



## The effect of health education on knowledge of pregnant women about the danger signs of third-trimester pregnancy at IMP Nursyamsiah, SST in 2022

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### ABSTRACT

One of the things that influence knowledge is education. With the educational process, it is hoped that there will be changes in knowledge, attitudes, and skills. The purpose of this study was to determine the effect of health education on the level of knowledge of pregnant women about the danger signs of third-trimester pregnancy at the Nursyamsiah, S.ST Independent Midwifery Practice (IMP). This research was conducted because many pregnant women still do not know about the danger signs of third-trimester pregnancy, namely as much as 51%. The design used in this research was quantitative with a pre-experimental design, using one group pretest-posttest design approach without a control group. The technique used was an accidental sampling technique. It utilized 28 third-trimester pregnant women as the sample. The data analysis used was univariate and bivariate using the Wilcoxon test. The results of this study were an increase in knowledge about the danger signs of pregnancy in the thirdtrimester from the poor category by 13 respondents (47%). After being given health education, there was an increase where almost all knowledge of third-trimester pregnant women was in a good category by 22 respondents (79%) and sufficient knowledge of as many as 6 respondents (21%). The results of bivariate analysis using the Wilcoxon test obtained p-value = 0.000 where the p-value <0.05 so that it can be concluded that statistically, health education about the danger signs of pregnancy affects increasing the knowledge of third-trimester pregnant women at IMPNursyamsiah., SST. This study's findings indicate an improvement in third-trimester pregnancy danger signs knowledge from before to after receiving health education. Pregnant women are advised to attend classes specifically for them, and healthcare providers should take a more active role in spreading awareness of health issues

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### Kata kunci:

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### ABSTRAK

Salah satu yang berpengaruh pada pengetahuan adalah pendidikan. Adanya proses pendidikan diharapkan akan terjadi perubahan pengetahuan, sikap dan keterampilan. Tujuan penelitian ini untuk mengetahui pengaruh pendidikan kesehatan terhadap tingkat pengetahuan ibu hamil tentang tanda bahaya kehamilan trimester III di Praktik Mandiri Bidan (PMB) Nursyamsiah SST. Penelitian ini dilakukan karena masih banyak ibu hamil yang belum mengetahui tentang tanda bahaya kehamilan trimester III yaitu sebanyak 51%. Desain yang digunakan dalam penelitian ini adalah kuantitatif dengan desain Pra Eksperimental, menggunakan pendekatan one group pre test - post test design tanpa kelompok kontrol. Sampel yang digunakan sebanyak 28 orang ibu hamil trimester III, menggunakan teknik accidental sampling. Analisis data yang digunakan yaitu univariat dan bivariat yang menggunakan uji Wilcoxon. Hasil penelitian ini adanya peningkatan pengetahuan tentang tandabahaya kehamilan trimester III dari kategori kurang sebanyak 13 responden (47%), dan setelah

diberikan pendidikan kesehatan terjadi peningkatan dimana hamper seluruh pengetahuan ibu hamil trimester III kategori baik sebanyak 22 responden (79%) dan pengetahuan cukup sebanyak 6 responden (21%). Hasil analisis bivariat menggunakan uji Wilcoxon didapat nilai p value = 0,000 dimana nilai p value < 0,05 sehingga dapat disimpulkan bahwa secara statistik pendidikan kesehatan tentang tanda bahaya kehamilan berpengaruh terhadap peningkatan pengetahuan ibu hamil trimester III di PMB Nursyamsiah., SST. Kesimpulan dari penelitian ini yaitu ada peningkatan pengetahuan tentang tanda bahaya kehamilan trimester III dari sebelum ke sesudah diberikan pendidikan kesehatan. Saran untuk ibu hamil diharapkan agar selalu mengikuti kelas ibu

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## INTRODUCTION

Pregnancy and childbirth pose great risks for women with no previous health problems. There are still many pregnant women who experience health problems related to pregnancy and even suffer life-threatening long-term complications (WHO, 2018).

