

# Differences in the Healing of Perineal Wounds in Postpartum Mothers and Hecting Using the Dotted Technique and the Basting Technique

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## ABSTRACT

Many factors influence the healing of perineal wounds such as internal, external to the mother and factors from health workers. Healing efforts can be carried out by non-pharmacological methods, namely Kegel exercises, mobilization, herbal concoctions. Healing perineal wounds from the perspective of health workers such as suturing techniques. There are several techniques for sewing perineal wounds, such as interrupted, continuous, subcuticular. The purpose of this study was to see differences in the healing of perineal wounds in postpartum mothers using the interrupted technique and the subcuticular technique at the T and BPM D Clinics in Deli Serdang Regency in 2020. The design of this study was an experiment with a longitudinal time approach. Sample: All postpartum women who experienced perineal injuries at the Second Grade clinic at T and BPM D Clinics were 20 people. Results: The average perineal wound healing using the basting technique was faster healing (15.20) than the dotted technique (17.40). The results of the bivariate analysis stated that there was no significant difference between the healing time of the perineal hecting wound with the dotted technique and basting with a value of  $p = 0.271$  ( $> 0.005$ ). Health workers should improve their ability to handle episiotomy wounds so that they heal quickly and do not get infected

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## INTRODUCTION

Most women want to give birth in a normal way / spontaneously, but 85% have perineal injuries. Many factors can cause perineal injuries, namely parity, baby's weight, length of stage II (1). Wound is the occurrence of tissue damage (2). Perineal wounds are wounds that occur between the vulva and anus during the delivery process (3). Perineal injuries can occur in primigravida or in multigravida (4). Wounds that are not treated can cause infection. The maternal mortality rate in Indonesia is currently 305 per 100,000 live births. This number is still far from the Millennium Goal Development (MDGs) target of 102 per live birth. Causes of maternal death are bleeding, puerperal

infections, pre-eclampsia/eclampsia, prolonged labour, unsafe abortion (5). One of the infections that can occur in postpartum mothers is infection of the perineal wound

In previous studies perineal wound healing can be influenced by nutrition (6), personal hygiene (7), age, parity, knowledge (8), (9), (10), Kegel exercises (11), mobilization, herbal ingredients for binahong leaves (12). ), betel leaf (13). Perineal wound healing is also affected by suturing techniques such as with and without the use of 0.1% lidocaine (14), (15). There are several techniques for sewing perineal wounds, such as interrupted, continuous, subcuticular (16). From the results of a survey at the T and BPM D Clinics with 6 postpartum women perineal wounds with different perineal wound suturing techniques, there were differences in perineal wound healing. Based on this, researchers are interested in researching the differences in perineal wound healing and perineal suturing using interrupted and subcuticular techniques at T Clinic and BPM Dewi, Deli Serdang Regency in 2021

This research is important because it has a high urgency, namely to accelerate the healing of perineal wounds so that infection does not occur so as to reduce the degree of maternal mortality. And it is hoped that it can be input to health workers. This study aims to determine the differences in perineal wound healing with interrupted and basting techniques. Perineal wounds are wounds that occur between the vulva and anus (3). This wound occurs during the second stage of labor, namely when the head passes through the birth canal, this can occur in the perineal muscles that stretch. Perineal injuries are common in primiparas but can also occur in multiparas. Perineal injuries can be divided into 2 based on their occurrence, namely accidental (spontaneous) perineal injuries: Spontaneous perineal injuries usually occur accidentally and are usually irregular in shape, but this can be minimized if the mother is willing to cooperate when the delivery is led. Intentional perineal wound (Episiotomy): This intentional perineal wound is usually done on a rigid perineum. Perineal wounds can be divided into 4 based on the degree of injury, namely degree 1 is a wound only up to the vaginal mucosa and perineal skin, usually it will heal itself and does not need stitches, degree 2 is a wound that occurs on the vaginal mucosa, skin and muscles of the perineum, the wound should be sutured so that better healing, degree 3, namely wounds that occur on the vaginal mucosa, skin, perineal muscles to the outer anal sphincter. It is recommended that this wound be sewn so that it heals better, grade 4, namely wounds that occur in the perineum, anal sphincter and rectal mucosa. This wound must be stitched because if not there will be discharge of faeces from the vagina. The degree of injury that often occurs during normal delivery is degrees II and III (17), (18). The purpose of suturing the perineum is to prevent bleeding from the perineal wound, reduce infection, and accelerate healing.

