Improvement in maternal knowledge, attitudes, and children's weight with education on World Health Organization feeding recommendations

Ulfia Fitriani Nafista,[1] Nani Nurhaeni,[2] Fajar Tri Waluyanti[2]

[1]Faculty of Nursing, Universitas Indonesia, Depok, West Java, Indonesia; [2]Department of Pediatric, Faculty of Nursing, Universitas Indonesia, Depok, West Java, Indonesia

Correspondence: Nani Nurhaeni, Department of Pediatric Nursing, Faculty of Nursing, Universitas Indonesia, Jalan Prof. Dr. Bahder Djohan, Kampus UI Depok, West Java, 16424 Depok, Indonesia.
Tel.: +62.21.78849120; Fax: +62.21.7864124.
E-mail: nani-n@ui.ac.id

Key words: attitude; child's weight; complementary feeding; IYCF; knowledge.

Acknowledgments: thanks to Directorate of Research and Development Universitas Indonesia

Contributions: UFN, NN, and FTW conceived the idea and plan of research. All authors discussed the results and reviewed the final manuscript.

Conflicts of interest: the authors declare no conflicts of interest.

Funding: this work was supported by Directorate of Research and Development Universitas Indonesia under Hibah PUTI Pascasarjana NKB-094/UN2.RST/HKP.05.00/2022

Conference presentation: this final manuscript was presented at the 8th Virtual Biennial International Nursing Conference, Faculty of Nursing, Universitas Indonesia, on November 4, 2022.

Availability of data and materials: all data generated or analysed during this study are included in this published article.

Ethics approval and consent to participate: the Ethics Committee of the Faculty of Nursing Universitas Indonesia approved this study (SK Ket-77/UN2.F12.D1.2.1/PPM.00.02/2022). The study conforms to the Helsinki Declaration of 1964, as revised in 2013, concerning human and animal rights. All patients participating in this study signed a written informed consent form.

Consent for publication: written informed consent was obtained from a legally authorised representative(s) for anonymized patient information to be published in this article.

Received for publication: 24 November 2022.
Accepted for publication: 31 January 2023.

Licensee PAGEPress, Italy
La Pediatria Medica e Chirurgica 2023; 45(s1):314
doi:10.4081/pmc.2023.314

Abstract

Malnutrition is among the most common nutritional problems in children worldwide. Specifically, stunting as a malnutrition problem is a global priority, including in Indonesia. This study analyses the effect of nutrition education interventions on maternal feeding knowledge, maternal feeding attitudes and children's weight. A quasi-experimental design using a pre-and post-test was selected and with a total sample of 70 people were assigned to an experimental and control group. This study was conducted in Jember Regency on July 2022, and the instrument used in this research were knowledge, attitude, and practice (KAP) questionnaires from the Food and Agriculture Organization (FAO). A Bivariate analysis showed that the nutritional education intervention had a significant relationship with increased maternal feeding knowledge and attitude and children's weight in the control group and intervention group (p-value <0.05). However, a higher score was on the intervention group score compared to the control group. Meanwhile, the average weight of the children in the intervention group increased by about 331.42 grams, which higher compare to the control group's average weight gain. This study concluded that health education about eating, according to the World Health Organization (WHO) recommendations, through an action-oriented group approach can significantly increase maternal feeding knowledge, attitudes, and children's weight.

Introduction

Improving children's health is highlighted as the main focus of the Sustainable Development Goals (SDGs) programme by United Nation. The global strategy is to enhance, accelerate and strengthen the foundation of world health by improving child nutrition. One of the nutrition problems in children is growth faltering, which occurs when a child fails to gain weight and length. This usually begins during pregnancy and continues, especially in the first 1,000 days of a child's life. In line with this growth failure, children are at risk for pathological disorders, missing optimal growth opportunities, and decreased neurogrowth.[1]