The success of maternal health efforts, among others, can be seen from the Maternal Mortality Rate (MMR) indicator. MMR is the number of maternal deaths during pregnancy, childbirth, and childbirth caused by pregnancy, childbirth, and childbirth or their management but not due to other causes such as accidents or falls in every 100,000 live births. This indicator is not only able to assess maternal health programs. Still, it can also assess the health status of the community, because of its sensitivity to improving health services, both in terms of accessibility and quality. In Indonesia, there was a decrease in maternal mortality during the 1991-2019 period. There was a decrease in MMR in Indonesia from 390 in 1991 to 305 in 2019 (Ministry of Health RI, 2020).

The Maternal Mortality Rate (MMR) indicates women's health status. The maternal mortality rate is also one of the targets set in the millennium development goals, namely goal 5, improving maternal health, based on the 2017 Sustainable Development Goals (SDGs) evaluation. According to data from the World Health Organization (WHO), every day, 810 mothers worldwide die from diseases or complications related to pregnancy and childbirth (WHO, 2019).

At the 2020 National Health Work Meeting, the Maternal Mortality Rate (MMR) in Indonesia until 2019 is still at 305 per 100,000 live births. This figure is still high when linked to Indonesia's 2030 Sustainable Development Goals (SDGs) target, which is to reduce MMR to 70 per 100,000 live births (RI Ministry of Health, 2020).

The data from Lampung Provincial Health Office for cases of maternal death in 2019 have increased compared to 2018, namely 102 cases to 110 cases.

Pregnant women's ignorance about pregnancy risk symptoms is one of the causes contributing to MMR. Pregnant women can gain information through health education, enabling them to take action immediately when confronted with pregnancy danger signals. 2017 (Eliana Sari). Education is one of the factors that affect knowledge. Hopefully, the educational process will change knowledge, attitudes, and abilities. As a result, pregnancy-related problems, including MMR and IMR, can be treated and avoided as early as possible. Notoatmodjo (2018).

In practice, many pregnant women are unaware of the risks associated with pregnancy. Vaginal bleeding, severe headaches, blurred vision, swelling in the hands and face,

vaginal discharge, no fetal movement felt, and severe abdominal pain are just a few of the pregnancy danger indicators. It is crucial to understand this because if the warning symptoms are recognized early, treatment can start immediately. (Maisura & Darmawati, 2016).

According to the findings of previous research, pregnant women's knowledge of the danger signs of pregnancy before receiving it at the Karangdoro Health Center was as follows: 26 (59.1%) respondents had a sufficient level of knowledge, 2 (4.5%) respondents had poor knowledge, and 16 (36.4%) respondents had a good level of knowledge. The knowledge levels changed after providing health education, and all changes were positive (100%). The Wilcoxon test results,  $Z = 5.518$  and  $P\text{-value} = 0.000$ , show that health education impacted pregnant women's knowledge of pregnancy danger indicators at the Karangdoro Health Center. (Sari Sudarmiati and Eliana Sari, 2017)

Out of 6 third-trimester pregnant women at IMP Nursyamsiah, S.ST, the survey result revealed that 4 had insufficient knowledge and 2 had appropriate knowledge.

As indicated by the description above, the authors are interested in researching the impact of health education on pregnant women's level of knowledge regarding the danger signs of third-trimester pregnancy at IMP Nursyamsiah, S.ST Tanjung Anom Village, Ambarawa District.

## RESEARCH METHODOLOGY

The design used in this research is quantitative with a pre-experimental design, using one group pretest-posttest design approach without a control group. The technique used was the accidental sampling technique. The sample used was 28 third-trimester pregnant women. The data analysis used was univariate and bivariate using the Wilcoxon test.

This research was conducted at IMP Nursyamsiah., SST, Tanjung Anom Village, Ambarawa District, in 2022. The subjects in this study were all third-trimester pregnant women at IMP Nursyamsiah., SST.

## RESULT AND DISCUSSION

### Research Results and Analysis

This study aimed to determine the effects of health education on pregnant women's knowledge of the danger signs of third-trimester pregnancy in the Purbolinggo Health Center's working environment. There were as many

as 35 samples taken. The data was collected based on the results of the distribution of questionnaires. From the results of the data processing carried out, it can be presented as follows:

**1. Characteristics of Respondents**

**a. Age**

**Table 4.1**  
**Distribution of Respondents by Age at IMPNursyamsiah, SST**

Variable	Frequency (n = 28)	Percentage (%)
1. < 25	7	25 %
2. 26 – 35	16	57%
3. > 35	5	18 %
Total	28	100 %

Based on table 4.1 above, it shows that of the 28 pregnant women who came, as many as 7 people, or 25% of pregnant women aged <25 years, as many as 16 people, or 57% of pregnant women aged 26-35 years and as many as 5 people or 18% who aged > 35 years.

