

Obstacles to the Complementary Feeding Assistance Program for Stunted Children Aged 6-24 Months: A Systematic Review

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ABSTRACT

Stunting is a condition of stunted physical and cognitive growth caused by malnutrition during the development of children under five. UNICEF and WHO recommendations stipulate exclusive breastfeeding for 6 months and breastfeeding for up to two years. Apart from that, it is very important to provide complementary foods for breast milk for 6-23 months. The aim of the research is to determine the obstacles to the Complementary Feeding assistance program for stunted children aged 6-24 months. The method used is a Systematic Literature Review. Health database with search engines Google Scholar, PubMed, Science Direct, ProQuest and Scinapse. The search strategy uses the keywords: Program Constraints, Complementary Feeding, Stunting and Baduta. Identifying research articles for 2017-2023 and using PRISMA flowcharts and literature eligibility criteria based on the PICOS framework. A total of 10,523 articles were identified. Five articles used cross sectional methods, three survey articles, one descriptive analysis article and one cohort article. There were 10 eligible articles that met the inclusion criteria. Based on the results of the identification of Complementary Feeding assistance programs for stunted children aged 6-24 months. There is a correlation between obstacles to the mentoring program related to non-optimal complementary feeding practices (accuracy, diversity and frequency), lack of knowledge and experience, obstacles in communication skills (delivering key messages), self-efficacy/working mothers, sanitation/environmental conditions, socio-economic, weak regulations and government programs including increasing community-based programs such as posyandu. If children aged 0-23 months receive inappropriate complementary foods, they are at high risk of stunting. Various obstacles to the Complementary Feeding assistance program will influence the program's emphasis on promoting children's growth and development to prevent stunting. Conclusion: the Complementary Feeding mentoring program is not optimal, due to various obstacles (specific and sensitive) faced in providing Complementary Feeding to stunted children aged 6-23 months.

Keywords: Program Barriers, Complementary Feeding, Breast milk.

INTRODUCTION

Stunting is growth failure (growth faltering) due to the accumulation of nutritional deficiencies that last for a long time starting from pregnancy until the age of 24 months. The age of 6-24 months is an important period for children's growth and development¹. Providing inappropriate or inadequate complementary foods for breast milk (Complementary Feeding) can cause stunting². Stunting as a serious problem is related to increasing morbidity and mortality problems and affects the quality of human resources in the future^{3,4}.

The global prevalence of stunting is estimated at 159 million children aged 5 years^{5,6}. In Asia, there are around 83.6 million stunted children under five, with Indonesia being the third country with the highest prevalence in the Southeast Asia region⁷. Stunting data according to Riskesdas in 2018 was 30.8%, consisting of 19.3% of short toddlers and 11.5% of very short toddlers. SSGI (Indonesian Nutritional Status Study) data for 2021 states that the percentage of stunting (very short and stunted) and wasting (malnutrition and malnutrition) in toddlers aged 0-59 months from 2016 - 2021 is from 27.5% to 24.4%⁸.

Nutritional problems (Lack of Energy and Protein) and stunting can occur due to one of

the causal factors, namely inappropriate provision of Complementary Feeding⁹. Complementary Feeding is food and drink given to children aged 6-24 months to fulfill their nutritional needs¹⁰. Complementary Feeding is a program to prevent physical, cognitive, affective and psychomotor disorders and developmental failure in children¹¹. Complementary Feeding is needed because at the age of 6-24 months, breast milk only provides 1/2 of the baby's nutritional needs and at the age of 12-24 months, breast milk provides 1/3 of the nutritional needs¹².

Efforts that have been made to reduce the incidence of stunting include providing health education related to complementary foods. Educational methods using multimedia/applications can be used as an alternative health education about complementary foods. In research conducted in Karachi, Pakistan by¹³ regarding the effect of nutritional education for mothers with complementary breast milk foods on children's nutritional status which was carried out for 30 weeks, it had a positive effect on weight gain, height and upper arm circumference. , as well as reducing the prevalence of stunting and malnutrition by 10% in groups that have been educated. So far, direct methods or lectures have often been used to provide health education. However, this is considered less than optimal and ineffective¹⁰.

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A nutrition improvement program to improve the quality of Complementary Feeding has been implemented to date, including providing Complementary Feeding to babies and children aged 6-24 months from underprivileged families. From a sociocultural point of view, Complementary Feeding should be made from food that is cheap and easily available in the local area (indigenous food)¹⁴. The Complementary Feeding mentoring program is an important step in fighting stunting.