One of the spotlighted nutritional problems is stunting or when child is unable to reached minimum height based on their age, which is estimated to be experienced by 155 million children worldwide. Based on the Global Nutrition Report, the wasting or when children weight low compares to their height, in the world in 2018 was 6.7% of the world's child population. In the same year, data from the World Bank Group in Asia showed that 55% of children under five years of age suffered from stunting.[2] Meanwhile, in Indonesia, based on research from the Ministry of Health, the number of stunting cases in 2018 was 29.9%, and the underweight rate was 17.7%. The 2019, Studi Status Gizi

Indonesia (SSGI) or Indonesia Nutrition National Survey results showed that the underweight rate fell to 16.28% and stunting to 27.67%, while wasting was 7.44%. Based on data from the Jember District Health Office, the number of children aged between 6 and 23 months in 2021 who were stunted was 117,435 and 18,219 children were underweight.[3] In East Java alone, 14 districts/cities have a stunting prevalence higher than the national prevalence, with one being Jember Regency, with a 37.9% rate.[4]

Based on the guidelines issued by the Indonesia National Development Planning Agency in 2018. The guideline shows there are two intervention frameworks has started to be implemented to reduce malnutrition. These two intervention divided into two groups: specific nutrition interventions and sensitive nutrition interventions. Sensitive nutrition interventions are an effort to reduce stunting by addressing indirect causes. Activities within this intervention group typically include the availability of facilities and access to clean water.[5] Meanwhile, specific nutrition interventions are activities aimed at addressing stunting directly through improving food intake, improving nutritional status, reducing infections, infectious diseases and improving environmental health.[5] One of the priority interventions in specific nutritional interventions is the promotion and counseling of child feeding and malnutrition management. One of the activities that includes specific nutrition group interventions is to encourage the provision of adequate complementary foods or food that given to children around 6 month, while in the sensitive nutrition intervention group consisting of mothers, one of the activities is to improve nutrition education in the community.[5] Complementary feeding is one of the focus areas in strategies to reduce stunting because it is related to exclusive breastfeeding, early and inadequate complementary feeding and parents' lack of knowledge about children's food.[6]

A mother's knowledge of complementary foods improves a child's nutritional status. Prevention and handling of stunting involve a range of people, from health cadres to mothers involved in the region's Empowerment and Family Welfare Program. An example of their involvement is the development of small guidance groups in their community.[7] A mother's attitude also plays a role in child feeding. Previous research found that mothers with positive knowledge and attitudes towards complementary foods can provide better food choices for children. Therefore, the role of the family is to improve attitudes and knowledge in the provision of complementary foods.[8] One way this can be achieved to improve the attitude of mothers in giving complementary foods is through health education. Providing health education improves mothers' attitudes towards giving complementary foods so that mothers can distinguish correct information about these foods. Monitoring children's weight and height is essential to indicate growth faltering or failure to grow in children, especially between 6 and 23 months of age. Monitoring needs to be considered, along with enhancing the mother's knowledge and attitudes to maximize child development.[1] Education for mothers regarding feeding can also be carried out with the Infant Child Feeding Guideline or, in Indonesia, the Pemberian Makan Bayi dan Anak (PMBA) approach issued by the Ministry of Health. PMBA is a strategy for feeding infants and children according to WHO recommendations, starting from breastfeeding translated into Bahasa Indonesia.[9] PMBA education must be provided to reduce children's nutritional problems and enhance mothers' knowledge, especially when choosing appropriate food based on children age.[10] One approach in PMBA is an action-oriented group for mothers. In this activity, the facilitator can use role-playing or counselling cards. This activity takes place in groups and aims to explore problems, their potential solutions and plans for resolution.[11] Raising awareness of the consequences of stunting seeks to reduce the long-term results of this condition and achieve the target of lowering cases globally.[1] Therefore, researchers are interested in examining the impact of providing education about feeding according to WHO recommendations on maternal feeding knowledge and attitude, and children's weight to prevent malnutrition in children.

