



The Effect of Otaria Exercise for Perineal Wounds in Postpartum Women in the Karang Intan 2 Health Center Banjar South Kalimantan

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ABSTRACT

One of the causes of maternal mortality is infection during the puerperium at 11%. Infections during the puerperium can come from birth canal openings which are a good medium for germs to develop. This research used a Quasi-experiment approach. Respondents were divided into 2 groups, control group who did not perform Otaria exercises and treatment group who performed Otaria exercises. The p value <0.05, meaning that there is an effect of Otaria exercises on Perineal Wound Healing in postpartum women in the Karang Intan 2 Health Center area. Otaria exercises can improve blood circulation to the perineum, the state of clean oxygen-rich blood is expected to help in the healing process of perineal suture wounds.

INTRODUCTION

Maternal and infant mortality rates are two indicators that are often used to determine the health level of a country. In Indonesia, these two issues worry the government, as the country's maternal and child mortality rates are among the top three among ASEAN countries. Based on the 2020 census, the maternal mortality rate was 189 per 100,000 live births. This makes Indonesia the country with the second highest maternal mortality rate among ASEAN countries, much higher than Malaysia, Brunei, Thailand, and Vietnam which have maternal mortality rates of less than 100 births per 100,000 live births (Indonesian Ministry of Health, 2023).

Maternal mortality in Indonesia amounted to 4,226 out of 4,778,621 live births, the cause of maternal mortality caused by bleeding with 1,280 cases (30.28%), hypertension in pregnancy 1,066 cases (25.22%) and, infection 207 cases (4.89%), blood circulation system disorders 200 cases (4.73%), metabolic disorders 157 cases (3.71%), and others 1,311 cases (31%). In 2022, the maternal mortality rate in South Kalimantan province amounted to 136 cases. The cause of maternal death was caused by bleeding 33%, hypertension 31.87%, infection 14.74% and others 20.46%. In the same year, based on data obtained from the Banjar District Health Office, maternal mortality cases reached 199 cases and infant mortality cases reached 13 cases (Indonesian Ministry of Health, 2023).

One of the causes of maternal mortality is infection during the puerperium at 11%. Infections during the puerperium can come from birth canal openings which are a good medium for germs to develop. Most postpartum mothers do not know much about perineal wound care. Therefore, if care is not taken properly, it will cause infection. Infection that often occurs in postpartum women is infection of the perineum. The case of the emergence of infection in the perineum can spread to the bladder or the birth canal which can result in complications in birth canal infection.

Nifas or post partum is a condition where the recovery period of the reproductive organs is like before pregnancy. In the puerperium it is necessary to take care to help the involution process such as mobilization, diet, micturition, defecation, lactation, breast care and perineal care. During labor, almost 90% experience perineal tears, either with or without episiotomy. Perineal wounds are defined as tears in the uterine canal or due to episiotomy during fetal delivery (Santika, 2020).

Proper care immediately after delivery can help reduce edema and bruising. If the perineal area fails to heal, or is still causing pain despite the initial healing that should have occurred, re-suturing or repair may be recommended. Usually, wound healing of perineal tears will vary, with some healing normally (6-7 days) and others experiencing a delay in healing. One of the techniques that can accelerate the healing of perineal wounds is by doing exercises. Otaria exercises has the benefit of helping perineal wound healing by making alternating contractions and releases in the pelvic floor muscles, namely by making the sutures tighter, accelerating healing, relieving hemorrhoids, and improving urine control. In addition to this, it can increase circulation in the perineum so as to accelerate healing and reduce swelling. Otaria exercises can

improve blood circulation to the perineum, the state of clean oxygen-rich blood is expected to help in the healing process of perineal suture wounds (Rianti, 2019).

Based on observations made by researchers in the Karang Intan 2 Health Center area, there are still postpartum women who experience infections in the perineal wound and have never been taught Otaria exercises.

