



Original Research

Efficacy Of Giving Education Related To The First 1000 Days Of Life (1000 HPK) On The Knowledge Of Pregnant Women At Ulantha Community Health Center

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Abstract

The First 1000 Days of Life (1000 HPK) is a critical phase that determines the growth and development of children. Lack of knowledge of pregnant women regarding 1000 HPK can have a negative impact on the health of the mother and baby. Therefore, education regarding 1000 HPK is important to increase awareness of pregnant women. This study aims to analyze the effectiveness of 1000 HPK education on increasing the knowledge of pregnant women at the Ulantha Health Center. This study used a quantitative approach with a pre-experimental design (one-group pretest-posttest). Using a total sampling technique, the population was 20 respondents and the entire sample from the population. Data were collected through questionnaires before and after education, then analyzed using the Paired Sample T-Test. The results showed a significant increase in the level of knowledge of pregnant women after being given education (p -value = 0.000). The majority of respondents experienced an increase in understanding of the importance of 1000 HPK. Education regarding 1000 HPK has proven effective in increasing the knowledge of pregnant women. Therefore, this education program needs to be implemented sustainably in health facilities to support maternal and infant health.

1. Introduction

The quality of a healthy and intelligent generation is largely influenced by growth and development in the golden period. This period is very important because during this period, the process of growth and development of children takes place very quickly, which of course will affect their health in the future. (Putri et al., 2022)

The First 1000 Days of Life (1000 HPK) is the early stage of life that begins in the womb until the child is two years old. This period is also known as the Golden Period, because it plays an important role in supporting the very rapid growth and development of children. Optimization in this phase will have a significant impact on the health and quality of life of children in the future. (Raden et al., 2024). And the First Thousand Days of Life (1000 HPK) is an important phase in human life, which includes 270 days from conception to birth, and the first 730 days after birth to the age of two years. This period is considered a crucial stage that plays a role in determining the optimal growth and development of children, and has an impact on health in adulthood. (Widyahening et al., 2021). Growth and development during the 1000 HPK period does not only focus on physical aspects, but also pays attention to psychosocial aspects, such as parenting patterns. (Nainggolan & Hamida, 2019). In addition, the quality of human resources can be hampered by low cognitive

abilities in the long term, so this problem needs to be addressed immediately with various appropriate efforts.(Puspita et al., 2021).

At this stage, the development of brain function is very rapid compared to other phases of life. Fetal development will be adjusted to the nutritional intake received during pregnancy. The brain of a newborn baby has a function of about 25% of an adult's brain and reaches 70-80% at the age of 2 years. Malnutrition during the First 1000 Days of Life (HPK) can affect brain development, intelligence, physical growth, and disrupt the body's metabolism, which ultimately makes children more susceptible to disease.(Amdadi et al., 2021). The process of brain function development occurs optimally from the embryonic period and then slows down after the age of 2 years.(Nefy & Indrawati Lipoeto, 2019).

The government has since the beginning attempted to implement the "1000 HPK Movement", which is a step to accelerate nutritional improvements inspired by the "Scaling Up-Nutrition (SUN) Movement". The SUN Movement is a global movement that collaborates with the UN Secretary General in response to food and nutrition conditions in developing countries. Although efforts to accelerate the reduction of nutritional problems have not been fully successful in various regions, it is hoped that through the continuation of this movement, nutritional problems can continue to decrease and produce a healthy and intelligent generation.(Ulfa Hidayati et al., 2022)

Optimal nutritional fulfillment during the first 1000 days of life is very important, so efforts are needed to improve nutrition from pregnancy, infancy, to toddlerhood to give birth to healthy children. Proper nutrition during the first 1000 days can have a significant impact on a child's ability to grow, learn, and escape poverty. It is hoped that health institutions or facilities will increase education for pregnant women regarding the importance of 1000 HPK(Amdadi et al., 2021b)

