

PREGNANT EXERCISE AND PHYSICAL COMPLAINTS OF PREGNANT WOMEN THIRD TRIMESTER

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Abstract. Changes during pregnancy can cause discomfort, especially in the second and third trimesters, such as insomnia, frequent urination, pressure and discomfort in the perineum, back pain, constipation, varicose veins, fatigue, Braxton Hicks contractions, edema (Marfuah, 2023). Pregnant women need a fresh and fit body carry out their routine. As for such body conditions, it can be pursued by exercising in accordance with pregnant women, namely pregnancy exercise. Pregnancy exercise plays a role in strengthening contractions and maintaining the flexibility of the abdominal wall muscles, ligaments, pelvic floor muscles and others that withstand additional pressure and are associated with childbirth (Suryani, 2018). This Study aimed to determine the effectiveness of pregnancy exercise interventions to reduce physical complaints felt by third trimester pregnant women. This study used a quantitative research approach with a quasi-experimental design type of research. The research plan uses 2 different groups where each group is given a different treatment. The population in this study were third trimester pregnant women who experienced physical complaints consisting of back pain, leg cramps, edema and shortness of breath, with a total sample of 30 respondents who were taken using a purposive sampling technique. Research result in The research plan uses 2 different groups where each group is given a different treatment. The population in this study were third trimester pregnant women who experienced physical complaints consisting of back pain, leg cramps, edema and shortness of breath, with a total sample of 30 respondents who were taken using a purposive sampling technique. Research result The research plan uses 2 different groups where each group is given a different treatment. The population in this study were third trimester pregnant women who experienced physical complaints consisting of back pain, leg cramps, edema and shortness of breath, with a total sample of 30 respondents who were taken using a purposive sampling technique. Research result there is differences in the physical complaints of third-trimester pregnant women in the control group and the intervention group with a p-value of 0.049, where physical complaints in pregnant women with the intervention were lower than in the control group (without intervention). Suggestions to health workers, especially midwives, can be intense assistance to pregnant women to regularly carry out pregnancy exercises so as to reduce the physical complaints felt by pregnant women.

Keywords: [pregnancy exercise, physical complaints]

INTRODUCTION

Pregnancy is a normal, natural process that begins with the growth and development of the intrauterine fetus and starts from conception to delivery. According to Dahro (2012) pregnancy is defined as a period in which there are dramatic changes both physiological, psychological, and adaptation in women. Although changes during pregnancy are physiological things, changes during pregnancy can cause discomfort, especially in the second and third trimesters, such as insomnia, frequent urination, pressure and discomfort in the perineum, back pain, constipation, varicose veins, fatigue, Braxton contractions. hicks edema (Marfuah, 2023).

A woman who is currently pregnant often experiences many changes, both physical changes and psychological changes. These changes will continue to occur during the 9 months of pregnancy. This condition will always cause physical discomfort for pregnant women, coupled with images about the delivery process, how the baby will be and the condition of the baby after birth later. Shadows like that are common in pregnant women who are about to go into labor. Such conditions can cause feelings of anxiety in pregnant women, especially in women who are pregnant for the first time (primigravidas) (Fauziah, 2016).

Psychological changes in pregnant women occur due to changes in the body, responsibilities, and discovering new things with the pregnancy they are undergoing. Changes in the body condition of pregnant women cause pregnant women to feel uncomfortable and experience limitations in their activities. Trimester III is a period that requires special attention. In the third trimester, pregnant women are faced with preparation for childbirth. Lack of preparation for childbirth causes pregnant women to face anxiety and fear in facing childbirth (Hidayati, 2019)

Psychological conditions with anxiety and depression in pregnant women will affect the incidence

of disease and complications of pregnancy and childbirth, both for mother and baby. The problem of anxiety always arises in primigravida mothers, therefore this anxiety problem must be overcome immediately, one of which can be done by exercising. Exercise in pregnant women aims as a diversion, reduces anxiety and pressure, calms the mind, improves sleep quality, helps reduce constipation and stimulates appetite.