**b. Education**

**Table 4.2**  
**Distribution of Respondents Based on Education at IMP Nur Syamsiah, SST**

Variable	Frequency (n = 28)	Percentage (%)
Junior High School	6	21 %
High School	18	64 %
University	4	15 %
Total	28	100 %

Based on table 4.2 shows that as many as 6 people, or 21% of pregnant women, have a junior high school education, and as many as 18 people, or 64% of pregnant women, have a high school education. As many as 4 people, or 15% of pregnant women, have a university education.

**c. Profession**

**Table 4.3**  
**Distribution of Respondents Based on Profession at IMPNurSyamsiah, SST**

Variable	Frequency ( n = 28)	Percentage (%)
1. Housewife	24	86 %
2. Seller	3	10 %
3. Civil Servant	1	4%
Total	28	100 %

Based on table 4.3 above shows that as many as 24 people, or 86%, are housewives, as many as 3 people, or 10%, are sellers, and as many as 1 person, or 4%, are civil servants.

**2. Univariate analysis**

**Table 4.4**  
**Frequency Distribution of Respondents Based on the Knowledge of Third Trimester Pregnant Women About Danger Signs of Pregnancy Before and After Being Given Education**

Variable	Category	Before Health Education		After Health Education	
		Frequency	Percentage	Frequency	Percentage
Knowledge	Poor	13	47 %	0	0
	Sufficient	9	32 %	6	21 %
	Good	6	21 %	22	79 %
	Total	28	100 %	28	100 %

Based on table 4.4 above, it is known that in the knowledge variable of the respondents, before being given health education, the knowledge of third-trimester pregnant women about danger signs of pregnancy was in a good category, as many as 6 respondents (21%), in the sufficient category as many as 9 respondents (32%), and the poor category as many as 13 respondents (47%). After being given health education, there was an increase where almost all knowledge of third-trimester pregnant women was in a good category by 22 respondents (79%) and sufficient knowledge by 6 respondents (21%).

**3. BivariateAnalysis**

Bivariate analysis was used to determine health education's effect on pregnant women's knowledge in the third trimester. Bivariate analysis was conducted on two variables thought to be related or correlated. In this study, the variable to be analyzed was the increase in third-trimester pregnant women's knowledge before and after being given health education. Data analysis employed the Wilcoxon Signed Ranks Test. The following outcomes are derived from the calculation results that are processed through a computer program:

**Table 4.5**  
**Results of the Wilcoxon Test Analysis of the Knowledge of Third-Trimester Pregnant Women About the Danger Signs of Pregnancy Before and After Being Given Health Education**

		Knowledge After Receiving Health Education				P
		Poor	Sufficient	Good	Total	
Knowledge Before Receiving Health Education	Poor	0 (0%)	5 (26%)	14 (74%)	19 (100%)	0,000
	Sufficient	0 (0%)	1 (16%)	5 (84%)	6 (100%)	
	Good	0 (0%)	0 (0%)	3 (100%)	3 (100%)	
Total		0 (0%)	6 (21%)	22 (79%)	28 (100%)	

Table 4.5 above demonstrates that of the 28 respondents before being given health education, there were 19 people in the category of poor knowledge, 10 people in the category of sufficient knowledge, and 6 people in the category of good knowledge. After being given health education, there were 22 people in the category of good knowledge and 6 people in the category of sufficient knowledge. The result of the statistical test on the knowledge variable using the Wilcoxon Signed Rank Test was obtained with p-value = 0.000 where the p-value <0.05 so that it can be concluded that statistically, health education about danger signs of pregnancy affects increasing the knowledge of third trimester pregnant women at IMPNursyamsiah, S.ST

**DISCUSSION**

**1. Univariate Analysis**

**a. Knowledge of third-trimester pregnant women in the working area of the Purbolinggo Health Center before being given health education about the danger signs of third-trimester pregnancy**

