



## Utilization of Complementary Food Counseling in Families to Meet the Nutritional Needs of Children Aged 6-24 Months: A Literature Review

Yeni Zanuba Arifa<sup>1\*</sup>, Tantut Susanto<sup>2</sup>, Hanny Rasni<sup>2</sup>, Wahyuni Fauziah<sup>3</sup>

- 1 Faculty of Nursing, Universitas Jember, Indonesia
- 2 Department of Community, Family and Geriatric Nursing, Faculty of Nursing, Universitas Jember, Indonesia
- 3 Dr. H. Koesnadi General Hospital Bondowoso, Indonesia

### Correspondence

Yeni Zanuba Arifa  
Faculty of Nursing, Universitas Jember.  
Jl. Kalimantan 37 Jember, 68121 Indonesia  
Email: [yenizanuba31@gmail.com](mailto:yenizanuba31@gmail.com)

### Article History

Submitted: 31-03-2024  
Revised: 13-05-2024  
Accepted: 30-07-2024

This is an open-access article under the CC BY-SA license.



### ABSTRACT

**Background:** Malnutrition remains a significant nutritional challenge for children under five. The active involvement of families, particularly parents, is crucial in meeting the nutritional needs of children. The intake of nutrients from complementary feeding plays a vital role in meeting the nutritional requirements, especially for children aged 6-24 months. Therefore, family-based therapy, facilitated through counseling, is essential to empower families in addressing children's nutritional issues. This approach aims to enhance the practice of complementary feeding, thereby preventing nutritional problems and fostering the growth and development of children. **Purpose:** This literature study described the use of counseling on complementary feeding to families in fulfilling the nutritional needs of children aged 6-24 months. **Methods:** The research design used in this study was a narrative literature review. Search articles through 4 databases (Google Scholar, ScienceDirect, PubMed, and SpringerLink) and keywords family counseling, complementary feeding, and children aged 6-24 months. Articles were searched through 4 stages based on the PRISMA flowchart. **Results:** The analysis of ten articles in this study revealed that the implementation of complementary feeding counseling when tailored to the specific needs and circumstances of the family, has a significant and positive impact on changing family behavior related to complementary feeding practices. This includes attention to the method, media, steps, and implementation time and identifying the right target, which could be the primary caregiver or the entire family unit. Such interventions have improved adherence to standards and recommendations, increasing children's weight and nutritional status. **Conclusions:** Family counseling on complementary feeding significantly enhances the knowledge, attitudes, and behaviors related to mothers' complementary feeding practices. When these practices align with the standards and recommendations set by health authorities, they can effectively meet the nutritional needs of children aged 6-24 months. When achieved, this alignment empowers the audience to play a crucial role in promoting children's optimal growth and development.

### KEYWORDS

Child Nutrition, Complementary Feeding, Family Counseling

### How to cite:

Arifa, Y. Z., Susanto, T., Rasni, H., & Fauziah, W. (2024). Utilization of Complementary Food Counseling in Families to Meet the Nutritional Needs of Children Aged 6-24 Months: A Literature Review. *Journal of Rural Community Nursing Practice*. 2(2), 215-233. <https://doi.org/10.58545/jrcnp.v2i2.314>

## 1. BACKGROUND

Fulfillment of nutritional needs has an essential role in supporting the growth and development of toddlers (Surani & Susilowati, 2020). Fulfillment of nutrition that is not following the needs will have an impact on changing the nutritional status of children under five to become undernourished or overnourished (Mustika & Syamsul, 2018). As many as 3 out of 10 children under 5 years worldwide experience stunting, meanwhile 1 out of 10 was underweight in 2018 (UNICEF, 2021). Indonesia is ranked 4th in the world with the highest number of children under five experiencing nutritional problems as much as 17.7% (Kemenkes RI, 2018). Even the under-five mortality rate due to malnutrition reaches 5.0 million people worldwide (UNICEF, 2021).

The incidence of malnutrition in children under five is related to several factors, such as fulfilling a balanced nutritional intake, Antenatal Care (ANC) health services, infectious disease, family economic well-being, and parenting style (Wahyuni et al., 2020; Yoga & Rokhaidah, 2020; Susanto et al., 2017; Handayani, 2017; Silas et al., 2018). One of the most significant factors in fulfilling children's nutrition is parenting style in the practice of providing

complementary feeding (Hasibuan, 2019). According to data from the Ministry of Health of the Republic of Indonesia in 2020, the proportion of early breastfeeding and complementary feeding that is not following the recommendation is 47.7%. This indicates that families, especially parents, are still not able to fulfill the nutritional needs of children properly.

Complementary feeding is given at the age of 5 months to 2 years. The age of 6-24 months can be said to be a golden age or a critical period, where in that age range toddlers will experience a very rapid growth process (Hendra, 2016). When 0-6 months, toddlers need nutritional intake from exclusive breastfeeding (Damayanti et al., 2016). After 6 months, babies will need more nutritional intake as they get older, while breast milk production slowly decreases (Arini et al., 2017). Therefore, complementary feeding is needed when the child has been exclusively breastfed for 6 months. When the intake of complementary feeding is not fulfilled, it will inhibit the growth process which if left for a long time will cause malnutrition (Damayanti, et al., 2016). Toddlers who are malnourished will have an impact on physical growth, cognitive development, and child productivity (Djauhari, 2017).

