

The Influence of Health Education Using Booklet Media on Mother's Knowledge in Providing MPASI

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ABSTRACT

Purpose: The purpose of this study is to determine the effect of health education using booklet media on mothers' knowledge regarding appropriate complementary feeding (MPASI) for infants aged 6–24 months as an effort to prevent malnutrition and stunting. **Methods:** This study employed a descriptive design with a case study approach. The subjects consisted of 30 mothers of toddlers at Posyandu Melati, Jl. Pasar Baru Barat Karet II RW 005, Kelurahan Karet Tengsin, Kecamatan Tanah Abang, Central Jakarta. The sample size was determined using the Slovin formula. Health education was delivered through booklet media focusing on the timing, methods, and variations of MPASI. Data were collected by measuring mothers' knowledge before and after the educational intervention. **Results:** The results showed a significant improvement in mothers' knowledge after health education. Prior to the intervention, 18 respondents (60%) were in the poor knowledge category, 9 respondents (30%) had adequate knowledge, and 3 respondents (10%) had good knowledge. After the intervention, the poor knowledge category decreased to 0 respondents (0%), the adequate category decreased to 6 respondents (20%), while the good knowledge category increased to 24 respondents (80%). **Conclusions:** Health education on complementary feeding using booklet media is effective in increasing mothers' knowledge regarding MPASI. Therefore, support from health workers is essential to continuously provide structured and cooperative health education, particularly for mothers who are beginning to introduce MPASI to their toddlers.

Keywords: Booklet; health education; MPASI; mothers of toddlers

Introduction

Nutrition is a dietary component required by the body for growth and development, as well as to maintain health and serve as the main source of energy for various metabolic activities (Napitupulu, 2018). Nutritional problems, or what is referred to as malnutrition, during early life can have long-term effects and may even impact the nutritional status of the next generation (Hairunnisa & Sagita, 2024). Therefore, children must receive balanced nutrition, as it contains essential elements that support growth, brain development, and the strengthening of the immune system. Optimal growth and development in infants are supported through the provision of appropriate complementary foods to breast milk (MPASI), which should meet the criteria of quality, variation, and dietary diversity for children aged 6–24 months (Yolahumaroh, Erowati, & Marlina, 2024).

Infants and toddlers are individuals who depend entirely on their parents, particularly their mothers; thus, maternal knowledge regarding nutrition is crucial to ensure daily nutritional adequacy. To achieve optimal growth and development, four essential components in infant and toddler feeding must be considered: early initiation of breastfeeding (IMD), exclusive breastfeeding from birth until six months of age, and the introduction of complementary feeding (MPASI) from the age of 6–24 months. Important aspects in providing MPASI include adequacy, availability, and proper preparation of the food (Fitri & Esem, 2020).

According to the World Health Organization (WHO, 2018), the rate of MPASI introduction before the age of 4 months is 37% in low-income countries, 48% in middle-income countries, and 45% globally. These figures illustrate the low prevalence of exclusive breastfeeding practice and the high rate of premature MPASI introduction before the recommended age of 6 months. In Indonesia, the practice of providing MPASI remains inadequate and often inappropriate, with more than 40% of infants receiving complementary foods too early (before 6 months) (Bappenas, Ministry of Health RI, & UNICEF, 2019). Such conditions can negatively impact a child's physical and psychological development.

The Indonesian Ministry of Health (2018) reported that mothers of toddlers in DKI Jakarta demonstrated insufficient knowledge regarding MPASI, evidenced by 79.3% of mothers being unable to explain the correct MPASI feeding methods and the adverse effects of early MPASI introduction. Infants who receive MPASI before the age of 6 months are more prone to diarrhea, constipation, cough, cold, and fever compared to those who are introduced to MPASI at the appropriate age (Risikesdas, 2018).

Nutritional status in children is strongly influenced by the mother's knowledge and skills in preparing food. Children are at risk of malnutrition if they do not receive adequate breast milk or if complementary feeding is insufficient in amount, frequency, and diversity. In low-income countries, complementary feeding practices often lack essential nutrients such as iron, zinc, and other micronutrients. Poor maternal knowledge regarding MPASI can lead to adverse health outcomes such as diarrhea, intestinal perforation, allergies, infant mortality, obesity, and infections of the respiratory or digestive tract (Sukmawati, 2022). Additionally, introducing MPASI before six months increases the risk of chronic diseases later in life, including cardiovascular disease and diabetes mellitus.

A study conducted by Santi and Mariam (2023), titled “The Effect of MPASI Education Using Booklet Media on Increasing MPASI Knowledge Among Mothers of Infants Aged 0–6 Months,” involving 61 respondents in Gunungsari and Ciherang Villages in the working area of Gunungsari Public Health Center, Serang Regency, found that prior to the intervention, 21 mothers (34.4%) demonstrated adequate knowledge while 40 mothers (65.6%) did not. After reading the booklet and receiving education, 49 mothers (80.3%) demonstrated adequate knowledge, while only 12 mothers (19.7%) remained in the insufficient category. These findings indicate a significant difference in knowledge before and after MPASI education using booklet media.

