

Original Research

Developing Mothers' Knowledge about Weaning Food in Infants Aged 6-24 Months through Video



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Article Info	Abstract
Article history: Received: 7 May 2024 Accepted: 21 July 2024	<p><i>Introduction:</i> During this period, infants and children receive food and drink with an appropriate nutritional intake for optimal growth and development. Media such as audiovisual videos make it easier to increase maternal knowledge. This study was conducted to determine the effect of video on rising mothers' knowledge about weaning food in infants 6-24 months at Posyandu (Integrated Service Center).</p> <p><i>Methods:</i> The type of research was quantitative, which is experimental with a one-group pre-post-test design approach. This study's population was mothers with children aged 6-24 months, using the total sampling method. Data collection used a questionnaire as an instrument that contained information on complementary foods. Data analysis used univariate and bivariate analysis with the Wilcoxon test.</p> <p><i>Results:</i> The results showed a significant influence between weaning food education through video about maternal knowledge obtained with p-value=0.001 <a=0.05.</p> <p><i>Conclusion:</i> There was a significant difference in maternal knowledge before and after being given an educational video intervention on complementary foods, which means that educational video affects increasing maternal knowledge about complementary foods in infants aged 6-26 months in the village.</p>
Keywords: knowledge, educational video media, complementary feeding	

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INTRODUCTION

Complementary foods are foods and drinks given to children aged 6-24 months to fulfill their nutritional needs. WHO, together with the Ministry of Health and the Indonesian Pediatric Association (IDAI), have emphasized that children up to 6 months of age should only be given exclusive breastfeeding. Weaning food can only be introduced to babies when the baby is six months old and above. Weaning food is referred to as a changeover food from breast milk to family food, which is carried out gradually in terms of type, frequency of administration, number of portions and form of food adjusted to the age and ability of the baby to digest food. Weaning food also develops the child's ability to accept various foods with various flavors and shapes to improve the baby's ability to chew, swallow, and adapt to new foods [1]. Mothers have an important role in the development and growth of infants and toddlers; especially maternal knowledge has an influence on the mindset and level of concern for providing the right food intake for their children so that mothers can better know how to process the right and clean food (Marfuah, 2019)

Early complementary feeding is still increasing in various countries around the world. The incidence of complementary feeding problems in infants in Canada is 70%, in Finland at 63% of infants, in New Zealand at 45% of infants, in Australia at 44% of infants, and in Scotland at about 40% of infants. The research above shows inappropriate complementary feeding is still common globally [3]. Complementary feeding

is a transition of food from breast milk to family meals. The introduction and provision of complementary foods should be done gradually in both form and amount, according to the baby's or child's digestive ability. Providing adequate complementary foods is important for children's rapid physical growth and intelligence development during this period [4].

Mothers' knowledge is also related to the sources of information that mothers get from myths and mass media. Mothers stated that the cause of early complementary feeding in their babies was due to the mother's habit of giving complementary food from generation to generation from her parents, such as giving rice porridge and banana porridge during the baby ceremony (aqiqah), which has reached the age of three months [5]. Based on Fauziyyah's research, several media, such as leaflets, pocketbooks, and video media, are used to conduct education. It turns out that video is proven to be more effective in increasing respondents' knowledge after being given education because video has sound elements and image elements (audiovisual media), with a percentage rate of 18% video, 10.3% pocket book media, and 10.2% leaflet media. Wicaksono also reveals the above research, which is almost similar to the influence of audio-visual media on maternal knowledge about weaning food, which has a higher impact than other media [6].

Video media can explain abstract things with realistic and concrete images and sounds. Video uses more senses, namely the senses of sight and hearing, thus increasing absorption and memory by 50% of the

information conveyed because the intensity of attention and perception of objects influences it. This is due to the processing of human memory, which begins with sensory memory, where information obtained from the stimulus will be forwarded into memory for no more than one second. However, if the information gets more attention and is memorable, it will be sent to working memory and last up to 20 seconds. It is necessary to repeat working memory to facilitate this memory and form a permanent (long-term memory) [7]. The education needed by the community, especially mothers, can be provided in various ways. The development of information technology has had a significant impact in that it can provide convenience and effectiveness in the use of time. The delivery of education can be done using technology and a medium from information technology so that it can be adjusted to the conditions and time for recipients of knowledge. Media is needed to overcome the problems faced in counseling or training, namely the effectiveness of information delivery. Media is required to develop information to support extension programs, training and understanding in the community (Marfuah, 2019).

Based on the initial survey conducted in posyandu (Integrated Service Center) spread across four hamlets, from March 2022 to March 2023, 35 breastfeeding mothers have babies and children aged 6-24 months. From the results of the author's initial interview with ten mothers of infants who have children aged 6-24 months, it was found that three mothers did not know about the time of giving complementary foods according to the age of

the baby, babies aged 6-8 months were only given sun. However, at that age, mothers can provide various processed foods from home that are pulverized, such as avocado, papaya, etc. 5 Mothers are aware of the right time to give complementary food to their babies because they say they always bring their babies and children to the posyandu (Integrated Service Center). 2 Mothers said they had given additional food to their babies under six months old because breastfeeding alone was not enough. They were worried that their babies were hungry.