LITERATURE REVIEW

1. Overview of Postpartum

The postpartum is the period after childbirth is completed up to 6 weeks or 42 days. During the puerperium, the reproductive organs will slowly change to their pre-pregnancy state. This change in reproductive organs is called involution (Maritalia, 2012). The puerperium is after the discharge of the placenta until the reproductive organs recover as before pregnancy and normally the puerperium lasts for 6 to 40 days (Eny & Diah, 2008). The puerperium, also known as the postpartum period or puerperium, is the period after childbirth, a period of change, recovery, healing, and return of the uterine / reproductive organs as before pregnancy, which lasts 6 weeks or 40 days after childbirth (Jannah, 2015). Eny and Diah (2008), say that the puerperium is divided into 3 stages, namely as follows: 1). Early puerperium is a recovery in which the mother has been allowed to stand up and walk around, in Islam it is considered clean and allowed to work after 40 days; 2). Intermedial puerperium, namely the recovery of the entire genitalia, which lasts 6-8 weeks Remote puerperium is the time needed to recover and be perfectly healthy, especially if during pregnancy or childbirth there are complications. The time to be perfectly healthy can be weeks, months or years; and 3). Remote puerperium is the time needed to recover and be perfectly healthy, especially if during pregnancy or childbirth, there are complications.

2. Overview of Perineal Wounds

Perineal wounds are tears that occur when the baby is born either spontaneously or by using tools or actions (Saifudin 2016). Tears can occur due to spontaneous perineal rupture 62% or with an episiotomy 24% Changes in the perineum after childbirth occur when the perineum is torn. Birth canal tears can occur spontaneously or with episiotomy for certain indications. However, perineal muscle exercises can restore tone and can stretch the vagina to some degree. This can be done in the late puerperium with daily exercises. (Yanti et al, 2011). The perineum is the surface of the lower door of the pelvis, which is located between the vulva and anus. The perineum consists of urogenital muscles and fascia and pelvic diaphragm (Wiknjastro, 2006). Perineal rupture can occur due to spontaneous rupture or perineal episiotomy, which is performed with episiotomy scissors. Episiotomy itself is performed on indications such as: large baby, rigid perineum, labor with abnormality, labor with the use of baiforceps or vacuum. If the episiotomy is not performed on indications in circumstances that do not need to be done with the above indications, it

causes an increase in the incidence and severity of damage to the perineal area. While the perineal wound itself will have its own impact on the mother, namely the disturbance of discomfort

3. Overview of Postpartum Exercises 'Otaria'

Postpartum Exercises 'Otaria' is postpartum Exercises modified relaxation techniques and abdominis muscle exercises with the assistance of caregivers or the closest person at home with postpartum mothers who have been trained by midwives in providing support and assistance to postpartum women when doing Otaria postpartum gymnastics at home (Rianti et al., 2021). Some Steps in doing postpartum exercises "Otaria" On the first day, postpartum exercises are performed 3 times, namely in the first 2 hours, 6 hours and 24 hours postpartum. The first day gymnastics starts with initial relaxation which aims to get the mother used to breathing properly and can repeat correctly the next day, so that all blood vessels will be filled with oxygen optimally, which will affect uterine contractions well and will accelerate recovery (Rianti et al., 2019). Furthermore, Rianti (2019) explains that there are 3 main steps, namely the initial relaxation step, core (abdominis muscle training) and final relaxation.

METHODOLOGY

The design of this research used a Quasi-experiment approach with divided into two groups, namely the control group and the treatment group. The sampling method used in this study was total sampling, where the sample in this study were all postpartum women who gave birth in the Karang Intan 2 Health Center area from June to August 2023, with a total sample of 30 respondents. Respondents were divided into 2 groups, namely 1 control group totaling 15 postpartum women who did not perform Otaria exercises and 1 treatment group totaling 15 postpartum women who performed Otaria exercises with caregiver assistance.

RESEARCH RESULT

Table 1. Test Results of the Effectiveness of Otaria Gymnastics on Perineal Wound Healing in Postpartum Mothers in the Karang Intan 2 Health Center area.

