

## THE INFLUENCE OF USING E-BOOK EDUCATION ON KNOWLEDGE OF WOMEN UNDER-FREE ABOUT COMPLEMENTARY FOODS AGED 6-12 MONTHS

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#### ABSTRAK

Bayi usia 6-24 bulan merupakan usia yang sangat rawan karena pada usia tersebut bayi mengalami masa peralihan dari ASI ke makanan sapihan. Jika bayi diberikan makanan pendamping ASI terlalu dini atau bahkan terlambat maka akan membawa dampak negatif terhadap pertumbuhan dan perkembangan, serta tingkat kecerdasannya. Kesadaran dan pengetahuan ibu tentang gizi yang baik untuk anak memiliki peran penting dalam menjaga kualitas makanan. Untuk itu diperlukan suatu edukasi tentang makanan pendamping ASI yang membantu ibu-ibu dalam mengakses dan menambah informasi salah satunya dengan menggunakan *e-book* tentang makanan pendamping ASI. Penelitian ini bertujuan untuk mengetahui pengaruh edukasi menggunakan *e-book* terhadap pengetahuan ibu baduta tentang makanan pendamping ASI usia 6-12 bulan di wilayah kerja Puskesmas Ngempit Kabupaten Pasuruan. Desain penelitian menggunakan penelitian kuantitatif dengan metode *pre eksperimental* rancangan *one group pretest posttest design*. Sampel pada penelitian ini menggunakan teknik *purposive sampling* yaitu didapatkan 56 responden yang memenuhi kriteria inklusi. Data diperoleh menggunakan kuesioner dan dianalisis dengan uji *wilcoxon signed ranks test*. Hasil uji statistik didapatkan nilai *Asymp.Sig* (2-tailed)  $0,000 < 0,05$  yang mana artinya ada pengaruh edukasi menggunakan *e-book* terhadap pengetahuan ibu baduta tentang makanan pendamping ASI usia 6-12 bulan di wilayah kerja Puskesmas Ngempit Kabupaten Pasuruan. Berdasarkan hasil penelitian hendaknya media edukasi *e-book* menjadi pertimbangan media edukasi sebagai penambahan informasi maupun perubahan perilaku dalam pemberian makanan pendamping ASI

Kata kunci: Media Edukasi E-book, Makanan Pendamping ASI, Ibu Baduta

#### ABSTRACT

*Infants aged 6-24 months are a very vulnerable age because at that age babies experience a period of transition from breast milk to weaning food. If a baby is given complementary food too early or even too late, it will have a negative impact on growth and development, as well as the level of intelligence. Mother's awareness and knowledge about good nutrition for children has an important role in maintaining food quality. For this reason, education about complementary foods is needed which helps mothers access and add information, one of which is by using an e-book about complementary foods for breastfeeding. This study aims to determine the effect of education using e-books on the knowledge of under-aged mothers about complementary foods for breastfeeding aged 6-12 months in the working area of the Ngempit Health Center, Pasuruan Regency. The research design used quantitative research with a pre-experimental method with a one group pretest posttest design. The sample in this study used a purposive sampling technique, in which 56 respondents met the inclusion criteria. Data were obtained using a questionnaire and analyzed using the Wilcoxon signed ranks test. The statistical test results obtained an Asymp.Sig (2-tailed) value of  $0.000 < 0.05$ , which means that there is an effect of education using e-books on the knowledge of under-aged mothers about complementary foods for breastfeeding aged 6-12 months in the working area of the Ngempit Health Center, Pasuruan Regency. Based on the results of the research, e-book educational media should be considered as educational media as additional information and changes in behavior in providing complementary feeding.*

*Keywords: Educational Media E-book, Complementary Food for Breastfeeding, Mother Baduta*

## INTRODUCTION

Knowledge is an ability that every human being can have. Knowledge possessed by humans is the result of efforts made by humans in searching for a truth or problem they face (Darsini et al., 2019). The provision of complementary foods is determined by the mother's knowledge and education as well as work. This can be in line with Kusmiyati's research, 2014 which states that there is a significant relationship between knowledge and mother's work in providing MP-ASI. MPASI is additional food given to babies aged six months to 24 months old babies (Sitasari & Isnaeni, 2014). The age of 6-24 months is a very vulnerable age because at this age it is a transition period from breast milk to breast milk substitutes or to weaning food. If a baby aged 6-24 months with poor nutritional status will have a negative impact on growth and development, as well as the level of intelligence (Kemenkes RI, 2013).