There are 3 types of suturing techniques (16), namely: Interrupted, Incontinuous, Subcuticular. The procedure for suturing perineal wounds (20), as follows: 1. Material preparation: Physiological solution, Povidone iodine 10%, Khasa sterile, Lidocain inj 2%, Aquabidestillata, 3cc syringe, Cat gut thread 3.0, Hands scoend 1 pair, personal protection equipment , spotlights, sterile equipment consisting of an instrument tray containing a needleholder, needle hecting, sirurgis tweezers, tissue scissors, thread scissors, 2 coms, nierbekken, sharp, dry, wet waste bins. 2. Patient preparation: explains the type of action, washes the wound and sutures the wound, explains the reasons for the action, prevents infection, asks for the patient's consent. 3. Debridement: Wash hands sterile, use sterile gloves, disinfect the wound and around the wound using betadine. Disinfection is carried out from the inside to the outside or in one direction, applying local anesthesia to the edges of the wound and the wound bed using a syringe and 1% lidocaine (1 cc of 2% lidocaine plus 1 cc of aquabidestillata), performing wound washing (debridement) using sterile gauze and NaCl 0.9%, ensuring that there is no dirt on the wound. 4. Suturing the Wound: Drapping: covering the area around the wound with a sterile dressing or sterile gauze, Handling the instrument: the needle holder is held by finger 1 and finger 4, on the first knuckle. Surgical Needle is clamped at the end of the needle holder, attach the thread to the surgical needle (if using an eyed needle). Suturing with the Intruded technique, namely by inserting a hecting needle from 1 side to the other and then

concluding it, this is repeated with a distance of 1 cm so that all wounds are closed, while the subcuticular suturing technique is by inserting a needle from the right side and to the left. the left side was then concluded without breaking the thread and immediately continued by sticking the needle heciting from one side to the other but from under the skin until the wound was closed then concluded, the wound was cleaned again with special and smeared with povidone iodine, cleaned up tools and disposed of trash, washed hands, this wound suturing procedure has been summarized in Normal Childbirth Care if there is a tear in the birth canal (18)

Wound healing has 4 phases (21), namely: Homeostasis and Coagulation: This occurs 5-10 minutes after the wound occurs, vasoconstriction will occur in the blood vessels around the wound to prevent excessive bleeding and to maintain fluid balance followed by the formation of platelets to close the wound area so that bleeding does not occur again. Inflammation: This occurs from the first day to the 3rd day where neurotrophil substances in the blood vessels enter the injured tissue by changing into macrophages whose function is to destroy (engulf) germs that are in the wound area and enter the tissue. This happens to prevent infection. Then you will see the wound on day 1 to 5 red and slightly swollen to the point of pain because due to dilated blood vessels useful neurotrophils migrate to the tissue turning into macropaidis. Proliferation: After the wound is no longer inflamed and clean of germs, new cells will grow to unite the tissue/skin on both sides of the wound that was just sewn up. This will occur 4 - 21 days. Remodeling: at this time the formation of collagen fibers occurs and to make it stronger, it continues for up to 2 years

There are many factors that can affect wound healing externally: (environment, tradition), internal factors (age, parity, mother's education, knowledge, nutrition, behavior in caring for staff, such as sewing techniques). Nutrition is very necessary in wound healing because wound healing occurs naturally, so for the development and movement of cells in our body we need nutrition (22). A good mother's Hb level will support the wound healing process (23). Mother's knowledge is very influential in healing the wound healing of the mother's perineum, (24). Mature age, with experience and knowledge even better (10). There is also the provision of alternative therapies for wound healing efforts (25), such as doing Kegel exercises (11), using the hitz bath hydrotherapy method (26), consuming herbal ingredients, namely boiled water of binahong simpliza (12), betel nut (13). From the point of view of health workers, such as sewing techniques with and without anesthesia when suturing perineal wounds, the results of healing are different (14) (15)

