

The Influence Of Pregnancy Class In Improving Knowledge And Skills Of Pregnant Mother About Maternal And Child Health

Afrina Mizawati
 Department of Midwifery
 Poltekkes Kemenkes Bengkulu
 Bengkulu, Indonesia
afrinamizawati84@gmail.com

Rini Patroni
 Department of Midwifery
 Poltekkes Kemenkes Bengkulu
 Bengkulu, Indonesia
riniatroni@gmail.com

Abstract- *Maternal and child health education is mostly done through individual consultation when the mother comes for pregnancy, baby or check-up. This study aims to determine the influence of pregnancy class in improving knowledge and skills of a pregnant mother about maternal and child health. This research is quasi-experimental research conducted in pretest-posttest treatment. Research subjects were all pregnant women in the area of Public Health Center Curup, Rejang Lebong District from June to August 2017 for 20-32 weeks duration of pregnancy. Sampling used total population. The variables in this study are the dependent variable namely knowledge and skill of pregnant mother about maternal and child health. Then, the independent variable is the pregnancy class, and the external variables are age, education, job, and parity. Data analysis consisted of univariate, bivariate, and multivariate analysis with Paired T-test. Bivariate analysis showed that there was statistically significant influence between maternal class and mother's knowledge (0,000) and skill (0,024) about mother's health with p-value < 0,05. After one month intervention, both p-values of knowledge and skill variable are p=0,000 means that pregnancy class can improve the knowledge and skill of pregnant mothers.*

Keywords—*Class of Pregnant Mother, Knowledge, Skill, Mother and Child Health*

INTRODUCTION

Health development is the implementation of health efforts to increase awareness, willingness and ability to live healthily in a population in order to realize the optimal degree of health. However, health development has not been able to be enjoyed equally by the community. One of the national health development strategies is implementing national health-oriented development. It means that every effort of the development program must have a positive contribution referring to the concept of "Healthy Paradigm" which gives top priority to the efforts to improve health (promotive) and prevent disease (preventive) compared to complete and continuous healing and treatment services (curative) and recovery (rehabilitative). Health development also requires the involvement of all elements that exist both government, private and civil society [1].

Health development in Indonesia today is still prioritized on efforts to improve maternal and child health, especially in the most vulnerable groups, namely pregnant women, maternity and prenatal infants. One of

the goals of the Maternal and Child Health Program (MCH) is to improve family independence in maintaining maternal and child health. Mothers and children are the most vulnerable group to various health problems that often end in death. Low knowledge of MCH in pregnant women has a severe impact on maternal and infant morbidity and mortality. It is indicated by the high maternal mortality rate (MMR) and infant mortality rate (IMR).

One indicator for measuring the success of development in the health sector is through maternal mortality (AKI) and infant mortality rate (AKB). Based on the results of the Indonesia Demographic and Health Survey (IDHS) 2012, AKI was 359 / 100,000 live births and 32 / 1,000 AKB live births (BPS & Macro International, 2013). Furthermore, the target in 2015 of Millennium Development Goals (MDGs) is to reduce MMR to 102 / 100,000 live births and IMR to 23 / 1,000 live births [2].

The high rate of maternal mortality associated with pregnancy and childbirth is one of the significant problems in Indonesia, because this mortality rate shows a level of health in an area, as an illustration of the Indonesian human development index, so that maternal and child health services are a top priority in health development in Indonesia. About 25-50% of deaths of women in childbearing age are caused by things related to pregnancy. WHO estimates that 210 million pregnancies worldwide annually. From this number, 20 million women experience pain as a result of pregnancy, around 8 million experience life-threatening complications, and more than 500.000 died in 1995. As many as 50% occur in South and Southeast Asian countries, including Indonesia. [3]

The indicator used to describe maternal access to antenatal care is the coverage of first contact and K4 - four times contact with health workers who have competence, according to standards. Nationally, the coverage rate for antenatal care is now high, K1 reaches 94.24%, and K4 is 84.36 %. [4] Even so, there are still disparities between provinces and between districts/cities whose variations are quite large. In addition to the disparity, pregnant women who did not receive services when contact with health workers (missed opportunity) was also found

The number of maternal deaths in 2014 was 49 people. It consisted of the death of a pregnant mother as many as four people, maternal deaths as many as 26 people and postpartum deaths as many as 19 people. Thus the maternal mortality rate in Bengkulu province in 2014 was 146 per 100,000 live births, an increase from 2013 which was 139 per 100,000 live births (Bengkulu Health Profile 2014). In Rejang Lebong district based on data obtained from the Rejang Lebong Health Office, the maternal mortality rate in 2014 was five people and again increased in 2015 as many as seven people.