Pregnant women need a fresh and fit body to carry out their routine. As for such body conditions, it can be pursued by exercising in accordance with pregnant women, namely pregnancy exercise. Pregnancy exercise plays a role in strengthening contractions and maintaining the flexibility of the abdominal wall muscles, ligaments, pelvic floor muscles and others that withstand additional pressure and are associated with childbirth (Suryani, 2018).

It is recommended to do pregnancy exercise during the third trimester of pregnancy, which is 28-30 weeks of pregnancy. The three core components of pregnancy exercise are breathing exercises, muscle strengthening and stretching exercises, and relaxation exercises. When pregnant women do breathing exercises, especially deep breathing, they feel their breaths become more regular, lighter, not in a hurry and longer. Besides that, strengthening exercises and stretching muscles also have an impact on reducing the tension of pregnant women. At the end of the pregnancy exercise program, there are relaxation exercises that combine muscle relaxation and breathing relaxation (Suryani, 2018).

Pregnancy exercise can be used for body care and reduce the occurrence of various disorders due to changes in body posture. Pregnancy exercises cannot be said to be perfect if their implementation is not arranged regularly and intensively. One of the midwives' care for pregnancy is teaching mothers to do pregnancy exercises, considering the importance of the benefits of pregnancy exercise, namely improving blood circulation. Pregnancy exercise is carried out to help prepare the mother's physical condition facing childbirth and to help overcome discomfort in the third trimester (Suryani, 2018).

Based on the results of a preliminary study conducted at the Kudus District Japanese Health Center, it was found that out of 30 periods III pregnant women, as many as 85% experienced physical complaints consisting of back pain, leg cramps, swelling in the lower extremities and shortness of breath with a greater prevalence of back pain than other complaints. Efforts that have been made include resting, reducing activity, and doing massage. Pregnancy exercise intervention has not been significantly carried out to reduce these physical complaints. This study aimed to determine the effectiveness of pregnancy exercise interventions to reduce physical complaints felt by third trimester pregnant women.

METHODS

This study used a quantitative research approach with a quasi-experimental design type of research. The research plan uses 2 different groups where each group is given a different treatment. The population in this study were third trimester pregnant women who experienced physical complaints consisting of back pain, leg cramps, edema and shortness of breath, with a total sample of 30 respondents who were taken using a purposive sampling technique where the sample was divided into 2 groups, namely the control group and exercise intervention. pregnant. The pregnancy exercise intervention was carried out 4 times for 1 month (1 week 1 time) with a duration of 60 minutes. In each group, the physical complaints of pregnant women in the third trimester were measured using instruments prepared by the researcher and then the results were compared. The results of data analysis used the unpaired t test because the data were normally distributed, both physical complaints data in the control group (p value 0.126) and data in the pregnancy exercise intervention group (p value 0.599).

RESULTS AND DISCUSSION

Table 1. Distribution of the frequency of physical complaints of pregnant women in the control and intervention groups

	N	Means	std. Deviation	Min	Max
Control	15	8.53	1,246	7	11
Pregnancy Intervention	Exercise 15	7,53	1.407	5	10
Total	30	7,78	1.428	5	11

Based on table data 5.1, the average third trimester pregnant woman in the control group experience more physical complaints than pregnant women who carry out pregnancy exercise activities. Physical complaints used as indicators are the intensity of lower back pain, leg cramps, leg swelling, shortness of breath and headaches.

Discomfort is an unpleasant feeling in the physical or mental condition of pregnant women in the third trimester, such as back pain, shortness of breath, frequent urination, difficulty sleeping, cramps, edema, varicose veins, heartburn, constipation, fatigue (marfuah, 2023)

Physical complaints of back pain in third trimester pregnant women occur due to pressure on the nerve roots and changes in body posture in late pregnancy because the center of gravity moves forward due to an enlarged stomach. This is offset by excessive lordosis and this posture can cause spasms.

