



## The Effect of E-FAS on the Knowledge of Post-partum

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### ABSTRACT

**Introduction:** The postpartum period is a period of recovery of the uterine organs as before pregnancy, the recovery time is around 6-8 weeks. Physical and mental changes will experience different changes that can disrupt daily activities. Several types of complications that may occur include physical, mental and emotional problems, for example fatigue, decreased sexual relations, anxiety, constipation, breastfeeding problems, sleep disorders, bleeding and difficulty urinating.

**Objective:** The aim of this research was to determine the effect of E-FAS on the knowledge of postpartum mothers at the Khasanah Panumbangan Clinic.

**Method:** This research design uses the Quasy experimental method with pretest and posttest. This research design takes the form of a non-equivalent control group design. The research subjects were 30 postpartum mothers at the Khasanah Clinic, Panumbangan District, Ciamis Regency. This research instrument uses a questionnaire to determine the knowledge of postpartum mothers. Data analysis used the Wilcoxon Test to see the effect of E-FAS on increasing the knowledge of postpartum mothers.

**Result:** the results of statistical analysis with an average ranking value of 10.50 while the number of positive rankings or sum of rank was 210. There were 10 people with the same score before being given E FAS and after being given E FAS. The Wilcoxon test obtained a p value of 0.000 (<0.005) so it can be concluded that there is an influence of E FAS on the knowledge of postpartum mothers at the Khasanah Clinic, Panumbangan District.

**Conclusion:** E-FAS can be used as a medium for health information, especially in midwifery care after childbirth and breastfeeding.

**Keywords:** knowledge, postpartum, breast feeding

## **Introduction**

The postpartum period is a period of recovery of the uterine organs as before pregnancy, the recovery time is around 6-8 weeks (Anggraini, 2010). This period is a very vulnerable period, because it can cause death of the mother and baby. Physical and mental changes will experience different changes that can disrupt daily activities. Several types of complications that may occur include physical, mental and emotional problems, for example fatigue, decreased sexual relations, anxiety, constipation, breastfeeding problems, sleep disorders, bleeding and difficulty urinating. With so many complaints during the postpartum period, quality services are needed (Sagita Eldawati, 2015).

Care during the postpartum period is one of the most important series in preventing complications that may occur in the mother which can improve the health of the mother and newborn. One of the government programs to reduce MMR by providing care during the postpartum period is that midwives have guidelines stated in the 2021 KIA Book where postpartum mothers are required to visit 4 times during the postpartum period (Dewi, 2020).

Various aspects of life, including the health sector, have been significantly influenced by advances in information and communication technology. The use of electronic technology in postpartum maternal care is one of the latest innovations. The term “electronic postpartum” refers to the use of electronic devices such as smartphones, mobile applications, or internet-connected medical devices to provide advice, information, and support to postpartum mothers during the postnatal period. The use of postpartum electronics has opened up new opportunities to provide support and information to postpartum mothers (Shiferaw et al., 2016).

Through mobile applications or websites specifically for postpartum mothers, mothers can access information about healthy nutrition, recovery exercises, suture wound care, and emotional changes that may occur during the postpartum period. Additionally, they can communicate with lactation consultants, medical personnel, and other mothers in online communities to get support and answer their questions.

Research conducted by Asiodu, et al (2015) stated that most mothers during the postpartum period looked for information about the correct way to breastfeed and baby development through applications available on smartphones (Asiodu, et al., 2015) . Using this application has a very positive impact by providing knowledge, education and the ability to change healthy living behavior. This agrees with research conducted by Shiferaw, et al (2016) that the use of m-health during the postpartum period can improve the quality of maternal care and motivate mothers to carry out routine checks with health workers (Shiferaw et al., 2016).

Data on active smartphone users in Indonesia in 2019 has increased to 100 million users. With this, researchers created E FAS (Electronic Postpartum Mothers) to make it easier for postpartum mothers to find information about the health of mothers and newborns (Suparwedi, 2018).

## **Objective**

The formulation and aim of this case study is to determine the influence of E FAS on the knowledge of postpartum mothers.

## Method

### *Study Design and Setting*

This research design uses the Quasy experimental method with pretest and posttest. This research design takes the form of a non-equivalent control group design. The research subjects were 30 postpartum mothers at the Khasanah Clinic, Panumbangan District, Ciamis Regency. This research instrument uses a questionnaire to determine the knowledge of postpartum mothers.

