



**APPLICATION OF POSTPARTUM EXERCISE FOR THE PREVENTION OF POSTPARTUM COMPLICATIONS DUE TO IMMOBILIZATION**

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**ABSTRACT**

During the postpartum period, mothers are at risk of experiencing postpartum complications which are the main cause of maternal death in the world. Some of the things that trigger postpartum complications are postpartum bleeding, postpartum infections, urinary tract infections, uterine subinvolution, thrombophlebitis and pulmonary embolism and postpartum depression. The city of Kupang still has a high maternal mortality rate with the most common cause is bleeding which is a complication during childbirth. One of the programs that have been implemented to reduce maternal and child mortality is the KIA revolution and the Bakunase Community Health Center is one of those implementing the program. This health centre has a relatively high total number of visits for normal delivery and postpartum patients, so correct applicative measures are needed to prevent complications for postpartum mothers who undergo the delivery process here. Looking for the effect of postpartum exercise affects preventing complications in postpartum patients. This research uses a qualitative approach in the form of a descriptive case study. Results: An examination of the patient's general condition was carried out after the two activities above and the results were good and there were no signs of infection. Postpartum exercise affects preventing complications in postpartum patients so the application of good and regular postpartum exercise can increase the prevention of postpartum complications and can reduce maternal mortality due to bleeding which is still a major problem.

**Keywords:** mobilization; postpartum; postpartum complication; postpartum exercise

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**INTRODUCTION**

The postpartum period is also called the postpartum or puerperium period, which is the period from when the baby is born and the placenta comes out of the uterus for the next six weeks accompanied by the recovery of the organs related to the uterus that experience changes such as injuries and so on. During this time, mothers are at risk of experiencing postpartum complications which are the main cause of maternal death in the world (Samsinar, 2019). Approximately 600,000 women die, worldwide from pregnancy-related complications, and 99% of these deaths occur in developing countries. Also, more than 50% of these cases have been reported in the postpartum period (Rahmadhani, 2020). Several things that trigger postpartum complications are postpartum hemorrhage, postpartum infections, urinary tract infections, uterine subinvolution, thrombophlebitis and pulmonary embolism and postpartum depression (Rosdiana et al., 2022).

The city of Kupang still has a high maternal mortality rate with the most common cause is bleeding which is a complication during childbirth. One of the programs that have been implemented to reduce maternal and child mortality is the KIA revolution and the Bakunase Community Health Center is one of those implementing the program. This health centre has a relatively high total number of visits for normal delivery and postpartum patients, so correct applicative measures are needed to prevent complications for postpartum mothers who undergo the delivery process here.

The role of nurses in preventing complications in the postpartum (childbirth) period. Where apart from being a provider of nursing care who treats patients according to the problems that occur, nurses are also educators so that changes in the knowledge and independence of patients and families are related to basic things such as the need for postpartum exercise in normal postpartum mothers who are undergoing the postpartum period so that by preventing complications postpartum can be done so that it can reduce the incidence of maternal mortality.

## **METHOD**

This research uses a qualitative approach in the form of a descriptive case study. This case study is a study to explore the problem of the application of postpartum exercise to prevent postpartum complications in normal postpartum mothers. Case treatment was carried out for 4 days at the Bakunase Health Center in Kupang City. The source of information is anamnesis from the patient or family, physical examination, and postpartum exercise as well as supporting data in the form of laboratory results. The analysis technique was carried out by narrating the answers from the case study which were obtained from the results of the interpretation of in-depth interviews conducted to answer the case study problem formulation.

## **RESULTS**

### **Characteristics of Respondents**

Respondents amounted to 2 people. The first patient was 29 years old with gynecology status G<sub>1</sub>P<sub>1</sub>A<sub>0</sub>, Rote ethnicity, and Protestant Christian. The patient works as a teacher and has a Bachelor's degree. The second patient is 22 years old with G<sub>2</sub>P<sub>2</sub>A<sub>0</sub> gynecological status. Respondents come from the Rote tribe and work as housewives with the last junior high school education.

### **Identification of Postpartum Exercise in Respondents**

Identification of postpartum exercise was carried out by interviewing respondents using a questionnaire with the result that the two respondents did not understand the postpartum exercise. The source of the respondent's information about postpartum exercise was not health workers but red books held during pregnancy and from television. The interview results also showed that the information on postpartum exercise that was known to the two respondents was unclear and the two respondents did not know the steps for postpartum exercise.

### **Implementation of Postpartum Exercise**

Based on the problems that had been found from the two respondents, the actions taken to explore the application of postpartum exercise to two respondents were carried out using counselling about postpartum exercise and carrying out demonstrations and evaluations in the form of re-demonstrations from the two respondents. As for the counselling activities, the material discussed is the concept of postpartum gymnastics which consists of the definition of postpartum gymnastics, the purpose of postpartum gymnastics, the benefits of postpartum

gymnastics, the requirements for mothers who do postpartum gymnastics and the steps of postpartum gymnastics which consist of 13 movements to be performed on the first 7 days postpartum.