MATERIALS AND METHOD

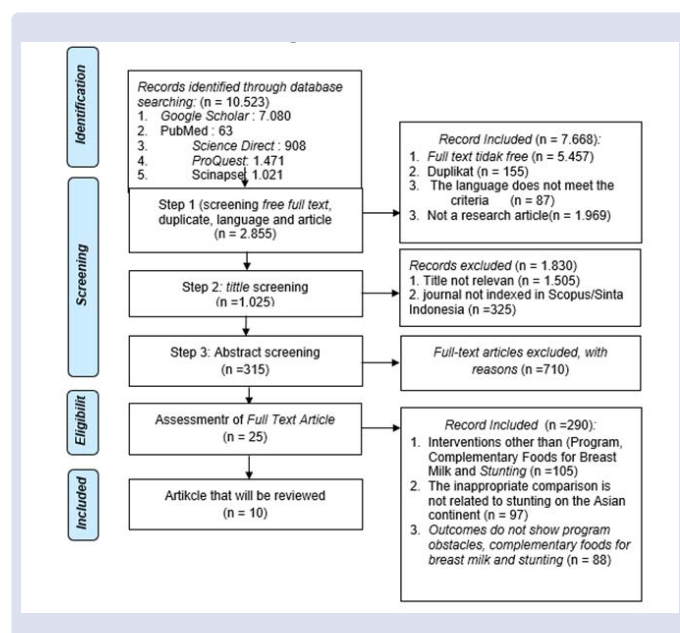
This research uses a systematic review method with descriptive analysis. The data used is secondary data originating from research articles. Search for articles using the Google Scholar search engine for national journals, meanwhile, for international journals PubMed, Science Direct ProQuest and Scinapse. The article search uses the Boolean Operator technique by using the word OR to expand the search results and the word AND to narrow the search results with the keywords used, namely Program Constraints, Complementary Feeding, Stunting and Baduta.

Subsequent articles were selected using article filtering. Carried out using the PRISMA flowchart and literature eligibility criteria based on the PICOS framework. Then, the next article that was found with the inclusion criteria was the time span of article publication from 2017-2023, the research subjects were toddlers aged 6-24 months, baduta mothers, posyandu cadres or stakeholders (parties involved). Full-text articles and research locations in Indonesia and the Asian Continent. Then the articles are grouped based on researcher name, research title, year of publication, journal name, research variables, research subject, method and summary of results.

Articles that meet the inclusion criteria during the screening stage. Continue to find out whether the article is indexed at least Scopus 1 or 2 and SINTA 1 or 2, and includes the scope of the Asian continent. The next stage is methodological screening to analyze the methods used in the article as well as going through the article quality stages based on sample journals. Then, selected/filtered articles are articles that use an observational research design; (case control, cross sectional and cohort) and surveys. Article Selection Flow Chart

LITERATURE PROCESSING PROCESS

The PRISMA flowchart diagram is as follows:



DISCUSSION

Based on the results of the analysis of the Obstacles of the Complementary Feeding Assistance Program for Stunting Children Aged 6-24 Months, 10 journal articles were obtained. Coverage of the Asian continent. As a result of the identification of 10 journal articles obtained, there were 8 journals that stated obstacles to providing complementary breastfeeding food and there were 10 journal articles related to obstacles to the complementary breastfeeding program based on programs, knowledge, sanitation and regulations.

Obstacles in Providing Complementary Foods for Breast Milk

There are eight articles that show the obstacles to providing complementary foods for breast milk. Based on table 2, the research article by Ahmad et al., 2018 includes children aged 6-11 months and 12-23 months, taking into account the factors of age, nutritional status (underweight) and stunting. The stunting rate increased from 19 (12.8%) to 90 (37.0%) when aged 12-23 months, food diversity and frequency increased. Apart from that, pay attention to complementary feeding in the form of accuracy, variety and frequency as well as the mother's employment and educational status. The article by Mya et al., 2019 shows that children aged 6-23 months with a diversity of 23.2 and a frequency of 23.0 Complementary Feeding have a stunting rate of 20.2%. According to Athavale et al., 2020 shows that 50% of stunting is caused by a lack of educational intervention in the practice of providing Complementary Feeding. Uncertainty among mothers, including the length of breastfeeding, when to start solid food, type of food, amount and frequency