Complementary feeding practice are influenced by several factors, such as the mother education's level ([Redia et al., 2020](#)), parent's employment status and family socioeconomic's level ([Sholikhah et al., 2017](#); [Apriliana & Rakhma, 2017](#)). From these several factors, it shows that the family plays a significant role in fulfilling the nutritional needs of toddlers. In family-centered care, family encouragement is a major force in the development of child care both in the hospital and at home ([Williams & Wilkins, 2015](#)). Therefore, a family-based intervention through complementary feeding counseling is needed. Complementary feeding counseling allows families to overcome nutritional problems to improve children's nutritional status and improve complementary feeding practices ([Darwati et al., 2016](#); [Rahmawati et al., 2016](#)). Based on the description above, the researcher wants to find out more about the use of complementary feeding counseling for families in fulfilling the nutritional needs of toddlers aged 6-24 months through literature review study.

## 2. METHODS

A literature review design was used in this study. Article sources are obtained from databases search engines such as Google

Scholar, PubMed, SpringerLink, and ScienceDirect. The keywords used are family counseling, complementary feeding, and children 6-24 months.

Determination of the articles involved in this literature review study was selected based on inclusion and exclusion criteria. Inclusion criteria include: 1) research subjects are families who have children aged 6-24 months, 2) explaining complementary feeding counseling to families, 3) explaining the nutritional needs of children aged 6-24 months, 4) the article is included in a research article, not a review, 5) using experimental study design, 6) published articles from 2017 to 2021, 7) Full-text access, 8) research site is conducted in the community area, and 9) Articles are written in Indonesian or English. While the inclusion criteria include: 1) Population of children aged less than 6 months and more than 24 months, 2) The article doesn't explain complementary feeding counseling to families, 3) Using a systematic review design, literature review, or other review studies, 4) Types of proceeding articles, theses, and dissertations, 5) articles published under 2017, and 6) Articles only contain abstracts.

The article search process goes through 4 stages based on the PRISMA

flowchart (Figure 1). First, articles are searched through a database using keywords and found a total of 2,603 articles: PubMed: 497; ScienceDirect: 854; SpringerLink: 11; dan Google Scholar: 1.241. Second, articles were screened based on the inclusion and exclusion criteria. A total of 92 articles were eliminated due to 28 articles not full text, 19 review articles, 37 articles are proceedings, theses, and dissertations, and 8 articles published under 2017. Third, articles were screened again by reviewing the entire content of the article. A total of 81 articles were eliminated due to 9 articles, the research subjects are not children aged 6-24 months, 51 non-experimental study designs, 21 articles do not explain family counseling. The number of articles involved in the literature review process is 10 articles.

There are several ways to select articles in this literature review study stages based on the PRISMA flow diagram consisting of Identification, Screening, Eligibility, and Inclusion. Identification is the first stage is where articles are searched through the database using specified keywords. Then the Screening stage is the article screened based on predetermined inclusion and exclusion criteria.

Next is the Eligibility stage where articles are selected based on suitability see

the entire contents of the article. After going through the screening process and eligibility, then go to the Included stage where the article is included into the list of articles that will be processed in data analysis. An explanation of the article selection stages based on the PRISMA diagram is as follows:

Identification. Identification is the first stage in selecting articles. On At this stage, articles are searched through databases such as Google Scholar, PubMed, SpringerLink, and ScienceDirect. Article searches were carried out with using predefined keywords so it will Articles appear according to topics based on these keywords.

Screening. Screening is the stage of filtering or selecting suitable articles with predetermined inclusion criteria. The screening process is carried out by reviewing, studying and observing the title, abstract and contents of the article based on criteria such as article publications from 2017 to 2021, articles can be accessed in full text, articles are written in Indonesian or English, research article containing the use of family counselling regarding MP-ASI and meeting the nutritional needs of children aged 6-24 months. Whereas articles that only contain abstracts, articles that use systematic

reviews or other review methods, articles published in 2016 and below, and articles that are not explains family counseling about MP-ASI and meeting nutritional needs Children 6-24 months will be excluded or eliminated at this screening stage

Eligibility. The Eligibility Stage is the stage of selecting articles based on appropriateness seen from the content of the article as a whole. At this stage of the article reviewed based on inclusion criteria such as articles with the subject research on families with children aged 6-24 months, article that used an experimental study design, and where the research was conducted community area. If articles are found that do not meet the above criteria then the article will be excluded or eliminated from this Eligibility stage. After If the article meets the eligibility aspects, then

the article is declared worthy and acceptable used in the article analysis process in this literature review study.

Included. Included is the stage of including articles that meet the requirements eligibility criteria into the list of articles ready to be analyzed in the study this literature review. At this stage the final total of the article is obtained after going through Identification, Screening and Eligibility stages. Existing literature findings in The next article will go through a series of data analysis processes involved in this literature review study. After going through the process of identification, screening, eligibility, and inclusion, 10 articles were found that met the inclusion criteria and exclusion. An overview of the article selection stages based on the diagram PRISMA flow in [Figure 1](#).

