

Original Research Paper

ANALYSIS OF DIFFERENCES IN KNOWLEDGE, ATTITUDE AND ACTIONS ABOUT PREGNANCY DANGER SIGNS FOLLOWING PREGNANT WOMEN CLASS AND DO NOT FOLLOW PREGNANT WOMEN CLASSES IN KONAWA ISLANDS DISTRICT

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<p>Email Corresponding: hildaida898@gmail.com</p> <p>Page : 340-346</p>	<p style="text-align: center;">ABSTRAK</p> <p>Kelas Ibu Hamil merupakan program pendidikan kesehatan bagi ibu hamil yang berperan dalam menurunkan angka kesakitan dan kematian akibat kehamilan, persalinan dan nifas. Penelitian ini bertujuan untuk menganalisis perbedaan pengetahuan dan praktik terkait tanda bahaya kehamilan pada ibu hamil yang mengikuti kelas ibu hamil dan tidak mengikuti kelas ibu hamil di Kabupaten Kepulauan Konawe Provinsi Sulawesi Tenggara Tahun 2023. Penelitian ini merupakan penelitian eksperimen semu dengan menggunakan Post Test Non Randomized Control Group Design. Lokasi penelitian ditentukan secara purposive yaitu 16 posyandu di wilayah kerja Puskesmas Langgara sebagai kelompok intervensi, dan 16 posyandu di wilayah kerja Puskesmas Lansilowo sebagai kelompok kontrol. Partisipan adalah seluruh ibu hamil dengan usia kehamilan 4 sampai 36 minggu yang tercatat di buku pendaftaran posyandu ibu hamil di kedua wilayah intervensi. Instrumen yang digunakan adalah kuesioner. Data dianalisis menggunakan uji statistik Mann Witney dengan nilai signifikansi ($p < 0,05$). Hasil penelitian menunjukkan bahwa terdapat perbedaan yang bermakna antara pengetahuan tentang tanda bahaya kehamilan ($p = 0,003$) dan tindakan ($p = 0,000$) pada ibu hamil yang mengikuti kelas ibu hamil dan yang tidak mengikuti kelas ibu hamil. Karena program kelas ibu hamil dengan pendekatan tatap muka menunjukkan efek positif pada pengetahuan dan praktik ibu hamil, sebaiknya diterapkan ke seluruh Posyandu di wilayah penelitian..</p>
<p>Kata Kunci : Kelas Ibu Hamil, Tanda Bahaya Kehamilan, Ibu Hamil</p> <p>Keywords: <i>Class of Pregnant women, Danger signs of pregnancy, pregnant women</i></p>	<p style="text-align: center;">ABSTRACT</p> <p><i>The Pregnant Women Class is a health education program for pregnant women that plays a role in reducing morbidity and mortality due to pregnancy, childbirth and the puerperium. This study aims to analyze differences in knowledge and practices related to danger signs of pregnancy in pregnant women who attend classes for pregnant women and who do not attend classes for pregnant women in the Konawe Archipelago District, Southeast Sulawesi Province in 2023. This research is a quasi-experimental study using a Post Test Non Randomized Control Group Design. The research locations were determined purposively, namely 16 posyandu in the work area of the Langgara Health Center as the intervention group, and 16 posyandu in the work area of the Lansilowo Health Center as the control group. Participants were all pregnant women with a gestational age of 4 to 36 weeks who were recorded in the posyandu registration book for pregnant women in the two intervention areas. The instrument used is a questionnaire. Data were analyzed using the Mann Witney statistical test with a significance value ($p < 0.05$). The results showed that there was a significant difference between knowledge about danger signs of pregnancy ($p = 0.003$) and action ($p = 0.000$) for pregnant women who attended classes for pregnant women and those who did not attend classes for pregnant women. Because the class program for pregnant women with a face-to-face approach shows a positive effect on the knowledge and practice of pregnant women, it should be applied to all Posyandu in the research area</i></p>
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INTRODUCTION

World Health Organization (WHO) stated that around 287,000 women died related to maternal cause in 2020¹. Mostly occurred in low and middle income countries with the major causes of death are hemorrhage, hypertension, and infections. Besides, interaction between pre-existing medical conditions and pregnancy becomes another important factor of maternal death^{2,3}.

According to the ministry of Health report, the maternal mortality rate (MMR) in Indonesia is 305 death per 100,000 live births⁴. This figure is still far from the global target of reducing deaths to 70 per 100,000 births in 2030¹. A retrospective review of maternal deaths conducted by Bahar et al. in 11 hospitals in Indonesia reported that 90% of maternal deaths could be prevented⁵ through improvement of the quality of antenatal care during pregnancy, childbirth and postpartum. This quality improvement is in the form of increased knowledge and skills, consistent implementation of protocols, and implementation of essential components of antenatal care. Variation of knowledge shows the variation of one's knowledge which is influenced by various factors including: level of education, information, cultural experience, and socio-economic^{5,6}.