In health development, maternal and infant mortality rates are still the main problem and priority for the government. The Maternal Mortality Rate (MMR) is an indicator to assess the success of maternal health programs, which is calculated based on the ratio of maternal deaths during pregnancy, childbirth, and postpartum per 100,000 live births. The infant mortality indicator is measured by the Infant Mortality Rate (IMR) per 1,000 Live Births (KH). In 2023, the Maternal Mortality Rate (MMR) in Indonesia increased, namely from 83 per 100,000 live births in 2022 to 98 per 100,000 live births. The number of maternal deaths also increased from 38 cases to 47 cases. Meanwhile, in 2023, the IMR in Indonesia was recorded at 15,920 per 1,000 live births, down 3.62% compared to 2022. The Ministry of Health (2020) estimates that in 2024, the IMR in Indonesia will reach 183 per 100,000 live births, and in 2030 it will be 131 per 100,000 live births, which is still far from the global development health target.(Susilawati et al., 2025)

A person's level of knowledge is influenced by various interrelated factors. One of them is education, which plays an important role in the learning process. The higher a person's level of education, the easier it is for them to receive and understand new information. Higher education also tends to increase a person's ability to absorb knowledge, so that the knowledge they have is also better. In addition, work also affects the level of knowledge, because the work environment often provides experience and insight that can be obtained both directly and indirectly. The type of work that is done can even be closely related to the frequency of illness and death experienced by a person. Another factor is age, which also affects a person's mental development. As we get older, cognitive abilities and mental development usually improve. However, after reaching a certain age, the process of mental development does not develop as quickly as in youth, such as in adolescence, when the ability to learn and absorb information is still very fast.(Emelia et al., 2023)

Family education about 1000 HPK is very important as the main basis in efforts to build a prosperous family. One of the factors that supports the creation of quality human resources is by optimizing the role and function of the family.(Dwijalyanti et al., 2022). This is a way to convey messages and beliefs so that individuals, families, or groups can be aware, understand, and follow recommendations related to health. The delivery of educational information can be done through various media or interesting props. One of the media that can be used is a booklet, which is a small book containing writing, pictures, or a combination of both about health that is intended for targets who can read.(Kurnialtin & Zalkiyyal, 2022)

Based on the background above, the researcher is interested in researching the Efficacy of Providing education related to the First 1000 days of Life at the Ulantha Health Center.

2. Research Method

This study used a quantitative method with a pre-experimental design, which adopted a one-group pretest-posttest approach. In this design, measurements were taken before (pretest) and after (posttest) educational interventions regarding the First 1000 Days of Life (1000 HPK). This approach aims to evaluate the effectiveness of education in improving pregnant women's understanding of the 1000 HPK. Data collection was carried out through questionnaires given to respondents before (pretest) and after (posttest) the educational intervention. The data obtained were then analyzed using the Paired Sample T-Test statistical test to evaluate changes in respondents' knowledge levels after education was provided.

3. Results and Discussion

Table 1. Age Frequency Distribution

Age	Frequency	Percentage (%)
< 20 years	3	13.6
20-35 years	17	77.3
>35 years	2	9.1
Total	22	100

Based on Table 1, Most respondents are in the age range of 20-35 years (77.3%), which is the productive age group for pregnant women. As many as 13.6% of respondents are under 20 years old, the age group over 35 years old only amounts to 9.1%

Table 2. Frequency Distribution of Education Level

Level of Education	Frequency	Percentage (%)
SD	5	22.5
Junior High School	4	18.2
Senior High School	7	31.8
PT	6	27.3
Total	22	100

Based on Table 2, College (27.3%). This shows that the majority of pregnant women who attended education had a good enough knowledge base to understand the material provided. However, there were still 22.7% of respondents with elementary school education and 18.2% with junior high school education. This group likely needs a more visual and communicative education method so that the material is easier to understand.

Table 3. Frequency Distribution of Jobs

Level of Education	Frequency	Percentage (%)
Doesn't Work	11	50
Work	11	50
Total	22	100

Based on Table 3, 50% of respondents are housewives who are not tied to formal jobs, so they spend more time at home to take care of their families and carry out daily domestic activities. Meanwhile, the other 50% are pregnant women who work, both in the formal and informal sectors.

Table 4. Characteristics of Knowledge Before Providing Education in The First 1000 Days of Life (1000 HPK)

Age	Frequency	Percentage (%)
Less (0-40)	11	50
Enough (50-70)	11	50
Total	22	100

Based on Table 4, Before being given education, 50% of respondents had a low level of knowledge. This indicates that without intervention, there are still many pregnant women who do not fully understand the importance of the First 1000 Days of Life (HPK). Meanwhile, the other 50% of respondents already have sufficient knowledge, but still need improvement to reach a better category.