Materials and Methods

This research used a quasi-experimental approach with a pre-test and post-test and a control group design. The dependent variables were the mothers' knowledge, mothers' attitudes, and children's weight, while the independent variable was nutrition education about feeding, according to WHO recommendations. The study involved 70 samples divided equally into control and interventio groups. The research was conducted in June 2022 at Jember Regency.

In the control group, the education delivers using the usual maternal and child (MCH) handbook, or in Indonesia called buku Kesehatan Ibu dan Anak (KIA) by the Indonesia Ministry of health. Meanwhile, in the intervention group, education deliver using Infant Young and Child Feeding (IYCF) flipchart created by WHO or in the Indonesian version called Pemberian Makayan Bayi dan Anak (PMBA). Complementary feeding education in both groups was divided into two meetings. The first meeting was on the first week to retrieve pre-data collection using FAO questioner and nutritional education. The second meeting was on the 4th week later to collect data post-intervention. The education was held for around 30-40 minutes each meeting, which included data collection and weight measurement. In the intervention group, nutritional education was delivered by the researcher with a certified dietitian from the local community healthcare center. Education was held in a community healthcare center or cadre home with 5-7 mothers from each village in the same district.

The data collection tool used was the Food Agricultural Organization (FAO) KAP questionnaire, which has been tested for validity and reliability with a Cronbach's alpha value of 0.610. This research prioritised the ethical principles of beneficence, respect for human dignity and justice. This research also passed the ethical test from Fakultas Ilmu Keperawatan (FIK) Universitas Indonesia (Ket-77/UN2.F12.D1.2.1/PPM.00.02/2022). During the implementation of the intervention, several regulations were established to minimise possible impacts to the respondents. Therefore, it was necessary to consider the rights of the respondents.

Data analysis was performed using SPSS version 26. Descriptive statistics were used to analyse the characteristics of the participants. The researcher assessed the effect of education on knowledge, attitude and weight post-intervention in both groups using the Mann-Whitney test. Chi-square was used to analyse post- and post-results between the groups. We used a level of significance of 5%.

Results

The weight of children in the pre-and post-groups increased, as shown in Table 1. The average weight of the children ranged from 7,574.29 grams to 7,705.71 grams in the control group, and 7,280.00 grams to 7,601.43 grams in the intervention group. The highest body weight in the control group was 10,800 grams and 11,200 grams in the intervention group, the average weight was not classified based on age. The mean weight of the children in the control and intervention groups was higher than in just the control group, as shown in Table 1. However, the mean weight gain of the

children was higher in the intervention group, with 331.43 grams compared to 131.42 grams in the control group.

Table 2 shows that the maternal age in the control and intervention groups has an almost even distribution, with more respondents > 30 years of age. The number of children per mother in both the control and intervention groups was the same between mothers with one child and > 2 children. The highest maternal education level was 35 people at a high school level (50%). The mothers in both groups were predominantly housewives who did not work, 28 mothers in control group and 31 mothers in intervention group. Both groups had incomes higher than the minimum wage, 27 families had high income in control group and 20 families in intervention group from total 35 family in each group.

The effect of education on knowledge, mother's attitude and child's weight

The bivariate analysis in this study aimed to determine the effect of feeding education according to WHO recommendations on maternal feeding knowledge and attitude and children's weight in both groups. The data shown in Table 3 are post-data for each group to show a more effective intervention between the Buku Kesehatan Ibu dan Anak or Maternal and Child Health MCH handbook and the PMBA using the action-oriented group concept.

Based on the table, it was found that the mean rank in knowledge (p = 0.030), attitude (p = 0.009) and body weight (p = 0.018) was higher in the intervention group. The results showed that the intervention had a more significant effect on increasing children's weight than the control group.

The chi-Square test results in Table 4 show that mothers aged > 30 years had a significant relationship to knowledge and attitudes at the time of post-data collection, with p values of 0.033 and 0.024. In addition to age, mothers with higher education had higher p values (0.000 and 0.001) as well as income minimum wage (p-value of 0.000). Other variables unrelated to the maternal feeding knowledge and attitudes are the number of children (0.107) and the mother's occupation (0.938).