One of the efforts to improve the quality of services for pregnant women in Indonesia is through the provision of education classes for pregnant women which are carried out at the primary health care level. The Pregnant Women Class is a series of learning sessions that will provide essential information related to pregnancy, risk factors, danger signs, and the presence of obstetric complications. As a preventive action, this program is expected to have an impact on increasing the coverage of visits of pregnant women to antenatal care, increasing deliveries to health personnel, and reducing morbidity and mortality due to pregnancy^{7,8}.

Several studies doing in Indonesia have revealed the positive effect of education class during pregnancy. Research conducted by Elman Fitriani and Dewita (2022) found that education using multimedia approach had significant effect on pregnant women's knowledge and attitudes related to pregnancy, childbirth and postpartum care⁹. Similar results were also found Wijayanti and Nuryawaty in which they stated that pregnancy class was effective for early detection of danger signs^{10,11}.

The Southeast Sulawesi health profile for 2023 shows that the maternal mortality rate (MMR) in Southeast Sulawesi is 119/100,000 live births. For Konawe Islands district, the maternal mortality rate is 140/100,000 live births. The high number of maternal mortality in this area indicates weakness in health systems and gaps in access to health services, especially for women¹².

As part of effort to reduce maternal mortality in this area, the education class for pregnant women have been done since 2015. However, we found that there are still many posyandu that have not held classes for pregnant women due to lack of health worker number. This study aims to analyze the differences in knowledge and practice regarding danger signs of pregnancy between mothers who attend education class for pregnant women and those who do not attend class for pregnant women in the Konawe Islands district in 2023.

MATERIALS AND METHODS

This study is a Quasi Experiment using a Post Test Non Randomized Control Group Design. The research was conducted in the working area of the Langara Public Health Center and the Lansilowo Health Center, Konawe Kepulauan Regency of Southeast Sulawesi Province, from January to March 2023. The location of the research was determined purposively, in which 2 health

centers were selected as research sites, namely the Langgara Health Center and the Lansilowo Health Center. The intervention group was all pregnant women registered in the posyandu registration book for pregnant women from 16 posyandu in the Langgara health center working area and attending education class for pregnant women. The control group was all pregnant women who were registered at the posyandu for pregnant women who were taken from 16 posyandu that did not carry out education class for pregnant women in the working area of the Lansilowo Health Center.

The Pregnant Women Class is an educational program for pregnant women with gestational age between 4 weeks to 36 weeks which is implemented by the health office of Konawe Kepulauan district. This program aims to increase the knowledge and practice of pregnant women related to healthy pregnancy. The maximum number of participants for each education class is 10 people. The education class is held at least 4 times where one meeting is attended by the husband of a pregnant woman. At the first meeting, the material provided was general information about pregnancy including body changes, complaints during pregnancy, and pregnancy care. For the second meeting, the material provided was safe delivery, comfortable postpartum, safe mothers and healthy babies, and nutrition during pregnancy as well. For the third meeting, material provided was pregnancy complications, danger signs of pregnancy and childbirth, and prevention of diseases (especially malaria, energy chronic deficiency, and anemia). In the last meeting, pregnant women will get material on newborn care for optimal growth and development.

The sample size was calculated using the Lameshow formula for hypothesis testing to compare the two groups. With Odds Ratio (OR) 5.2 and 95% confidence interval level, the minimum sample for this study was 94 (47

participants in the intervention group and 47 participants in the control group).

There are three main variables in this study namely knowledge of pregnant women, and practice. Data were taken using questionnaire for each variable. Questionnaire for knowledge consisted 10 questions related to antenatal care and danger signs during pregnancy. Knowledge is categorized into 2, "adequate knowledge" (if the respondent's score is ≥ 50) and "poor knowledge" (if the respondent's score is <50). The questionnaire for practice variable contains 3 questions related to the pregnancy check actions taken by the respondents when they get pregnancy danger signs. The variable was classified into 2, "good practice" and "poor practice".

Data were analyzed using the SPSS 24 application for windows. Descriptive statistics are displayed in the frequency distribution table. Bivariate analysis using the Mann Wuthney test.

This research was approved by the Health Research Ethics Committee of the Indonesian Association of Public Health Experts (IAKMI) with the Ethical Clearance Number 03/KEPK-IAKMI/I/2023. Data collected in this study follows the guidelines stated in the declaration of Helsinki and other international guidelines for human research protection. All information related to study participants were kept anonymous.

RESULT

Table 1 shows the characteristics of the participants in the intervention group and the control group. All the participants were married and majority was between aged 20-35 years (51.1% in both groups). In the intervention group, the majority completed junior high school (48.9%), while in the control group, more than half of the participants did not complete elementary school (59.6%).

