



# Relationship Between Participation in Maternity Classes and Knowledge About Pregnancy and Childbirth

Febrianti<sup>1\*</sup>, Christin Angelina F<sup>1</sup>, Dhiny Easter Yanti<sup>1</sup>, Nurhalina Sari<sup>1</sup>

<sup>1</sup> Undergraduate public health study program, Faculty of Health Sciences, Malahayati University, Bandar Lampung, Lampung, Indonesia.

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Corresponding Author:

Febrianti

[brifadhlan2@gmail.com](mailto:brifadhlan2@gmail.com)

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**Abstract:** The participation of pregnant women in pregnant women's classes increases mothers' knowledge about the danger signs of pregnancy. Classes for pregnant women at the Krui Health Center run according to a predetermined schedule. However, after evaluating the K4 visit, it was found that the K4 achievement was still below the target of 95%. This study aimed to determine the relationship between maternal participation in pregnant women classes and knowledge about pregnancy and childbirth in the Working Area of the Krui Health Center, Pesisir Barat Regency, in 2023. This type of research is quantitative with a cross-sectional design. The population in this study were all third-trimester pregnant women with gestational age > 36 weeks in the Working Area of the Krui Health Center with a total of 51 people. The sampling technique used is total sampling. Data collection instruments used questionnaires and the MCH book. Data analysis in this study used univariate and bivariate (chi-square). The results of this study indicate that 29 (56.9%) respondents actively attended classes for pregnant women, and 28 (54.9%) respondents had good knowledge. The data analysis results show a relationship between mothers' participation in pregnant women's classes and learning about pregnancy and childbirth in the Working Area of the Krui Health Center, Pesisir Barat Regency, in 2023, with a p-value of 0.042. Pregnant women are expected to actively participate in classes for pregnant women to increase their knowledge about matters in pregnancy and childbirth.

**Keywords:** class of pregnant women; knowledge

## Introduction

The success of maternal health programs can be assessed through the main indicator of Maternal Mortality Rate (MMR). Maternal deaths in this indicator are defined as all deaths during the period of pregnancy, childbirth, and postpartum caused by their management but not due to other causes such as accidents or incidental (Kemenkes RI., 2021). According to data sourced from WHO, in 2017, the global maternal mortality rate reached 211 per 100,000 live births (WHO, 2019). According to the results of the Inter-Census Population Survey in the 2020 Maternal and Child Health Profile, the MMR in Indonesia in 2015 was 305 per 100,000 live births (Central Bureau of Statistics, 2020).

Efforts to reduce MMR were made through the Millennium Development Goals (MDGs) program

which ended in 2015. This program is continued with the Sustainable Development Goals (SDGs) program which is a sustainable development agenda. The third target of the SDGs, ensuring healthy lives and promoting well-being for all at all ages, is expected to reduce Indonesia's maternal mortality rate to below 70 per 100,000 live births by 2030 (Ministry of Health, 2016).

The government has made various efforts to reduce maternal mortality such as the implementation of maternity classes. This class is a means of learning together about health for pregnant women, in the form of face-to-face in groups that aim to increase the knowledge and skills of mothers regarding pregnancy, pregnancy care, childbirth, postpartum care, newborn care, myths, infectious diseases and birth certificates (Ministry of Health, 2014).

Pregnant women's classes are facilitated by midwives/health workers using pregnant women's

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class packages, namely the MCH book, flip chart, pregnant women's class implementation guidelines and pregnant women's class facilitator's handbook. Seeing the importance of pregnant women's classes in order to improve care skills during pregnancy. The impact of this empowerment is to improve the health status of pregnant women (Fitriani et al., 2018).

The participation of pregnant women in maternity classes plays a role in increasing maternal knowledge about pregnancy danger signs. Mothers who attend maternity classes will have knowledge about pregnancy danger signs, mothers will get an explanation and often hear about pregnancy danger signs during the implementation of maternity classes, this will increase knowledge and will affect the mother's attitude towards pregnancy danger signs. Mothers will be more aware of their pregnancy and will immediately seek help if something happens to their pregnancy. The lack of maternal knowledge about the danger signs of pregnancy and childbirth will have an impact on complications that occur in mothers which will result in delays in referrals which include: late decision making, late access to services and late getting the right services when arriving at health facilities can be detected early to prevent maternal and fetal deaths (Sasnitari et al., 2017).

