

## Benefits of pregnancy classes on the independence of postpartum mothers in caring for newborns

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### ABSTRACT

The gestation and postpartum period is a period of high risk of psychological distress due to the adaptation of something new. The impact affects the onset of problems for postpartum mothers as well as the care of their babies. The class of expectant mothers is indispensable to prevent problems and complications. This study aims to determine the benefits of pregnant women's class on the independence of puerperal mothers in caring for newborns. This study used a Quasi-Experimental design with a two-group pretest-posttest design. The subjects of the study were pregnant women 32-36 weeks and postpartum mothers. The study's results using Mann Whitney obtained a P-value of 0.001 ( $\leq 0.05$ ), meaning that pregnant women have a class benefit to the independence of puerperal mothers in caring for newborns. The class of pregnant women is very useful in increasing postpartum mothers' independence (knowledge and skills) in caring for their babies, such as bathing the baby, umbilical cord care, changing diapers, and feeding.

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## INTRODUCTION

The maternal mortality rate is still quite high, especially in developing and rural areas. The highest mortality in mothers is due to complications during pregnancy and childbirth. There is a need for efforts to prevent unwanted pregnancies and assistance in the delivery process by skilled and professional health workers to reduce maternal mortality Health workers (Azhar et al., 2020).

During pregnancy, mothers are more prone to experience stress and fear of complications in the pregnancy process. In addition, the gestation and postpartum period is a period of high risk of psychological distress due to novelties, challenges, and many physiological and psychosocial changes. An average of 20% of mothers experience depressive symptoms during pregnancy, and 15% experience postpartum depressive symptoms. The impact of antenatal stress, anxiety, and depression is closely related to birth outcomes, namely low birth weight and premature birth. In addition, another impact is impaired neurodevelopment including emotional, behavioral, and cognitive problems. Postpartum mothers face a variety of problems that can increase the risk of

postpartum stress. Postpartum stress can negatively affect the mother's well-being, and adversely affect the cognitive, emotional, social, and behavioral development of the baby (Obrochta et al., 2020). Postpartum depression and anxiety in mothers are the most frequent complications in postpartum mothers and cause many problems for postpartum mothers in the care of babies independently. To empower pregnant women to adapt to changes that occur, a class of pregnant women is needed (Naeeni & Simbar, 2018).

One of the efforts to prevent problems and complications is to increase knowledge and prepare for childbirth. The strategy to overcome these problems and complications is through the class of pregnant women. Antenatal services are government programs integrated with pregnant women's services in Indonesia. Antenatal care includes education for pregnant women about pregnancy, childbirth, puerperium, and newborn care (Susanto et al., 2019).

Lack of knowledge of pregnant women in newborn care can lead to a newborn death, but increased knowledge and skills of postpartum mothers in newborn care can indirectly reduce newborn mortality (Shadia Abd Elmoniem syam, 2021). One of the efforts to realize integrated and quality antenatal services is to empower pregnant women through pregnant women's classes. The purpose of the pregnant women's class is to improve the knowledge and skills of pregnant women about pregnancy care so that the mother and fetus are healthy and the delivery is safe and comfortable because good newborn care is needed to achieve optimal growth and development (Faiza et al., 2014). Pregnant women's class activities are a means to learn together about the health of pregnant women, both face-to-face and in groups. Pregnancy and childbirth are multidimensional processes that include physical, psychological, emotional, social, and cultural dimensions. Education in the classroom of pregnant women plays an important role in physical and psychosocial readiness during the delivery process. Expectant mothers who take classes can choose childbirth, and learn about the delivery process, pain relief methods during childbirth, baby care, puerperal care, breastfeeding, and Cord Care (Hassanzadeh et al., 2019).

This study aims to determine the benefits of pregnant women's class on the independence of puerperal mothers in caring for newborns in Pekon Sumberrejo, Public Health Center Pagelaran Work Area.

## RESEARCH METHOD

The intervention carried out in this study is the intervention of knowledge of pregnant women through the pregnant women's class program. This study was conducted on two groups of pregnant women with puerperium; one group (as an ok control group) was treated with Educational Information Communication (KIE) preparatory delivery and puerperium and another group (as an intervention group) was given a class of pregnant women. The population of this study is all iii trimester pregnant women recorded in the cohort list of pregnant women at the Pagelaran Health Center domiciled in Sumberrejo. Sampling in this study used *purposive sampling* with criteria. Inclusion criteria: a) Pregnant III Trimester (32-36mg), b) Mothers who are willing to sign *informed consent*, c) Normal Estimation of Fetal Weight according to gestational age, d) Normal Fetal Heart Rate, e) Normal maternal Blood Pressure. Exclusion criteria: a) Mother has complications during childbirth, b) Mothers who have postpartum blues or *postpartum depression*, c) Babies born die. The number of pregnant women in the community health center Pagelaran work area domiciled in Sumberrejo who have 60 inclusion criteria. Data collection in this research was carried out from May to July 2022. Statistical tests were used to see differences in average scores, differences in the influence of *Mann Whitney* pregnant women's classes, and benefits of pregnant women's classes with *Chi-square*.