METHODS

Research Design

This research design used the quantitative research type with the One Group Pretest-Posttest Design approach. The population in this study amounted to 35 mothers with children aged 6-24 months, using the total sampling method.

Procedures

Since it was said to be ethically feasible, the researcher submitted a research permit request to the puskesmas to conduct research at the posyandu to conduct research with samples according to the respondent's criteria. Before playing the educational video, the researcher explained the purpose of the implementation. Then, the researcher gave a questionnaire. Before providing the questionnaire, the researcher gave informed consent and explained how to answer the questionnaire so that the respondents could provide answers. Then, the data was

tabulated and analyzed descriptively after all respondents completed the questionnaire.

Instruments

The instruments used in this study were educational videos and questionnaires. The video is about preparing and making additional food for babies. It is 20 minutes long and has been watched four times in one month. Then, after the video was given, a questionnaire with 20 questions was given. The video provides education about correctly processing the additional food for infants with balanced nutrition. Data were collected using a questionnaire. The questionnaire on maternal knowledge about complementary feeding amounted to 20 questions. The answer "Correct" got a score of 1. If the respondent chose the answer option "wrong: The criteria for results with Good Knowledge 76-100% correctly answered 16-20 questions, sufficient knowledge 56-75%. In this questionnaire, using answer options, if the respondent chooses to correctly answer 12-15 questions, less knowledge <55% correctly answers 1-11 questions— univariate data analysis method using frequency distribution and bivariate with *Wilcoxon* test.

Ethical consideration

Before the study was conducted, it had received ethical approval from the Ethics

Committee of Universitas Prima Indonesia 059/KEPK/UNPRI/VI/2024.

RESULTS

The results of the univariate test in Table 1 show that of the 35 respondents, most were aged (25-35 years), namely 60.0%. The majority of respondents' occupations are housewives (77.1%), and most have a high school education (37.1%). Table 2 shows the pre-test mother's knowledge in the fair category of 45.7%; Table 3 shows that after the educational intervention using educational video, the post-test mother's knowledge in the good category is 42.9%.

Based on the bivariate test (table 4) with the *Wilcoxon* test of 35 respondents, the number of respondents *pre-test and post-test* educational video on the level of knowledge has increased, namely from good knowledge totaling five people (14.3) to 15 people (42.9%) and who have not changed as many as seven people (20.0%) an increase in maternal knowledge as much as 28.7%. The statistical test results of the p-value value are (0.001), which means $(0.001) < \alpha (0.05)$ so that there is an effect of educational video on increasing maternal knowledge about complementary foods in infants aged 6-24 months in Geulumpang Payong Village, Jeumpa Sub-District, Bireuen District.

Table 1

Frequency Distribution of Mothers

Characteristics	F	%
Age		
17-25 Year	3	8,6%
25-35 Year	21	60,0%
36-45 Year	11	31,4%
Education		
Elementary	7	20,0%
Junior High School	9	25,7%
Senior High School	13	37,1%
Higher Education	6	17,1%
Work		
Housewife	27	77,1%
Work	8	22,9%

*Source: Primary data in 2023***Table 2**

Frequency Distribution of Pre-Test Mother's Knowledge

Category	F	Mean	Median	SD	%
Good	5	1,73	2,00	0,458	14,3%
Enough	16	2,69	3,00	0,480	45,7%
Less	14	2,57	3,00	0,787	40,0%
Total	35	2,26	2,00	0,701	100%

*Source: Primary data in 2023***Table 3**

Frequency Distribution of Post-Test Mother's Knowledge

Category	F	Mean	Median	SD	%
Good	15	1,40	1,00	0,894	42,9%
Enough	13	1,38	1,00	0,619	37,1%
Less	7	2,36	2,00	0,497	20,0%
Total	35	1,77	2,00	0,701	100%

Source: Primary data in 2023

DISCUSSION

The research conducted by the researcher obtained the results of the Statistical Test Z value p-value, namely (0.001), which means $(0.001) < \alpha (0.05)$ Z value -3.400b times the influence means that there is a significant increase in knowledge about the effect of educational video on increasing maternal knowledge about complementary foods for infants aged 6-24 months in Geulumpang Payong Village, Jeumpa District, Bireuen District. Providing educational video is a method of using the senses of hearing and vision that can cause some memory for the audience. The effects of educational video include increasing insight because all senses of learning are involved when using audiovisuals; therefore, the more senses involved in receiving and processing information, the more likely knowledge will be processed and stored in memory [8]. Knowledge is the "result of knowing" from humans after sensing a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. The knowledge that exists in humans aims to be able to answer the life problems they face every day and is used to offer various conveniences for humans. In this case, knowledge can be likened to a tool used by humans in solving the problems they face. Knowledge is a predisposing factor, which is a factor that facilitates or predisposes to human behavior. A person's knowledge of a health program will encourage that person to participate in it. Knowledge is important in forming one's actions [9].

