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**The Effect of Early Initiation of Breastfeeding on Uterine Contractions in the Fourth Stage of Labor**

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**ABSTRACT**

The touch and licking of the baby at the time of early initiation of breastfeeding will stimulate the release of the hormone oxytocin which will also affect the smooth muscle tissue of the uterus to contract, thereby strengthening uterine contractions in the fourth stage and helping to reduce bleeding after childbirth. The purpose of this study was to analyze the effect of early initiation of breastfeeding on uterine contractions in the fourth stage of labor. This study used a static group comparison design involving 10 respondents who were selected by simple random sampling technique. Respondents were divided into control group (5 people) and experimental group (5 people). Uterine contraction data were collected through observation. Data were analyzed by Fisher's exact test. Statistical test results show p value = 0.083; so it was concluded that early initiation of breastfeeding had an effect on uterine contractions in the fourth stage of labor.

**Keywords:** early initiation of breastfeeding; uterine contractions

**INTRODUCTION**

The fourth stage of labor is a period of two hours after the delivery of the placenta. After the birth of the placenta, one of the things that needs to be considered is uterine contractions. The uterus can be found in the middle of the abdomen approximately two-thirds to three-quarters between the symphysis pubis and the umbilicus. If uterine contractions in the fourth stage of labor are inadequate, uterine atony will occur. When the contractions are weak, the myometrial muscle fibers cannot bind the blood vessels so that it will result in postpartum hemorrhage. In the fourth stage of labor, the midwife must stay with the mother and baby to monitor uterine contractions and ensure that both are in a stable condition, i.e. there is no post partum bleeding and the baby is in good health<sup>(1-3)</sup>.

Based on an initial survey conducted on 27 November 2017, at the Dahlia Polindes, Sugiharjo, information was obtained that out of 10 mothers giving birth, there were 3 mothers who experienced obstruction of uterine contractions.

One of the factors that cause weak contractions is psychological factors due to the mother being too tired during the birth of the baby and the placenta. This is a critical period for mothers, because mothers think and fear that most women give birth to blood loss or experience a condition that causes death in childbirth. This fatigue and fear causes a decrease in the hormone oxytocin so that uterine contractions cannot run adequately<sup>(1,2)</sup>.

The release of the hormone oxytocin can be done naturally, including by initiating early breastfeeding, the mother can stimulate the release of oxytocin. According to Cox (2006) in his research, if during the first hour after birth the baby is placed on the mother's chest, the baby will follow the same pattern with hand movements to find and stimulate the mother's breast so that more oxytocin will be released. Oxytocin is very important because it causes the uterus to contract properly thereby helping to reduce bleeding. Oxytocin also plays a role in stimulating other hormones that make mothers feel calmer, more relaxed, love their babies, endure pain and create feelings of happiness and stimulate the flow of milk from the breasts, so that milk comes out faster. If early initiation of breastfeeding is not carried out, such extraordinary benefits will not be obtained for either the mother or the baby<sup>(1,2)</sup>.

Through that touch, the baby's lick on the mother's nipple will stimulate the release of the hormone oxytocin which in the mother's nipple will stimulate the release of the hormone oxytocin. The movement of the baby while crawling on the mother's stomach will help massage the uterus to stimulate uterine contractions. Touching and sucking on the mother's breast encourage the formation of oxytocin which has an impact on uterine contractions, thus helping to prevent postpartum hemorrhage<sup>(1,2)</sup>.

To overcome the problem of uterine contractions in the IV stage, there are several ways to stimulate an increase in the oxytocin hormone so that it can overcome the problem of uterine contractions in the IV stage of

labor, namely calming down, seeing the baby during the IMD implementation, the food and drinks the mother wants, as well as support from her husband and family can provide comfort for the mother.

### METHODS

The purpose of this study was to analyze the effect of early initiation of breastfeeding on uterine contractions in the fourth stage of labor. This study used a static group comparison design involving 10 respondents who were selected by simple random sampling technique. Respondents were divided into control group (5 people) and experimental group (5 people). Uterine contraction data were collected through observation. The data collected is categorical data, so it is analyzed descriptively in the form of frequency and percentage and is presented in the form of a contingency table<sup>(4)</sup>. Data were analyzed by Fisher's exact test.

### RESULTS

Table 1. Differences in uterine contractions in the fourth stage of labor between groups of mothers who did and did not initiate early breastfeeding

		Uterine contractions		Total
		Strong	Weak	
Initiate early breastfeeding	Experimental group	5 (100%)	-	5 (100%)
	Control group	2 (40%)	3 (60%)	5 (100%)
Total		7(70%)	3 (30%)	10 (100%)

Table 1 shows that all mothers who initiated early breastfeeding had strong uterine contractions; while the group of mothers who did not initiate early breastfeeding, only a small proportion (40%) had strong uterine contractions. Fisher's exact test results show that p value = 0.083; so it was concluded that the difference in contrast between the two groups was not significant.

### DISCUSSION

The results showed that early initiation of breastfeeding did not significantly affect uterine contractions in the fourth stage of labor at Polindes Dahlia, Sugiharjo, Tuban, Indonesia in 2019. In this study, the experimental group carried out early initiation according to the standard for 1 hour, while the control group no early initiation of breastfeeding. Strong uterine contractions occurred in the experimental group (100%). This is because there is an opportunity for newborns to breastfeed themselves to their mothers in the first hour. Early initiation of breastfeeding is referred to as the fourth stage of labor, i.e. right after delivery until 1 hour after delivery, by placing the newborn baby on his stomach, which has dried his body but has not been cleaned and unwrapped, on his mother's chest immediately after delivery and ensures that the baby has early skin contact. with his mother, find the nipple and get colostrum intake before breast milk comes out. Babies start by touching and massaging the breast. The first gentle touch of the baby's hand on the mother's breast, will stimulate the release of the hormone oxytocin and the start of the release of mother's milk, and cause feelings of affection for the baby. During the second 30 minutes, oxytocin will come out naturally. In the 30-40 minute period of early initiation of breastfeeding, the baby makes sounds, mouth movements such as wanting to drink, kissing, licking his hands. The baby smells and feels the amniotic fluid in his hand. This smell and taste will guide the baby to find the mother's breast and nipple<sup>(1,2)</sup>.

The success of early initiation of breastfeeding is due to the implementation of early initiation of breastfeeding that goes well and is carried out with the correct standard operating procedures.

Whereas in the control group, most of the mothers had weak uterine contractions despite being given oxytocin. This is influenced by other factors, namely at the age of >35 years, female fertility will decrease. With age, female egg cells will decrease because women experience reproductive aging<sup>(1,2)</sup>.

Oxytocin can help speed up delivery of the placenta, and to control postpartum hemorrhage. Oxytocin duration of action is 20 minutes. During the working process of oxytocin for 20 minutes, the contractions may still be strong, help accelerate the delivery of the placenta, and control postpartum hemorrhage. After the oxytocin reaction is reduced it can cause soft contractions this is due to complications in childbirth<sup>(1,2)</sup>.

The results of this study are in accordance with the results of research conducted by Aini<sup>(3)</sup> that there is no significant relationship between early initiation of breastfeeding and uterine involution.

### CONCLUSION

The results showed that early initiation of breastfeeding was not significant enough to increase uterine contractions in the fourth stage of labor at Polindes Dahlia, Sugiharjo, Tuban, Indonesia.

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