After the counselling activity, a demonstration of the postpartum exercise was carried out which consisted of 11 movements according to the postpartum day of the two respondents. At the end of the counselling, the two respondents were able to understand the postpartum exercise, which was indicated by the respondent being able to re-explain each part of the counselling, such as understanding, benefits, and conditions. Respondents were also able to perform all the movements that were taught properly during live demonstrations and red demonstrations on the first day of the meeting. An examination of the patient's general condition was carried out after the two activities above and the results were good and there were no signs of infection.

## **DISCUSSION**

The postpartum period or puerperium is defined as a period after the completion of labour of up to 6 weeks or 42 days. During this period, the reproductive organs will slowly change to their pre-pregnancy state (Wulandari et al., 2022). This period is vulnerable because several risks may occur, including anemia, pre-eclampsia or eclampsia, postpartum hemorrhage, postpartum depression, and puerperal infections. WHO states that among these risks there are two things that very often cause death in the mother, namely infection and bleeding (Rosdiana et al., 2022).

Postpartum mothers experience physical and psychological discomfort after giving birth, especially in the first 6 weeks after giving birth. Experiencing various aches, pains and other unpleasant symptoms is normal and is rarely a sign of a problem (Syamsuriati et al., 2021). But still, all mothers who have just given birth need to be aware of the symptoms that might refer to postpartum complications (Lee et al., 2021). One of them is uterine subinvolution, namely the process of uterine involution (uterine shrinkage) does not work as it should, so the shrinkage process is delayed which can result in bleeding (Rosdiana et al., 2022). Most postpartum women are reluctant to mobilize and this can be caused because they are worried that the movements they do will have an impact such as pain and bleeding (Saputri et al., 2020).

To overcome postpartum disorders, especially in the process of preventing postpartum complications such as uterine subinvolution, care is needed, including through postpartum exercise (Kusbandiyah & Puspadewi, 2020); (Julianti & Astuti, 2022). In this case, exercise is carried out to train the early mobilization of postpartum mothers, so that it can help restore the body's organs after childbirth (F. N. Sari & Suhertusi, 2022). Postpartum exercises that are performed after giving birth are early ambulation benthic to restore physical changes such as when you were not pregnant and restore lower abdominal muscle tone (Yusita et al., 2020). Contraction of the muscles will help the process of involution which begins after the placenta comes out immediately after delivery. Ambulation as fast as possible and with frequent frequency is very necessary for the process of uterine involution (Lee et al., 2021).

In postpartum exercise, 11 movements are used to facilitate the process of uterine involution (the return of the uterus to its original shape), accelerating the recovery of the condition of the mother's body after giving birth to its original condition, preventing complications that may arise during the postpartum period, maintaining and strengthening the strength of the abdominal muscles, muscles pelvic floor, and movement muscles, improve blood circulation,

posture after pregnancy and childbirth, pelvic muscle tone, lower leg muscle strain, avoid swelling of the ankles and prevent varicose veins (F. N. Sari & Suhertusi, 2022).

There are 11 movements performed in the postpartum exercise for 7 days. The first movement with the aim of this exercise will make the circulation of blood and oxygen in your body smooth. This movement is carried out on the first postpartum day with a frequency of 5-10 times every day (F. N. Sari & Suhertusi, 2022). Bearing in mind the importance of postpartum exercise, this must be done, but in the identification of postpartum exercise, the respondent explained that he did not know about postpartum exercise because he heard about postpartum exercise on television or read himself in the MCH book that had been given. It can be seen that the role of health service facilities and including health workers is not optimal, including officers who have not been able to provide good information about postpartum exercise and its steps for postpartum mothers, including regarding the use of the MCH handbook and the benefits derived from the book as an effort to prevent complications. postpartum which is still a serious problem because it is the biggest contributor to maternal mortality.

The role of health service facilities, in this case, the puskesmas as the spearhead of health services, is very important to be able to provide a time and place specifically for postpartum mothers to explain more deeply about postpartum gymnastics, namely the definition of postpartum gymnastics, the purpose of implementing postpartum gymnastics, the benefits of postpartum gymnastics, the requirements for postpartum mothers who can do postpartum gymnastics and the disadvantages of not doing postpartum gymnastics, and the most important thing is the demonstration and demonstration of postpartum gymnastic movements in the form of puerperal gymnastics classes (Silfi et al., 2021). As well as what can be expected is that this implementation can reduce the incidence of postpartum complications so that which can reduce the maternal mortality rate which is still high (Wahyuni et al., 2022).

Therefore, in this case, study, the researcher conducted counselling at the Puskesmas as a health service facility and made home visits for 3 days to conduct demonstrations and re-demonstrations of postpartum exercise. The two respondents could do this movement well and looked relaxed after making the first movement, there were no signs of postpartum complications such as signs of bleeding or postpartum infection. The second movement to restore the strength of the arm muscles and thigh muscles is carried out on the second day postpartum. a patient can do this activity well. This exercise can be done 5-10 times per day. The two postpartum patients have been able to move for the second day and their activities are carried out independently, such as going to the bathroom and changing clothes. There were no signs of bleeding or postpartum infection as postpartum complications.

