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The Effect of The ELSIMIL Application on Adolescent Knowledge

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ABSTRACT

In West Nusa Tenggara Province, especially West Lombok Regency, the number and presentation of women according to the age of first marriage, a fairly high percentage occurs at the age of 16 - 19 years. The aim of thus study is to determine the effect of the ELSIMIL application on adolescent knowledge. This research uses a pre-experimental research method with a pre-post control group design. The sample in this study totaled 60 with details of 30 control groups and 30 intervention groups.In the intervention group and control group, a pre-test was carried out, then different interventions were given. The intervention group was given the ELSIMIL Application, the control group used the booklet. There is the influence of ELSIMIL the effect of the ELSIMIL application on adolescent knowledge. Recommendation for the next research It is hoped that future research will be able to use this approach mixed research better so that an assessment can be obtained deeper meaning.

Keywords: ELSIMIL; application; adolescent knowledge

Introduction

In Indonesia, the proportion of early marriages is still high, namely 46.7 percent of total marriages. Epidemiological studies show that the risk of death for pregnant women is 2 times higher if pregnant at the age of 15-19 years and the death rate is 5 times higher. Complications of pregnancy and childbirth in adolescence include eclampsia, anemia, premature birth, bleeding and even death of mother and baby.

Pregnancy too young is one of the factors causing the increase in maternal mortality. The causes of maternal death in NTB Province are caused by direct obstetric causes, namely bleeding 30.23%, preeclampsia/eclampsia 23.7%, infection and amniotic fluid embolism, while indirect causes contribute 42.1% of maternal deaths. There are four risk factors for maternal death, namely too young, too old, too close and giving birth too often.[1]

In fact, there are still many people in Indonesia who still marry under the age required by the provisions issued by the National Family Planning Coordinating Board (BKKBN), especially residents who are located in rural areas. Based on information from the Child Marriage Report, if we look at the area of residence, it proves that girls' marriage habits are more likely to occur in rural areas than urban areas, whether before the age of 18 or before the age of 15. In 2018, women aged 20-24 years in rural areas will have their first marriage before the age of 18, a greater percentage is shown in rural areas, namely 16.87%, while in urban areas it is 7.15%. On the other hand, for boys, approximately 1 in 100 men aged 20-24 years in 2018 were married before the age of 18. The same is true for girls who have had early marriages, in rural areas there is also a high number of boys who have had early marriages, namely 1.44% and urban areas, namely 0.77%. [2], [3]

In West Nusa Tenggara Province, especially West Lombok Regency, the number and presentation of women according to the age of first marriage, a fairly high percentage occurs at the age of 16 - 19 years at 47.22%, at the age of 20 - 29 years at 47.01%, < 16 years at 4.27% and age > 30 years is 1.50%. The factors causing early marriage in NTB are very complex, including coercion from parents or family and because of love. Most teenagers who marry are not old enough and do not

get permission from the KUA, so most of them marry under the hand or better known as unregistered marriages. In 2020, the NTB Province Ministry of Religion recorded 139 teenage marriages in West Lombok Regency. Teenage marriages have an adverse impact on reproductive health due to the unpreparedness of the reproductive organs and psychology of being a mother. Increasing knowledge about pre-marital reproductive health and education about stunting is needed from prospective brides to even teenagers considering the large number of early marriages in West Nusa Tenggara Province. In West Nusa Tenggara there is a culture of "meraric kodeq". Merariq is a tradition of the Sasak tribe in Lombok which allows a man to take away a woman to marry. Unfortunately, as time goes by, this merariq tradition is often misused by a few people to marry underage partners. In many cases, merariq becomes a customary pretext for marrying underage partners. This event is usually known as merariq kodeq. Merariq kodeq is local language in west nusa Tenggara barat. The term merariq kodeq is a tradition of the Sasak tribe in Lombok which allows a man to take away a woman to marry. Unfortunately, as time goes by, this merariq tradition is often misused by a few people to marry underage partners. In many cases, merariq becomes a customary pretext for marrying underage partners. This event is usually known as merariq kodeq.

In 2022 BKKBN launched the ELSIMIL application to prevent stunting and, Elsimil is an abbreviation for Ready to Get Married and Pregnant Electronic Application. This application is useful for early detection of the potential for a baby to be born by looking at the condition of the prospective bridal couple. In Pasuruan Regency, this application was tested at the end of 2022, but the launch will only be implemented in 2022. The Elsimil application is a step in opening up information to the public in order to accelerate the reduction in stunting rates caused by malnutrition during the 1000 days of life. He explained that the Elsimil application was specifically designed to target prospective brides, pregnant women and those who have given birth. Namely as a health monitoring tool and education regarding marriage readiness and pregnancy programs. [4]

The aim of this research is to determine the effect of the ELSIMIL application on adolescent knowledge.

Methods

This research uses a pre-experimental research method with a pre-post control group design. This research was approved by ethics committee number: LB.01.03/6/051/2023. The population in this study were teenagers in the working area of the Narmada health center. The sampling technique in this research used purposive sampling. The sample in this study totaled 60 with details of 30 control groups and 30 intervention groups.