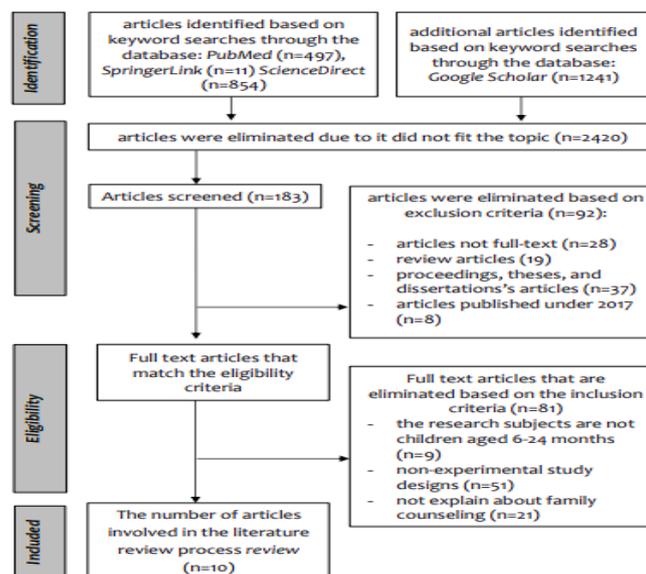


Figure 1. PRISMA Flowchart

After passing the article selection stage, the next step is: read, study and study articles that have been found. Then the article further analyzed and synthesized using the PRISMA checklist which consists of 17 question items. PRISMA checklist is an item Systematic selection as a guide for systematic reviews and meta-analyses (Tricco et al., 2018). The data analysis process in this literature review was carried out using strategies such as summarize, analyze, synthesize, and evaluate (Page et al., 2021). summary is a data analysis technique by summarizing, summarizing, and restate theories and opinions concisely. Then analyze is an activity of identifying, viewing and examining all aspects in a comprehensive manner pay close attention to the structure and interpretation of the articles that have been found.

Furthermore, synthesis is an activity of combining ideas and information from various sources and combining different information into one new information. Then evaluation is used to make judgments based on evidence or criteria (Cahyono et al., 2019). Based on the problem formulation and objectives in this literature study, then the data analysis that will be used is summarize or summarize, summarize, and briefly restate theories and opinions regarding use

counseling about MP-ASI for families and meeting children's nutritional needs aged 6-24 months. The stages in preparing this literature review study include: 1) Look for similarities and make conclusions based on literature findings regarding counseling for families who have children aged 6-24 months who will explained in a description of counseling for families of children aged 6-24 month; 2) Look for similarities and make conclusions based on the literature findings regarding MP-ASI needs for children aged 6-24 months will be explained in a description of MP-ASI needs for children aged 6-24 months; and 3) Look for similarities and make conclusions based on the findings of the literature regarding meeting the nutritional needs of children aged 6-24 months which will be explained in a description of meeting the nutritional needs of children aged 6-24 months; 4) Look for similarities and make conclusions based on the literature findings regarding the use of counseling about MP-ASI for families in fulfilling it nutritional needs of children aged 6-24 months.

### **3. RESULTS**

Based on the results of article selection through the PRISMA flowchart stages, 10 articles were found that will be discussed in

this literature review study. The whole article explains complementary feeding counseling to families (Table 1). Counseling is an interaction or relationship between individuals and counseling providers (counselors) in identifying problems and finding solutions to these problems. Based on the findings of 10 articles, 5 articles explain that the counseling process also involves health education. The purpose of health education in the counseling process is to achieve behavioral changes in individuals, families, and communities so that they can participate in improving optimal health (Sadriatanur, 2020; Ade, 2020; Muluje et al., 2020; Sriasih & Rahyanti, 2021; Ahmad et al., 2020).

The process of implementing counseling needs to pay attention to several things, including the selection of methods, media, target groups, timing, and steps. Several complementary feeding counseling methods are based on article findings such as lectures, demonstrations, and action observations. The demonstration method was carried out using a food sample where the counselor practiced directly how to make good and correct complementary feeding, while the action observations were carried out after counseling session to evaluate the complementary feeding

practice (Ade, 2020; Muluje et al., 2020). Several media to support the counseling process based on article findings include counseling cards pocket books posters, brochures, leaflets and FMC (food monitoring card) (Rahmawati et al., 2019; Puspitasari et al., 2019; Muluje et al., 2020; Ahmad et al., 2020).

Based on the findings of articles related to the target group, all articles explain that the use of counseling aimed at families is individual to mothers through home visits. Regarding the implementation time, the counseling period is 1-4 months with a frequency of a week to once a month with a duration of 20 minutes to 2 hours (Nugraha et al., 2017; Puspitasari et al., 2019; Ahmad et al., 2020; Muluje et al., 2020). Someone who plays a role in providing complementary feeding counseling to families is a professional counselor or person who has received counseling training (Rahmawati et al., 2019). Counselors need to follow the 3 steps of complementary feeding counseling. First, the counselor explores information about complementary feeding as possible to the mother, then the second is to analyze the information and then conclude so that the problem can be identified, and the last is to conduct counseling sessions based on family

problems using the support of counseling cards and other media ([Puspitasari et al., 2019](#)).