The maternal mortality rate can be prevented by examination during pregnancy or commonly referred to as antenatal care (ANC). According to the world health organization (WHO), antenatal care aims to detect the early high risk of childbirth and can also reduce mortality and monitor fetal conditions. [5]

Antenatal care (ANC) examination is one of the standards of midwifery services. WHO has set a standard in conducting ANC, which is at least four times during pregnancy. To see the number of pregnant women who have performed ANC, the results of achieving service coverage indicators K1 and K4. K1 is the first visit of pregnant women to a health care facility to get ANC services conducted in the first trimester of pregnancy (before week 14) while K4 is the visit of pregnant women to get ANC services at least 4 times, namely 1 time in the first trimester, 1 time in the second trimester (15-28 weeks) and 2 times in the third trimester (28-36 weeks).

Nationally, the performance indicators of health service coverage for K4 pregnant women in 2014 have not reached the target of the Ministry of Health's Strategic Plan (Renstra) in the same year, which is 95%. However, in Bengkulu Province, the target of K4 coverage in 2014 has reached 96% or has reached the Renstra target. The number of pregnant women in Bengkulu province is as many as 38,556 with K4 coverage as many as 35,095 (96%). The highest coverage is in North Bengkulu district (95.3%), and the lowest coverage is in Kepahiang district (81%). [6]

In Rejang Lebong District for K1 coverage in 2014, there were 4,974 pregnant women out of 4,974 pregnant women (100%) and decreased in 2015 as many as 5,326 pregnant women from 5,381 pregnant women (99%). As for K4 coverage in 2014, the number of pregnant women was 4,974 pregnant women with K4 as many as 4,738 pregnant women (95.3%) while in 2015 the number of pregnant women was 5,381 pregnant women with K4 which increased from 2014 which was 5,132 pregnant women (95.4%). [7]

Antenatal care can be implemented to overcome the weaknesses above and make it easier for pregnant women to understand the contents of the MCH handbook and how to use the MCH handbook, planned education for the class of pregnant women, which is more comprehensive and systematic and can be carried out periodically and continuously. The planned activity is the education in the form of face-to-face meeting in a class followed by a discussion between the mother and the officer, called "MOTHER CLASS."

Curup Health Center is one of the Health Center that started implementing classes for pregnant mother in December 2010 using BOK funds. The implementation of classes for pregnant women was carried out at the Health Center as a pilot for villages in the Curup Health Center work area. Furthermore, all villages are expected to participate in carrying out similar activities. Of the several villages that carry out classes for pregnant women, the implementation has not run optimally / not by the provisions in the implementation instructions for pregnant women. Based on a preliminary study, it was found that most newborn baby care such as bathing and caring for the umbilical cord until the age of 7 days or until the umbilical cord was delivered to the shaman. Besides, there are many complaints that a baby's mother has a swollen breast/nipple blisters caused by improper breastfeeding attachment. The purpose of holding classes for pregnant women is to be able to be used as a learning tool to increase knowledge about positive behavior of pregnant women as evidenced by the increase in examination visits to MCH and achievement of deliveries by health workers. [8]

METHODS

This type of research is quasi-experimental where there is a pretest-posttest treatment. The variables in this study are dependent variables, namely knowledge, and skills of a pregnant mother about maternal and child health. Then, independent variables are pregnancy classes. The last is external variables namely age, education, occupation, and parity. The population of this study was all pregnant mother in the Curup Health Center area of Rejang Lebong District in July 2017 totaling 57 people that gestational ages were between 20-32 weeks. The minimum number of samples to be taken using the formula is 50 people. The sampling technique used is the total population, namely the method of selecting a sample which is taken from all members of the population who enter the inclusion criteria. The inclusion criteria were able to communicate well, want to be a respondent, attend training for three times, answer all the questions in the questionnaire about knowledge and practice MCH skills in the pre-test, post-test and one month after training for Pregnant Mother Class. While the exclusion criteria were not willing to take part in the research program, participate in activities less than three times, mothers with <20 weeks pregnant or >32 weeks, did not answer all the questions in the questionnaire about knowledge and did not practice MCH skills in the pre-test, post-test and one month after training for Pregnant Women Class.