In the intervention group and control group, a pre-test was carried out, then different interventions were given. The intervention group was given the ELSIMIL Application, the control group used the booklet. Then measured a week later with a post test. The instrument used uses a knowledge questionnaire with knowledge domains C1-C3. There are 20 questions. The questionnaire was tested for validation and reality. Data analysis used the Mann Whitney test, with the SPSS.

Results and Discussion

Table 1. Knowledge before and after intervention

Knowledge Score	Group		P value
	Interventioni (n=30)	Control(n=30)	
Pre :			
Mean	47,83	46,53	
St Dev	8,38	11,47	0,096
Post			
Mean	64,17	57,51	
St Dev	13,59	9,81	

Table 1 shows that if we look at the mean value, the average level of knowledge in the ELSIMIL intervention group (64.17) is on average greater than before the ELSIMIL intervention was given (47.83). From this it can be concluded that the ELSIMIL application has a significant effect on the intervention group in terms of increasing knowledge. Likewise, the control group had a greater average after being given the booklet (57.51) than before being given the booklet (46.53). From

this it can be concluded that the booklet had a significant effect on the control group in terms of increasing teenagers' knowledge. Because the p-value is 0.096 > α (0.05), the conclusion is that there is no difference in the average between the control group and the intervention group.

The results above show that there is no significant difference between the intervention group and the control group, meaning that there is no difference between the control group who were given the booklet and the intervention group who used the ELSIMIL application, but the ELSIMIL application was able to increase teenagers' knowledge about premarital reproductive health and stunting.[5], [6]

This is in line with Efiza et al's research that there is an effect of stunting education using the Android application (p) 0.0001<0.05 on increasing mothers' knowledge and attitudes at the Tenayan Raya Pekanbaru Community Health Center. Education. Health education regarding stunting prevention must be conveyed using media so that it is easily accepted by parents, especially mothers, and this method is able to overcome the problems faced in providing education or health education. So that the public understands the information conveyed, it requires the development of outreach media in the community. Media in conveying information about health education has the meaning of being a tool to facilitate communication and disseminate information widely. Android application-based media is the main choice as an outreach medium because it is able to disseminate information in a relatively short time. [7]–[9]

The study Gumilang Intan et al showed that Implementation of the Android-Based Application "Nutritional Status of Toddlers on Mothers' Knowledge Monitoring the Nutritional Status of Children Aged 12-24 Months" The results of this research are that there is a significant influence based on applications android "nutritional status of toddlers" on mothers' knowledge in monitoring nutritional status children aged 12-24 months. From the results of this research, it is hoped that there will be a new method based on technology used to increase maternal knowledge in nutritional monitoring toddler.[10]

Another research by Dwi Rizky et al which resulted in the development of media applications obtained material about knowledge and prevention of Prediabetes which included articles, images, quizzes, videos and tracker updates. Quantitative research shows that there is an influence of the Android-based application "Teen Smart Mobile" on increasing knowledge, attitudes and self-efficacy in preventing prediabetes. [11], [12]

Android-based health education can increase a person's knowledge. This is as a result of receiving new information so that the level of knowledge can increase. When there is an increase in knowledge it will be balanced by a change in attitude and ends with implementation practices so that it can increase teenagers' knowledge. [13], [14]

The rapid development of technology can be used to help education, increase knowledge, and disseminate information, becoming an alternative way to use health promotion media. The use of smartphones is currently very widespread among teenagers as a medium of communication and information. The survey results show that 8.7% of teenagers are smartphone users equipped with an Android system. [4]

This system can provide an open platform for developers to create applications that can be used by various smartphone devices. In the process, Android-based applications via smartphones can be used as health promotion media to help teenagers increase their knowledge and apply what they get from this media. [5]

Existing research discusses how it makes it easier for health workers to collect data and is also useful for parents to directly monitor children's development, so the difference from my research is the solution of creating an Android-based application for early detection, prevention of stunting in pregnant women to increase the knowledge of mothers during pregnancy in maintaining and monitoring compliance. You just need to limit yourself to making applications, especially during the current pandemic, Android-based applications are very useful for mothers and health workers because they use Android media. [5], [15], [16]

In this study, the two groups were given different interventions, the control group used a booklet, the intervention group used an application, but the results showed that there was no significant difference between the two. The results of this study are in contrast to the research of Sri Dinengsih et al. In this study, there was a significant difference in knowledge scores before and after being given an Android-based application in the intervention group (p<0.05) and the lecture method in the control group (p,0.05), and there was a significant difference in knowledge scores between the intervention group and the control group after being given the Android-based application (p<0.05). [8]

Conclusion

There is the influence of ELSIMIL the effect of the elsimil application on adolescent

knowledge. Recommendation for the next research It is hoped that future research will be able to use this approach mixed research better so that an assessment can be obtained deeper meaning.

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