When the counselor conducts a counseling session based on family problems, the basic knowledge and understanding that the counselor needs to master are related to 7 standards/recommendations for complementary feeding which include age, frequency, portion/ amount, shape/ texture, variety/ diversity, hygiene, and responsive feeding. The right indication for giving complementary feeding was at the age of 6 months to 24 months. The frequency, amount/portion, and food texture are differentiated based on 3 age groups, including 6-8, 9-11, and 12-24 months. At the age of 6-8 months, complementary food is given 2-3 times per day, as much as 125 ml (2-3 spoons) has a smooth texture, while at the age of 9-11 complementary food intake begins to increase, which is 3-4 times per day, as much as 125 ml gradually to 250 ml semi-solid textured, and at the age of 12-24 months, it is given 3-4 times per day as much as 200 ml gradually until 250 ml semi-solid textured towards family food ([Rahmawati et al., 2019](#))

Regarding the food variations at least meet 4 food groups consisting of staple

foods, side dishes, sources of protein and iron, vegetables, and fruits ([Rahmawati et al., 2019](#)). While in another study are more, namely 10 food groups consisting of cereals, nuts, vegetables/fruits, milk/dairy products, eggs, mutton/chicken/fish, foods containing vitamin A, vitamin C, vitamin D, and iron ([Kumar et al., 2020](#)). Hygiene recommendations need to be considered clean by always washing hands and cleaning children's eating utensils. As well as the active response that does not have to force the child to eat if the child refuses to eat, but encourages the child to eat with patience and affection.

Based on the findings of the entire article, 9 articles revealed that counseling about complementary feeding has a significant influence on the mother's knowledge, attitudes, and behaviour in complementary feeding practice. However, this shows the opposite result in the research of [Arifin et al \(2019\)](#) which states that there is no significant effect on mothers' knowledge of complementary feeding practices after being given counseling as evidenced in the chi-square test results ( $p=0.361$ ). In this study, only the knowledge category did not have a significant effect, but for the attitude and action category, it was the same as other

studies that there was a significant effect after complementary feeding counseling was given. In addition, positive changes also occur in increasing body weight to become normal/ideal. However, it does not have a

significant effect on the level of energy and protein consumption. This is because the counseling that lasts for 6 weeks is not enough to change the child's energy and protein consumption level.

**Table 1.** The literature search results (Continue to page 224, 225)

No	Title	Design	Subject	Measurement	Findings
1	Pengaruh Konseling Gizi Terhadap Tindakan Ibu dalam Pemberian MP-ASI dan Berat Badan Balita Gizi Kurang 6-24 Bulan di Desa Sesela Wilayah Kerja Puskesmas Gunungsari Kabupaten Lombok Barat	Quasi experiment	Malnutritio n toddlers 6-24 months old in Sesela Village	Direct observation of the mother's actions before and after the intervention with, observation sheets and measuring the weight of toddlers using digital scales	There is an effect of nutritional counseling on the mother's actions in giving complementary feeding before and after the intervention, which is significant from the Wilcoxon Signed Ranks Test statistical test, the results are $p < 0.00 < 0.05$ , and there is an effect of the mother's actions on the weight gain of children under five due to nutritional counseling based on the Mann-WhitneyTest test obtained $p < 0,01 < 0.05$
	Daniel Nugraha, Abdul Salam, dan Yuli Laraeni (2017)				
2	Pengaruh Penyuluhan Gizi Terhadap Pengetahuan dan Sikap Ibu dalam Pemberian Makanan Pendamping ASI di Kecamatan Matan Hilir Utara Kabupaten Ketapang Tahun 2020	Quasi-experiment OOne group pretest-posttest	mothers who have Toddlers Mother who have children aged 6-11 months	Questionnaire to measure the level of Knowledge and attitudes of mothers in giving complementary feeding	There is an effect of nutrition education on mother's knowledge in Complementary feeding ( $p < 0.0001$ ) and there is an effect of nutrition education on mother's attitude in giving complementary feeding ( $p < 0.0001$ )
	Sadriatanur (2020)				
3	Pengaruh Penyuluhan Gizi Terhadap Perubahan Pengetahuan dan Perilaku Ibu Dalam Pemberian MP-ASI	Quasi experiment using the one group pre and post-test design	Mothers who have toddlers aged 6-24 months	Measurement of feeding behavior using a questionnaire	There is an effect of nutritional counseling on changes in the mother's knowledge and behavior in giving complementary foods for children 6-24 months
	Ade A (2020)				
4	Konseling Oleh Kader Posyandu Meningkatkan Praktik Ibu dalam Pemberian Makan Bayi dan Anak Usia 6-24 Bulan di Desa Pagelaran,	Quasi experiment using the one group pre and	Mothers who have toddlers aged 6-24 months	A structured questionnaire consisting of data on mothers, infants and children, health and growth status,	There is a difference in the value of pre and post counseling ( $p = 0.003$ ) and there is an effect of counseling on improving the practice of feeding