Based on the above data, the researcher is interested in conducting a study titled “The Influence of Health Education Using Booklet Media on Mothers' Knowledge in Providing Complementary Feeding (MPASI)”, as real-world observations reveal that many parents still introduce MPASI too early, and some provide MPASI with incomplete nutritional content.

Methods

This study employed a quantitative descriptive research design with a pre-experimental approach using a *one-group pretest–posttest* format. This design was chosen to determine changes in mothers' knowledge before and after receiving health education using booklet media, without analyzing the relationship between variables. The research was conducted at Posyandu Melati, RW 005, Karet Tengsin Village, during the scheduled fieldwork period.

The study population consisted of all mothers of toddlers registered at Posyandu Melati. A total of 30 mothers were selected as respondents using a total sampling technique, as all members of the population met the inclusion criteria. The instruments used in the study included an observation sheet, a Health Education Session Plan (SAP), and a questionnaire containing 20 multiple-choice questions designed to assess mothers' knowledge regarding complementary feeding (MPASI). The observation sheet was prepared in a checklist format to ensure that the implementation of the health education session followed the planned procedures, while the SAP served as a structured guide for delivering the educational material.

The research procedure began with an explanation of the study to the respondents and the collection of informed consent as a requirement for ethical participation. Respondents first completed a pretest questionnaire to assess their baseline knowledge. Afterward, the researcher conducted a health education session using booklet media based on the SAP that had been prepared. Upon completion of the session, respondents filled out a posttest questionnaire to identify changes in their level of knowledge. Throughout the intervention, the researcher used the observation sheet to document the flow and accuracy of the educational activities.

Data obtained from the questionnaires were analyzed descriptively by calculating frequencies and percentages to compare the levels of knowledge before and after the intervention. This analysis was performed to determine whether there was an improvement in mothers' knowledge about MPASI following the health education using booklet media.

Ethical considerations in this study followed the fundamental principles of research ethics, including *Respect for Persons*, which emphasizes respecting human dignity; *Beneficence and Non-maleficence*, which ensure that the study provides benefits while avoiding harm; and *Justice*, which ensures fairness in the selection and treatment of all respondents throughout the research process.

Result

Table 1. Characteristics of Respondents Based on Mothers' Age at Posyandu Melati RW 005, Karet Tengsin Village on August 21, 2024 (N=30)

No.	Mother's Age	Frequency (f)	Percentage (%)
1	19–30 years	16	53%
2	31–42 years	14	47%
Total		30	100%

The average age of respondents was approximately 30 years, with the youngest respondent being 19 years old and the oldest 42 years old. The table indicates that the majority of respondents were under 31 years of age, totaling 16 respondents (53%), while 14 respondents (47%) were over 30 years old.

Table 2. Characteristics of Respondents Based on Toddlers' Age at Posyandu Melati RW 005, Karet Tengsin Village on August 21, 2024 (N=30)

No.	Toddler's Age	Frequency (f)	Percentage (%)
1	4 months	1	3%
2	6–8 months	3	10%
3	9–11 months	9	30%
4	12–24 months	17	57%
Total		30	100%

The majority of toddlers were aged 12–24 months, totaling 17 children (57%). The youngest toddler was 4 months old (1 child), while the oldest was 20 months old (1 child).

Table 3. Characteristics of Respondents Based on Education Level at Posyandu Melati RW 005, Karet Tengsin Village on August 21, 2024 (N=30)

No.	Education Level	Frequency (f)	Percentage (%)
1	Elementary School (SD)	1	3%
2	Junior High School (SMP)	7	23%
3	Senior High School (SMA)	18	60%
4	Bachelor's Degree (S1)	4	13%
Total		30	100%

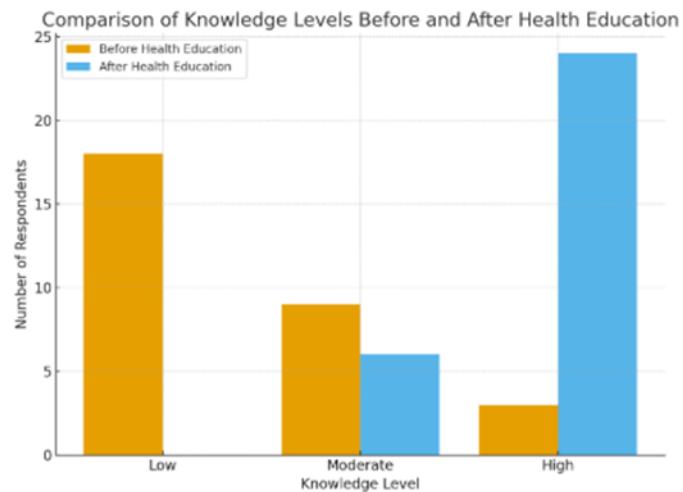
The data in the table indicate that the majority of respondents had completed Senior High School (SMA), totaling 18 mothers (60%). This is followed by 7 mothers (23%) with a Junior High School (SMP) education, 4 mothers (13%) with a Bachelor's degree (S1), and the fewest, 1 mother (3%), with only an Elementary School (SD) education.

