NURSING CARE FOR PREGNANT WOMEN WITH BACK PAIN THROUGH THE IMPLEMENTATION OF PREGNANCY EXERCISES IN PUSKESMAS MELUR

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Abstract

Pregnancy is a condition where the fetus grows in the mother's womb. During pregnancy, women may experience physical and emotional changes that cause discomfort, such as shortness of breath, difficulty sleeping, toothache and gum pain, frequent urination, pressure and discomfort in the perineal area, and back pain. The physical changes in pregnant women cause discomfort during pregnancy, especially in the second and third trimesters. Back pain is one of the most common complaints experienced by pregnant women, especially in the second and third trimesters, which can affect daily activities and quality of life. Non-pharmacological efforts such as pregnancy exercises have been proven effective in helping reduce complaints of back pain through stretching, breathing, and muscle strengthening exercises. **Objective**: This study aims to apply pregnancy exercises to third-trimester pregnant women with acute pain. **Method:** The method used in this study is a case study method with a descriptive approach, which aims to describe objectively how the application of pregnancy exercises affects the reduction of back pain in pregnant women**. Results:** The results of the study showed that pregnancy exercises in respondents can reduce back pain that occurs in pregnant women in the third and second trimesters, in respondent 1 Mrs. B (TM 2) after pregnancy exercises there was a decrease in pain intensity from a score of 4 to 2 within 3 days of implementation. in respondent 2 Mrs. P (TM 3) after pregnancy exercises there was a decrease in pain intensity from a score of 5 to 3 within 3 days of implementation. **Conclusion:** Pregnancy exercises can reduce pain in pregnant women in the second and third trimesters.

Keyword: Pregnancy 1; Back Pain 2; Pregnancy Exercises 3.

INTRODUCTION

Pregnancy is a condition where a fetus grows in the mother's womb. Childbirth is the process that completes the pregnancy. During pregnancy, women may experience physical and emotional changes that cause discomfort, such as shortness of breath, difficulty sleeping, toothache and gum pain, frequent urination, pressure and discomfort in the perineal area, back pain, constipation, varicose veins, fatigue, Braxton Hicks contractions, leg cramps, ankle swelling, mood swings, and increased anxiety. These changes are very common in the second trimester of pregnancy [1]. Among all pregnant women, it turns out that 47-60% report back pain occurring in the 5-7th month of pregnancy and pregnancy exercises can reduce back pain in pregnant women [2]. There are two methods for managing back pain in the third trimester of pregnancy: pharmacological and non-pharmacological. Pharmacological methods for mild pain can use non-opioid analgesics. These pharmacological methods are safe to use but have some side effects. Non-pharmacological methods include distraction techniques, reducing pain perception, warm baths, massage stimulation, hot or cold compresses, good body mechanics, and light exercise (Pregnancy Exercises) [3]. Prenatal exercise is a movement therapy given to

pregnant women to prepare them both physically and mentally. It can also relieve back pain in pregnant women [4].

A preliminary study conducted at the Melur Community Health Center, on August 15, 2025, there were 13 pregnant women who were checking their pregnancy at the Melur Community Health Center in Pekanbaru City, 7 of whom complained of back pain and had never done pregnancy exercises. Based on these conditions, researchers were interested in implementing an intervention in the form of "Nursing Care for Pregnant Women with Back Pain Through the Implementation of Pregnancy Exercises in the Melur Community Health Center Work Area in Pekanbaru City".

RESEARCH METHODS

The method used in this research is a case study with a descriptive approach, which aims to objectively describe the effect of prenatal exercise on reducing back pain in pregnant women. The prenatal exercise was performed for 30 minutes, three times a week. Inclusion criteria: 1. Pregnant women receiving healthcare services at the Melur Community Health Center (Puskesmas) in Pekanbaru City. 2. Pregnant women willing to participate. 3. Pregnant women in their second and third trimesters, 22-37 weeks' gestation, experiencing back pain. Meanwhile, Exclusion Criteria: 1. Pregnant women with a gestational age below 22 weeks and above 37 weeks. 2. Pregnant women with contraindications to prenatal exercise. 3. Pregnant women unwilling to participate and not committed to participating in prenatal exercise. The implementation method used was experimental (treatment) on 2 respondents according to the inclusion and exclusion criteria. Data were collected using direct observation methods according to the inclusion and exclusion criteria. and using the Numerical Rating Scale (NRS) pain scale measuring tool to measure the level of pain of pregnant women in TM III and TM II and SOP for pregnancy exercises. The success indicator of the intervention was measured based on the decrease in pain intensity of pregnant women after the implementation of pregnancy exercises with the following indicators: 1. There was a significant decrease in the NRS (Numeric Rating Scale) score in the post-intervention measurement. 2. Patients reported reduced back pain and felt more comfortable. 3. Patients appeared more relaxed. Data collection time was carried out 6 times with the following information: Pre-intervention: During the assessment and before pregnancy exercises were carried out. Post-intervention: After pregnancy exercises were completed

