Original Article

The Effect Of Breastfeeding And Partnership Exercise On The Decrease Of The Height Of The Uterial Funds Of The Mother Post Partum In The Delivery Room

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ABSTRACT

Background: The slow decrease in uterine fundal height is a problem that often occurs in mothers after childbirth or the puerperium, so that bleeding can occur and result in maternal death during the puerperium. Post Partum Mother in the Maternity Room UPTD Timbulon Health Center, West Paleleh District, Buol Regency.
The design used in the study was a pre-experimental one group pre-test-post test. The population is all post partum mothers with normal parturition. The sample size is 30 respondents using simple random sampling technique. The independent variables of the study were breastfeeding and postpartum exercise. The dependent variable was uterine fundal height. Data was collected using a questionnaire, after the mother gave birth on day 1, the uterine fundal height was measured using a new middle measuring instrument and recorded on the observation sheet, then on the 6th day the uterine fundal height was measured again. The data were analyzed using the Wilcoxon test, with a significance level of 0.05.
The results showed that the most respondents had pre-intervention TFU, which was 12 cm, as many as 14 respondents (46.7%), and post-intervention TFU, which was 8 cm, with 11 respondents (36.7%). The results showed that p = 0.000 with a <0.05, which means that there is an effect of breastfeeding and postpartum exercise on the acceleration of the decrease in uterine fundal height for post partum mothers in the UPTD Maternity Room, Timbulon Public Health Center, Paleleh Barat District, Buol Regency.
Breastfeeding and Postpartum Gymnastics can accelerate the decrease in the height of the uterine fundus in postpartum mothers because of the response of the muscles that experience stretching during pregnancy and childbirth, so that the height of the uterine fundus quickly returns to normal as before..

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Introduction

The postpartum period is the period after giving birth, which is experienced by the mother. The puerperium period is approximately 6 weeks, during the puerperium, the internal and external genital

organs will gradually recover to their pre-pregnancy state. Changes in the genital organs in their entirety are called involution (Maritalia, 2012). Uterine changes after birth include the uterus gradually becoming small (involution) so that it eventually returns to its pre-pregnancy state. The cervix involutes with the uterus. After delivery, the external os can be entered by 2 to 3 fingers, after 6 weeks of delivery the cervix closes. The vulva and vagina experience enormous pressure and stretching during the birthing process, and in the first few days after the process, these two organs remain in a relaxed state (Delde, 2011). After 3 weeks the vulva and vagina return to a nonpregnant state and the rugae in the vagina will gradually reappear while the labia become more prominent. The problem that is often encountered is that the uterus slows down in returning to its original size and that is a problem for postpartum mothers.

The number of maternal deaths in Cities in Central Sulawesi Province in 2015 was 132 maternal deaths, an increase compared to 2014 as many as 107 (Dinkes, 2015). Research (Yuliani et al., 2012). Data from the Ministry of Health (2016) found that 80.48% of maternal deliveries were assisted by health workers. The results of the preliminary study at the Timbulon Health Center, the number of live births in 2016 was 126. The results of the preliminary study at the Timbulon Health Center, Paleleh Barat District, Buol Regency obtained an average of the last 3 months (December 2017 to February 2018) obtained 32 postpartum mothers. The results of a preliminary study from 5 postpartum mothers also found that there was only 1 postpartum mother who experienced an accelerated decrease in uterine fundal height, 4 postpartum mothers who experienced a slowdown due to not breastfeeding their babies and staying at home more or rarely moving and exercising.

Involution is a process in which the uterus returns to its pre-pregnancy state with a weight of about 60 grams. This process begins immediately after delivery of the placenta due to contraction of the smooth muscles of the uterus. Involution is caused by contraction and retraction of uterine muscle fibers that occur continuously. If there is failure of uterine involution to return to a non-pregnant state, it will cause sub-involution. Symptoms of sub involution include persistent/fresh red lochia, slow uterine fundus decline, flaccid uterine tone, no feeling of bloating in postpartum mothers, resulting in bleeding. Postpartum hemorrhage is blood loss of more than 500 ml through the birth canal that occurs during or after the third stage of labor. Estimated blood loss is usually not as much as the actual, sometimes only half of the actual (Anggraini, 2010). Breastfeeding is one of the supporting factors that play an important role in improving uterine involution, because breastfeeding stimulates the oxytocin hormone which causes contractions so that uterine involution occurs. One of the advantages of breastfeeding for the mother is that it causes the uterus to contract so that the uterus returns to its physiological state more quickly, but breastfeeding itself is also influenced by several factors. One of the influencing factors is work, working mothers cannot give exclusive breastfeeding so that it will affect hormone secretion and milk production, so that the implementation of breastfeeding is not optimal (Wulan, 2010).