Educational videos have been proven to be a comprehensive promotional and educational tool to increase health knowledge. This type of media has better capabilities because it includes both types of auditive (hearing) and visual (seeing) media, which means materials or tools used in learning situations to assist the written and spoken word in transmitting knowledge levels [10]. This study is in line with research conducted by Suatini & Supardi, which states that there is an effect of increasing knowledge about complementary foods because there are aspects that make it easier, namely educational videos in health education [11]. This study aligns with the research of Rahayu & Anggeriyane, which states that using video as media affects health education. This study also aligns with the research of Yuliana et al., who state that health education using animated video learning increases maternal knowledge about providing weaning food to toddlers aged 6-24 months.

Based on the researchers' assumptions in the field, it can be concluded that many breastfeeding mothers still have not reached the target knowledge about complementary foods. On the first day after filling out the research pre-test questionnaire, the results before being given the educational video showed that the respondent's level of knowledge was in the category of sufficient knowledge. Before being educated using video about complementary foods, respondents still had the habit of giving complementary foods to babies only foods, such as Sun porridge or bananas. However, at 6-24 months, mothers can process other foods such as vegetables, fruits (not only

bananas), and side dishes. At 6-8 months, mothers can introduce only single foods such as carrots, avocado, papaya, and major vegetables. However, at 9-11 months, Mothers can give a variety of processed foods such as fish, vegetables, meat, etc., then chop the food to complement the nutritional substances in the mother's children. At 12-24 months, mothers give family food. Complementary food is very important for mothers to know because it is for the growth of the child [12].

According to researchers, educational videos are easy to watch because respondents can watch this education about complementary feeding on television, cellphones, or at the posyandu (Integrated Service Center). So that respondents can add insight into knowledge about the importance of complementary foods. From the results of interviews with respondents in the field, they have never been educated through audiovisual media to increase understanding about how to process the additional food for infants with balanced nutrition correctly. From the results of this study, the researcher saw an increase in the respondents' knowledge of the good knowledge category after filling out the questionnaire, which the researcher redistributed to the respondents regarding weaning food. Maternal knowledge about complementary foods is important in overcoming toddler growth and development. It is expected that the active role of health workers, especially health services, can carry out educational activities with video media about complementary foods to increase the knowledge and understanding of mothers who can be used as guidelines for providing

complementary foods to infants aged 6-24 months.

LIMITATION

This study explored the demographics and knowledge of mothers with infants aged 6-24 months regarding the effectiveness of videos that may have an impact on complementary feeding. This study also requires a large number of respondents over a longer period to determine the effect and the impact of videos in fulfilling complementary feeding.

IMPLICATIONS

The study's approach to providing visual video education and complementary food processing guidance to mothers of toddlers aged 4-24 months offers several significant implications for public health, early childhood development, and nutritional interventions.

Firstly, the use of visual video education can substantially enhance mothers' understanding of complementary feeding practices. Videos effectively demonstrate proper food preparation, portion sizes, and the nutritional needs of toddlers, leading to better-informed mothers who can make healthier food choices for their children. This educational approach can bridge gaps in knowledge, especially in areas where literacy rates are low or where traditional educational resources are limited.

Furthermore, by equipping mothers with practical skills in food processing and preparation, the study likely contributed to improved dietary diversity and nutritional adequacy among toddlers. Proper complementary feeding practices are crucial

during the first two years of life, a critical period for growth and development. Enhanced nutritional practices can lead to better physical health, cognitive development, and reduced incidence of malnutrition and related health issues.

The study also highlights the cost-effectiveness and scalability of visual video education. This method can be easily adapted to various cultural contexts and replicated in different regions, helping disseminate vital nutritional information to a broader audience. The scalability of video education makes it a valuable tool for public health campaigns aiming to improve child nutrition on a larger scale.

Moreover, providing mothers with the knowledge and skills to prepare nutritious foods empowers them to take an active role in their children's health and well-being. This empowerment can enhance mothers' confidence and engagement in their children's nutrition and overall development. Involving mothers in the learning process through interactive and visual means can also foster a sense of community and support among participants.

Additionally, the combination of visual education and practical food processing techniques can lead to sustainable behavioral changes in dietary practices. When mothers see the positive outcomes of their efforts on their children's health, they are more likely to continue these practices long-term. This sustained behavior change is essential for ensuring lasting improvements in child nutrition and development.

Finally, the findings of this study can inform future research on the effectiveness of

visual educational tools in improving nutritional outcomes. Policymakers can use these insights to design and implement nutrition programs that incorporate multimedia educational components, thereby enhancing the reach and impact of public health initiatives aimed at early childhood nutrition.

CONCLUSIONS

The educational video affects mothers' knowledge about weaning food in Infants aged 6-24 months at Posyandu(Integrated Service Center). It means there was a significant improvement in the mother's knowledge through watching the video because it was interesting, easy, and clear to follow.

The results of this study expect that all health services can conduct educational activities with videos about complementary foods to increase the knowledge and understanding of mothers, who can be used as guidelines for providing complementary foods to infants aged 6-24 months.

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CONFLICT OF INTEREST

This research has no conflict of interest because it was conducted purely and actually.

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