Fahmida et al., 2020 showed that children aged 0-18 months had a stunting rate of 83 (25.4%) due to early complementary feeding (< 6 months) of 41 and 139; diversity 41 and 139; and frequencies 269 and 263; education and employment of parents (mother). Meanwhile, Houghton et al., 2020, the results of identifying accuracy, frequency and diversity and stunting were 46 (39.3%). For the Paramashanti & Benita article, 2020 shows stunting at 87 (28.3%) with a stunting rate of 87 (28.3%). Cheikh Ismail et al., 2022 aged 0-23.9 months showed that the stunting rates were 22 (78%), 4 (96%) and 14 (86%). Meanwhile, breastfeeding for < 6 months is quite high at 19% compared to > 6 months 7%. Apart from that, Saha et al., 2023 aged 6-23 months showed a stunting rate of 35.9 (24.157%), dietary diversity of 29% and low maternal education.

The frequency, type and amount of complementary foods consumed at the age of 6-24 months are important components to ensure proper nutritional intake and meet children's nutritional needs for optimal growth and development. WHO recommends providing complementary breast milk foods that are varied and nutrient dense, for example (foods with a high micronutrient content compared to energy content), starting to introduce complementary breast milk foods at the age of 6 months. These foods should come from local sources that are rich in essential vitamins and minerals²⁵.

In line with research by Ahmad et al., 2018, it was stated that less than half (49.7%) of children received Complementary Feeding on time, the rest were given Complementary Feeding too early (4.5% after birth, 8.7% before 1 month of age and 37.2% before 6 months of age). As was found in Aceh, children who were 3 days old were given food other than breast milk, such as water, formula milk, fresh milk and other foods (tubers and grains) (Ahmad et al., 2018). In line with research by Mya et al., 2019 shows that IYCF practices in Myanmar in terms of minimum meal frequency, consumption of diverse foods and minimum acceptable eating patterns. Therefore, Myanmar is lower than in Nepal, Cambodia and Indonesia. Apart from that, it is more or less similar to Pakistan, Afghanistan and Bangladesh²⁶.

Research by Benedict et al., 2021 shows that children from the lower middle class who live on the outskirts of urban areas are vulnerable to stunting at an early age. Minimum dietary diversity is defined as receiving foods from at least four of the seven food groups in the form of (1) grains, roots and tubers, (2) nuts and legumes, (3) dairy products (formula milk, milk, yogurt and cheese), (4) meat foods (meat, fish and liver/offal), (5) eggs, (6) fruit and vegetables rich in vitamin A and (7) other fruit and vegetables. In addition, minimum feeding frequency is defined as a child receiving solid, semi-solid or soft complementary foods two or more times per day for children aged 6–8 months and three times or more per day for children aged 9–23 months who are breastfed. This research is related to poor quality diets²⁷.

A study in India by Houghton et al., 2020 suggests that the limited diversity and lack of meat, eggs, or vitamin A-rich fruits and vegetables in these complementary foods suggests that these young children may be at risk of iron deficiency, zinc, and vitamin A, with the potential to develop disease. Thus, stunting increased by 46 (39.3%)²⁸.

In Indonesia, the prevalence of stunting and underweight in children aged 0–24 months has been shown to increase with age²⁹. Consumption of foods that are not age appropriate and delays in providing complementary breast milk (Complementary Feeding) are other factors that have potential implications for children's nutrition³⁰. This is in line with research presented by Munde & Save, 2021, that less frequent eating and minimum diversity in providing complementary foods for breast milk can be caused by parental education, lack of information and inability to access food³¹.

Problems with child growth and development will occur if breastfeeding is not accompanied by adequate complementary foods at the appropriate age. With increasing nutritional intake requirements, if a child receives inadequate breast milk, linear growth retardation can occur³². In addition, age-inappropriate early feeding initiation and delayed introduction of complementary foods are additional impacts associated with working mothers in Cambodia³⁰.

Ahmad et al., 2018., Mya et al., 2019, Athavale et al., 2020, Houghton et al., 2020, and Saha et al., 2023 one of the obstacles to the Complementary Feeding mentoring program is due to lack of knowledge and the implications of low maternal education. According to⁽³³⁾ the role of parents is very important, especially mothers. Its role is to help fulfill children's nutrition because children need parental attention and support in facing very rapid growth and development. To get good nutrition, parents also need good nutritional knowledge so they can provide balanced menu choices. Thus, a person's level of knowledge will influence food choices. Therefore, it is necessary to provide nutritional information to parents, so that children do not become stunted³³.