## RESEARCH METHOD

The research was conducted at the T and BPM D Clinics in Deli Serdang Regency. In this study the sample met the inclusion and exclusion criteria as follows Inclusion criteria: Postpartum women, Experiencing second, third degree perineal injuries with heciting interrupted and subcuticular suturing techniques, willing to be a respondent, Exclusion criteria: Not observed until the perineal wound has healed. The number of samples in this study were 20 people, of which 10 were selected intermittently and 10 people in a straight line. Design This study uses an experimental design with a comparative, data collection method with the longitudinal time method. Data processing using independent sample t-test. This study uses a significant level  $<0.05$ .  $H_0$  is rejected and  $H_a$  is accepted if the p-value  $> 0.05$

## RESULTS AND DISCUSSIONS

### Univariate Variables

The results of this study are

**Table 1.** Frequency Distribution of Respondent Characteristics at Clinic T and BPM D Kab. Deli Serdang Year 2020.

Characteristics	Amount (n=20)	Percentage (%)
<b>Age</b>		
< 20 years	2	10
20-35 years	18	90
<b>Education</b>		
Primary School	1	5
Junior High School	8	40
High School Equivalent	10	50
Bachelor	1	5
<b>Work</b>		
Housewife	10	50
Private Sector Employee	8	40
Civil Servant	2	10
<b>Parity</b>		
Primipara	10	50
Multipara	10	50
<b>Discontinued healing technique</b>		
11 hari	1	5
13 hari	1	5
15 hari	1	5
16 hari	2	10
17 hari	1	5
18 hari	1	5
21 hari	1	5
22 hari		
23 hari		
<b>Healing technique basting</b>		
12 hari	2	10
13 hari	2	10
13 hari	1	5
14 hari	2	10
15 hari	1	5
16 hari	1	5
19 hari		
20 hari		

Based on table 1, it can be seen that the majority of respondents are aged between 2-35 years, namely 18 people (90%), the majority of them are high school or equivalent, 10 people (50%) are employed, housewives are 10 people (50%), and each parity is 10 primiparous people (50%) with multiparas

### Bivariate Variables

From the Bivariate variable, which is to see the difference in wound healing between the dotted technique and the basting technique, it can be seen in table 2.

**Table 2.** Differences in Perineal Wound Healing Time

Perineal Wound Healing Time	N	Mean	Value p
Dotted technique	10	17,40	0,271
Basal technique	10	15,20	

Based on table 2, it can be seen that the healing time of the basting technique heals faster (15.20) than the dashed technique (17.40), but there is no significant difference between the perineal wound healing with the dashed technique and the basted technique ( $p=0.271$ ) then  $P>0.05$ .

In this study it was also stated that the average wound healing was almost the same, namely in the broken technique 15.20 and 17.40 broken, so there was no significant difference. This can be seen from the age of the majority of respondents aged 20-35 years. 18 people (90%). This suggests that the majority of respondents are still in a healthy reproductive age where from an integument point of view it is still in good condition for the repair period as before. In terms of education, the majority of respondents had the same high school education, this stated that the majority of respondents had sufficient knowledge in caring for their bodies both in personal hygiene and in terms of nutrition for the healing process of their perineal wounds.

Besides that, there are many other things that affect perineal wound healing. From the results of this study, it was stated that there was no significant difference between the dashed and basting techniques, but from the observations of the researchers that there were differences in the appearance of the former hecting of the two groups. The dotted technique tends to give scars, while the basting technique does not. Health workers should improve their skills and competence in perineal wound hecting techniques so that perineal wounds heal faster and are tidier.

## CONCLUSION

Perineal wound healing with hecting basting technique heals faster than the dotted technique but there is no significant difference between the dotted and baste techniques

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