Supported by research by Kaspirayanthi et al., (2019) which shows that there is a relationship between the participation of mothers in pregnant women's classes with knowledge of danger signs of pregnancy and childbirth in Denpasar City in 2019 with a p value of 0.000. In addition, according to research by Nuraida (2022), there is an influence on the participation of pregnant women's classes with knowledge of danger signs during pregnancy with a value of 0.000.

Classes for pregnant women at the Krui Health Center run according to a predetermined schedule. However, after the K4 evaluation, it was found that the K4 achievement was still below the target of 95%. The results of a preliminary study of 10 third trimester pregnant women found that 60% of pregnant women were not active in attending maternity classes. After conducting interviews, it was found that 50% of pregnant women did not know the signs and dangers of third trimester pregnancy. Furthermore, after being asked about labor preparation, 60% of mothers did not know what things should be prepared in the face of labor.

## Method

This type of research is quantitative with cross sectional design. The subjects in this study were all third trimester pregnant women in the Krui Health Center Working Area. The sampling technique used was

accidental sampling. The variables in this study were class participation of pregnant women and knowledge. This research was conducted in the Krui Health Center Working Area of West Pesisir Regency in February 2023. Data analysis in this study used chi-square.

## Result and Discussion

Based on the table 1, it is known that 27 (52.9%) respondents were 20-30 years old, 34 (66.7%) respondents had a high school education, and 39 (76.5%) respondents did not work.

**Table 1.** Frequency distribution characteristics responden

Mother's Characteristics	Frequency	Percentage (%)
Age		
20 - 30 year	27	52,9
31 - 40 year	21	41,2
>40 year	3	5,9
Education		
SMP	13	25,5
SMA	34	66,7
Higher Education	4	7,8
Jobs		
Working	12	23,5
Not Working	39	76,5
Total	51	100

**Table 2.** Average class participation of pregnant women

Maternity Class	N	Average	Standard Deviation	Min-Max
Average class participation of pregnant women	51	3.78	1.629	1-8

The results of this study showed that out of 51 pregnant women, the average participation in maternity classes was 3.78 with a standard deviation of 1.629. The participation of pregnant women in maternity class activities is at least 1 time and at most 8 times. When viewed from the data on the participation of pregnant women's classes in 2021, it can be seen that the activeness of pregnant women in attending pregnant women's classes is higher where in 2021 most mothers regularly attend pregnant women's classes and in 2022 it began to decline because the schedule for implementing pregnant women's classes was separated from posyandu activities.

Participation in maternity classes is the involvement of the thoughts and feelings of pregnant women in attending maternity classes. Mothers who are not active in attending maternity classes are influenced by several factors including the mother has not received

information about the existence of maternity classes, the distance is too far and the lack of motivation of mothers in attending maternity classes (Fitriani et al., 2018).

Pregnant women's classes are a means of learning together about health for pregnant women, in the form of face-to-face in groups that aim to increase the knowledge and skills of mothers regarding pregnancy, childbirth, postpartum, postpartum family planning, prevention of complications, newborn care and physical activity or gymnastics for pregnant women (Kemenkes RI, 2014).

In line with the research of Kaspirayanthi et al (2019) which shows that out of 80 respondents, it was found that most of them, 60%, did not participate in pregnant women's classes. Supported by research by Istiananingsih et al., (2021) which shows the participation of Primigravida mothers in routine maternity classes as many as 20 respondents (60.5%), while rarely as many as 13 respondents (39.4%).

This study is not in line with research conducted by Afranika and Pratama (2023) which shows that of the 44 respondents who attended maternity classes as many as 17 respondents (38.6%) and who did not follow as many as 27 respondents (61.4%). Supported by Soraya's research (2022) which showed that of the 36 respondents, most of the 33 respondents (91.7%) were irregular, compared to those who were regular 3 respondents (8.3%). This study shows that the irregularity of mothers attending pregnant women's classes due to work. So that working mothers will prioritize their work over maternity classes. Pregnant women in participating in maternal classes to support the health of mothers and children. In this study, working pregnant women had to find free time that did not interfere with their working hours and not all pregnant women could arrange a schedule accordingly between their working hours and pregnant women's class hours.