According to Anastasia et al., 2023, mothers who have no education or have primary school education have a 1.5 times higher prevalence of stunting in toddlers, compared to mothers who have academic/university education⁽³²⁾. Meanwhile, according to Tasfeya and Egata, in 2022, children born to mothers who do not have formal education are 3.39 times more likely [(AOR=3.39; 95% CI (1.12, 5.11))] to experience stunting than children born to mothers with education. Stunting is 3.5 times [(AOR=3.48; 95% CI (2.36, 5.12))] more common in children whose mothers are unable to make decisions at the household level regarding household matters³⁴.

According to Paramashanti & Benita, 2020 shows that stunting reduction programs are not optimal and specific and working mothers tend to be at risk of stunting children. Food is a protective factor against stunting (AOR= 0.54; 95%CI: 0.31-0.94). Girls were less likely to be associated with stunting (AOR= 0.54; 95%CI: 0.32-0.93). In contrast, variables that significantly increased the risk of stunting included older children aged 12-17 months (AOR= 2.01; 95% CI: 1.05-3.84) and 18-23

months (AOR= 4.17; 95% CI: 2.15-8.08) and maternal employment in the agricultural sector (AOR= 3.77; 95%CI: 1.17-12.1)²⁰.

In addition, Hanifah's research, 2023, shows that the practice of assisting the Complementary Feeding program has obstacles due to the poor level of knowledge and practice of posyandu cadres. In this case, it is in line with research by Sumardilah et al., 2018, that there is a need for training for cadres so that they can carry out their duties continuously, especially in developing targets. The aim is continuous development for cadres to obtain updated knowledge and skills. This is based on the fact that to form good nutritional behavior in the family, it takes a long time in continuous mentoring activities³⁵.

Based on Fahmida et al., 2020, Houghton et al., 2020., and Torlesse et al., 2022, it is stated that poor environmental conditions can influence the provision of complementary foods to children. Houghton et al., 2020 study shows environmental conditions in slum areas in South Delhi, India. Use of shared corridors, shared kitchens, shared toilets and water taps. Apart from that, limited access to clean water is an obstacle in the Complementary Feeding assistance program in the area. Apart from that, research by Ryckman et al., 2021 in South Asia suggests that obstacles in implementing the program stem from the affordability of accessing complementary breast milk foods³⁶.

In line with research studies by Cheikh Ismail et al., 2022 in the United Arab Emirates, it shows that there is a double burden of malnutrition and poor feeding practices in infants and toddlers which can have a worse impact on children's health. In this case, food feeding practices are less than optimal (accuracy and diversity) as well as inadequate/excessive consumption of various nutritional intakes. Thus, the impact on stunting rates from the age of 0-23.9 months is 22 (78%), 4 (96%) and 14 (86%)³⁷.

Based on Saha et al., 2023, the results of a survey of 67,278 people (mothers aged 15–49 years) in rural and urban areas in India showed that the food diversity in the program was not fully running optimally until the stunting rate reached 35.9 (24.157%). This is due to various inhibiting factors including the capabilities of local community health workers (CHWs), Anganwadi workers (AWWs) and auxiliary nurse-midwives (ANMs) as well as low levels of maternal education in rural India as well as regulations to support IYCF³⁸.

Obstacles to the Complementary Food Support Program for Breast Milk in Various Aspects

Based on table 3. according to Ahmad et al., 2018; Athavale et al., 2020; Mya et al., 2019; Fahmida et al., 2020; Houghton et al., 2020; Torlesse et al., 2022; Paramashanti & Benita, 2020; Cheikh Ismail et al., 2022; Hanifah, 2023 and Saha et al., 2023, namely regulations or Complementary Feeding assistance programs that are not optimal. Paramashanti & Benita, 2020's research regarding working mothers is in line with Ramadhani et al., 2019 that i(OR=2.11) means that children who have mothers with irregular jobs and salaries are 2.11 times more likely to experience stunting. Working mothers tend to have little time to care for, care for or educate their children, which affects their children's nutritional adequacy. Parental employment is often linked to family income. Irregular family income can affect household purchasing power and food availability³⁹.