Efforts to reduce uterine funsus height are exercise and breastfeeding. Gymnastics is one of the sports that can be used to decrease the height of the uterine fundus, namely puerperal exercise. Postpartum gymnastics is exercise that mothers do after giving birth which aims to maintain and increase maternal circulation during the puerperium, and to help the process of uterine involution (Brayshaw, 2008). The results of Siregar's research (2014) showed that there was an effect of postpartum exercise on uterine involution in primiparous postpartum mothers vaginally on days 1-3. The results of Syaflindawati's research (2017) found that post partum mothers did postpartum exercises, 74.6% of them experienced a rapid decrease in uterine involution. The benefits of doing postpartum exercises are restoring the strength of the pelvic floor muscles, tightening the muscles of the abdominal wall and perineum, forming a

good posture and preventing complications. Complications that can be prevented as early as possible by carrying out postpartum exercises are post partum bleeding. When carrying out postpartum exercise there is a contraction of the abdominal muscles which will help the involution process which starts after the placenta comes out immediately after the involution process (Tesisjogja, 2006). Breastfeeding also plays an important role in improving uterine involution, through stimulation of the oxytocin hormone which causes contractions so that uterine involution occurs so that the uterus returns to a physiological state more quickly (Wulan, 2010). Breastfeeding will respond to various estrogen hormones to solidly restore the function of the reproductive system to its physiological function so that the TFU can drop faster.

Postpartum exercise is very good for mothers after giving birth, mothers do not need to be afraid to move a lot, because with early ambulation (getting up and moving after a few hours of delivery) can help the uterus to return to its original shape at the end of the third stage of labor, the uterus is in the midline approx. -about 2 cm below the umbilicus with the fundus resting on the sacral promontory. Within 12 hours, the fundal height reaches approximately 1 cm above the umbilicus, and changes in involution take place rapidly (Siregar, 2014). The abdomen, especially the uterus, should be carefully monitored during the puerperium. On the first day postpartum, the height of the uterine fundus is approximately one finger below the center, after five days postpartum it becomes a third of the distance between the symphysis to the center and after ten days the uterine fundus is difficult to palpate above the symphysis (Wulan, 2010). Based on this background, the researcher is interested in researching with the title The Effect of Breastfeeding and Postpartum Gymnastics on Reduction of Uterine Fundal Height in Post Partum Mothers at UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency.

Method

This research is a pre-experimental one group pre-test-post test. The population is all post partum mothers with normal parturition. The sample size is 30 respondents using simple random sampling technique. The independent variables of the study were breastfeeding and postpartum exercise. The dependent variable was uterine fundal height. Data was collected using a questionnaire, after the mother gave birth on day 1, the uterine fundal height was measured using a new middle measuring instrument and recorded on the observation sheet, then on the 6th day the uterine fundal height was measured again. The data were analyzed using the Wilcoxon test, with a significance level of 0.05.

Results

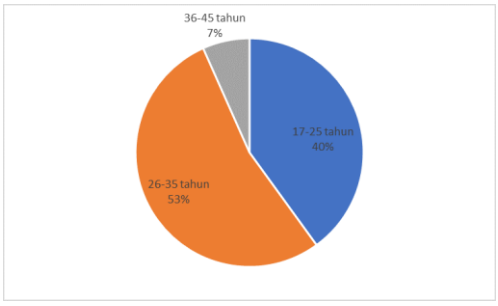

Figure 1. Frequency Distribution of Respondents' Characteristics by Age in the Maternity Room UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency. On July 9-9 August 2018 (n=30)

The results showed that most of the respondents aged 26-35 years were 16 respondents (53.3%).