Table 5. Characteristics of Knowledge After Providing Education in The First 1000 Days of Life (1000 HPK)

Age	Frequency	Percentage (%)
Less (0-40)	8	36.4
Enough (50-70)	14	63.6
Total	22	100

Based on Table 5, After being given education, there was a significant increase in the level of understanding of pregnant women. As many as 63.6% of respondents now have good knowledge, while 36.4% are still in the sufficient category. This proves that education plays an important role in increasing awareness and understanding of pregnant women regarding the importance of the First 1000 Days of Life (HPK) period, which contributes to maternal health and optimal fetal development.

Table 6. Difference in ALverage Knowledge Before and ALfter Providing Educaltion on the First 1000 Dalys of Birth (1000 HPK)

	Palired Differences			
	Mealn	SD	df	p-vallue
Pretest Score- Posttest Score	-1.136	.560	.119	.000

3.1. Difference in A.verage Knowledge Before and A.fter Education

Analysis using Paired Sample T-Test showed a significant increase in the level of knowledge of pregnant women after being given education about the First 1000 Days of Life (1000 HPK). The calculation results showed that the average difference between the pretest and posttest was -1.136, which indicated an increase in the posttest score compared to the pretest. This finding indicates that the education provided had a positive impact on increasing respondents' understanding. The standard deviation value (SD = 0.560) shows that the variation in score changes between respondents is not too large, so that almost all respondents experienced a relatively uniform increase in knowledge. In addition, the p-value = 0.000 (<0.05) confirms that the difference before and after education is statistically significant. Thus, the education provided has proven effective in increasing pregnant women's understanding of the importance of 1000 HPK. This increase is likely due to the educational method used, which is interactive and

communicative, thus helping pregnant women more easily understand important concepts related to 1000 HPK. In addition, the majority of respondents are in the productive age range (20-35 years) with a fairly good level of education, which also contributes to the effectiveness of education in improving their understanding. So the analysis results show $p\text{-value} = 0.000$. Because $p\text{-value} < 0.05$, then H_0 is rejected and H_1 is accepted, which means there is a significant increase in the level of knowledge of pregnant women after being given education about 1000 HPK.

3.2. Implications and Importance of Education in the First 1000 Days of Life

The results of this study indicate that health education, especially related to the First 1000 Days of Life (1000 HPK), plays an important role in increasing the awareness of pregnant women to support the growth and development of children from the womb. Education is a learning process that challenges someone from not knowing about the value of health to knowing, and from initially being unable to manage their own health to being more independent in managing their health. (Rosidi & Rajial, 2022). Totally, women have a great opportunity to access information about maternal and child health. Accurate health information will affect health, and the impact will be clearly visible for mothers and children. (Kusumal et al., 2019).

A better understanding of nutrition, parenting, and care during pregnancy can contribute to reducing the risk of complications and improving the quality of maternal and infant health. The effectiveness of the education provided in this study was proven by a significant increase in posttest scores, indicating that the education program was able to significantly improve respondents' understanding.

4. Conclusion

The results of this study indicate that education on the First 1000 Days of Life (1000 HPK) has a significant impact on improving pregnant women's understanding of various important aspects, such as nutrition, parenting patterns, and care during pregnancy. Based on statistical analysis using the Paired Sample T-Test, a significant increase was found in the post-test score compared to the pre-test ($p\text{-value} = 0.000$), indicating that the education provided was proven effective and provided positive results in improving respondents' knowledge.

These findings further emphasize the urgency of implementing ongoing education programs for pregnant women, especially in health facilities such as Community Health Centers. With ongoing education programs, it is hoped that pregnant women can have a more comprehensive understanding of the early stages of a child's life, which will influence their decisions regarding better care and parenting. This program also has the potential to reduce the risk of complications during pregnancy and support healthy fetal development.

For future research, it is recommended to explore the long-term impact of this educational intervention, both in terms of increased knowledge and in terms of behavioral challenges that can directly affect maternal and child health. Further research should also consider other factors, such as social support and access to health services, which may play an important role in the success of this educational program and in improving the quality of life of pregnant women and their children.

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