No	Title	Design	Subject	Measurement	Findings
	Kecamatan Ciomas, Bogor, Indonesia	post-test design		and complementary feeding practices.	infants and children by mothers ( $p < 0.01$ ).
	<p>Siti Mutia Rahmawati, Siti Madaniyah, Faisal Anwar, Risatianti Kolopaking (2019)</p>				
5	Pengaruh Edukasi MP-Asi Terhadap Kesiapan Ibu dalam Pemenuhan Kebutuhan Gizi Bayi Usia 6 Bulan Sampai 24 Bulan	Quasi experiment using the one group pre and post test design	Mothers who have toddlers aged 6-24 months	A questionnaire about the readiness of mothers in giving complementary feeding to infants aged 6-24 months which includes the readiness of knowledge and readiness of attitudes that have been tested validity	The provision of complementary feeding education affects the mother's readiness in giving complementary feeding for infants aged 6-24 months. Wilcoxon test results obtained p value $0.001 < 0.05$
	<p>Ni Kadek Sriasih, Ni Made Sri Rahyanti (2021)</p>				
6	Konseling Gizi Seimbang dengan Buku Saku Terhadap Perilaku Ibu, Pola Makan Serta Tingkat Konsumsi Energi dan Protein Baduta Stunting	Quasi experiment using the one group pre and post-test design	Mothers who have toddlers with short and very short nutritional status	The data of stunting children measure directly using the tread scales and microtoa or metlin. Data on knowledge and attitudes were obtained from questionnaires, while data on respondents' practices were obtained from observations by filling out checklist sheets. Data on eating patterns and levels of energy and protein consumption were obtained from interviews and filling out a food recall form 2 x 24 hours.	Balanced nutrition counseling gave a significant influence on mother's behavior (knowledge, attitude and practice) with $p = 0.005$ , $p = 0.000$ and $p = 0.038$ . but it has no significant effect on children's eating patterns ( $p = 0.554$ ) and the level of energy consumption ( $p = 0.312$ ) and the level of protein consumption ( $0.444$ ). There is an effect of nutrition counseling on mother's attitude ( $p$ -value $0.000$ ) and the practice of giving complementary feeding ( $p$ -value $0.004$ )
	<p>Ratri Puspitasari, I Dewa Nyoman, Astutik Pudjirahaju, Anom Aswin (2019)</p>				
7	Effects of Nutrition Education on Improving Knowledge and Practice of Complementary Feeding of Mothers with 6- to 23-Month-Old	An institution-based randomized control trial design	Mothers who have children aged 6-24 months in a child care institution.	The Ethiopian Demographic and Health Survey (EDHS) questionnaire and the infant and	The provision of nutrition education increases the knowledge and practice of providing appropriate complementary foods to mothers in child care with

No	Title	Design	Subject	Measurement	Findings
	Children in Daycare Centers in Hawassa Town, Southern Ethiopia: An Institution-Based Randomized Control Trial			young child feeding (IYCF)	the chi-square test results obtained significant results ( $p < 0.05$ )
	Selam Deksiyous Muluye, Tefera Belachew Lemma, and Tona Zema Diddana (2020)				
8	The Effect of Nutrition Counseling on Complementary Feeding Practice of Mothers Having Infant Aged 6-12 Month	Quasi experiment using the one group pre and post-test design	Mothers who have children aged 6-24 months	Mother's knowledge questionnaire about complementary feeding	There was an effect of nutritional counseling on changes in maternal attitudes with p-value of 0,000 and there was also the effect of nutritional counseling on complementary feeding practice with p-value 0.004
	Yulia Arifin, Masrul, Hirowati Ali (2019)				
9	Impact of individualized nutritional counseling on infant and young child feeding practices	Quasi experiment using the one group pre and post-test design	Mothers who visit immunization clinics with children aged 6 months to 2 years	Network of India (BPNI)	Feeding by mothers improved significantly in the form of items from the total number of groups from 4.3 (1.4) to 5.6 (1.3) after nutritional counseling ( $p: 0.001$ ). Consumption of junk foods decreased significantly from 4.3 (2.8) to 2.6 (1.8; $p: 0.001$ ) and baby foods decreased from 0.8 (0.7) to 0.2 (0.4; $p: 0.001$ ).
	Mohit Kumar, Puja Dudeja, Subhash Chandra Shaw, Rakesh Gupta (2021)				
10	Effect of Nutrition Education and Multi-Nutrient Biscuit Intervention on Nutritional and Iron Status: A Cluster Randomized Control Trial on Undernourished Children Aged 6-23 Months in Aceh, Indonesia	Cluster randomized , control trial	Children aged 6-23 months who suffer underweight	Anthropometric measurements of weight using electronic scales, assessment of nutritional status using the growth standard instrument WHO Z-Score	The combination of nutrition education and multi-nutritional biscuit intervention improves nutritional status and iron deficiency in malnourished children
	Aripin Ahmad, Siti Madanijah, Cesilia Meti Dwiriani, Ristianti Kolopaking (2020)				

#### 4. DISCUSSION

Family counseling is intended to understand the client's problems as a whole by involving family members. The role of the counselor is to become a facilitator and resource person who will encourage families to find alternative coping strategies to decide independently (Friedman et al., 1998). Families who have children aged 6-24 months are included in the second stage of family development, namely childbearing-family (oldest child birth-30 months) or families with the birth of their first child where one of the family's tasks at this stage is to share the task of raising children (Kaakinen et al., 2015). Therefore, this counseling aims to make the family understand the division of roles of each family member in raising children, especially in the complementary feeding practice

Referring to the findings of the article, several methods and media were found that were used to assist the complementary feeding counseling process in children aged 6-24 months. The selection of the demonstration method by practicing directly how to make the right complementary feeding will be easier for parents to understand, more interesting, and less boring so that it can have a positive influence on the mother's complementary

feeding practice (Ade, 2020), while the act of observation after the counseling session is carried out so that the counselor can assess the practice of complementary feeding by the mother to achieve the mother's action in the good category (Nugraha et al., 2017). Media selection in guidance and counseling services needs to pay attention to the counseling service method used. The counselor must choose the appropriate media according to the method used (Kumar et al., 2020).