Table 1. Participant’s Characteristic

Variabel	Intervention group		Control group	
	n	%	n	%
Age				
< 20 years	2	4,3	1	2,1
20 – 35 years	24	51,1	24	51,1
> 35 years	21	44,7	22	46,8
Women educational level				
No school	18	38,3	28	59,6
Elementary school	1	2,1	2	4,3
Junior high school	23	48,9	15	31,9
Senior high school	5	10,6	2	4,3
Husband educational level				
No school	14	29,8	30	63,8
Elementary	0	0	0	0
Junior high school	27	57,4	16	34
Senior high school	6	12,8	1	2,1
Women occupation				
Housewife	47	100	47	100
Government employes	0	0	0	0
Husband’s occupation				
Fisherman	12	25,5	2	4,3
Private employee	0	0	4	8,5
Farmer	26	53,3	25	53,2
Self-employed	9	19,1	16	34
Family member				
< 4	15	31,9	12	25,5
≥ 4	32	68,1	35	74,5
Monthly income				
< IDR 2.552.014	47	100	47	100
≥ IDR 2.552.014	0	0	0	0

Source: Primary Data 2023

Table 2 displays the knowledge of pregnant women. The results showed that as many as 76.6% of pregnant women who attended education sessions in the class of pregnant women had adequate knowledge about danger signs of pregnancy, while in the control group the percentage of pregnant women with sufficient knowledge was only 55.3%. The results of bivariate analysis using the Mann-Whitney test showed that there was a significant difference between women who attended health education sessions through pregnant women class and those who did not follow the education class for pregnant women (p=0.003) in term of danger signs knowledge during pregnancy. Education class for pregnant women held by health officer in district of Konawe Kepulauan was planned to

boost mother knowledge related to danger signs during pregnancy.

Table 2. Women Knowledge related to pregnancy danger signs between intervention and control group

Women knowledge	Pregnant Women Groups				p value*
	Intervention		Control		
	n	%	n	%	
Adequate	36	76,6	26	55,3	0,0003*
Poor	11	23,4	21	44,7	

*Mann Withney test

Source: Primary Data 2023

Table 3 displays pregnant women practice related to danger sign of pregnancy. The results showed that all pregnant women who took part in the pregnant women class session (100%) had positive actions related to the danger signs of pregnancy they got, whereas in the control group, the percentage of pregnant women with positive actions was only 53.2%. The results of bivariate analysis using the Mann-Whitney test showed that there were significant differences between mothers who attended health education through pregnant women classes and those who did not attend pregnant women classes (p=0.000) in terms of the actions they took related to the danger signs of pregnancy that arose.

Table 3 Pregnant women practice related to danger sign of pregnancy

Parctice	Pregnant Women Groups				p value*
	Intervention		Control		
	n	%	n	%	
Good practice	47	100	25	53,2	0,000*
Poor partice	0	0	22	46,8	

*Mann Withney test

Source: Primary Data 2023

DISCUSSION

All pregnant women in the intervention and control groups worked as housewives. In terms of husband's education, 57.4% of the participant’s husbands in the intervention group graduated from junior high school, whereas in the control group, most of the participant’s husbands did not complete the elementary school (63.8%). Majority husbands

in both groups worked as farmers (53.3%) in the intervention group and 53.2% in the control group). Almost all participants had more than 4 family members. In addition, all participants in this study reported a monthly income of less than the regional minimum wage for the research area.

The results of this study are in line with research conducted in other places in Indonesia. Study in Denpasar and Pekalongan found that pregnant women who attend classes for pregnant women tend to have sufficient knowledge about the danger signs of pregnancy^{13,14}. Pregnant women who participated in the education session have a chance to gain knowledge in various topics not only related to their pregnancy but also postpartum care^{15,16}. Face to face learning method give chance for women to directly share their pregnancy problems to the health educator. Besides, they can also hear pregnancy problems or positive experiences from other participants, thus mothers will be more aware of their pregnancy sign and will immediately seek help if something happens.

Similar positive finding related to the antenatal education also found in Turkey's. In this experimental study, pregnant women were given education twice a week for 4 weeks and the result showed the intervention group had lower birth fear, depression, anxiety, and stress symptoms compared to control group. Although the outcome variables measured in this study were different with the outcome variables measured in our study, the positive results in Turkey's indicated a positive effect of the health educational course for pregnant women^{17,18}.

There is a significant relationship between mother's knowledge and knowing the danger signs of pregnancy and childbirth, that is, the better the knowledge of pregnant women, the more familiar they are with the danger signs of pregnancy and childbirth^{19,15}. Knowledge is the result of remembering something,

including remembering events that have been experienced, either intentionally or harmlessly, and this occurs after people make contact or observe a certain object²⁰. In Tanzania, health education experiment was done using different approach in which pregnant women in the intervention group got education messages through mobile application. The results showed positive effect of this approach on women knowledge of pregnancy danger signs and birth preparedness practice²¹. Various experimental studies in different setting, in Indonesia or other countries, reported similar positive finding on effectivity of the health education during pregnancy, thus implementation pregnant women education class to all Posyandu in the research location was highly recommended.

CONCLUSION AND RECOMENDATION

In this study, it was found the significant difference between women who follow the education program through pregnant women class and those who did not follow the program on their knowledge and practice. Thus, education program through pregnant women class using face to face approach should be implemented to all Posyandu in the research location. However, nurses or midwives who conduct prenatal education should be given a chance to strengthen their capacity through regular training.

As a recommendation from the results of this research, it is hoped that the community health centers, especially in Wawoni Regency, will intensify and maximize the implementation of classes for pregnant women as an effort to minimize the impact and risks of pregnancy.

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