This study shows that pregnant women who visit to attend classes for pregnant women do not all know the danger signs of pregnancy in the third trimester. Based on the results of the study, it was found that in the knowledge variable of the respondents, before being given health education, the knowledge of pregnant women in the third trimester about danger signs of pregnancy was in a good category, 6 respondents (21%), in the sufficient category, 9 respondents (32%), and in the poor category, 13 respondents (47%), and after being given health education there was an increase where almost all knowledge of third-trimester pregnant women was in a good category by 22 respondents (79%) and sufficient knowledge by 6 respondents (21%). From the data, it can be concluded that the average respondent has insufficient and insufficient knowledge about the danger signs of third-trimester pregnancy, according to the assumptions of educational researchers also influence one's knowledge. Several respondents had secondary education due to the economic limitations of the family of the previous pregnant woman, thus affecting pregnant women in obtaining knowledge. In pregnant women, the process of pregnancy can be an experience that is used as an experience.

**b. Knowledge of third-trimester pregnant women in the working area of Purbolinggo Health Center after being**

**given health education about danger signs of third-trimester pregnancy**

Based on table 4.4 above, it is known that in the knowledge variable of the respondents, before being given health education, the knowledge of third-trimester pregnant women about danger signs of pregnancy was in a good category, as many as 6 respondents (21%), in the sufficient category as 9 respondents (32%), and the poor category as many as 13 respondents (47%), and after being given health education there was an increase where almost all knowledge of third-trimester pregnant women was in a good category by 22 respondents (79%) and sufficient knowledge by 6 respondents (21%). According to the researchers' assumptions, the success of health education can be supported by several factors, including the methods used, the media, and brainstorming with respondents so that respondents can become aware and understand the danger signs of pregnancy in the third trimester. After being given health education, it turned out that there were still respondents who had sufficient knowledge, namely 6 people. According to the researchers, apart from the educational factor, some respondents still have limitations in obtaining knowledge, namely the economy and unproductive ages. Besides being influenced by health workers in providing information, knowledge is also influenced by experience, socio-cultural conditions, economy, and information acquisition.

**2. Bivariate Analysis**

**The effect of health education on the knowledge of pregnant women about the danger signs of third-trimester pregnancy at IMPNursyamsiah, SST**

Table 4.5 describes the research data at IMPNursyamsiah, SST showing an increase in knowledge after being given health education. It means that the health education conducted by the researchers succeeded in imparting knowledge to the respondents. From the Wilcoxon Test, the results of the posttest knowledge were higher than the pretest results. From the Wilcoxon statistical test, it was obtained that the p-value = 0.000, so the p-value <0.05 so that Ha is accepted, which means that health education about danger signs of pregnancy affects the knowledge of third-trimester pregnant women at IMPNursyamsiah, SST.

In addition, besides being influenced by the role of health workers in providing information, increased knowledge is also influenced by experience, socio-cultural conditions, and information acquisition (Wenas et al., 2014). According to the theory of Notoatmodjo (2019), the hope is that there will be a deposition of knowledge memory embedded in the

respondent, which will support changing knowledge that is more attached to the respondent.

## CONCLUSION AND SUGGESTION

### Conclusion

Based on the results of research conducted at IMPNursyamsiah, S.ST TanjungAnom village in 2022, it was concluded that there was an increase in knowledge about danger signs of third-trimester pregnancy from the poor category of as many as 13 respondents (47%). After being given health education, there was an increase where almost all knowledge of 22 respondents (79%) in the good category of third-trimester pregnant women and 6 respondents (21%) with sufficient knowledge.

### Suggestion

The findings of this study can be used as a reference for pregnant women, encouraging them to be more active in pregnancy class activities for pregnant women at IMPNursyamsiah, S.ST. It aims to get them to know about danger signs in pregnancy in the third trimester. For health workers to increase counseling about dangersigns of pregnancy, especially in the thirdtrimester, and to conduct home visits/sweeping to pregnant women who do not routinely attend classes for pregnant women so that if there is a danger signof pregnancy, the mother can go to a health worker and can reduce the mortality rate of pregnant women. Besides that, you can create health programs or applications around pregnancy to make it easier for pregnant women to obtain information about pregnancy health.

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