RESEARCH RESULTS

The results of the case evaluation conducted 3 days after the implementation of pregnancy exercise on patient 1 (Mrs. B) based on the Indonesian Nursing Care Outcomes Standards (SLKI) showed that complaints of back pain had decreased significantly, blood pressure had improved, anxiety had decreased significantly, and sleep patterns had improved. Based on the pain assessment scale using a numerical rating scale (NRS) before pregnancy exercise therapy was given, the patient experienced moderate back pain with a score of 4, but after pregnancy exercise therapy was given, back pain was reduced to mild pain with a score of 2. The results of the case evaluation conducted 3 days after the implementation of pregnancy exercise on patient 2 (Mrs. P) based on the Indonesian Nursing Care Outcomes Standards (SLKI) showed that complaints of back pain were reduced significantly, blood pressure improved, pulse rate improved, anxiety was reduced significantly, facial expressions of pain were reduced significantly, complaints of weakness were reduced, complaints of waking up/waking up frequently were reduced significantly, sleep dissatisfaction was reduced

significantly, and sleep patterns were significantly improved. Based on the pain scale assessment using the Numeric Rating Scale (NRS) before pregnancy exercise was given, the patient experienced moderate pain with a score of 5. However, after pregnancy exercise therapy was given, the patient's pain was reduced to mild pain with a score of 3.

DISCUSSION

1. Nursing Assessment

Patient 1 (Mrs. B), a 29-year-old woman in her second trimester of pregnancy, 22 weeks gestational age, and obstetric status G1P0A0H0, presented with intermittent, cramping back pain with a pain scale of 4 out of 10, worsening with activity and relieved by rest. She also complained of difficulty sleeping at night, appeared restless, and experienced occasional nausea. A physical examination revealed a pale appearance and occasional restlessness. Mrs. B's vital signs were blood pressure 122/85 mmHg, pulse 85 beats per minute, respiratory rate 21 breaths per minute, and temperature 36°C. Based on the assessment of patient 2 (Mrs. P), a 24-year-old woman in her third trimester of pregnancy, 32 weeks gestational age and obstetric status G2P1A0H1, with a chief complaint of back pain, intermittent pain, cramping pain with a pain scale of 5 out of 10, pain that worsens with activity, and relieves with rest.

2. Nursing Diagnosis

Patient 1 (Mrs. B) confirmed the nursing diagnosis of Impaired Comfort Related to Pregnancy Adaptation Disorder. The results of data analysis conducted on patient 2 (Mrs. P) confirmed the nursing diagnosis of Impaired Comfort Related to Pregnancy Adaptation Disorder. Pain is an uncomfortable and highly subjective feeling that can only be described and evaluated by the person experiencing it. Pain can generally be defined as an uncomfortable sensation, ranging from mild to severe. The basic physical needs of pregnant women must be met to maintain their health throughout their pregnancy (Mutik & Siskana 2024). Physical discomfort and fetal movement often disrupt the mother's rest. Shortness of breath, increased urine output, back pain, constipation, and varicose veins are experienced by most women in late pregnancy (Simatupang & Julainto 2024).

3. Nursing Interventions

This application focuses on the nursing problem of Impaired Comfort in Patients 1 and 2, namely relaxation therapy (I.09326), which includes the following actions: Identify decreased energy levels, inability to concentrate, or other symptoms that interfere with cognitive abilities. Identify relaxation techniques that have been used effectively. Identify willingness, ability, and use of previous techniques. Check muscle tension, pulse rate, blood pressure, and temperature before and after exercise. Monitor response to prenatal exercise relaxation therapy. Create a quiet, undisturbed environment with comfortable lighting and room temperature, if possible. Provide written information about preparation and procedures for relaxation techniques. Wear loose clothing. Use a soft tone of voice with a slow, rhythmic rhythm. Explain the purpose, benefits, limitations, and types of relaxation available (pregnancy exercises) Explain in detail the selected relaxation intervention, Advise taking a comfortable position, Advise relaxing and feeling the sensation of relaxation, Advise repeating or practicing the selected technique frequently, Demonstrate and practice relaxation techniques (pregnancy exercises). The focus of nursing intervention is to apply non-pharmacological techniques to reduce back pain through pregnancy exercises. This is in line with research conducted by (Wahyuningsih et al., 2022) before and after carrying out pregnancy exercises, it appears that before pregnancy exercises, mothers experienced lower back pain, namely slightly more pain for 5 (25%) respondents, 14 (70.0%) respondents, and very painful for 1 (5%) respondents.