Data collection techniques used questionnaire sheets. Data collection was carried out three times, that is

before, after and one month after the class intervention of pregnant women. Then, the data that has been obtained is processed and analyzed using Univariate Analysis, Bivariate Analysis, and Multivariate Analysis with statistical Paired T-test.

II. RESULT

Univariate Analysis

TABLE 1 Characteristics of Pregnant Age, Job, Education, and Parity in Curup Health Center of Rejang Lebong District

Variable	Group of pregnant women	
	N	%
Age		
<20 Years	8	16.0
20 - 35 Years	36	72.0
> 35 Years	6	12.0
Employment		
Work	22	44.0
Not Working	28	56.0
Education		
Low	15	30.0
Height	35	70.0
Parity		
1 st pregnancy	26	52.0
>1 pregnancy	24	48.0

Description: n = number of samples

Table I showed that most of the pregnant women aged 20-35 years based on work status work as farmers, traders, private and teachers. In the distribution of education levels, the majority of pregnant women with higher education or more than junior high school, while based on the number of pregnancies/parity, in this study more than half of the pregnant women with the first parity.

TABLE II Average Score of Knowledge and Skills of Pregnant Women About Maternal and Child Health Before and After Intervention and One Month After Intervention in Pregnant Mothers Class in Curup Health Center Rejang Lebong District

Variable	Mean	Median	SD	Min-Max	95% CI
Pretest before intervention					
Knowledge	22.7	23.0	2.45	18-29	22.0 -23.4
Skills	72.6	75.0	8.18	50-82	70.3 -74.9
Pretest after intervention					
Knowledge	27.5	28.0	1.71	24-30	26.9 -27.9
Skills	73.5	75.0	7.72	50-86	71.3 -75.7
Posttest 1 month after intervention					
Knowledge	28.4	28.0	1.81	22-30	27.9 -28.9
Skills	77.7	78.5	7.87	60-90	75.4 -79.9

Table II showed there is an increase in scores of knowledge and skills before and after the intervention. After the intervention, the average knowledge increased by 4.8 points, while the skills increased by 0.9 points. In one month after the intervention, the knowledge, and skills of detained, pregnant women proved to increase again in the knowledge score increased by 0.9 points and skills increased by 4.2 points.

Bivariate Analysis

TABLE III Analysis of Difference in Knowledge and Skill Score of Pregnant Women About Maternal and Child Health Before and After Intervention and One Month After Intervention in Pregnant Mothers Class in Curup Health Center Rejang Lebong District

Variable	Knowledge				
	Mean	SD	t	95% CI	p-value
Before-after intervention					
Knowledge	22.72	2.45	-18	-5.2 - -4.2	0.000
Skills	72.60	8.18	-2	-1.5 - -0.1	0.024
After intervention-1 month after intervention					
Knowledge	27.48	1.17	-4	-1.4 - -0.5	0.000
Skills	73.50	7.72	-5	-5.6 - -2.8	0.000

Description: $p = p\text{-value}$ (* = significant $p < 0.05$)

Table III showed that based on the results of the bivariate table 4.3, the analysis shows that the difference between the score of knowledge and skills before and after the intervention shows a significant difference. There is a difference between after the intervention with one month after intervention at $p\text{-value} < 0.05$. Likewise, the difference in knowledge after intervention within one month after the intervention showed that there was a significant difference between knowledge after intervention with knowledge one month after intervention at $p\text{-value} < 0.05$. Furthermore, the difference in skills before the intervention, after intervention and one month after the intervention also showed a significant difference, this is evidenced by $p\text{-value} < 0.05$

III. DISCUSSION

Differences in Knowledge and Skills Before and After Intervention

Based on the results of the study, it can be seen that the minimum and maximum average value after training class for pregnant mother were higher before training class. The results of paired samples t-test obtained knowledge after training $p\text{-value} < 0.05$. In conclusion, there is a significant difference between the knowledge of pregnant mother before and after attending classes. The results of this study are by the expectations of the government in the purpose of implementing pregnant mother classes by participating in a pregnant mother class as a means to learn together about health for pregnant women. It aims to increase knowledge, change maternal attitudes, and behaviors to understand pregnancy, body changes and complaints during pregnancy, pregnancy care, childbirth, postpartum care, postpartum family planning, newborn care, local myths/ beliefs/customs, infectious diseases and birth certificates [9]. Any amount of information obtained by pregnant mother in the class of useful for psychological preparation and reduce stress during pregnancy, childbirth, childbirth and the care of newborns. The results of this study are in line with the results of Hastuti et al. (2010). [10] research that maternal class training is useful for increasing maternal knowledge about care around pregnancy, childbirth and postpartum, care for newborns, postpartum family planning, including infectious diseases and birth certificates, in line with the results of the study Sumarni et al. (2005). [11] there is a difference in knowledge and meaningful attitudes in pregnant women in the face of childbirth before and after the prenatal class, similarly conducted by Syafiq et al.