According to the researcher, the participation of pregnant women's classes is important to do. This is to increase the knowledge of pregnant women about things that occur during pregnancy and childbirth, so that when there are danger signs that are felt, immediate treatment can be done. As for the obstacles of pregnant women who are not actively participating in maternity classes, there are some pregnant women who are unable to attend because maternity classes are held during working hours, the weather is not good, there are village invitations. In addition, pregnant women did not attend the class because they felt that they had attended the posyandu activities in the first week so they felt lazy to come to the class.

**Table 3.** Frequency distribution of pregnant women's knowledge about pregnancy and childbirth

No	Question	Correct		Wrong	
		n	%	n	%
1	During pregnancy the mother must check at least ..... times	47	92.2	4	7.8
2	The third trimester examination can be done at a gestation period of more than..... weeks	34	66.7	17	33.3
3	During the early trimester of pregnancy, pregnant women are required to do a check-up, better known as K1, as many as	33	64.7	18	35.3
4	The changes that occur in pregnant women are, Except	29	56.9	22	43.1
5	How can pregnant women avoid blood deficiency?	30	58.8	21	41.2
6	What pregnant women should avoid are	31	60.8	20	39.2
7	Found in the KIA book, pregnant women are encouraged to attend maternity classes and at least the husband participates ..... times.	27	52.9	24	47.1
8	Below which is not a daily care for mothers during pregnancy is.....	27	52.9	24	47.1
9	Mothers should see a health professional immediately if they experience any of the following symptoms.....	32	62.7	19	37.3
10	During pregnancy, it is possible for pregnant women to experience other problems during pregnancy. Below are pregnancy problems and mothers should be checked immediately.....	32	62.7	19	37.3
11	What are the early signs of labor?	25	49.0	26	51.0
12	What should families do when the first signs of labor appear in pregnant women?	30	58.8	21	41.2
13	After the baby is born what should the mother do with the baby?	29	56.9	22	43.1

No	Question	Correct		Wrong	
		n	%	n	%
14	The process of expelling the baby and amniotic membrane is called?	31	60.8	20	39.2
15	What should mothers do to reduce labor pain?	27	52.9	24	47.1
16	What is the time interval for the baby to be born after the mother feels heartburn in the first pregnancy?	31	60.8	20	39.2
17	What is the purpose of giving birth at a health center or hospital?	31	60.8	20	39.2
18	If any of the danger signs of labor appear in the mother, what should be done?	32	62.7	19	37.3
19	What are the danger signs of labor?	31	60.8	20	39.2
20	Which of these is not a danger sign in labor?	27	52.9	24	47.1
21	Are there any signs that the mother is about to give birth?	30	58.8	21	41.2
22	Have you prepared mother and baby equipment such as mother's softex and baby clothes when going into labor?	33	64.7	18	35.3

The results of this study showed that out of 22 questions, the highest number of questions with correct answers was question number 1 regarding the frequency of pregnancy checks, namely 47 (92.2%) respondents and question number 2 regarding the age of third trimester pregnancy with 34 (66.7%) respondents. While the most wrong question is question number 11, which is about the first sign of labor with a total of 26 (51%).

Knowledge is a result obtained by humans about the truth after someone senses an object through the five human senses which in the process of sensing the results of knowledge are influenced by the perception factor of the object. Knowledge or cognitive is a very important dominant for the formation of one's actions (overt behavior) (Wawan and Dewi, 2019).

Pregnancy is a physiologic process that almost always occurs in every woman. Pregnancy occurs after the meeting of sperm and ovum, grows and develops in the uterus for 259 days or 37 weeks or up to 42 weeks (Mastiningsih, 2019). It is important for pregnant women to know the danger signs of pregnancy. Early detection of symptoms and danger signs during pregnancy is the

best effort to prevent serious disorders of pregnancy is the best effort to prevent serious disorders of pregnancy or the safety of pregnant women (Prawirohardjo, 2016).