Based on the findings of 10 articles, it was stated that counseling on complementary feeding aimed at families with children aged 6-24 months was only devoted to mothers. This is because mothers adapt more quickly to the responsibilities of being a new parent and learn more about role changes in the family, whereas fathers will be more neutral at the beginning of the change and tend to be women who adapt more quickly to changes in the new family structure (Friedman et al., 1998). Ideally, not only mothers who participate in caring for children's health, but the role of fathers and other family members also needs to be included because, in the second stage of family development, each family member must be responsible for

their duties at every stage of development structure (Friedman et al., 1998).

The findings of the article state that the indication for complementary feeding is when the child is 6 months to 2 years old. Children who are given complementary food too early can cause diarrhea, choking, allergies, and various other digestive problems (Kumar et al., 2020). The emergence of digestive problems is because the gastrointestinal organs and functions of children less than 6 months are not ready to accept solid food (Arifianto & Herliani, 2019). However, if children are given complementary foods late, it will make it challenging to learn to chew, so children will be reluctant to eat solid food from an early age (Nugraha et al., 2017). From the findings of articles discussing food variety, there are two different opinions, namely in the research of Muluye et al (2020) which states that the variety of food must meet the 4-star food group and the study of Kumar et al (2020) which mentions more, namely 10 food groups. However, based on the guidelines for the complementari feeding according to the Kemenkes RI (2018), the variety of foods in complementari food at least meets 4 food groups, namely staple foods (foods containing carbohydrates such as rice, tubers, corn, and potatoes),

vegetables, side dishes that contain high protein (beef, fish, eggs, and nuts), and fruits.

Related to the effect of complementary feeding counseling on changes in mothers's knowledge, attitudes and actions, it was found that one article revealed different results from 9 other articles. It mentions complementary feeding counseling doesn't have a significant effect on mother's knowledge. This is because the level of knowledge of the mother before the counseling intervention was included in the good category, so the results showed there was no difference in the level of knowledge of the mother before and after the counseling intervention (Arifin et al., 2019). However, in the whole article, complementary feeding counseling has had a significant effect on improving the attitudes and practices of giving complementary food by mothers. Behavior change starts from the presence of an information on complementary feeding by the counselor to the mother which causes cognitive changes. After cognitive changes develop, it will encourage a person to bring up an inner response that is shown in an attitude. After the attitude is formed, the stimulus will develop and be fully realized, so that an action will be formed (Luthviatin et

al., 2021). The expected behavior change is the complementary feeding practice by mothers according to standards/recommendations. The formation of positive behavior in the complementary feeding practice by the family helps children fulfill their nutritional needs. Well-fulfilled nutritional needs support optimal growth and development of children so that children do not experience delays in their growth and development processes which will have an impact on their lives as adults (Fikawati et al., 2015).

## 5. CONCLUSION

Complementary feeding counseling to families by taking attention to the method, media, steps, implementation time, and right target has a significant effect on increasing the knowledge, attitudes, and behavior of mother's complementary feeding practice. Complementary feeding practice according to standards and recommendations can fulfill the nutritional needs of children aged 6-24 months to create optimal growth and development of children.

## ACKNOWLEDGMENT

We would like to thank you for the Family Health Care Studies and Faculty of

Nursing, Universitas Jember for supporting research.

## AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, analysis: Yeni Zanuba Arifa, Tantut Susanto, and Latifa Aini Susumaningrum. Writing and manuscript revisions: Yeni Zanuba Arifa, Tantut Susanto, and Wahyuni Fauziah.

## DECLARATION OF INTEREST

The authors declare no conflict of interest regarding the publication.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from corresponding author.

## REFERENCES

Ade, A. (2020). Pengaruh Penyuluhan Gizi Terhadap Perubahan Pengetahuan dan Perilaku Ibu Dalam Pemberian MP-ASI. In *Jurnal Ilmu Gizi Indonesia (JIGZI)* (Vol. 1, Issue 1). Universitas Mitra Indonesia. <https://doi.org/10.57084/jigzi.v1i1.325>