Group	N	Mean	Deviation Standard	<i>p-value</i>
Treatment	15	12,33	1,589	
Control	15	6,53	0,1915	0,000

Table 1. shows that Perineal Wound Healing in the Control group obtained an average of 6.53 with a standard deviation of 0.915 and Perineal Wound Healing in the Treatment group obtained an average of 12.33 with a standard deviation of 1.589. From the results

of data analysis, the p value = 0.000 was obtained. This table shows that the p value <0.05, meaning that there is an effect of Otaria gymnastics on Perineal Wound Healing in postpartum women in the Karang Intan 2 Health Center area.

DISCUSSION

It is known that Perineal Wound Healing in the control group obtained an average of 6.53 with a standard deviation of 0.915, and Perineal Wound Healing in the treatment group obtained an average of 12.33 with a standard deviation of 1.589. From the results of the data t test analysis, the p value = 0.000 was obtained. This figure shows that the p value is <0.05, meaning that there is an effect of Otaria gymnastics on Perineal Wound Healing in postpartum women in the Karang Intan 2 Health Center area. From these results, it can be concluded that there is an effect of Otaria Gymnastics on Perineal Wound Healing in Postpartum Women in the Karang Intan 2 Health Center area.

The results of research conducted by Rianti (Rianti et al., 2021) that one way to maintain uterine contractions in postpartum is to do Otaria postpartum exercises which are carried out from the first 2 hours, 6 hours and 24 hours postpartum as initial mobilization and continued until 7 days postpartum. With early mobilization, the mother will be more active in moving so that it will accelerate the process of involution of the organs of the womb, facilitate the release of lochia, and improve blood circulation. After delivery, the abdominal wall is loose because the abdominal wall is stretched for so long, but usually recovers within 6 weeks. Exercises performed on certain muscles will have the effect of increasing muscle blood flow so that the transportation of oxygen and other nutrients to the muscles also increases, this will provide maximum strength to the muscles (Cunningham et al., 2014).

Otaria exercises are performed from the first 2 hours, 6 hours and 24 hours postpartum as the beginning of mobilization and continued until 7 to 10 days postpartum. which aims to get the mother used to breathing properly and can repeat correctly the next day, so that all blood vessels will be filled with oxygen optimally, which will affect uterine contractions properly and will accelerate recovery (Rianti et al., 2019). Strengthening the transversus abdominis muscle is an exercise by providing stimulus to the part by contracting so that it can increase intra abdominal pressure (Kaur et al., 2017). The benefits of strengthening the transversus abdominis muscle are tightening the uterine wall, accelerating uterine involution and facilitating the release of lochia (Handayani & Pujiastuti, 2016). By practicing postpartum exercises, postpartum exercises modified relaxation techniques and abdominis muscle exercises create a pushing force in the cavum uteri that will push the lochia fluid, so that eventually the lochia fluid comes out through the vagina. This situation means that there is a good / normal uterine involution process (Rianti et al., 2021).

According to Dewi and Sunarsih (2011) the benefits of otaria gymnastics are to facilitate the change of the uterus back to its pre-pregnancy form within 7 days of the postpartum period, very influential in reducing stress, has a profound effect on women's physiology because there can be an increase in the ability to

deal with stress and depression after the mother gives birth. The relaxation provided from postpartum otaria exercises is more intended to reduce pain and provide the ability to overcome stress and postpartum depression and facilitate the recovery and fitness of the mother's body after childbirth. Otaria postpartum exercises will cause a sense of comfort in postpartum women which helps heal the uterus, abdomen and pelvic muscles that have been traumatized during childbirth, relax joints that experience looseness due to pregnancy will have an impact on reducing stress.

Abdominal muscle movements in Otaria exercises, in the form of crunching and stretching movements. The effects of these muscle movements include improving blood circulation and oxygen to the muscles and surrounding tissues, such as the perineum. The benefit of the smooth oxygen is that the wound in the perineum will heal quickly due to the effect of oxygenation (increasing the availability of oxygen and nutrients for wound healing (Rianti et al., 2021).