In addition to pregnancy problems, danger signs in labor must also be known by pregnant women. Lack of maternal knowledge about the danger signs of pregnancy and childbirth will have an impact on complications that occur in mothers which will result in delays in referral which include: late decision making, late access to services and late obtaining appropriate services when arriving at health facilities can be detected early to prevent maternal and fetal death (Sasniari et al., 2017).

This research is in line with research conducted by Kaspirayanthi et al (2019) which shows that out of 80 respondents, most of them 42.5% had good knowledge about the danger signs of pregnancy and childbirth (Kaspirayanthi et al., 2019). In addition, according to research conducted by Afranika and Pratama (2023), some respondents had low knowledge as many as 33 respondents (75.0%) and high as 11 respondents (25.0%). Likewise, the results of research by Desmariyenti (2019) showed that the majority of pregnant women's knowledge was in sufficient knowledge as many as 29 people (38.67%) and a minority of less knowledge as many as 22 people (29.33%).

According to the researcher, the knowledge of pregnant women tends to be good because pregnant women often get information in pregnant women's classes. So that pregnant women already know things that happen during pregnancy and childbirth. Based on the results of this study, it is known that some mothers do not know the signs of labor. Maternal knowledge can be improved by the participation of midwives and other health workers to provide socialization or introduce pregnant women's classes as a government program that aims to increase the knowledge of pregnant women.

Midwives can distribute brochures or leaflets about pregnant women's classes and can play videos or pictures about pregnancy and childbirth when mothers check their pregnancy, so that pregnant women will be more interested in attending pregnant women's classes. Another effort that can be made is to provide guidance to cadres to invite and direct pregnant women to participate in maternity classes. Thus, it is necessary to approach health workers with pregnant women with effective communication, informative, educative, and motivation by health workers to all pregnant women who come to the posyandu.



**Table 4.** The relationship between maternal participation in pregnancy classes and knowledge about pregnancy and childbirth

Maternity Class Participation	Knowledge				P value	OR (CI 95%)
	Good		Less Good			
	n	%	n	%		
On	20	69.0	9	31.0	0.042	3.889 (1.205-12.554)
Inactive	8	36.4	14	63.6		
Total	28	54.9	23	45.1		

The results of this study showed that of the 29 respondents who actively attended maternity classes, 20 (69%) respondents had good knowledge and 9 (31%) respondents had poor knowledge. Whereas from 22 respondents who were not active in attending maternity classes, 8 (36.4%) respondents had good knowledge and 14 (63.6%) respondents had poor knowledge.

The results of the chi square test obtained a p value of  $0.042 < 0.05$  means that there is a relationship between maternal participation in pregnant women's classes with knowledge about pregnancy and childbirth in the Krui Health Center Working Area, West Coast Regency in 2023. The OR result shows 3.889, meaning that mothers who are not actively participating in maternity classes are at risk 3.889 times to have poor knowledge compared to respondents who are actively participating in maternity classes.

The need for a method that can improve the knowledge of pregnant women, in addition to through counseling activities, the government has issued a policy of learning group activities for pregnant women called the Pregnant Women Class. Pregnant women class is a study group for pregnant women with the number of participants around 10-15 people. In this class, pregnant women will learn together, discuss, exchange experiences about maternal and child health as a whole and systematically and can be carried out in a scheduled, coordinated and continuous monitoring (Nurhayati, 2014).

There is a relationship between pregnant women's classes and the knowledge of pregnant women because one of the benefits of pregnant women's classes is that mothers get information regarding pregnancy problems, so that mothers who actively participate in pregnant women's classes will gain more knowledge about pregnancy including the danger signs of pregnancy (Nuryawati & Budiasih, 2017).

Mothers who attend pregnancy classes will have knowledge about pregnancy and childbirth, mothers will get explanations and often hear about pregnancy danger signs and preparation for childbirth during the implementation of pregnancy classes, this will increase knowledge and will affect the mother's attitude towards pregnancy and childbirth problems. The mother will be

more aware of her pregnancy and will immediately seek help if something happens to her pregnancy. This reinforces the theory that attitudes are formed by three mutually supporting structures, namely cognitive, affective and conative components. The cognitive component is a manifestation of what the individual who owns the attitude believes, the affective component is a feeling that involves emotional aspects, and the conative component is an aspect of the tendency to behave in accordance with the attitude that a person has. This is also in accordance with The Theory of Planned Behaviour which states that attitudes can show towards a certain behavior in evaluating something both positive and negative (Kaspirayanthi et al, 2019).