## RESULTS AND DISCUSSIONS

**Table 1.** Characteristics of Respondents

Characteristics of Respondents	Intervention Group n=30	%	Control Group n=30	%
Age (years):				
- 20-25	21	70	13	43,3
- 26-35	9	30	17	56,7
Mean (SD)	24 (2,840)		20.78 (2,984)	
Education:				
- Junior High School	13	43,3	12	40
- Senior High School	17	56,7	15	50
- University graduate			3	10
Occupation:				
- Employed	23	76,7	12	40
- Unemployed	7	23,3	18	60

Table 1 shows the characteristics of respondents in the invention int group, most of the respondents were aged 20-25 years (70%), the majority of respondents had a high school education of 17 people (56.7%), a large proportion of jobs worked 23(76.7%). While there is a control group of age characteristics showing most respondents aged 26-35 years, namely 17 (56.7%), most respondents with high school education as many as 15 (50%) and university graduates, 3 (10%), on job characteristics respondents mostly have a history of not working, 18 (60 %).

**Table 2.** Comparison of control groups and intervention groups (classes of pregnant women) to the independence of newborn care and the class benefits of pregnant women

Variable	Group				P-value
	Intervention		Control		
	Pre-test	Post-test	Pre-test	Post-test	
1. Independence:					
Bathing Babies	0.346	0.778	0.436	0.487	0,001**
Mean (SD)	0.38	0.79	0.44	0.48	
Median					
	p=0,000*		p=0,484*		
Increase (%)	21,3		0,1		
a. Independence:					
Cord Care	0.832	0.907	0.8	0.829	0.001**
Mean (SD)	0.8	0.901	0.801	0.810	
Median					
	p=0,000*		p=0,08*		
Increased (%)	10,1		0,1		
b. Independence:					
Diapering	0.786	0.910	0.766	0.765	0,001**
Mean (SD)	0.78	0.89	0.76	0.76	
Median					
	p=0,000*		p=0,06*		
Increased (%)	11,5		0,04		

c. Independence:					0,001**
Breastfeeding	0.712	0.984	0.706	0.632	
Mean (SD)	0.69	0.903	69	69	
Median					
		p=0,000*		p=0,385*	
Increased (%)	13,8		0,08		

The results of the study based on table 4.2 above showed that in the treatment group, there were significant differences in the value of independence in bathing babies, umbilical cord care, replacing diapers, and breastfeeding babies, before and after being given classes of pregnant women, namely  $p = 0.000$  ( $p < 0.05$ ). Meanwhile, in the control group, there was no significant difference in the value of bathing babies with a value of  $p = 0.484$ , umbilical cord treatment with a value of  $p = 0.08$ , and replacing diapers  $p = 0.06$  and breastfeeding  $p = 0.385$  ( $p > 0.05$ ). In addition, the table above shows the effect of the class of pregnant women on independence in bathing babies, umbilical cord care, changing diapers, and breastfeeding  $p$  value = 0.001 ( $< 0.05$ ). The increase in the independence score of bathing the baby by 21.3%, umbilical cord care by 10.1%, changing diapers by 11.5%, and breastfeeding by 13.8 in the treatment group.

### Discussion

The results of the statistical test show that there is an influence of the pregnant woman class on the independence of puerperal mothers in caring for their babies (bathing the baby, umbilical cord care, replacing diapers, and breastfeeding the baby). The postnatal period is the starting point of one's transition to becoming a mother, so it greatly affects the problem of morbidity and mortality if improper treatment is carried out (Beraki et al., 2020). Puerperium can be a challenging experience for many women as they adjust to the physical and social changes that follow. Puerperal mothers may be able to experience joy and satisfaction ranging from meeting the baby's needs, appreciating the baby's behavior and appearance, and developing a strong bond with the baby. Indonesia has developed a pregnant women's class program to reduce the high maternal mortality rate (Azhar et al., 2020). Social support especially after childbirth is important for mothers of all ages to reduce the risk of postpartum depression (PPD) (Kim et al., 2014). One form of social and health support efforts to reduce the risk of death and pain for both mothers and babies is the class of pregnant women. Premature birth, babies born with low birth weight, and postpartum depression can be minimized with social support, especially the class of pregnant women (Kim et al., 2014). Research respondents were on average 20-25 years old, and this greatly influenced maternal psychology to get through risky times. Adolescent mothers have a greater risk (26%) for PPD compared to adult mothers (13%). This is associated with lifestyle factors and emotions or immaturity so that it is not ready to pass the critical period. Being a full-fledged person requires a lot of support in various forms (e.g. financial, judgmental, physical, and emotional), and other sources of family, neighbors, and peers (Hajipour et al., 2017).

