aged 6-24 months.

Attitude consists of several levels, namely accepting, responding, appreciating and taking responsibility[10]. Positive maternal attitudes reflect acceptance of information and a willingness to change practices for the better. In this case, animal protein-rich complementary foods are often not provided, not because they are not available, but because mothers do not have a favourable attitude towards the importance of animal protein-rich complementary foods. From the results of this study, there were significant differences before being given multimedia education and after being given multimedia education. This study is in line with the research of Yolahumaroh et al, 2024 where there is an effect of education with video media on mothers who have children aged 6-24 months can improve the attitude of mothers in providing complementary food. Visualisation of the types, composition, benefits of animal protein, demonstration of food processing, makes mothers feel more confident and eager to provide appropriate animal protein-rich complementary foods. The post-test results showed that mothers' attitudes shifted from hesitant to agree and support the importance of animal protein in the diet of children aged 6-24 months. The results of research by Sartika and Purnanti 2021 show that the advantages of video media, namely educational media with videos, are more recommended in providing education because the absorption of information is more effective by using the senses of vision and hearing in the form of videos than using only the sense of sight [14]. Positive attitudes played a role in changing actual practices at home. Mothers became more regular in providing eggs, chicken liver, fish and meat in their children's complementary foods. This improved practice then has a direct impact on improving children's nutrient intake. This finding is consistent with the Theory of Planned Behaviour (TPB) developed by Ajzen in 2019 where attitudes are the bridge between knowledge and action. Attitudes towards behaviour will shape intentions, which then influence actual action[15]. Multimedia education on animal protein-rich complementary food serves as an attitude booster by touching on the emotional aspects and positive perceptions of mothers towards providing animal protein-rich complementary food.

4.3 The effect of multimedia education of animal protein-rich complementary food on nutrient intake of energy, protein and calcium in children aged 6-24 months.

Recommendations for nutritional adequacy according to the Minister of Health Regulation number 28 of 2019, the amount of AKG for the 6-11 month age group is the amount / day for energy 800kcal, protein 15g and calcium 270g, while for ages 1 - 3 years the amount of AKG / day for energy 1350kcal, protein 20g and calcium 650g. The results showed that the intake of nutrients from energy, protein and calcium through the semi FFQ questionnaire in children aged 6-11 months before being given multimedia education was in the deficient category where the average daily intake for energy

(620.352kcal), protein (10.959g) and calcium (214.976g). For 12-24 months of age, the average daily intake of energy (1066,132kcal), protein (16,629g), calcium (520,985g) was also in the deficient category. Insufficient nutrient intake is caused by the number of food groups given less than 5 types of 8 food groups that must be given to children. According to WHO, children aged 6-8 months should be fed 2-3 times a day and children aged 9-23 months should be fed 3-4 times a day with 1-2 interruptions. The results showed that of the 8 groups of foodstuffs, the average mother fed the child tea, baby porridge, spinach vegetables, mustard vegetables and carrots given every day with bananas. Only a few mothers give formula milk, baby porridge, tempeh, tofu, eggs, fresh fish, meat, nuts, papaya fruit, orange fruit, watermelon. The lack of variety in the food given was due to the low knowledge and attitude of mothers regarding animal protein-rich complementary foods. Sweet tea was mostly given while milk is a source of calcium and phosphorus. The study area has the availability of animal protein foods that are easily accessible and obtained by mothers but due to limited knowledge in choosing and processing diverse foods. This study is supported by research on nutrient intake on the incidence of stunting where the results of the study have OR values of 4.53; 5.34; 3.93 for energy, protein and calcium. That is, children who lack energy have a chance of stunting by 4.53 times compared to those who do not lack energy. Protein has a chance of stunting of 5.34 times and calcium has a chance of 3.93 times[16]. After 2 months of multimedia education on animal protein-rich complementary foods, nutrient intake increased slightly where for the age of 6-11 months the average intake/day for energy (653.129kcal), protein (12.272g) and calcium (216.304g). For the age group of 6-24 months there was also an increase in the average intake/day for energy (1141.611kcal), protein (16.629g) and calcium (520.985g). WHO guiding principles for complementary feeding in breastfed and non-breastfed children state that "meat, poultry, fish or eggs should be consumed daily or as often as possible [17,18].

The results of this study are supported by research by Papanikolaou et al, 2018, which states that there is evidence that children who consume eggs and other high-protein foods have higher nutrient intakes that are important for optimal linear growth. Whereas consuming eggs is associated with increased intake of energy, protein, essential fatty acids, vitamin B12, vitamin D, phosphorus, and selenium, as well as better height. Nutrient intake, especially energy, protein and calcium, is directly related to child growth and development [19]. The practice of feeding animal protein-rich complementary foods is one of the outcomes needed to improve nutritional status and reduce stunting in children under two years old. Adequate and high quality nutritional intake along with improving the status of under-five children will support the achievement of the stunting reduction target in under-five children.