Table 4 Characteristics of respondents based on parity at the Melati RW.005 Health Center, Karet Tengsin Village, on August 21, 2024 (N=30).

No	Paritas	Frequency(f)	Percentage(%)
1	Primipara	6	20%
2	Multipara	24	80%
Total		30	100%

Based on the data in Table 4. there were 24 multiparous respondents (24%) and 6 primiparous respondents (20%).

Diagram 1 Characteristics of respondents based on a comparison of knowledge levels before and after health education



Based on the data above, there is a difference between the level of knowledge before and after health education. Of the 30 respondents, 18 respondents (60%) had a low level of knowledge, 9 respondents (30%) had an adequate level of knowledge, and 3 respondents (10%) had a good level of knowledge. After the health education program, out of 30 respondents, 0 respondents (0%) had a low level of knowledge, 6 respondents (20%) had an adequate level of knowledge, and 24 respondents (80%) had a good level of knowledge. Translate into English according to scientific guidelines.

Discussion

The findings of this study demonstrate a significant change in mothers' knowledge regarding the provision of complementary feeding (MPASI) after receiving health education using booklet media. Prior to the intervention, the majority of respondents (60%) had a low level of knowledge, while only 10% showed a high level of understanding. However, after the health education session, a clear improvement was observed, with no respondents remaining in the low knowledge category. Most respondents (80%) showed a substantial increase in knowledge, and only 20% remained in the moderate category.

This significant improvement indicates that health education delivered through booklet media is effective in enhancing mothers' understanding of appropriate MPASI practices. The booklet serves as a structured, easy-to-understand, and accessible educational tool that allows mothers to review and internalize the information at their own pace. These results are consistent with the study by Gusti Kumala (2022), which also reported a significant increase in mothers' knowledge regarding MPASI after receiving nutrition and health education using e-booklet media. This supports the notion that printed and digital booklet formats can effectively improve maternal knowledge on complementary feeding, especially for children aged 6–24 months.

The importance of health education on MPASI extends beyond merely providing information; it also plays a crucial role in increasing mothers' awareness about the significance of timely and nutritionally adequate complementary feeding. According to the World Health Organization (WHO), appropriate and nutrient-rich complementary feeding is essential for supporting optimal growth and development in children. Therefore, the use of booklet media as an intervention proves to be an effective approach for enhancing mothers' knowledge and awareness of proper MPASI practices, which may ultimately contribute to improved nutritional status among children.

Despite the effectiveness of booklet media, this study suggests that future educational efforts may benefit from integrating printed materials with digital platforms, such as instructional videos or mobile applications. This combination can potentially reach a larger and more diverse population, particularly mothers with limited access to health facilities. Furthermore, additional studies are recommended to evaluate the long-term impact of such health education interventions on maternal feeding practices and the nutritional outcomes of their children.

Conclusion

This study concludes that there was an increase in mothers' knowledge regarding "The Influence of Health Education Using Booklet Media on Mothers' Knowledge in Providing Complementary Feeding (MPASI)" before and after the health education intervention. The analysis shows that the use of booklet media in health education is effective in enhancing mothers' understanding of the importance of providing appropriate complementary feeding according to the child's age and nutritional needs. The structured information presented in the booklet allows mothers to more easily comprehend the material and increases their awareness of the importance of balanced and nutritious MPASI.

The use of booklet media is expected to serve as an effective alternative in community health education, particularly in efforts to improve mothers' knowledge about complementary feeding, which in turn may contribute to better nutritional status and overall health outcomes among children in Indonesia. Therefore, further research is recommended to explore the use of other educational media and to evaluate the long-term impact of health education interventions within the community.

Recommendation

Based on the findings of this study, it is recommended that health education programs regarding complementary feeding (MPASI) continue to be developed using more diverse and accessible media for the community. Although booklets have proven to be effective as educational tools, their use can be expanded by incorporating digital technologies, such as mobile applications or tutorial videos, to reach a larger number of mothers, particularly in areas with limited access to health facilities. In addition, further training for health workers is needed to deliver MPASI education in a more interactive and engaging manner, which can increase mothers' participation in health education activities. It is expected that by applying more innovative and contextual methods, mothers' knowledge about MPASI can continue to improve, ultimately contributing to better nutritional status and overall health outcomes for children in Indonesia.

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