Ahmad, A., Madanijah, S., Dwiriani, C. M., & Kolopaking, R. (2020). Effect of

- Nutrition Education and Multi-Nutrient Biscuit Interventions on Nutritional and Iron Status: A Cluster Randomized Control Trial on Undernourished Children Aged 6-23 Months in Aceh, Indonesia. *Journal of nutritional science and vitaminology*, 66(Supplement), S380–S390. <https://doi.org/10.3177/jnsv.66.S380>
- Arifliana, W. F., & Rakhma, L. R. (2017). Faktor-Faktor Yang Berhubungan Dengan Status Gizi Balita Yang Mengikuti Tfc Di Kabupaten Sukoharjo. In *Profesi (Profesional Islam) : Media Publikasi Penelitian* (Vol. 15, Issue 1, p. 9). STIKES PKU Muhammadiyah Surakarta. <https://doi.org/10.26576/profesi.214>
- Arifianto & Herliani, P. D. (2019). *Makan Tepat, Tumbuh Sehat*. Depok.
- Arifin, Y., Masrul, M., & Ali, H. (2019). The Effect of Nutrition Counseling on Complementary Feeding Practice of Mothers Having Infant Aged 6-12 Month. In *Journal of Midwifery* (Vol. 4, Issue 1, p. 66). Universitas Andalas. <https://doi.org/10.25077/jom.4.1.66-77.2019>
- Arini, F. A., Sofianita, N. I., & Bahrul Ilmi, I. M. (2017). Pengaruh Pelatihan Pemberian MP ASI Kepada Ibu dengan Anak Baduta Di Kecamatan Sukmajaya Kota Depok Terhadap Pengetahuan dan Perilaku Pemberian MP ASI. In *Jurnal Kedokteran dan Kesehatan* (Vol. 13, Issue 1, p. 80). Universitas Muhammadiyah Jakarta. <https://doi.org/10.24853/jkk.13.1.80-89>
- Damayanti, R. A., Muniroh, L., & Farapti, F. (2017). Perbedaan Tingkat Kecukupan Zat Gizi Dan Riwayat Pemberian Asi Eksklusif Pada Balita Stunting Dan Non-Stunting. *Media Gizi Indonesia*, 11(1), 61–69. <https://doi.org/10.20473/mgi.v11i1.61-69>
- Darwati, D., Mexitalia, M., Hadiyanto, S., Hartanto, F., & Nugraheni, S. A. (2016). Pengaruh Intervensi Konseling Feeding Rules dan Stimulasi Terhadap Status Gizi dan Perkembangan Anak di Posyandu Kabupaten Jayapura. In *Sari Pediatri* (Vol. 15, Issue 6, p. 377). Paediatrica Indonesiana - Indonesian Pediatric Society. <https://doi.org/10.14238/sp15.6.2014.37-84>

- Djauhari, T. (2017). GIZI DAN 1000 HPK. In Saintika Medika (Vol. 13, Issue 2, p. 125). Universitas Muhammadiyah Malang. <https://doi.org/10.22219/sm.v13i2.5554>
- Fikawati, S., Syafiq, A., & Karima, K. (2015). Gizi Ibu dan Bayi. Jakarta: PT Raja Grafindo Persada.
- Friedman, M. M., Bowden, V. R., & Jones, E. G. (1998). Buku Ajar Keperawatan Keluarga Riset, Teori & Praktik, Edisi 3. Jakarta, EGC.
- Handayani, R. (2017). Factors related to nutritional status in children under five. *Journal Endurance*. vol. 2, no. 2, pp. 217–224. <https://ejournal.ildikti10.id/index.php/endurance/article/view/1742>
- Hasibuan, N. R. (2019). Pengaruh Pola Asuh Ibu Terhadap Status Gizi Pada Anak Balita di Gampong Sidorejo Kecamatan Langsa Lama Kota Langsa Tahun 2015. In *Jurnal Maternitas Kebidanan* (Vol. 4, Issue 1, p. 85). Universitas Prima Indonesia. <https://doi.org/10.34012/jumkep.v4i1.509>
- Hendra, A. (2016). Analisis Penggunaan Jenis MP-ASI dan Status Keluarga Terhadap Status Gizi Anak Usia 7-24 Bulan di Kecamatan Jaya Baru. *Jurnal Kesehatan Masyarakat*. vol. 02, no. 2, pp. 72–153. <https://ejournal.unmuha.ac.id/index.php/JKMA/article/view/515>
- Kaakinen, J. R., Coehlo, D. P., Steele, R., Tabacco, A., & Hanson, S. M. H. (2015). *Family Health Care Nursing Theory, Practice, and Research*, 5th edition. Philadelphia: F. A. Davis Company.
- Kemenkes RI. (2018). Laporan Nasional Riskesdas 2018. [https://protc.id/wp-content/uploads/2021/07/Laporan\\_Nasional\\_RKD2018\\_FINAL.pdf](https://protc.id/wp-content/uploads/2021/07/Laporan_Nasional_RKD2018_FINAL.pdf)
- Kumar, M., Dudeja, P., Shaw, S. C., & Gupta, R. (2021). Impact of individualized nutritional counseling on infant and young child feeding practices. *Medical journal, Armed Forces India*, 77(2), 220–223. <https://doi.org/10.1016/j.mjafi.2020.10.004>
- Lubis, N. L. (2011). *Memahami Dasar-Dasar Konseling Dalam teori dan Praktik*, Edisi-1. Jakarta: Kencana.
- Luthviatin, N., Zulkarnain, E., Istiaji, E., & Rokhmah, D. (2012) *Dasar-Dasar*