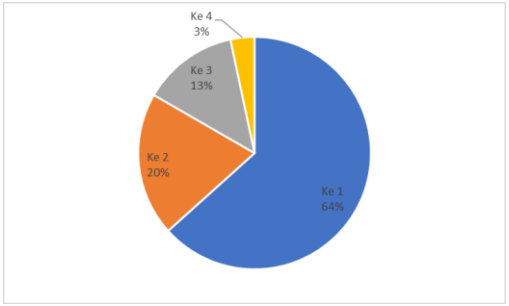

Figure 2. Frequency Distribution of Respondents' Characteristics by Pregnancy in the Maternity Room UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency. On July 9-9 August 2018 (n=30)

The results showed that most of the respondents had their first pregnancy as many as 19 respondents (63.3%).

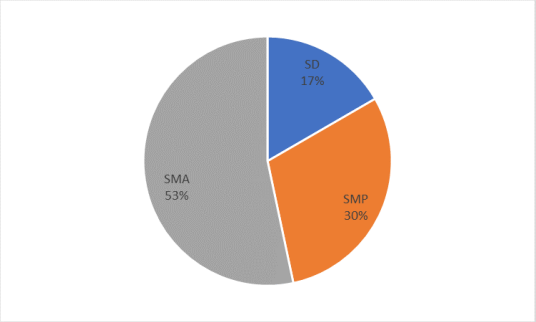

Figure 3. Frequency Distribution of Respondents' Characteristics based on education in the Maternity Room UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency. On July 9-9 August 2018 (n=30)

the results showed that most of the respondents had high school education, namely 16 respondents (53.3%).

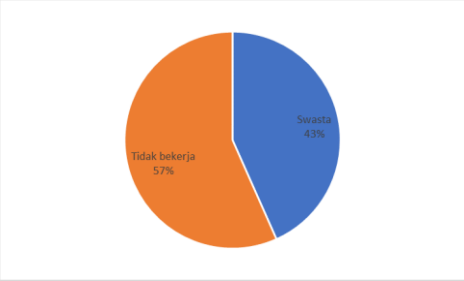

Figure 4. Frequency Distribution of Respondents' Characteristics by Occupation in the Maternity Room UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency. On July 9-9 August 2018 (n=30)

The results showed that the most respondents had no work as many as 17 respondents (40.3%).

Table 1. Frequency Distribution of Respondents based on Pre-intervention TFU in the Maternity Room UPTD Timbulon Health Center, West Paleleh District, Buol Regency. On 9 July- 9 August 2018 (n=30)

No	TFU (cm)	Frekuensi	Persentase
1	12	14	46,7
2	13	10	33,3
3	14	6	20,0
Total		**30**	**100**

The results showed that the most respondents had TFU pre-intervention is 12 cm as many as 14 respondents (46.7%).

Table 2. Frequency Distribution of Respondents based on Post-intervention TFU in the Maternity Room UPTD Timbulon Health Center, West Paleleh District, Buol Regency. On 9 July- 9 August 2018 (n=30)

No	TFU (cm)	Frekuensi	Persentase
1	7	6	20,0
2	8	11	36,7
3	9	10	33,3
4	10	2	6,7
5	11	1	3,3
	Total	**30**	**100**

The results showed that the most respondents had a post-intervention TFU that was 8 cm as many as 11 respondents (36.7%).

Table 3. Statistical Test Results

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TFU pre	,292	30	,000	,773	30	,000
TFU post	,210	30	,002	,890	30	,005
a. Lilliefors Significance Correction						

The results of the normality test with the number of respondents less than 50 respondents, then the test using Shapiro-Wilk with a> 0.05. In the TFU data before the intervention, a p value = 0.000 was obtained and the TFU data after the intervention obtained a p value = 0.005, which means that the two groups of data had abnormal data distributions, so the data was carried out by the Wilcoxon test.