A study in Myanmar by Mya et al., 2019 shows that increasing women's education accompanied by community-based nutrition education can be an alternative for increasing IYCF (26). Meanwhile, according to Athavale et al., 2020, the obstacles to giving COMPLEMENTARY FEEDING in India are currently giving inappropriate Complementary Feeding, due to lack of maternal knowledge, conflicting information from various sources such as family and media and low self-efficacy. Apart from that¹⁷.

Table 1. Study Characteristics.

Study	Research design	Place	Populations	Sample	Results	Barrier
Ahmad et al., 2018	Cross Sectional	Aceh, Indonesia	Children age 6-23 months	392 children	There are 50% who get MP-ASI on time, the frequency is 74%, but dietary diversity and acceptability is only realized by 50%. The prevalence of underweight is 26%, thinness is 23% and shortness is 28%	<ol style="list-style-type: none"> The practice of providing complementary breast milk is not optimal and the high prevalence of underweight, wasting and stunting in Aceh. Timeliness of giving Complementary Feeding: less than half (49.7%) of children received MPASI on time, while the rest were given it early (4.5% after birth, 8.4% before the age of 1 month, 37.2% before the age of 6 month.
Mya et al., 2019	Survey	Myanmar	Children age 6-23 month	1.222 Children	This study found that 20% of children experienced stunting and 43% experienced moderate anemia	<ol style="list-style-type: none"> 1.16% of children in Myanmar receive the minimum acceptable diet, 25% receive a variety of food groups, and 59% consume iron-rich foods. Evaluation of the practice of providing Complementary Feeding using the 24-hour recall method regarding respondent memory and reporting bias. <ol style="list-style-type: none"> Lack of knowledge and experience in recommended practices, Receiving conflicting information from different sources, At the individual level such as self-efficacy, Mothers who work in the agricultural sector are at risk of having children with stunting. The posyandu program must be improved regarding stunting.
Athavale et al., 2020	Metode Kualitatif, (Cross-Sectional)	Mumbai, India(Two Urban Slums)	Children age 0-2 years	33 (mother or caregiver) and child	Identify barriers and facilitators in appropriate infant-toddler feeding practices and provide recommendations for programmed interventions	<ol style="list-style-type: none"> Lack of access to quality food sources, Lack of knowledge and awareness of parents about children's nutrition, as well Social and economic factors that influence children's eating patterns
Fahmida et al., 2020	Kohort	Jawa Timur (Kabupaten Sidoarjo dan Malang), Indonesia	Mother and child under age 2 years	340 pair of mother/baby	The study uses standard indicators for Infant and Child Feeding/IYCF or IYCF. However, it failed to show a significant increase in linear growth in 18-month-old children. The practice of providing Complementary Feeding and parenting is still less than optimal. 39% were stunted, 31% were underweight, and 10% were thin; Although 88% achieved the minimum meal frequency, only 50% consumed at least four food groups and 44% the minimum acceptable diet	<ol style="list-style-type: none"> 1.1.Environmental conditions in slum areas in South Delhi, India. Use of shared corridors, shared kitchens, shared toilets and water taps. Limited access to clean water.
Houghton et al., 2020	Cross-sectional	New Delhi, India	Baby 12-24 month	120 baby	Food is a protective factor against stunting (AOR= 0.54; 95%CI: 0.31-0.94). Girls are less likely to be associated with stunting (AOR= 0.54; 95%CI: 0.32-0.93). Conversely, variables that significantly increase the risk of stunting included older children aged 12-17 months (AOR= 2.01; 95% CI: 1.05-3.84) and 18-23 months (AOR= 4.17; 95% CI: 2.15-8.08) and maternal employment in the agricultural sector (AOR= 3.77; 95%CI: 1.17-12.1)	<ol style="list-style-type: none"> 1.1. The stunting reduction program is not specific and optimal, such as preparedness in providing complementary foods for breast milk 2.2. Generalize community-based programs such as 'Posyandu' for both boys and girls, every age group, 3. There is a need to pay more attention to proxy indicators of IYCF practices, such as initiation of breastfeeding, exclusive breastfeeding, minimum food diversity, minimum meal frequency, and minimum acceptable diet and maternal nutrition.
Paramashanti & Benita, 2020	Cross sectional	Kabupaten Kebumen, Provinsi Jawa Tengah, Indonesia	Child age 6-23 months	307 children		