Based on the results of the SSGI (Study of Indonesian Nutritional Status 2021), the prevalence of underweight babies (underweight for age < -2SD) in Indonesia in 2019 has increased from 16.3% to 17% in 2021. Meanwhile, the Indonesian Ministry of Health according to PPGBM data (Community-Based Nutrition Recording and Reporting) shows that in August 2021 in East Java there were 27,013 toddlers experiencing malnutrition and 6839 toddlers experiencing malnutrition. While the results of the recap analysis of infants aged 6-12 months in the working area of the Ngempit Health Center, Pasuruan Regency, starting in 2019, those who were severely underweight 1,700 (1.7%) experienced an increase to 2,138 (2.8%). Meanwhile, data on babies with underweight

were 3,843 (6.8%) to 6,663 (9.8%) in 2020. The prevalence of complementary feeding in the working area of the Ngempit Health Center in 2021 was 53.2% of babies who were given MP-ASI was not according to their age and 46.7% of babies who were given MP-ASI were age-appropriate.

These results indicate continuity with the preliminary studies that have been carried out, namely for mothers under the age of two who give MP-ASI not according to their age because they think that the baby is sufficiently given milk and the more expensive the price of milk given, the baby will be fatter and healthier and vice versa. One way that can be taken to increase knowledge about health, especially nutrition related to complementary feeding for infants is through the provision of education. According to research (Muharram et al, 2021), which stated that based on the results of a literature review of 13 research journals, MP-ASI education can increase mother's knowledge. The media that are believed to be the most effective for conducting education are those which are carried out as attractively as possible and involve two senses, namely the senses of sight and the sense of hearing. One of them is by using social media and utilizing smartphones which have various features that can support education with various types of interesting concepts involving messages (text), images and audio. In view of the progress in the field of information and communication technology in the digital era that cannot be stopped, books are no longer available in print only but are also available in a more modern form, namely electronic or more commonly referred to as e-books. An electronic book on complementary feeding is a medium as well as a solution to make it easier to gain

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knowledge, to convey health messages in electronic form, both in the form of writing and pictures given to mothers who have babies aged 6-12 months. Based on the description of this phenomenon, it is important for researchers to conduct research on the effect of education using e-books on the knowledge of under-aged mothers about complementary foods aged 6-12 months in the working area of the Ngempit Health Center, Pasuruan Regency.

## METHODS

The research design used in this study was a quantitative study with a pre-experimental design and a one group pre-post test design. Location This research will be conducted in Sidogiri Village, Ngabar Village, and Plinggisan Village, Pasuruan Regency which will be carried out in October 2021-June 2022, with a population of 56 mothers under the age of two and samples that meet the inclusion and exclusion criteria of the study, data collection using a questionnaire with analysis using descriptive and statistical analysis.

## RESULT AND DISCUSSION

Characteristics of respondents based on age of a total of 56 respondents mostly aged 20-35 years as many as 42 respondents. Based on the last educational history of respondents at the junior high school level, there were 26 respondents. Based on the work of the majority of respondents working as housewives, namely as many as 28 respondents. The majority of respondents' knowledge before being given education using e-books was in the sufficient category. Meanwhile, the majority of respondents' knowledge after being given education using e-books was in the good category. The results of the analysis of the Wilcoxon Signed Rank Test obtained by education using e-books have

an influence on the knowledge of mothers under two about complementary foods for breastfeeding aged 6-12 months.

According to Mubarak (2011) as a person ages, there will be changes in the physical and psychological (mental) aspects. Mother's age will affect the mother's emotional readiness. For example, a mother who is too young during pregnancy can cause her physiological and psychological conditions to be unprepared to be a mother. This can affect pregnancy and childcare, including the importance of giving proper complementary food to infants (Hurlock 1995, in Chairani 2013).

One of the factors that can affect knowledge is the level of education (Andriani in Nissa, 2017). Given that an increase in knowledge is not absolutely obtained from formal education, but can be obtained through non-formal education. This is in accordance with research (Itriani, A. 209) obtained a p value = 0.000 <0.05 meaning that there is a relationship between the level of education and the provision of complementary foods.

The results of the study showed that most of the jobs for under-aged mothers are 28 respondents (50%) of the respondents, were housewives. A working mother will get more information that can increase the mother's knowledge about health compared to a mother who does not work.

**Table 1. Frequency Distribution of Mother's Knowledge Before and After Being Given Education Using an e-book**

Knowledge	Min	Mean	Max	SD	Kategori
Before	3	13,7	20	3,27	Enough
After	15	21,9	23	3,37	Good

The results in table 1 mean that the knowledge score of mothers under two about complementary foods before education is 13.7 has increased after education to 21.9 meaning that there is an increase in knowledge of mothers under two about complementary foods after being given education using e-books ( $p = 0.000$ ).

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The knowledge of mothers under two about complementary foods has abnormal data distribution, so to determine the effect of providing education using e-books on the knowledge of mothers under two years old before being given education using an alternative non-parametric test, namely the Wilcoxon Signed Rank Test with an error rate of 5%, it is obtained a significance number of 0.000 so that  $H_0$  is rejected,  $H_1$  is accepted, meaning that there is an effect of providing education on the knowledge of under-aged mothers.

## CONCLUSION

Modification of educational media will really help improve the educational process and be more effective in increasing the knowledge of mothers who have two-year-old toddlers. The use of e-books is in line with the lifestyle of most people today who use mobile phones and the internet as the dominant media to access every day.

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