The third movement is carried out on the third day postpartum with the aim of this movement exercise to strengthen the pelvic muscles and thigh muscles after undergoing the birth process. This movement can be done by normal postpartum patients with a frequency of 5-10 times per day. Both respondents could do the third movement well and were able to hold their pelvis for 3 seconds. Respondents seemed relaxed while doing this movement. There were no signs of bleeding or postpartum infection as postpartum complications.

The fourth movement with the aim of this exercise serves to improve the strength of the pelvic muscles after undergoing the birth process. This exercise movement can be done on the third-day postpartum. This exercise can be done 5 to 10 times per day. Both respondents were able to do this movement well. Respondents also seemed relaxed when doing this

movement. There were also no signs of bleeding or postpartum infection as a sign of postpartum complications. Respondents experienced a decrease in the height of the uterine fundus

The fifth movement can be done on the fourth postpartum day. The purpose of this movement is to improve the strength of the pelvic muscles and abdominal muscles after undergoing the birth process. This exercise can be done 5 times a day. The first respondent had entered postpartum on the 6th day and was able to do this exercise. This respondent can do this activity well. There were no signs of bleeding or complaints of fever as a sign of postpartum infection which indicated postpartum complications.

The sixth movement can be done on the fifth day postpartum to improve pelvic muscle strength after undergoing labour and can be done with a frequency of 5 times per day. The first respondent who has entered the sixth day of postpartum can do this exercise well. There were no signs of bleeding or complaints of fever or other signs of infection as a sign to indicate postpartum complications.

The seventh movement can be done on the sixth day postpartum to improve the strength of the pelvic muscles, abdominal muscles and thigh muscles after undergoing the birth process. This movement can be done slowly by first responders. This movement can be done with a frequency of 5 times every day. So that there were no signs of bleeding or signs and symptoms of postpartum infection which indicated the occurrence of postpartum complications.

The eighth to the eleventh movement should be carried out on the seventh day postpartum which generally functions to improve the strength of the pelvic muscles, abdominal muscles and thigh muscles after undergoing the birth process. Respondents cannot do this movement because the respondent's postpartum age still ranges from the second postpartum day to the sixth postpartum day. Postpartum exercise activities in the eighth to eleventh movements can be carried out with a frequency of 5-10 times every day according to the postpartum age being lived by the postpartum mother (Silfi et al., 2021).

The postpartum exercise with the eleven movements proposed and what can be done is movement one to the seventh which is closely related to the prevention of postpartum complications, in this case, the process of uterine involution, so by doing postpartum exercise it is hoped that it can accelerate the process of uterine involution (R. P. Sari et al., 2020). By looking at the existing results of the two postpartum respondents that doing postpartum exercise exercises can experience a good uterine involution speed thereby reducing the number of possible postpartum complications (F. N. Sari & Suhertusi, 2022).

This shows that preventing postpartum complications can be done in several ways, one of which is by doing postpartum exercise as a real application for preventing postpartum complications which have been proven in this case study (Rahmaniar et al., 2019). The results of this case study are also in line with the results of Silfi's research (2021) concerning the effectiveness of postpartum exercise on the rate of uterine involution in postpartum mothers which states that there is an effect of postpartum exercise on the rate of uterine involution in postpartum mothers. Lailiyana and Sartika (2021) in their research, the effect of a combination of acupressure therapy and postpartum exercise on the process of uterine involution in postpartum women, which states that postpartum mothers who do postpartum

exercises, recover well in general condition, smooth circulation, good lactation process and involution faster uterus (Lailiyana & Sartika, 2021).

Based on the results of interviews, demonstrations and observations obtained, postpartum mothers who do postpartum exercise experience rapid uterine involution and in terms of prevention of postpartum complications have a positive impact on postpartum mothers. This means that the influence of postpartum exercise on the prevention of postpartum complications in both postpartum patient respondents at the Bakunase Health Center is basically in line with the theoretical basis that postpartum exercise is performed after delivery is a form of early ambulation to restore physical changes before pregnancy and restore the tone of the lower abdominal muscles (R. P. Sari et al., 2020). Contraction of the muscles will help the uterine involution process which begins after the placenta is released immediately after delivery and ambulation as soon as possible with frequent frequency is very necessary for the involution process to increase the prevention of complications in postpartum mothers (Rosdiana et al., 2022).

These results are the same as also strengthening the results of Rosdiana's research (2022) concerning the effect of postpartum exercise on the health status of postpartum mothers, also stating that postpartum exercise status has a positive effect on the speed of mothers carrying out early mobilization. In this case, Rosdiana (2022) states that the sooner the mother mobilizes, the faster the process of uterine involution is so that it can prevent complications for postpartum mothers. Postpartum gymnastics has an important role as a way to prevent postpartum complications (Yusita et al., 2020). Health service facilities and health workers have an important role to inform this matter to the public because the community is willing and able to do this postpartum exercise. well but lack of knowledge is the limit (Widi Astuti, 2021).

## CONCLUSION

Postpartum exercise affects preventing complications in postpartum patients so the application of good and regular postpartum exercise can increase the prevention of postpartum complications and can reduce maternal mortality due to bleeding which is still a major problem.

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