There is a relationship between pregnant women's class participation and knowledge because pregnant women's class meetings are held at least 4 times during pregnancy or according to the agreement of the facilitator with the participants. At each meeting, the material for pregnant women's classes that will be delivered is tailored to the needs and conditions of pregnant women but still prioritizes core material such as problems that occur during pregnancy and childbirth (Kemenkes RI, 2014).

In line with the opinion of Sasnitiari (2017), the participation of pregnant women in maternity classes plays a role in increasing maternal knowledge about pregnancy danger signs. Mothers who attend maternity classes will have knowledge about pregnancy danger signs, mothers will get explanations and often hear about pregnancy danger signs during the implementation of maternity classes, this will increase knowledge and will affect the mother's attitude towards pregnancy danger signs. The mother will be more aware of her pregnancy and will immediately seek help if something happens to her pregnancy.

In addition, according to Kaspirayanthi (2019), the participation of mothers in maternity classes is important for early detection of risk factors that occur in mothers and babies, besides that the participation of pregnant women and families in maternity classes is expected to increase knowledge and changes in the behavior of pregnant women and families. With this increased knowledge and behavior change, it is expected that awareness of the importance of health care during pregnancy and the recognition of signs of complications during pregnancy and childbirth.

This study is in line with research conducted by Nuraida (2022) which shows that there is an influence on the participation of pregnant women's classes with knowledge about danger signs during pregnancy with a value of 0.000 and the OR value describes mothers who do not participate in pregnant women's classes have a

chance of 7.159 times to have less knowledge than mothers who attend pregnant women's classes.

Supported by Nuryawati's research (2017) which shows there is a relationship between pregnant women's classes and mothers' knowledge about the danger signs of pregnancy in Surawangi Village, Jatiwangi Health Center UPTD Work Area, Majalengka Regency in 2016 (P value = 0.023). Likewise, the results of research by Kaspirayanthi et al (2019) show that there is a relationship between the participation of mothers in pregnant women's classes with knowledge about the danger signs of pregnancy and childbirth in the Denpasar City Region. However, this study is not in line with the research of Fitriani et al (2018) which shows that there is no relationship between the participation of pregnant women's classes and mothers' knowledge of pregnancy danger signs in the Slawi Health Center area, Tegal Regency with a p value = 0.235 where  $p > 0.05$ .

According to the researcher, there is a relationship between the participation of pregnant women's classes with the mother's knowledge about pregnancy and childbirth because most mothers actively participate in pregnant women's classes. Pregnant women's class activities are a forum for pregnant women to learn together about health for pregnant women, in the form of face-to-face in groups aimed at increasing the knowledge and skills of mothers regarding pregnancy, childbirth, postpartum care. However, there are some pregnant women who are not actively participating in maternity classes, this can be caused by boring methods and educational media in maternity classes so that pregnant women are reluctant to attend maternity classes. Therefore, midwives and cadres can improve the method of conducting pregnant women classes that are more interesting and can use various media in turn so as to foster the interest of pregnant women to attend pregnant women classes. Considering the activities of pregnant women's classes are useful for increasing the knowledge of pregnant women.

## Conclusion

The conclusion of this study was 29 (56.9%) respondents actively participated in maternity classes and 28 (54.9%) respondents had good knowledge. The results of data analysis showed that there was a relationship between maternal participation in pregnant women's classes with knowledge about pregnancy and childbirth in the Krui Health Center Working Area, West Pesisir Regency in 2023 with a p value of 0.042.

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## Author Contributions

Febrianti role in this research is to compile the background and find problems that occur, design research methods, analyze, process and present data, discuss research results and findings. While the role of Christin Angelina, Dhiny Easter Yanti and Nurhalina sari is to provide input, direction and improvement in this research.

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## Conflicts of Interest

Because this research is independent, there is no conflict of interest to anyone.

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