Torlesse et al., 2022	Survey	Nations of south Asia (Afghanistan, Bangladesh, Bhutan, India, Maladewa, Nepal, Pakistan, dan Sri Lanka	Child under 6-23 month	60 children	Using a multi-system analysis approach to examine the enabling environment and context of complementary feeding programs in South Asia	<ol style="list-style-type: none"> 1.1. The low diversity and frequency of MPASI feeding practices is related to stunting. 2.2. Weak policies and programs that contribute to improving children's eating patterns at an early age. 3.3.Lack of attention to the factors that determine children's diets and feeding practices across sectors, it is important for government policies, strategies and plans to provide clear mandates for coherent action across systems. 4.4.Only 12% of children aged 6-23 months in South Asia have a minimum acceptable diet (poor) 5.5.The majority of children in this age group consume unhealthy processed foods and drinks 6.6.Limited policies, laws, and programs addressing complementary feeding needs exist in South Asian countries, with only India, Nepal, and Pakistan having comprehensive strategies. 7.7.Lack of coordination and coherence between different systems, including food, health, social protection, and WASH (water, sanitation, and hygiene), hinders the implementation of effective complementary feeding programs. 8.Insufficient resources and institutional mobilization of Complementary Feeding, including overcoming legal gaps and obstacles
Cheikh Ismail et al., 2022	Cross sectional	Uni Emirat Arab (UEA)	Child age of 0-23,9 months	276 baby	There are 4% of children experiencing malnutrition, 8% are thin, 15% are stunted, 18% are at risk of being overweight, and 7% overweight and obesity.	<ol style="list-style-type: none"> 1. Most babies and children experience a double burden of malnutrition. 2.Suboptimal feeding practices and inadequate/excessive consumption of various nutritional intakes. 3.Lack of intake of foods rich in iron and its association with a fairly high prevalence of stunting.
Hanifah, et al, 2023	Deskriptif Analisis,	Kabupaten Bantul, Yogyakarta, Indonesia	Posyandu Cadre	126 Posyandu cadre	Emotional Demonstration Program (improving communication and time management skills) for 77% of cadres, Emo-Demo program sequence, 84.9% of cadres convey key messages clearly, and 77.5% of cadres effective time management.	<ol style="list-style-type: none"> 1. Barriers in communication skills (delivering key messages), especially in giving appreciation 2. Cadres also experience problems in effective time management.
Saha et al., 2023	Survey	India	Mother and child age 6-23 month	67.278 mother and child	This study used data from the National Family Health Survey (NFHS). minimum food diversity.	<ol style="list-style-type: none"> 1.Lack of knowledge and awareness of mothers regarding the importance of giving complementary foods and the types of food introduced to babies. 2.Limited availability and accessibility of diverse and nutritious food, especially in rural areas (the majority) 3.Socio-economic factors, such as poverty and food insecurity, 4.Cultural and traditional beliefs and practices 5.Lack of support and training for public health workers 6.Lack of adequate infrastructure and resources for effective implementation of nutrition programs and interventions

Table 2. Obstacles in Providing Complementary Foods for Breast Milk.

Study	Age of child	Status of body weigh / Nutrition		ASI Elusiveness		Food supplement						Mother occupation		Mother education
		Less body weigh	Stunting	Yes	No	Precision		Variety		Frequency		Not work	Work	
						< 6 bulan	> 6 bulan	Ya	Tidak	Ya	Tidak			
Ahmad et al., 2018	6-11	28 (18,8)	19 (12,8)											1. 1.44 Elementary School 2. 2.80 Junior High School
	12-23	75 (30,9)	90 (37,0)	35	53	42	46	46	42	69	19	361	31	
Mya et al., 2019	6-23	42,8	20,2	18,5	30,3	-	-	23,2	19,2	23,0	16,5	-	1,97	1. 3,218 High Schools 1.0-15 Maternal education 1.5 Did not complete elementary school
Athavale et al., 2020	6-24	33%	50%	33%	-	-	-	-	-	-	-	0-15	-	2.65 Completed elementary school 3,108 Completed junior high school 4,148 Graduated from high school/ college
Houghton et al., 2020	12-24	36 (31,0%)	46 (39,3%)	-	50 (41,7%)	14	-	18	-	24	-	-	-	1. 25 Not school 2. 17 basic school 3. 63 SMP-SMA 4. 15 university
	6-11 12-17													1. 76 Basic school 2. 100 junior high school 3. 110 senior high school 4. 21 University
Paramashanti & Benita, 2020	18-23	-	87 (28,3%)	-	-	127 (41,4%)	180 (58,6%)	-	-	-	-	233	64	1. 133 junior high school 2. 142 university/ 3. Pascasarjana
Cheikh Ismail et al., 2022	0-23,9	-	22 (78%) 4 (96%) 14 (86%)	42 (37,2%)	38 (46,3%)	19%	7%	-	-	-	-	78 (28,3%)	198 (71,7%)	3. Basic school
Saha et al., 2023	6-23	32,8 (21,325)	35,9 (24,157)	1,2 (1164)	-	-	-	29%	-	-	-	-	-	4. Basic school