Discussion

Characteristics of research respondents

This research found that several factors can affect maternal feeding knowledge and attitude and children's weight when given complementary foods. The factors studied in this study were maternal age, number of children, mother's education level, mother's occupation and family income. In this study, more mothers were in the age group of over 30 years than those under 30. This age range includes the early adulthood age group around 20-30 years old, which is the range of productivity for women to become pregnant and have children. Regarding the number of children, most mothers had more than two children (57.1%). This study also found that all mothers went to school, most of their education was in high school or they had entered secondary education, and most did not work and were housewives. This demographic picture is like a study conducted in Indonesia in 2017,

Table 1. Children's weight distribution pre and post test.

Variable	Mean	SD	p-value*	Weight Difference
Child Weight (grams) control				
Pre	7574.29	967,286	0.058*	131.42
Post	7705.71	973,228		
Child Weight (grams) Intervention				
Pre	7280.00	1170,922	0.058*	331.43
Post	7601.43	1173,387		

*Homogeneity Test.

Table 2. Distribution of respondents by age, number of children, education, employment and income in Kabupaten Jember, June 2022 (n = 70).

Variable	Control Group		Intervention Group		Total		p-value*
	n	(%)	n	(%)	n	(%)	
Mother's age (years)							
<30 years old	13	56.5	10	43.5	23	100	0.826*
>30 years	22	46.8	25	53.2	47	100	
Number of children							
One child	15	50	15	50	30	100	0.815*
Child >2	20	50	20	50	40	100	
Education level							
Basic education	8	33.3	16	66.7	24	100	0.116*
Middle education	18	51.4	17	48.6	35	100	
Higher education	9	81.81	2	18.19	11	100	
Mother's job							
Doesn't work	28	47.5	31	52.5	59	100	0.030*
Working	7	63.7	4	36.3	11	100	
Income							
≥Minimum Wage	27	57.4	20	42.6	47	100	0.439*
≤Minimum Wage	8	34.7	15	65.3	23	100	

*Homogeneity Test.

where the mother's gestational age was 25–49 years, with an average number of two children.[12] In comparison, working mothers usually live in urban areas and have fewer children than in rural areas. In contrast, mothers in urban areas have a better economic status but tend to have an older marriage age than mothers in rural areas.[13] Meanwhile, family income in this study was higher than the average regional minimum wage. The family's economic level is one indicator in determining how the family provides food to children and the mother's desire and ability to provide adequate nutrition for the child. Insufficient income levels are usually related to a lack of ability to provide a variety of foods several times a day.[14]

The effect of education on children's knowledge, attitude and weight

Mothers' knowledge in this study increased in the control and intervention groups with the highest increase in the intervention group. Several factors can increase a mothers' knowledge, such as access to nutrition education. Nutrition education can be provided during mothers' return visits to health facilities, vaccination visits and postnatal care, thereby increasing their consultation level.[15] Mothers who visit health facilities more often will be able to feed their children promptly, for example mothers can feed their children appropriate food based on age; the ability of mothers to access information can also relate to the quality of child feeding.[16] Visiting these health facilities allows mothers to obtain information about feeding from health workers, such as doctors, to increase mothers' knowledge.[17]

The increased score in intervention group shows that education using action-oriented-group based on WHO guideline was positively related to maternal knowledge. The education provided was related to delivering complementary foods and increasing the mother's knowledge. It provided education based on WHO recommendations that involved a process of discussion, mentorship and improving the skills of mothers on providing children food. With assistance, providing nutrition education can increase knowledge and increase children's protein intake to the maximum.[18] Education involving examples of feeding using local sources can improve the quality of children's food. Feeding in the intervention group in a Kenyan study became more diverse than at the beginning of the study. The group experienced a significant difference at the end of the intervention ($p < 0.001$).[19] The study provided education that prioritised problem solving and counselling with health workers and emphasised that this mentoring programme exists in health facilities and can increase the level of child feeding.[20] The intervention becomes more effective because mothers can solve problems and discuss them in groups using the action-oriented group concept.