(2008). [12] stating that classes of the pregnant mother have a positive effect on knowledge, attitudes and maternal behavior related to the care of pregnancy, childbirth, and postpartum, more mothers gave birth accompanied by midwives than before the existence of the pregnant mother class in Central Lombok NTB. The difference in knowledge of pregnant women before and after training can be caused by several factors including the characteristics of pregnant women, including age and education, as well as other factors, namely the process factors in training. The results of this study are in line with the theory that external factors or factors that come from outside the individual such as training can influence the increased knowledge of pregnant women. Pregnant women can remember the material that has been conveyed by the tutor and in this knowledge means being able to recall information, material or material from the stimulus received. [13] This is possible because during class training for pregnant women, respondents have received information, interacted and shared experiences between participants (pregnant women with pregnant women) and with tutors / midwives about pregnancy, changes and complaints during pregnancy, care for pregnancy, childbirth, postpartum care, postpartum family planning, newborn care, local myths / beliefs / customs, infectious diseases and birth certificates. For respondents who received a score below the average, it is likely due to lack of information and errors in interpreting the information obtained during the class of pregnant women. It is by the opinion of Nanda (2005). [14] that influence respondents to get the lowest score related to lack of knowledge (deficient knowledge) is mainly caused by less exposure to information and errors in interpreting information, in addition to other factors such as lack of memory, cognitive limitations, lack of interest in learning and not familiar with information sources. Increased knowledge in this study is one measure of the success of classroom training of pregnant women, in which there is a learning activity (learning) concerning cognitive, through the transformation of following information on the respondents'. It is in line with the views of Santrock (2011). [15] in his book *Educational Psychology* which states that the learning process is a series of events in the subject that take place in a sequence which begins with the stimulus and ends with feedback (in this case pre-post test). While the subjects themselves felt the effect of the stimulus in the form of learning achievement, thus the subject received confirmation that the entire learning process had proceeded correctly and correctly. Atkinson also, Shiffrin in Santrock (2011). [15] argue that the model of information processing in a person in sequence begins with the receptor, sensory registers, short-term memory (STM), long-term memory (LTM), response generator and effector when it is related to Bloom's (1908) opinion in Notoatmodjo (2003). [16] based on the characteristics of the process receptor, sensory registers, STM and LTM are identical to aspects cognition, response generator is identical to the aspect effective, and effector is identical to aspects psychomotor. Both the opinions of Atkinson and Shiffrin, Bloom, Santrock, Notoatmodjo in cognitive aspects proved to be interrelated in shaping one's perception of information received as the basis for the formation of new behaviors.

It was confirmed by Notoatmodjo (2003) [16]. who stated that behavior based on knowledge would be more lasting than behavior without knowledge.

Based on the results of the pre-test and post-test it is known that the mean, minimum and maximum values after the implementation of the classes of pregnant mother increased compared to before entering the pregnancy class. Results Paired samples t-test showed a p-value of 0.024 ($p < 0.05$) and is therefore effective classroom training for pregnant women to improve their skills. The developing skills of respondents in this study are likely as a result of the experience of classroom learning in pregnant women, as well as the first benchmark for evaluating the implementation of maternal classroom training programs, followed by behavioral changes by conducting antenatal care visits according to the schedule based on ideal standards. Based on the results of observations made by researchers, it appears that the results of learning in the classroom of a pregnant mother in the form of motor movements or actions have been achieved. When linked to the learning process according to Atkinson and Shiffrin in Santrock (2011)

[15]. , the learning process has arrived at the effector stage. At this stage, there is a process of sheltering the results of planning and implementing the plan in the form of actions or actions, given achievements that reveal learning outcomes and subjects get feedback through observation of the effects of their actions through other people's comments. According to Simpson in Santrock (2011) [15]. , the results of learning motor skills in the classroom of the pregnant mother are less stage complex response, namely the ability to carry out a skill consisting of several components smoothly, precisely and efficiently. For example, a series of pregnancy exercise movements, a series of sequential breastfeeding techniques that combine several sub-skills into an overall synergistic movement. When a mother can practice skills in everyday life, she is at the adjustment stage. Changes that occur in the cognitive, affective and psychomotor aspects of this study are still in the evaluation stage shortly after the implementation of the pregnant women class which is not yet known whether changes in the three aspects will continue. This condition is supported by Hamalik's

(2007). [17] statement that the success of a learning process from the cognitive, affective and psychomotor aspects only reaches the stage terminal performances (terminal behavior), which in turn is essential to realize the behavioral objectives of a learning program. It is supported by the research of Sukisno (1998). [18] who showed different practices and behaviors towards pregnant gymnastics between those who participated and did not participate in pregnancy exercise.

