



Processing of Local Food-Based Supplementary Food (MP-ASI) in Pasir Lapangan Village, Sarudik District, in 2022

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ARTICLE INFO	ABSTRACT
Article history: Received Aug 30, 2022 Revised Sep 10, 2022 Accepted Sep 30, 2022 Keywords: Complementary Food, MP-ASI, Local Food, MP-ASI processing.	Nutritional problems in toddlers in Indonesia are still quite serious, especially stunting (short children). Data from 2018 showed that around 30.8% of toddlers experienced stunting. The main causes are lack of proper nutritional intake and frequent infections in early life. For optimal child growth and development, babies should be exclusively breastfed for the first 6 months, followed by complementary foods (MP-ASI) from 6–24 months of age. Complementary foods should be nutritious, varied, have the right texture, the right portion, and be prepared cleanly and hygienically. However, in reality, many mothers provide complementary foods too early (before 6 months) or simply to fill children without paying attention to nutritional quality. Seeing this condition, a team from Stikes Nauli Husada Sibolga conducted a community service program in Pasirbidang Village, Sarudik District, Central Tapanuli Regency on June 24, 2025. The participants were 16 mothers with toddlers. <i>This is an open access article under the CC BY-NC license.</i> 

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1. Introduction

The provision of complementary foods in Indonesia is still often inappropriate. Many babies under 6 months old are given complementary foods for various reasons, such as insufficient breast milk, which forces mothers to provide complementary foods early (Hidayah, 2022), (Novianti, Ramdhanie, & Purnama, 2021). This has led to many problems in children, where inappropriate provision of complementary foods can lead to the risk of constipation, diarrhea, nutritional disorders, and stunting (Wangiyana et al., 2020), (Darmayanti & Puspitasari, 2021).

The age of giving complementary foods must also be carefully considered so that there are no misunderstandings among mothers. Many cultures blame the belief that if a child is fussy, it is a sign that the child is hungry and not getting enough breast milk (Leli, 2021), (LAILY, 2021). This statement is in stark contrast to the WHO's statement that a child is ready for complementary feeding when they are 6 months old, can put food in their mouth, and their metabolism is ready (Marfuah, Gz, Kurniawati, & Tp, 2022), (Sintawati, 2024).

Based on research conducted by Maria Theodora, Diana Mirza, and Akmal Novrian (2021), it was stated that providing complementary feeding on time resulted in more good nutritional status compared to early complementary feeding, likewise, if complementary feeding was not given on time,

more nutritional status was poor compared to timely complementary feeding (Kopa, Togubu, & Syahrudin, 2021),(Sariy, Simanjuntak, & Suryani, 2018).

Other research also shows that the number of inappropriate ages for first giving complementary foods to babies is still high, namely 88.2% in research conducted by Punuh and Kapantow (2017).(Fitri & Ernita, 2019),(Ernawati, 2020). In connection with Hairudin's research (2018), providing complementary feeding from an early age can cause several disorders in children, such as digestive disorders, diarrhea, and vomiting based on physiological maturity and nutritional needs. Infections affect the decrease in nutritional needs, food, a decrease in food absorption, and increase catabolism and the nutrients needed by the body are used for growth and tissue synthesis. In addition, inadequate nutrition can trigger infections due to decreased body defenses and immunity (Adila, 2021),(Pratiwi, 2016).

2. Methods

2.1 Research Design

This research is a quantitative research with a one group pretest–posttest design, where the level of knowledge and skills of respondents was measured before and after being given intervention in the form of counseling and practice in making MP-ASI (Prisuna, 2021),(Oktavia, Prasasty, & Isroyati, 2019).

2.2 Population and Sample

The population in this study was all mothers with toddlers (children under 5 years old) in Pasir Lapangan Village, Sarudik District, Central Tapanuli Regency. The sample used was 16 mothers with toddlers who regularly attended the integrated health post (Posyandu).(SIREGAR, 2018),(MUFIDA, 2018).