Providing education and increasing knowledge also improved mothers' attitudes in both groups. The change in mothers' attitudes could be due to assistance in providing nutrition education to increase mothers' knowledge, attitudes and skills in processing alternative food ingredients.[18] PMBA can better increase maternal feeding knowledge and attitudes and children's weight. Advanced knowledge and attitudes of mother positively increased feeding practice and can improve children's nutritional status.[21,22] The influence of mass media is also an essential factor in why mothers in both groups had a more positive attitude. Mothers today have access to information from more diverse mass media, such as television and the internet; for example, mothers who are pregnant for the first time at the age of > 19 years in Indonesia watch television at least once a week and access the internet every day.[23]

The children's weight gain was highest in the intervention group, with an action-oriented group approach. In this process, the

Table 3. Analysis of the effect of education on knowledge, attitudes, children's weight.

Variable		Mean Rank	p-value
Knowledge			
Control group		31.00	0.030
Intervention group		40.00	
Attitude			
Control group	31.00	0.009	
Intervention group		40.00	
Weight			
Control group		1040,50	0.018
Intervention group		1444.50	

Note: Mann Whitney, significant <0.05.

Table 4. Relationship of respondents' characteristics to mother's knowledge and attitude.

Variable	Knowledge Post			Post attitude		
	n	%	p-value	n	%	p-value
Mother's age						
<30 years old	23	32.8	0.033	23	32.8	0.024
>30 years	47	67.2		47	67.2	
Number of children						
One child	30	42.8	0.334	30	42.8	0.107
Children >2	40	57.2		40	57.2	
Level of education						
Basic education	24	34.2	0.000	24	34.2	0.001
Middle education	35	50.0		35	50.0	
Higher education	11	15.8		11	15.8	
Mother's work						
Doesn't work	58	82.8	0.773	58	82.	0.938
Working	12	17.2		12	17.2	
Income						
≥Minimum wage	38	54.3	0.000	38	54.3	0.000
≤Minimum wage	32	45.7		32	45.7	

Note: *Chi Square, significant <0.05.

mothers were allowed to explore information in the group. One discussed topic was home menus that could be provided for children.[11] Mothers can provide homemade foods using traditional methods and must follow infant feeding guidelines to achieve a satisfactory result such as a good food diversity.[24] Providing nutrition education in the community is a process that aims to change people's behaviour, improve children's eating patterns and build a balanced diet so that children's needs are appropriately met.[18]

Relationship between demographics and development

The increased knowledge and attitudes of the mothers in the two research groups are related to several factors. Based on the results of this study, maternal age in both the control and intervention groups during pre-and post-data collection showed a statistically significant relationship. In this study, the age group of mothers over 30 years old had better knowledge and attitudes towards child feeding. This study's results align with research in Nigeria, which showed that the older the mother, the better the mother's knowledge of child feeding.[25] The number of children of mothers in both groups in this study did not show a relationship with maternal feeding knowledge and attitudes and children's weight. The mother's number of children did not determine the mother's knowledge and attitude in feeding the child. This finding was supported by previous research showing that the number of children in the family was not related to the practice of child feeding in the family.[26] The mother's education level in this study showed that the mother's highest education level was in the secondary education group (SMA). A mother's education with a minimum of high school showed that the mother can provide better food. Therefore, the nutritional status of children will improve.[27]