Meanwhile, after doing pregnancy exercises, there was a very significant decrease, namely 6 (30%) respondents, slightly more pain, namely 14 (70.0%) respondents. It can be concluded in this study that the implementation of exercise on reducing lower back pain in pregnant women in the second and third trimesters had a very significant effect. The statistical test results using the Wilcoxon test yielded a p-value of 0.001. The p-value for this study indicates a p-value <α (0.05), indicating a highly significant difference. Therefore, H0 is rejected and H1 is accepted. Therefore, it can be concluded that prenatal exercise has an effect on reducing lower back pain in pregnant women in the second and third trimesters at the Cipayung District Community Health Center.One of the discomforts that often occurs during pregnancy is back pain. Back pain is a common complaint experienced by pregnant women throughout pregnancy and the postnatal period. One effort that can be made to reduce back pain during pregnancy is prenatal exercise (Megasari, 2015).

4. Nursing Implementation

The nursing intervention implemented was the use of prenatal exercise relaxation therapy for patients 1 and 2 who experienced pain, by explaining and teaching prenatal exercise. Before implementing prenatal exercise, back pain was measured using a numerical rating scale (NRS). Implementation began by creating a supportive environment. The nurse then performed a calm, comfortable position for the patient, and then performed six prenatal exercise relaxation movements according to the established standard operating procedures (SOP). The results of the prenatal exercise on patient 1 (Mrs. B) showed a decrease in pain from a 4 to a 2 after the prenatal exercise. The results of the prenatal exercise on patient 2 (Mrs. P) showed a decrease in pain from a 5 to a 3 after the prenatal exercise relaxation.

5. Nursing Evaluation

The results of the case evaluation conducted 3 days after the prenatal exercise on patient 1 (Mrs. B) based on the Indonesian Nursing Outcome Standards (SLKI) showed a significant reduction in back pain, improved blood pressure, significantly reduced anxiety, and improved sleep patterns. Based on the pain assessment scale using a numerical rating scale (NRS) before pregnancy exercise therapy was given, the patient experienced moderate back pain with a score of 4, but after pregnancy exercise therapy was given, the back pain was reduced to mild pain with a score of 2. The results of the case evaluation conducted 3 days after the implementation of pregnancy exercise on patient 2 (Mrs. P) based on the Indonesian Nursing Care Outcomes Standards (SLKI) showed that complaints of back pain were reduced significantly, blood pressure improved, pulse rate improved, anxiety was reduced significantly, facial expressions of pain were reduced significantly, complaints of weakness were reduced, complaints of waking up/waking up frequently were reduced significantly, sleep dissatisfaction was reduced significantly, and sleep patterns were significantly improved. Based on the pain scale assessment using a Numerical Rating Scale (NRS) before pregnancy exercise was given, the patient experienced moderate pain with a score of 5. However, after pregnancy exercise therapy was given, the patient's pain was reduced to mild pain with a score of 3.

CONCLUSION

The results of the assessment of pregnant women patients related to the implementation of Pregnancy Exercises showed that Patient 1 (Mrs. B), a 29-year-old woman in the second trimester of pregnancy with a gestational age of 22 weeks and an obstetric status of G1P0A0H0, with the main complaint of back pain, intermittent pain, cramping pain with a pain scale of 4 out of 10, pain that worsens during activity, and decreases when resting. In addition, the patient also complained of sometimes having difficulty sleeping at night, appearing restless, and

occasional nausea. The results of the physical examination showed a pale appearance, and sometimes restless. Mrs. B's vital signs were blood pressure 122/85 mmHg, pulse 85 beats per minute, respiratory rate 21 times per minute, and temperature 36°C. Based on the assessment of patient 2 (Mrs. P), a 24-year-old woman in her third trimester of pregnancy, 32 weeks gestational age, and obstetric status G2P1A0H1, with a primary complaint of back pain, intermittent pain, and cramping pain with a pain scale of 5 out of 10, pain that worsens with activity and improves with rest. The data analysis determined the nursing diagnosis for patient 1 (Mrs. B) as Impaired Comfort related to Pregnancy Adaptation Disorder. Meanwhile, the nursing diagnosis for patient 2 (Mrs. P) was Impaired Comfort related to Pregnancy Adaptation Disorder. The nursing interventions implemented in this application refer to the Indonesian Nursing Intervention Standards (SIKI), namely Relaxation Therapy. Furthermore, this intervention also focuses on the application of Evidence-Based Nursing (EBN) findings, namely the application of pregnancy exercises to pregnant women in the second and third trimesters with the nursing problem of Impaired Comfort. The nursing care provided to both patients in this application included non-pharmacological therapy, namely the application of Evidence-Based Nursing (EBN) with prenatal exercises aimed at reducing back pain. This was done for three consecutive days, once daily for 30 minutes. The nursing evaluation results conducted after the prenatal exercises demonstrated a reduction in pain in accordance with the Indonesian Nursing Outcome Standards (SLKI).

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