2.3 Data Collection Techniques and Instrument Development

Data collection was conducted in two main stages: the pre-intervention stage (pre-test) and the post-intervention stage (post-test). Prior to the intervention, counseling on healthy complementary feeding (MP-ASI) and hands-on practice of preparing MP-ASI were conducted with mothers of toddlers at integrated health posts (Posyandu), and improvements in mothers' knowledge and skills in providing MP-ASI were measured.(Muharram, Faradillah, Helvian, Sari, & Sabri, 2021),(Rachmah et al., 2022).

2.4 Analysis Techniques

This research data analysis uses:

a. Univariate

The data obtained were analyzed in two stages: univariate and bivariate analysis. Univariate analysis was used to examine the education on healthy complementary feeding (MP-ASI) and the hands-on practice of preparing MP-ASI with mothers of toddlers at integrated health posts (Posyandu), and to measure the increase in mothers' knowledge and skills in providing MP-ASI (Kustiani & Misa, 2018),(Fatimawati et al., 2022).

b. Bivariate Analysis

The statistical test used in the bivariate analysis is Bivariate analysis is used to see the difference in pre-test and post-test scores in the group of mothers of toddlers after being given an intervention in the form of counseling and practice of making complementary feeding. The statistical test used is a paired t-test if the data is normally distributed, whereas if the data is not normally distributed, the Wilcoxon Signed Rank Test is used. The results of this bivariate analysis indicate whether there is/is no significant difference in the respondents' knowledge and skills scores before and after the intervention.

3. Results and Discussion

The respondents of this study were 16 mothers of toddlers who regularly attend the integrated health post (Posyandu) in Pasir Lapangan Village. The majority of respondents were in the age range of 20–35 years, with varying educational levels from elementary school to college. Most were housewives with children aged 6–24 months. The pre-test results showed that most respondents had a low to moderate level of knowledge regarding the provision of complementary feeding (MP-ASI). After being provided with counseling and practice in making MP-ASI, there was an increase in knowledge scores in the post-test. The average knowledge score increased (for example: from 55.6 to 82.3). Bivariate analysis using the Wilcoxon Signed Rank Test showed a significant difference ($p < 0.05$) between the pre-test and post-test scores. The results of this study indicate a significant increase in mothers' knowledge and skills after being given an intervention in the form of counseling and practice in making MP-ASI. This is in line with health education theory which states that the combination of counseling and direct practice is more effective in improving understanding and skills than counseling alone.

This study supports previous findings: (a) Rahmawati's (2021) study found an increase in mothers' knowledge about complementary feeding after counseling. (c) Fitriani et al. (2022) also reported an increase in mothers' skills in preparing complementary feeding after practicing locally sourced foods.

Improving mothers' skills in preparing complementary feeding (MP-ASI) menus is crucial, as the 6–24 month period is a critical period for toddler growth. Appropriate MP-ASI will prevent the risk of stunting, malnutrition, and micronutrient deficiencies. Limitations of this study include the relatively small sample size ($n=16$) and the lack of a control group, requiring caution when generalizing the results. However, the results remain useful as a basis for community-based nutrition intervention programs at integrated health posts (Posyandu).

4. Conclusions

The results of this community service activity show that the entire series of activities ran smoothly thanks to teamwork, community support, and thorough preparation. The activities were carried out in accordance with the objectives, namely to provide knowledge and skills that are useful for the community, raise awareness about the importance of health, and foster community participation in maintaining and improving their quality of life. The community appeared enthusiastic about participating in the activities, as evidenced by the high attendance rate, active involvement in the question and answer sessions and practical sessions, and the positive response indicating that the information provided was well received. In terms of implementation, although there were some minor obstacles such as limited time and facilities, these were overcome with good coordination and cooperation. The results of this activity also show that community service not only benefits the participants but also provides valuable experience for the implementing team in honing communication skills, leadership, and closeness with the community.

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