The respondents in this study were housewives who did not work; the statistical results showed that the type of mother's work was not significantly related to knowledge or attitudes towards giving children complementary foods. The same results also occurred in a study in Indonesia on mothers with children aged 6–23 months; there was no relationship between the mother's work and adequate child feeding.[28] Family income was also examined in this study. Based on the results of this study, most families had a higher income than the minimum wage. Statistically, it relates to the mother's knowledge and attitude towards complementary feeding. Family economic level is one of the most dominant socio-demographic variables that can affect children's nutritional status.[29] Parents with a better economic level will have a level of knowledge, attitudes and practices in caring for children.[30]

Conclusions

Based on the results of this study, there was an increase in maternal feeding knowledge and attitudes and children's weight during the study. The increase in these three variables occurred in the control and intervention groups. Using WHO recommendations as education guidelines in this research shows that the effect of education in both groups showed that the intervention group had a higher mean rank of maternal feeding knowledge and attitudes and children's weight than the intervention group that received an education. This difference in mean shows that the intervention of providing food education according to WHO or PMBA standards with an action-oriented group approach can improve maternal feeding knowledge and attitudes and children's weight better than giving MCH alone.

References

1. de Onis M, Branca F. Childhood stunting: A global perspective. Matern Child Nutr 2016;12:12–26.
2. De Onis M, Borghi E, Arimond M, et al. Prevalence thresholds for wasting, overweight and stunting in children under 5 years. Public Health Nutr 2019;22:175–9.
3. Jember District Health Office. Laporan kinerja Dinas Kesehatan Kabupaten Jember 2020. [Performance report of Jember District Health Office 2020.] Jember District Health Office. 2021.
4. Sudikno, Irawan IR, Setyawati B, et al. Laporan Akhir penelitian status gizi balita tahun 2019. [Final report of the research on the nutritional status of children under five years of age in 2019.] Indonesian Ministry of Health [Internet]. 2019;1–150. Available from: https://cegahstunting.id/unduhan/publikasi-data/
5. Ministry of National Development Planning/Bappenas. Guidelines for the implementation of integrated stunting reduction interventions in districts/cities. national action plan to reduce stunting [Internet]. 2018;(November):1–51. Available from: https://www.bappenas.go.id
6. Scaglioni S, De Cosmi V, Ciappolino V, et al. Factors influencing children's eating behaviours. Nutrients 2018;10:1–17.
7. Rahmat A, Isa ABDH. Family education for early stunting in the pandemic era. Novateur Publications. Int J Innovat Engin Res Technol 2020;7:115–9.
8. Pradanie R, Rachmawati PD, Cahyani MD. Factors associated with mothers' behaviors in selecting complementary feeding in Surabaya, Indonesia. Nurse Media J Nurs 2020;10:306–16.
9. Kemenkes RI. Pedoman Pemberian Makan Bayi dan Anak. [Infant and Young Child Feeding Guidelines]. Jakarta: Kemenkes RI; 2020.
10. Widaryanti R, Maydianasari L, Maranressy M. Pemeriksaan tumbuh kembang dan edukasi pemberian makan bayi dan anak (PMBA) dalam masa pandemi Covid-19. [Growth assessment and infant and young child feeding (IYCF) education during the Covid-19 pandemic.] Yogyakarta: Seminar Nasional UNRIYO; 2020:111–6.
11. Unicef. Facilitator Guide - The Community Infant and Young Child Feeding (IYCF) counselling package - November 2010. 2010;(November). Available from: http://motherchildnutrition.org/healthy-nutrition/pdf/mcn-Facilitator-Guide.pdf
12. BKKBN, BPS, Kemenkes, ICF. Indonesia demographic and health survey 2017. 2018;588. Available from: https://dhsprogram.com/pubs/pdf/FR342/FR342.pdf
13. Laksono AD, Wulandari RD. Faktor-faktor yang berhubungan dengan ukuran keluarga di Indonesia. [Factors associated with family size in Indonesia.] Aspir J Masal Sos 2021;12:1–13.
14. Bimpong KA, Cheyuo EKE, Abdul-Mumin A, et al. Mothers' knowledge and attitudes regarding child feeding recommendations, complementary feeding practices and determinants of adequate diet. BMC Nutr 2020;6:4–11.
15. Muluye SD, Lemma TB, Diddana TZ. Effects of nutrition education on improving knowledge and practice of complementary feeding of mothers with 6-to 23-month-old children in daycare centers in Hawassa Town, Southern Ethiopia: An institution-based randomized control trial. J Nutr Metab 2020;2020:6571583.
16. Ayana D, Tariku A, Feleke A, Woldie H. Complementary feeding practices among children in Benishangul Gumuz Region, Ethiopia. BMC Res Notes 2017;10:1–8.
17. Al-Mutairi W, Sulaiman A. Knowledge, attitude, and practices regarding complementary feeding among mothers of children