At the same time, women may also face many challenges in the year after giving birth, including symptoms such as back pain, postpartum weight retention, dyspareunia, and urinary incontinence. Baby care and time-consuming thus decreasing the quality and quantity of sleep. Lactation can be a new experience and some mothers experience difficulties such as worry about breast milk production, physical discomfort, and time demands. The way to minimize perceived stress is to increase social support and learn about the importance of coping strategies. This can help mothers deal with the increasing demands during parenting. Stress is caused by a lack of knowledge and fear of the unknown during pregnancy, with physiological and psychological alterations being the cause of anxiety during this period (Hajipour et al., 2017). Physical challenges also accompanied by emotional or even psychiatric stress will increase morbidity (Kantrowitz-Gordon et al., 2018). The class of pregnant women is proven to increase the knowledge and competence of mothers. So that it can provide a defense against the tendency to over-medicalize

pregnancy and childbirth. Mothers who take pregnant women's classes feel less pain during childbirth and more joy at the time of the birth of their baby (Spinelli et al., 2013). Women who take classes on pregnant women are taught to evaluate the effects when pregnancy, giving birth to caring for their babies for maternal health. The pregnant women class also provides information if the mother is conditioned to give birth through Cesarean section, breastfeeding during a hospital stay and knowledge of contraception, breastfeeding the baby for 6 months, and baby care (Spinelli et al., 2013). The participation of pregnant women in the pregnant women's class program can reduce complications in the delivery process and have an impact on childbirth complications. In addition, classes for pregnant women can improve knowledge and skills during pregnancy, increase self-confidence, and allow them to cooperate with health services during childbirth. Maternity education was developed nearly 100 years ago and aims to prepare women for the stress of pregnancy, childbirth, and parenthood (Gluck et al., 2020).

Childbirth preparation education through pregnant women's classes will increase the knowledge and confidence of pregnant women to adapt to body changes, overcome pain, provide positive experiences for the delivery process, and improve the ability of postpartum mothers in caring for newborns (Jayasankari et al., 2019). Classes for pregnant women can improve their knowledge and skills about pregnancy, the delivery process, the independence of newborn care, and the restoration of puerperal maternal health (Wijhati et al., 2021). Pregnant women who take antenatal classes will get more information related to the delivery process to help pregnant women better prepare for delivery and take care of newborns independently. Health education through pregnant women's classes is essential to improve maternal health during pregnancy and preparation for childbirth so that the baby is born healthy (Peruzzo et al., 2019). Classes for expectant mothers ensure a healthy pregnancy, inform and answer questions about problems during pregnancy, provide knowledge about the labor process and puerperium, as well as reduce the number of cesarean sections.

The pregnant women class was developed nearly 100 years ago and aims to prepare women for the stress of pregnancy, childbirth, and parenthood (Faiza et al., 2014). Health education during pregnancy is important to improve maternal and child outcomes. The provision of health education during pregnancy has proven to be an important aspect of prenatal care. This approach has been associated with mothers and babies reducing prematurity and low-weight births, and increasing initiation and continuation rates of breastfeeding (exclusive breastfeeding). The class of expectant mothers will also make the mother's confidence increase, the behavior in the care of the baby is better as well as better self-efficacy despite the different educational history of the mother (Peruzzo et al., 2019). Pregnant women who receive education in the pregnant women's class will have better mental health because it improves their health and quality of life. The class of expectant mothers is associated with vitality, happiness in the family, the ability to face new conditions, the health of the mother and the newborn, the increase in self-confidence, satisfaction with having children, the active participation of family members in maintaining family health and the ability to overcome problems and accept life responsibilities (Hajipour et al., 2017).

Education in the class of pregnant women can improve the physical well-being of mothers and newborns and increase the knowledge and self-confidence of postpartum mothers in developing skills and independence in the development of psychological relationships between postpartum mothers and newborns (Beraki et al., 2020). Educating pregnant women with the class method can improve the ability and skills of postpartum mothers in caring for newborns in the first two months after giving birth. Education with the class method of pregnant women affects the fear of childbirth and the perception of childbirth and increases the confidence of postpartum mothers in the care of newborns (Hands et al., 2020). The influence of the pregnant women's class will affect postpartum maternal satisfaction and improve the delivery experience and independence in caring for newborns. Mentoring the class of pregnant women can increase the independence of

postpartum mothers in caring for newborns, as well as increase knowledge, and confidence of postpartum mothers (Enung Harni Susilawati, Eva Sri Rahayu, Gurid PE Mulyo, 2020)

## CONCLUSION

There are class benefits for pregnant women to increase the independence of puerperal mothers in caring for newborns. The independence that is enacted is the knowledge and skills of puerperal mothers in umbilical cord care, changing diapers, and puerperal mothers in breastfeeding.

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