Abdominal muscles, pelvic floor muscles, vaginal muscles, abdomen, which during vaginal delivery experience stretching and damage, especially the perineum after childbirth, by doing Otaria exercises, the muscles will recover to their original state and will facilitate blood circulation to the perineum. The state of blood rich in clean oxygen is expected to help in the wound healing process in the area (Rianti et al., 2021).

Rianti Abdominis Muscle postpartum exercise or 'Otaria' postpartum exercise is a modified postpartum exercise with relaxation techniques and abdominis muscle exercises with caregiver assistance. The caregiver or the closest person in question is the husband or parent/in-law or brother/sister or sibling who lives in the same house with the postpartum mother, who has been trained by midwives or health workers to accompany, provide support and help postpartum mothers do Otaria postpartum exercises at home (Rianti et al., 2021).

The duration of each exercise is between 15-30 minutes, and there are 3 main steps in doing the exercise, namely the initial relaxation, core and final relaxation steps. While each step consists of several gymnastic movements. Gymnastics is done every day from the first day to the seventh day postpartum. The purpose of Otaria postpartum gymnastics is to accelerate the decline of TFU to its original form, prevent complications, accelerate recovery and improve fitness for postpartum mothers (Rianti et al., 2021).

On the first day, postpartum exercises are performed 3 times, namely in the first 2 hours, 6 hours and 24 hours. First day for the exercises begins with initial relaxation which aims to get the mother used to breathing properly and can repeat correctly on the next day, so that all blood vessels will be filled with oxygen optimally, which will affect uterine contractions well and will accelerate recovery (Rianti et al., 2021).

According to the researcher's assumption, postpartum exercises modified relaxation techniques and abdominal muscle exercises 'Otaria' are highly recommended to be taught to postpartum mothers to accelerate the healing process of perineal wounds. This is because the postpartum exercise 'Otaria' is a physical exercise performed during the postpartum period to restore the mother's condition and accelerate the decrease in TFU and the release of lochea,

while the relaxation stage in the 'Otaria' exercise movement helps the mother feel comfortable and relaxed so as to reduce the pain after childbirth. If the mother feels comfortable and relaxed, then the body will express all that is experienced, so that the secretion of the hormone oxytocin and uterine involution goes well, so that it has an impact on the rapid healing of perineal wounds. The researcher's assumption was proven in this study with the results of the study $p < 0.05$.

CONCLUSIONS AND RECOMMENDATIONS

Perineal Wound Healing in the control group obtained an average of 6.53 with a standard deviation of 0.915, and Perineal Wound Healing in the treatment group obtained an average of 12.33 with a standard deviation of 1.589. From the results of the data t test analysis, the p value = 0.000 was obtained. This figure shows that the p value is < 0.05 , meaning that there is an effect of Otaria gymnastics on Perineal Wound Healing in postpartum women in the Karang Intan 2 Health Center area. From these results, it can be concluded that there is an effect of Otaria Gymnastics on Perineal Wound Healing in Postpartum Women in the Karang Intan 2 Health Center area. Based on the analysis of the theory above, it's known that the benefits of Otaria exercises performed by postpartum women have many benefits, especially in healing perineal wounds caused by episiotomy performed in the perineal area. If the time span of the wound healing period can be done quickly, it can reduce the possibility of the risk of infection that can occur due to the episiotomy wound in the mother's body. From these benefits, it can be concluded that Otaria exercises should be a routine action performed by postpartum women.

Suggestions to midwives to be able to teach Otaria exercises when the mother does a pregnancy examination, so that the mother understands that Otaria gymnastics which will later be done during the postpartum period is very beneficial for her, especially in reducing pain and wound healing.

ADVANCED RESEARCH

Next year, hopes the research can to be continued for examine the effectiveness of Otaria exercises on reducing the height of the fundus uteri, lochea output, can prevent or not oxidative stress in postpartum women and others.

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