

Android Application "AYO ASI" Intervention in Increasing Breastfeeding Knowledge

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ABSTRACT—

Background: Breast milk is a complex food because it contains complete nutrients. The average exclusive breastfeeding mother is only up to two months. This is influenced by a lack of mother's knowledge, support from health workers, sick mothers and promotion of formula milk. Mothers must be prepared for the process of breastfeeding their babies. Therefore, reliable media must be created to increase maternal knowledge so that it can support the success of breastfeeding. The aim of this study was to determine the effect of educational interventions through the android application media "Ayo ASI" on increasing maternal knowledge about breast milk

Methods: This study uses a quasi-experimental approach. the sample in this study were 35 respondents in the intervention group and 35 respondents for the group taken with the control of the purposive sampling method.

Results: Based on the Wilcoxon test at getting p -value 0,000, there is an effect of giving education through the Android application "AYO ASI" there is an increase in knowledge. Based on the results of the mann whithney test obtained p -value 0,000 so it can be concluded that there is a difference in increasing knowledge about ASI between the intervention group and the control group

Keywords— android application "AYO ASI", breastfeeding, knowledge

1. INTRODUCTION

Mother's milk is a complex food because it contains complete nutrients, which are complete nutrients to support the health, growth and development of babies optimally. Breastfeeding will create a loving relationship between mother and baby, increase intelligence and mature emotional development. Besides breastfeeding can reduce the risk of postpartum bleeding, breast cancer and uterine cancer. Exclusive breastfeeding means that the baby is given only breast milk without food or other drinks including water. WHO (World Health Organization) recommends exclusive breastfeeding for infants up to 6 months of age and then continued with ASI supplementary foods for up to 2 years or more. Although the benefits of breastfeeding are so large, not many mothers give exclusive breastfeeding to their babies. Results of Nutritional Status Monitoring (PSG) in 2016, the percentage of 0-5 months infants who still received exclusive breastfeeding was 54.0% at the national level, while in Jakarta it only reached 48.1%.

In Indonesia, the average exclusive breastfeeding mother is only up to 2 months. At the same time, formula feeding increases 3-fold because this time the baby experiences rapid growth (growth spurt), the need for breastfeeding babies becomes more frequent. and the duration is longer than usual. At this time the mother tends to suspect that her milk production is lacking so the baby needs additional food. Many factors that influence breastfeeding include breastfeeding counselling, lack of support from health workers, knowledge of mothers, working mothers, sick mothers, the influence of promotion of milk, the difficulty of babies in sucking and mothers feel about less milk production. This occurs will continue if mothers do not get good health education about breastfeeding. The health worker, especially a midwife, acts as an educator by providing health education on how to breastfeed properly so that it will support the success of exclusive breastfeeding. Research conducted by Putri (2012) found that counselling on exclusive breastfeeding is better

to use simulation and poster methods with $p = 0.00$, meaning that this method greatly influences the knowledge and behaviour of mothers in breastfeeding. Health education regarding exclusive breastfeeding has been given to mothers when entering the third trimester and given back to childbirth the first day but often the counselling given is inadequate, so the mother is less prepared and not ready to breastfeeding. The health education given is still one-way because midwives only have a little time because many patients have to be served.

Knowledge about preparation for breastfeeding can be obtained from health workers, mothers can also get knowledge from various information such as books, health magazines, and from various sources from the internet. But if the mother gets the wrong information then the success of exclusive breastfeeding will not be achieved. Therefore, trusted media must be made that can provide various information about exclusive breastfeeding. At present, the existing android application about breastfeeding is only about breastfeeding records and reminders of breastfeeding hours. Therefore, the author is interested in making an android application media which is named "Ayo ASI" to provide education about breastfeeding. This study aims to determine the effect of educational interventions through the android application media "Ayo ASI" on the mother's knowledge about breastfeeding in the East of Jakarta.

2. METHODOLOGY

This research was conducted in the independent midwife's practice in the East Jakarta. This research is quantitative research with a quasi-experimental design that is by giving treatment to groups and then measuring at the end of the treatment. The population in this study were: all third-trimester pregnant women at the study. The process of sampling by simple randomization with allocation randomization is by drawing samples that have met the inclusion and exclusion criteria in both groups. The number of samples was 35 for the intervention group and 35 for the control group. Data analysis using the Wilcoxon test and Mann Whitney test at significance level 0.0

3. RESULT

Table 1. Average pretest and posttest knowledge of respondents in the intervention group and the control group

Respondents	Average	Minimal	maximum	SD	Frequency
Pre-Test intervention group	61	50	75	7.05	35
Pre-Test control group	60,5	50	70	5.52	35
Post Test Intervention group	82,14	70	95	6,45	35
Post Test Control group	74,71	60	85	6,17	35

From the table above the results of knowledge about ASI before being given the Android application "AYO ASI" in the intervention group were 61 with a minimum value of 50 and a maximum of 70 with a standard deviation of 7.05.