Test Statistics[b]	
	TFU post - TFU pre
Z	-4,820[a]
Asymp. Sig. (2-tailed)	,000
a. Based on positive ranks. b. Wilcoxon Signed Ranks Test	

The results of the normality test with the number of respondents less than 50

respondents, then the test using Shapiro-Wilk with a> 0.05. In the TFU data before the intervention, a p value = 0.000 was obtained and the TFU data after the intervention obtained a p value = 0.005, which means that the two groups of data had abnormal data distributions, so the data was carried out by the Wilcoxon test

Discussion

The results showed that p = 0.000 with a <0.05, which means that there is an effect of breastfeeding and postpartum exercise on the acceleration of the decrease in uterine fundal height for post partum mothers in the UPTD Maternity Room, Timbulon Public Health Center, Paleleh Barat District, Buol Regency.

The postpartum period is the period after giving birth, which is experienced by the mother. The puerperium period is approximately 6 weeks, during the puerperium, the internal and external genital organs will gradually recover to their pre-pregnancy state. Changes in the genital organs in their entirety are called involution (Maritalia, 2012). Uterine changes after birth include the uterus gradually becoming small (involution) so that it eventually returns to its pre-pregnancy state. The cervix involutes with the uterus. After delivery, the external os can be entered by 2 to 3 fingers, after 6 weeks of delivery the cervix closes. The vulva and vagina experience enormous pressure and stretching during the birthing process, and in the first few days after the process, these two organs remain in a relaxed state (Delde, 2011). After 3 weeks the vulva and vagina return to a nonpregnant state and the rugae in the vagina will gradually reappear while the labia become more prominent.

Postpartum gymnastics is a movement exercise that is carried out as soon as possible after giving birth, so that the muscles that experience stretching during pregnancy and childbirth can return to their normal conditions (Sukary According to Walyani and Purwoastuti (2015), Uterine involution is the return of the uterus to a good pre-pregnancy state. in their original shape and position. In addition to the uterus, vagina, uterine ligaments, and pelvic floor muscles also return to their pre-pregnancy state. If the uterine ligaments and pelvic floor muscles do not return to their pre-pregnancy state, the possibility of uterine prolapse increases.

The process of involution, the uterus thins and secretes lochia which is replaced with new endometrium. The results showed that 30 respondents for 6 days after the intervention there was a decrease in TFU. This is because the physiological response after the birth of the baby and the placenta is released, the uterine muscles contract so that blood circulation to the uterus stops and this is called ischemia redundant, fibrous and elastic tissue works. During pregnancy, some muscles are stretched, especially the uterine and abdominal muscles. After giving birth, the uterus does not quickly return to its original state, but goes through a process to return to its original condition, which requires an exercise, known as postpartum gymnastics (Huliana in Sukaryati and Maryunani, 2011).

Based on the results of the study, there was a significant effect after and before the intervention because postpartum exercise is a series of body movements performed by the mother after giving birth which aims to restore and maintain muscle strength associated with pregnancy and childbirth. All respondents experienced a decrease in TFU. The results showed that most of the respondents had the first pregnancy as many as 19 respondents (63.3%). Exercise on the pelvic floor muscles will stimulate the nerve fibers in the uterine muscles, namely sympathetic and parasympathetic nerve fibers that go to the cervical ganglion from Frankenhauser which is located at the base of the sacro uterine ligament. This is supported by Kuswati's research (2014) that the presence of strong and continuous uterine contractions will further assist the

work of the uterus in compressing blood vessels and the hemostatic process. This process will help lower the height of the uterine fundus. This is because one of the benefits of postpartum exercise is to accelerate uterine involution, which can be measured from a decrease in uterine fundal height. The process of uterine involution is assisted by the mother's willingness to give breast milk. When the baby sucks breast milk, there is a stimulus to the posterior pituitary so that oxytocin can be released, which functions to increase smooth muscle contraction around the alveoli of the breast milk glands. Oxytocin will also stimulate the uterine muscles so as to accelerate the occurrence of uterine involution..

Conclusion

1. The results of the study found that the most respondents had a pre-intervention TFU of 12 cm as many as 14 respondents (46.7%).
2. The results showed that the most respondents had a post-intervention TFU that was 8 cm as many as 11 respondents (36.7%).
3. There is an Influence of Breastfeeding and Postpartum Gymnastics on the Acceleration of Decrease in Uterine Fundal Height in Post Partum Mothers in the Maternity Room UPTD Timbulon Health Center, Paleleh Barat District, Buol Regency.

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