Differences in Knowledge and Skills after Intervention and 1 Month After Intervention

Based on the results of the study it can be seen that The average, minimum and maximum values in one month after the training of pregnant mother were lower than after the intervention classes of the pregnant mother. The results of the paired samples t-test obtained knowledge of one month after training p-value value of 0,000 ($p < 0.05$). In conclusion, there is a significant difference between knowledge of pregnant mother after training and one month after attending classes of the pregnant mother. This proves that by taking a pregnant

mother's class the knowledge gained about pregnancy, body changes and complaints during pregnancy, pregnancy care, childbirth, postpartum care, postpartum family planning, newborn care, local myths / beliefs / customs, infectious diseases and the birth certificate is still stored in memory properly, so that the recall can be easily removed. Memory stored properly can be caused by many things. For example, by always repeating the previous meeting material and the results pre-posttest of the previous meeting, the use of communication / APE media in the implementation of pregnant women classes. According to Atkinson and Shiffrin in Santrock (2011) [15], the longer the information stored in the short-term memory through repetition, the higher the chance to enter long-term memory. According to the Ministry of Health (2009) [4], at the stage of the process, the communication response can take the form of an effort to complete information, request additional information or carry out other actions. Some pregnant women do it by making contact via telephone or when checking for pregnancy by asking things that are less clear in the implementation of classes for pregnant women. Besides that, the mother can re-read the material in the MCH book that is available for every pregnant woman to have discussions with the family.

With communication with the environment, it is expected that behavior changes will be followed by changes in the family and community environment. It is in line with Notoatmodjo (2010). [19] who emphasizes that health promotion is a behavior change program, but also followed by environmental changes because behavior changes without being followed by environmental changes will not be effective and will not last long. Therefore, health education through classes for pregnant women is one way to change knowledge to be better, more targeted and more optimal as one of the pillars of safe motherhood in reducing maternal and infant mortality.

Based on the results of the study it is known that the results of the mean, minimum and maximum values in one month after the training of pregnant women still increased compared to after the intervention class of pregnant women. Paired samples t-test results showed a p-value of 0,000 ($p < 0.05$). In summary, there is a significant difference between the skills of pregnant women after intervention and one month after attending classes for pregnant women. It means that training on pregnant women's skills includes how to bathe the baby, put on diapers, care for the umbilical cord, respondents very long remember breastfeeding techniques and pregnancy exercises because they practice it. However, at the time of data collection, one month after training several pregnant women was returning to their original behavior, especially mothers with more than one pregnancy. Most pregnant women in the practice of bathing miss items cleaning up dirt and urine and the baby are immediately put in the bath, to put on diapers most pregnant women have done well. For umbilical cord care, some mothers still use betadine/alcohol, for the technique of breastfeeding mothers who have already breastfed still return to the old habit of applying pressure to the breast before breastfeeding even though this action can damage the lobes in the breast, and techniques improper attachment. In this latest data collection for respondents who have

given birth can immediately practice the baby so that if an error occurs, it can be corrected immediately.

CONCLUSION

There is an influence of maternal class interventions on the knowledge and skills of the pregnant mother before and after intervention in pregnant mother. There are differences in the effect of the class intervention on pregnant mother in increasing knowledge and skills of the pregnant mother before and after the intervention. There are differences in the effect of the class intervention on pregnant women on increasing knowledge and skills of pregnant women after intervention and one month after intervention.

Based on the results of the study, discussion and conclusions, it can be recommended to the Puskesmas to carry out maternal class programs as routine activities especially for improving maternal knowledge. Skills in maternal and child health and direct the mother's classroom activities into community independent activities such as in the posyandu, then motivate a pregnant mother to be active in maternal class activities. In the area where the pregnant mother lives, it is expected that the Health Office conducts regular monitoring of evaluations for maternal class activities. Then, it is also expected that in the maternal class still provide skill materials such as bathing babies, wearing diapers, cord care, breastfeeding techniques, pregnancy exercises, and other skills.

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