While the results of the analysis of the average knowledge of mothers at the pretest with a minimum value 70 and a maximum of 95 with a standard deviation of 6.45. of the control group were 60.5, the value of a minimum of 50 and a maximum of 70 with a standard deviation of 5.52. The posttest results of the control group had an average knowledge of 74.71, a minimum value of 60 and a maximum of 85 with a standard deviation of 6.17.

Table 2. Average knowledge before and after being given an Android Application "Come on ASI" in the intervention group

Group	Frequency	Mean rank	Z	P-Value
Knowledge Pretest dan posttest intervention group	35	18	-5,208	0,000

The table above shows the value mean rank 18, which means that there is an increase in the average knowledge of respondents and Z value of -5.208 with a p-value of 0,000 <0.05 which means that there is an effect of giving an Android application "Ayo ASI" to increasing maternal knowledge about breastfeeding in the intervention group.

Table 3. Average knowledge before and after giving a lecture on breast milk in the control group

	Group	Frequency	Mean rank	Z	P-Value
Knowledge	Pretest dan posttest Intervention group	35	6	-5,012	0,000

The table above shows the mean rank 6 value, which means there is an increase in the average knowledge of respondents and a value of Z of -5,012 with p-value 0,000 <0,05 which means that there is an influence on giving lectures on increasing mother's knowledge about breastfeeding in the intervention group

Table 4. Average knowledge after being given treatment in the intervention group and the control group

	Group	N	Mean Rank	P-Value
Knowledge	Intervention	35	45.95	0,000
	Control	35	25,04	

In the table above it is known that the mean rank value in the intervention group is 45.95 and mean rank in the control group is 25.04 and the p-value is 0.000, it can be concluded that there are differences in maternal knowledge about breastfeeding between the intervention group and the control group so that Android applications "Ayo ASI" affects the increase in breastfeeding knowledge because there are significant differences.

4. DISCUSSION

The study was conducted in two groups, namely the intervention group and the control group. In the intervention group, the media used were the android application "Ayo ASI" and the control group using lectures.

From the results of the statistical test, it was found that from the intervention group and the control group there was a significant difference between pre and post knowledge.

Based on the results of the study after posttest, the average mother's knowledge about breastfeeding was 82.14 in the intervention group and 74.71 in the control group, it can be concluded that there was an increase in the average knowledge of mothers after getting information about breastfeeding through the application media "Ayo ASI" and increased knowledge in the control group by the lecture method. This proves in previous studies by Budiman and Riyanto (2013) which stated that one of the factors that influence one's knowledge is information obtained.

The difference in the posttest value of the intervention group that is higher than the control group proves that the use of the Ayo ASI Application is more effectively used to increase knowledge than just using the lecture method. In both groups obtained significant results with a p-value of 0,000 with a mean rank of 45.95 in the intervention group and mean rank 25.04 in the control group so that it could be concluded that there was a difference in knowledge about breastfeeding between the intervention group and the control group.

According to Suraioka (2012), the use of media in health education provides several benefits such as stimulating the interest of the target, overcoming the completeness of time, language and sensory power in the process of receiving education, overcoming the passivity of the target, providing stimulation, experience so that it will create the same perception. This causes the target to know more, explore, and understand it, which ultimately gives a positive understanding of the intended health message. Next, the target will forward the message to other people so that more goals are obtained. This is also reinforced by the theory from Notoatmodjo (2012) the factors that influence learning outcomes are from the media itself, the environment and the conditions of the individual.

In this study, there was a significant increase in knowledge before and after the administration of the Android application "Ayo ASI". This proves that the "AYO ASI" application is useful for mothers to increase their knowledge about breastfeeding. Android application "Ayo ASI" is installed on a mobile phone so it is very practical, easy to read anytime and the information contained in it is also in accordance with the needs of mothers about breastfeeding.

5. CONCLUSION

The android application "Ayo ASI" increases a mother's knowledge about breast milk. Knowledge about breastfeeding is very important to be known by mothers because the benefits of breastfeeding are very good for babies or for mothers.

6. ACKNOWLEDGEMENT

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