Integrated Service Post (Posyandu) for Toddlers in Wulung Hamlet during the Covid-19 pandemic, the posyandu was temporarily suspended. So, it will have an impact on monitoring the health of babies and toddlers. Therefore, the PPMT (Integrated Community Service Program) program was formed to overcome the nutritional problems of toddlers in Posyandu. Including outreach activities on appropriate complementary breast milk (Complementary Feeding) to prevent stunting because some parents stated that they did not know the right food for their toddlers⁴⁰.

In line with research by Maulizar & Debby, 2022, the role of posyandu as an information center, especially for mothers and toddlers. The role of posyandu activities as a center for maternal and child health information in Suak Puntong Village is still not on target and there is a lack of awareness among mothers to come to posyandu. It needs to be reviewed first regarding the delivery of information and the active role of the entire community. Posyandu cadres as pioneers and driving forces must be able to be good communicators to disseminate health information to the public. So, an active role is needed from

all components of society. The role of the government is needed by providing targeted policies, health workers and cadres as implementers of the posyandu program⁴¹.

From the age of 6 months onwards, the need for nutritional intake for growth does not only come from breast milk. So, complementary foods are needed. The intake of children under two years of age really depends on the mother/caregiver. Riskesdas 2018 reported that only 46.6 percent of toddlers consumed various types of food. Apart from that, internal factors include level of education, employment, knowledge, attitudes, actions, psychological and physical⁴².

IYCF barriers are implemented in Indonesia by collaborating with government and non-government institutions starting from training for IYCF trainers, facilitators and IYCF counselors⁴³. In line with Hanifah, 2023 for children aged 6-23 months shows the implementation of Emo-Demo which targets the posyandu program by involving cadres. There are 126 cadres (25-60 years). During the activity, significant obstacles or constraints during the activity included <60% of cadres

Table 3. Obstacles to the Complementary Feeding Program for Breast Milk in Various Aspects.

Study	Program	Knowledge	Sanitation	Regulation	Living Place	
					village	city
Ahmad et al., 2018	IYCF in children aged 6-23 months is not optimal ,	Mother's and father's level of knowledge	-	Programs by NGOs to improve nutrition, but there has been no research on the results	3 District (in Aceh Besar District)	-
Mya et al., 2019	· Nutrition Education Program and Demographic Survey · IYCF practices are poor.	Characteristics of maternal education in Myanmar	-	-	-	-
Athavale et al., 2020	Educational intervention in the Practice of Complementary Feeding for Breast Milk	· Lack of knowledge and experience · Low maternal self-efficacy	-	· Limited social support · Conflicting information from various sources · Professional guide	-	-
Fahmida et al., 2020	Successful implementation of the Baby Friendly Hospital Initiative (BFHI) and Emo-Demo activities	There were no differences in breastfeeding practices between the intervention group and the comparison group.	Water, sanitation and hygiene (WASH) practices and provision of Complementary Feeding	-	Sidoarjo Malang (pedesaan)	-
Houghton et al., 2020	The practice of providing complementary breast milk is less than optimal	>50% of mothers had received secondary school education	Poor hygiene practices, experienced IYCF.	-	Badarpur, Delhi Selatan, India	Urban Slums in Delhi
Paramashanti & Benita, 2020	The stunting reduction program is not optimal and specific and working mothers	-	-	Empowering the posyandu program	Kecamatan Kebumen, Jawa Tengah	-
Torlesse et al., 2022	No country has comprehensive regulations, policies, strategies and plans	Provision of Complementary Feeding is not well integrated in promoting provision of Complementary Feeding and training.	National WASH policies do not focus enough on food hygiene early in life	Lack of large-scale mobilization of institutions and resources focused on food, health, social protection and WASH.	-	South Asia (Afghanistan, Bang-ladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka)
Cheikh Ismail et al., 2022	There is a double burden of malnutrition and poor feeding practices in infants and toddlers	-	-	'Poor' continued breastfeeding rates as few babies are breastfed at 1 year and 0% are breastfed at 2 years	-	-
Hanifah, et al 2023	Emo Demo Game includes Breastfeeding That's enough, PMBA	Fewer (<60%) cadres apply communication skills, convey clear main messages and practice according to the Emo Demo sequence	-	Most cadres have not received it training on Babies and Young Children Feeding practices (IYCF).	Triharjo, Wijirejo, Gilangharjo, Caturharjo, and Trimurti	-
Saha et al., 2023	The program is less than optimal as a synchronization medium	The majority in rural areas, mothers have low education	-	The government and non-governmental organizations (NGOs) need to synchronize	villages(India)	Slum urban (India)