aged 6-24 months in primary healthcare centers in Unaizah city, Saudi Arabia. Int J Med Dev Ctries 2021;5:1134–41.
18. Wiralis, Teguh F, Hariani, Nugraheni WP. Edukasi gizi untuk peningkatan kualitas menu anak balita dengan konsumsi gonad bulu babi sebagai sumber protein alternatif pada keluarga etnis Bajo Soropia. [Nutrition education to improve the menu quality of children under five with the consumption of sea urchin gonads as an alternative protein source in ethnic Bajo Soropia families.] J Indones Nutr Assoc 2017;40:35–44.
19. Waswa LM, Jordan I, Herrmann J, et al. Community-based educational intervention improved the diversity of complementary diets in western Kenya: results from a randomized controlled trial. Public Health Nut 2015;18:3406-19.
20. Kulwa KBM, Verstraeten R, Bouckaert KP, et al. Effectiveness of a nutrition education package in improving feeding practices, dietary adequacy and growth of infants and young children in rural Tanzania: Rationale, design and methods of a cluster randomised trial. BMC Public Health 2014;14:1–16.
21. Suharto A. Mother's Behavior on knowledge and attitudes toward child nutritional status in Magetan Regency, East Java, Indonesia. Open Access Maced J Med Sci 2022;10:555–9.
22. Riesmiyatiningdyah R, Wijaya K, Putra R, Annisa F. The level of knowledge and attitudes of mothers complementary feeding to infants aged 0-12 months in 2001. Nurse and Health Jurnal Keperawatan 2020;9:233–9.
23. Chotimah K, Suza DE, Efendi F, et al. Determinants of adolescent first births in Indonesia. Syst Rev Pharm 2020;11:241–5.
24. Abeshu MA, Lelisa A, Geleta B. Complementary feeding: Review of recommendations, feeding practices, and adequacy of homemade complementary food preparations in developing countries – lessons from Ethiopia. Front Nutr 2016;3:41.
25. Olatona FA, Adenihun JO, Aderibigbe Adedeji S, Adeniyi OF. Complementary feeding knowledge, practices, and dietary diversity among mothers of under-five children in an urban community in Lagos State, Nigeria. Int J Matern Child Heal AIDS 2017;6:46–59.
26. Septriana, Suhartono GA. Predisposing factors of complementary feeding practices among 9-11 month-old infants in Jakarta urban slum area. Kesmas 2016;10:127–33.
27. Subarkah T, Rachmawati D. Pola pemberian makan terhadap peningkatan status gizi pada anak usai 1-3 tahun. [Feeding patterns on improving nutritional status in children after 1-3 years.] Indones Nurs J Educ Clin 2017;1:146–54.
28. Dayanti H, Simbolon D. Relationship Family and maternal factors with infant and young child feeding age 6-23 months in Indonesia. J Ris Kesehat 2022;11:7–13.
29. Ogechi UP, Chilezie OV. Assessment of dietary diversity score, nutritional status and socio-demographic characteristics of under-5 children in some rural areas of Imo state, Nigeria. Malays J Nutr 2017;23:425–35.
30. El S, Bassam A. Evaluate Maternal knowledge and attitude regarding first aid among their children in Buraidah City, Ksa. Med Arch 2022;76:169–74.