5. Conclusions

This study demonstrated that multimedia-based nutrition education significantly improves maternal knowledge, attitudes, and children's nutritional intake, particularly regarding energy, protein, and calcium, in children aged 6–24 months. The intervention,delivered through audiovisual materials focused on animal protein-rich complementary feeding (MP-ASI) proved effective in enhancing mothers' understanding and practices of feeding. Notably, the average intake levels of energy, protein, and calcium showed meaningful improvement across both the 6–11 months and 12–24 months age groups. These results highlight the potential of multimedia education as a strategic tool in public health interventions aimed at reducing stunting prevalence through improved complementary feeding practices.

6. Acknowledgments

We would like to thank all respondents for their willingness to take part in this study. To the enumerators who have taken data in the field and also do not forget to our

institution, the university of Cendrawasih which has provided funding for the implementation of this research.

7. Conflicts of Interest

This research was conducted without any conflict of interest. All research procedures, including data collection, analysis, and reporting, were conducted independently and in accordance with ethical principles of research. Thus, this research is free from bias or external pressures that could interfere with the validity of the findings.

References

1. Hoddinott J dan Ahmed I. Nutrition interventions for the first 1,000 days: A systematic review. The Lancet Global Health, 2012; 1(1): e64-e72.
2. World Health Organization (WHO). Essential Nutrition Actions: Improving Maternal, Newborn, Infant and Young Child Health and Nutrition. Geneva: WHO, 2013.
3. Kementerian Kesehatan. Petunjuk Teknis Sistem Informasi Gizi Terpadu (Sigizi Terpadu). Jakarta: Kementerian Kesehatan, 2016
4. Kementerian Kesehatan. Petunjuk Teknis Pemberian Makanan Tambahan (PMT) Berbahan Pangan Lokal untuk Balita dan Ibu Hamil. Jakarta:Kementerian Kesehatan, 2023
5. Headey D, Hirvonen K, Hoddinott J. Animal sourced foods and child stunting. Am J Agric Econ. 2018;100(5):1302–19.
6. R. E. Mayer 2014 Cognitive Theory of Multimedia Learning in The Cambridge Handbook of Multimedia Learning, Cambridge University Press, 43–71
7. Rahayu Widaryanti IY. Edukasi Program 8000 Hari Pertama Kehidupan (HPK) untuk Memutus Siklus Stunting. J Pengabdi Nas Indones. 2022;3(2):100–5
8. Sugiyono. (2019). Metode Penelitian Dan Pengembangan Research Dan Development. Bandung : Alfabeta
9. Yolahumaroh, Erowati D., Marlina Y. Perbedaan Pengetahuan, Sikap dan Perilaku Ibu dalam Praktik Pemberian MP ASI menggunakan Video Edukasi. April 2024 Jurnal Kesehatan Komunitas 10(1):104-113 DOI: 10.25311/keskom.Vol10.Iss1.1648
10. Oematan G, Aspatria U, Gustam T. Pendidikan kesehatan pada anak sekolah dasar. GOTAVA: Jurnal Pengabdian Kepada Masyarakat. 2023 Jun;1(1):21–25.
11. Notoatmodjo, S. 2007. Kesehatan Masyarakat Ilmu dan Seni. Jakarta: Rineka Cipta
12. Hurlock, Elizabeth B.2018. Adolescence Development. Fourth Edition. Mcgrawhill Kagokusha, Ltd.
13. Nursalam & Efendi, F. (2008). Pendidikan dalam Keperawatan. Jakarta : Salemba Medika
14. Sartika, Q.L dan Purnanti, K.D (2021). Perbedaan Media Edukasi (Booklet dan Video) Terhadap Ketrampilan Kader Dalam Deteksi Dini Stunting. Jurnal Sains dan Kebidanan, Volume 3, No 1 (2021): Mei 2021
15. Ajzen, I. 2019. The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50: 179-211.
16. Nabuasa, C.D, Juffrie. M, Huriyati. E. Riwayat pola asuh, pola makan, asupan zat gizi berhubungan dengan stunting pada anak 24–59 bulan di Biboki Utara, Timor Tengah Utara, Nusa Tenggara Timur. Jurnal Gizi dan Dietetik Indonesia (Jurnal Nutrisi dan Diet Indonesia) 1(3):151 DOI: 10.21927/ijnd.2013.1(3).151-163
17. World Health Organization (WHO). Global Strategy for Infant and Young Child Feeding. Geneva: World Health Organization, 2003.
18. World Health Organization (WHO). Guiding principles for feeding non-breastfed children 6–24 months of age. Geneva: World Health Organization, 2005.
19. Papanikolaou Y; Fulgoni VL. Egg Consumption in Infants is Associated with Longer Recumbent Length and Greater Intake of Several Nutrients Essential in Growth and Development. Nutrients, 2018;10(6):e719.