- Promosi Kesehatan & Ilmu Perilaku. Jember: UPT Penerbitan UNEJ.
- Muluye, S. D., Lemma, T. B., & Diddana, T. Z. (2020). 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. *Journal of nutrition and metabolism*, 2020, 6571583. <https://doi.org/10.1155/2020/6571583>
- Mustika, W., & Syamsul, D. (2018). Analisis Permasalahan Status Gizi Kurang Pada Balita di Puskesmas Teupah Selatan Kabupaten Simeuleu. In *Jurnal Kesehatan Global* (Vol. 1, Issue 3, p. 127). Institut Kesehatan Helvetia. <https://doi.org/10.33085/jkg.v1i3.3952>
- Nugraha, D., Salam, A., & Laraeni, Y. (2017). Pengaruh Konseling Gizi Terhadap Tindakan Ibu Dalam Pemberian Mp-Asi Dan Berat Badan Kabupaten Lombok Barat. *Jurnal Gizi Prima*. 2(2), 137–147. <http://jgp.poltekkes-mataram.ac.id/index.php/home/article/view/98/72>
- Puspitasari, R., Nyoman, I. D., Pudjirahaju, A., & Aswin, A. A. (2019). Konseling Gizi Seimbang Dengan Buku Saku Terhadap Perilaku Ibu, Pola Makan Serta Tingkat Konsumsi Energi Dan Protein Baduta Stunting. *Pendidik. Kesehat.*, vol. 8, no. 2, pp. 138–150. <https://ojs.poltekkes-malang.ac.id/index.php/jpk/article/download/911/209/>
- Rahmawati, S. M., Madanijah, S., Anwar, F., & Kolopaking, R. (2019). Konseling oleh Kader Posyandu Meningkatkan Praktik Ibu Dalam Pemberian Makan Bayi Dan Anak Usia 6-24 Bulan di Desa Pagelaran, kecamatan Ciomas, Bogor, Indonesia. In *Gizi Indonesia* (Vol. 42, Issue 1, p. 11). Persatuan Ahli Gizi Indonesia (Persagi). <https://doi.org/10.36457/gizindo.v42i1.379>
- Redia, P. M., Merry Wijaya, & Ari Indra Susanti. (2020). Pengetahuan Dan Sikap Ibu Tentang Manfaat ASI Dan Risiko Pemberian MP-ASI Pada Bayi Usia 0-6 Bulan Di Desa Cipacing. *Jurnal BIMTAS: Jurnal Kebidanan Umtas*, 4(1), 18–26.

- <https://doi.org/10.35568/bimtas.v4i1.10>  
26
- Sadriatanur, W. (2020). Pengaruh Penyuluhan Gizi Terhadap Pengetahuan Dan Sikap Ibu Dalam Pemberian Makanan Pendamping Asi Di Kecamatan Matan Hilir Utara Kabupaten Ketapang Tahun 2020. In *Jurnal\_Kebidanan* (Vol. 10, Issue 2, pp. 500–508). Akademi Kebidanan Panca Bhakti.  
[https://doi.org/10.33486/jurnal\\_kebidanan.v10i2.106](https://doi.org/10.33486/jurnal_kebidanan.v10i2.106)
- Sholikah, A., Rustiana, E. R., & Yuniastuti, A. (2017). Faktor - Faktor yang Berhubungan dengan Status Gizi Balita di Pedesaan dan Perkotaan. *Public Health. Perspective Journal*. vol. 2, no. 1, pp. 9–18,  
<https://journal.unnes.ac.id/nju/index.php/phpj/article/view/10993>
- Silas, L., Rantetampang, A. L., Tingginehe, R., & Mallongi, A. (2018). The factors affecting stunting child under five years in sub province mimika. *International Journal Health Science*. vol. 3, no. 2, p. 99. Available:  
[https://ijshr.com/IJSHR\\_Vol.3\\_Issue.2\\_April2018/IJSHR0013.pdf](https://ijshr.com/IJSHR_Vol.3_Issue.2_April2018/IJSHR0013.pdf)
- Sriasih, N. K., & Rahyanti, N. M. S. (2021). Pengaruh Edukasi MP-ASI Terhadap Kesiapan Ibu Dalam Pemenuhan Kebutuhan Gizi Bayi Usia 6 Bulan Sampai 24 Bulan. *Jurnal Menara Medika.*, vol. 3, no. 1, pp. 66–73.  
<https://doi.org/10.31869/mm.v3i2.2455>
- Surani, E., & Susilowati, E. (2020). The Relationship Between Fulfilment of Basic Needs with the Incidence of Stunting In Toddlers. *Jurnal Ners*, 15(1), 26–30.  
<https://doi.org/10.20473/jn.v15i1.17286>
- Susanto, T., Syahrul, Sulistyorini, L., Rondhianto, & Yudisianto, A. (2017). Local-food-based complementary feeding for the nutritional status of children ages 6-36 months in rural areas of Indonesia. *Korean journal of pediatrics*, 60(10), 320–326.  
<https://doi.org/10.3345/kjp.2017.60.10.320>
- UNICEF. (2019). Status Anak Dunia 2019 UNICEF Indonesia. UNICEF Indones. every child, pp. 2019–2021, , Accessed: Oct. 06, 2021. [Online]. Available: <https://www.unicef.org/indonesia/id/status-anak-dunia-2019>

UNICEF. (2021). UNICEF DATA - Child Statistics. Accessed Jun. 20, 2022. <https://data.unicef.org/>

Wahyuni, L., Nasution, Z., & Tarigan, J. (2020). Fenomena Gizi Buruk Di Wilayah Kerja Puskesmas Peusangan: Malnutrition Phenomenon in Peusangan Community Health Center Working Area. *Poltekita: Jurnal Ilmu Kesehatan*, 13(2), 62–68. <https://doi.org/10.33860/jik.v13i2.34>

Williams, L. & Wilkins. (2015). *Pediatric Nursing Made Incredibly easy*, 2 nd. Library of Congress Cataloging-in-Publication Data.

Yoga, I. (2020). Pengetahuan Ibu Tentang Stunting Pada Balita Di Posyandu Desa Segarajaya. *Indonesian Journal of Health Development*, 2(3), 183-192. <https://doi.org/10.52021/ijhd.v2i3.74>