### *Measurements and Statistical Analyses*

Data collection began by providing an explanation of the research procedures to respondents and respondents filling out a consent form. Researchers gave a pre-test to respondents by distributing questionnaires. Next, the researcher explains the use of E-FAS. After respondents were given E-FAS, researchers conducted a post test. Data analysis used the Wilcoxon Test to see the effect of E-FAS on increasing the knowledge of postpartum mothers.

## Result

### *Sociodemographic of Respondent – Univariate Analyses*

Table 1. *Sociodemographic of Respondent – Univariate Analyses*

Variable	Frequency (n=30)	Percentage (%)
<b>Age</b>		
At risk (>35)	0	0,0
No Risk (19-35)	30	100,0
<b>Education</b>		
Elementary School	12	40,0
Junior High School	8	26,7
Senior High School	9	30,0
Higher Education	1	3,3
<b>Work</b>		
Professional	8	26,7
Housewife	22	73,3

Based on table 1, it shows the age characteristics of respondents in this study, the majority of respondents aged 19-35 years were 30 people (100%). The education level of the respondents, the majority of whom had elementary school education, was 12 people (40%). Most of the respondents' jobs were mothers who did not work, as many as 22 people (73%).

## Effect – Bivariate Analyses

Table 2. Effect – Bivariate Analyses

No	Knowledge	Pretest		Posttest		p-Value	Mean Rank
		F	%	F	%		
1	Good	19	63,3	23	76,7	0.000	10.5
2	Poor	11	36,7	7	23,3		
<b>Total</b>		<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>		

In Table 2, it was found that knowledge about E-FAS for postpartum mothers at the Khasanah Clinic, Panumbangan District before being given E-FAS was in the good category as many as 19 respondents (63.3%) and in the poor category as many as 11 respondents (36.7%). Respondents' knowledge after being given E-FAS was in the good category of 23 respondents (76.7%) and the poor category of 7 respondents (23.3%). The results of statistical analysis with an average ranking value of 10.50, while the number of positive rankings or sum of ranks is 210. There were 10 people with the same score before being given E FAS and after being given E FAS. The Wilcoxon test obtained a p value of 0.000 (<0.005) so it can be concluded that there is an influence of E FAS on the knowledge of postpartum mothers at the Khasanah Clinic, Panumbangan District.

## Discussion

Nopi Anggista Putri's research (2021) used a Quasi experiment method with pre-post-test with control group design with consecutive sampling technique. In this study, postpartum mothers were used. With 60 respondents, namely 30 respondents in the treatment group and 30 respondents in the control group. Data analysis used the chi square test. The research results showed that the increase in knowledge after being given the postpartum mommy application was higher, namely 71.5 (pre test) to 93 (post test) with a p-value <0.05, the percentage increase in knowledge after using the application was 17% and skills were 40% with a p-value <0.05, there is an effect of increasing skills and increasing the percentage of mother's knowledge after using the postpartum mommy application (Putri & Hilmanto, Dany, 2021).

The difference lies in sampling, type of application. Nopi Anggista Putri's research (2021) used a sample of 60 respondents with 30 respondents in the treatment group and 30 respondents in the control group. Meanwhile, in this study there were only 30 respondents, the research design was in the form of a non-equivalent control group design. The type of application is also different from this research using E-FAS.

To increase the knowledge of postpartum mothers, it can be influenced by many factors, one of which is providing counseling using audio-visual media. In accordance with the research results of Idris (2019), the results of statistical analysis show an average ranking of 10.47. The results of the comparison with knowledge before and after counseling about breastfeeding with audio visuals make it easier for someone to receive information thereby increasing knowledge. This is because the use of audio visuals not only pays attention to images but also provides sound effects, so that the sense of sight and hearing work together and make the

brain work better to absorb information (Idris, 2019). Educational media using audio-visual does have advantages in manipulating time and conditions and even space which can help someone to see and know an event that has happened or not even happened yet (Wawan A, 2010).

According to Rahmawati's research results (2017), the results obtained by developing reminder applications on Android-based mobile devices, it is hoped that this application can increase the benefits of mobile devices in the health sector and provide motivation to respondents to learn and utilize an Android-based mobile application because it is a medium. Android-based learning is very interesting and can be used anytime and anywhere (Herlina, 2013).

### **Conclusion**

E-FAS is an information medium for postpartum and breastfeeding mothers. Midwives can use this e-FAS as an information medium in providing health education, especially for postpartum and breastfeeding mothers.

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### **Conflict of interest**

There is no conflict of interest.

### **Ethical approval**

This research has approved ethical by the Research Ethics Commission of Bakti Tunas Husada University with number 188/ec.01/kep-bth/VII/2022.

### **Authors' contribution**

Each author contributed equally in all the parts of the research. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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