still found who were still implementing communication skills, <60% of the delivery of key messages was lacking and <60% of optimization during role play practice in educating mothers of toddlers⁴⁴.

This research is in line with research by Benedict et al., 2021 in Thailand which suggests that the double burden of stunting and overweight is related to caregivers/parents who do not have adequate knowledge about the importance of quality complementary feeding practices and appropriate nutritional intake for children²⁷. Based on research by Effendy et al., 2020, it shows that regarding nutrition education intervention programs in China and Kenya, using an approach similar to that used in the study (combining group training sessions, cooking demonstrations and home visits) was demonstrated to increase dietary diversity in children²⁹. Meanwhile, according to Donkor et al., 2021, the practice of providing breast milk and complementary foods in Ghana must be strengthened and expanded so that nutritional deficiencies do not occur⁴⁵.

From the environmental aspect according to³⁶ in rural and urban environments (India, Bangladesh and Pakistan) which shows the lack of food in fulfilling complementary foods for breast milk³⁶. A study by Fahmida et al., 2020 suggests that the baduta program overcomes this risk factor by including hand washing activities in Emo-Demo sessions for households in the intervention area. The successful implementation of the Baby-Friendly Hospital Initiative (BFHI) and Emo-Demo activities will significantly improve breastfeeding practices¹⁸.

A study in India found that an integrated nutrition and health program (Infant and Young Child Nutrition-INHP II) effectively increased breastfeeding and linear growth in children under six months. However, there was no significant increase in linear growth at the end of the 18-month intervention. Thus, there are obstacles considering the complexity of program implementation and differences in starting times for each program component. Resulting in different intervention

times, different duration of exposure and others. Therefore, it has an impact on giving complementary foods and linear growth¹⁸.

In addition, Willett et al., 2019 in their research emphasized the need for nutritional counseling (promotion of breastfeeding and providing appropriate complementary foods) to be integrated into maternal programs and child care programs⁴⁶. Then²⁸ argued previously, educational interventions targeting mothers in India have resulted in significant improvements in both the amount and variety of food given to children living in urban slums in Mumbai.

Stunting is almost 6 times more common in children of mothers who have not exclusively breastfed in the last six months compared to mothers who have not exclusively breastfed. These findings are consistent with a community-based study from the Somali region of eastern Ethiopia³⁴. In line with Saha et al., 2023, the government and non-governmental organizations (NGOs) must progress and synchronize to achieve committed and coordinated leadership³⁸.

According to Torlesse et al., 2022 considering the lack of mobilization of institutions and resources regarding a coherent and multi-system response to complementary breastfeeding that addresses gaps in laws, policies and programs as well as barriers on a large scale focused on food, health, social protection and WASH. Complementary feeding is not well integrated into agricultural instructors' job descriptions or training, except in Afghanistan, in promoting complementary feeding and training. There is a lack of attention to the factors that determine children's diets and feeding practices across sectors, making it important for government policies, strategies and plans to provide clear mandates for coherent action across systems. Only 12% of children aged 6–23 months in South Asia have a minimum acceptable diet, indicating poor complementary feeding practices²¹.

CONCLUSION

There are various specific and sensitive obstacles to the complementary and sensitive complementary feeding program faced in providing complementary breast milk to stunted children aged 6-23 months, all of which emphasize caregivers as the party who plays an important role in providing complementary breast milk.

RESEARCH LIMITATIONS

Research obstacles in identifying articles according to predetermined qualifications, using various search engines so that it is necessary to be careful in accessing articles (including free full text) in the identification stage as well as expanding research methods.

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