Hyperventilation and shortness of breath occur in third trimester pregnant women where increased metabolic activity during pregnancy will increase carbon dioxide. Hyperventilation will decrease carbon dioxide. Shortness of breath occurs in the third trimester due to the enlarged uterus pressing on the diaphragm. In addition, the diaphragm is elevated by approximately 4 cm during pregnancy.

Chuntharapat, et al., (2010), during pregnancy women experience a lot of discomfort which may not be an isolated symptom, but all problems are integrated and one complaint can exacerbate other complaints. Recent research indicates that pregnant women with high levels of stress and anxiety have a risk of giving birth to an unhealthy fetus. As long as pregnant women experience stress, the entire stress regulation system is activated which causes various hormones such as Corticotropin Releasing Hormone, Adenocototropin Relaxing Hormone, Cortisol and adrenalin released into the blood circulation, pregnant women have different responses to the stress stimulus depending on previous experience, genetics, social support or personality.

According to Mediarti (2014), physiological changes occur in pregnant women that are not only related to body shape and weight, but also biochemical, physiological, and even emotional changes which are a consequence of the growth of the fetus in the womb. As the fetus grows and pushes the diaphragm upward, the shape and size of the chest cavity change but do not make it smaller. The lung capacity for inspired air remains the same as before pregnancy or may change significantly. Respiratory rate and vital capacity did not change. Tidal volume, ventilator volume per minute, and oxygen uptake increase. Because the shape of the thoracic cavity changes and because breathing is faster, about 60% of pregnant women complain of shortness of breath.

Table 2. Differences in the physical complaints of third-trimester pregnant women in the control and intervention groups

(i) Category	(J) Categories	Mean Difference (IJ)	std. Error	Sig.	95% Confidence Intervals	
					Lower Bound	Upperbound
Control	Pregnancy Exercise Intervention	1,000*	,492	.049	,01	1.99

Based on Table 5.2, there are differences in the physical complaints of third-trimester pregnant women in the control group and the pregnancy exercise intervention group with a p-value of 0.049, where physical complaints in pregnant women with intervention are lower than those in the control group (without intervention).

Physical readiness to face the pregnancy process can be conditioned one of them with pregnancy exercise activities. Like the research conducted by Dewi (2018) with the title of a comparative study of prenatal yoga and pregnancy exercise on physical readiness where there is an effect in the form of positive changes in the mother's readiness by doing pregnancy exercise. Doing pregnancy exercises strengthens the body's muscular system and joints at the time of the birth of the fetus. Along with the ability of the mother who is getting better at carrying out pregnancy exercise exercises, the mother's self-confidence is also the body, so the mother will be ready to give birth. In addition, the elasticity of the pelvic muscles, and ligaments, prevents varicose veins,

Another study that is in line with the researchers is a study conducted by Suryani (2018)

with the results of the study showing that there is an effect of pregnancy exercise on the discomfort of low back pain ($p=0.003$), back pain ($p=0.003$), swelling of the legs (0.025) and cramps on the feet (0.003) means that the pregnancy exercise activities carried out have a significant effect on reducing physical complaints that cause discomfort during the third trimester.

Research conducted by Wijayanti (2020) is also in accordance with the results of research conducted by researchers. Wijayanti's research title (2020) Comparison of Pregnant Women Doing Gym Ball Exercises and Pregnant Women Doing Pregnancy Exercise Against Lower Back Pain Reduction results obtained p value = 0.000 < 0.05, which means there is a difference in the decrease in back pain in third trimester pregnant women before and after the gym ball exercise group was 3.01 while the pregnant exercise group averaged a reduction in the level of back pain by 1.33.

One way to improve health during pregnancy is to do light exercises such as pregnancy exercises. Pregnancy exercise is a form of exercise to strengthen and maintain the elasticity of the muscles of the abdominal wall, ligaments, and pelvic floor muscles associated with the delivery process. Pregnancy exercise can relieve complaints of back pain felt by pregnant women because in pregnancy exercise there are movements that can strengthen the abdominal muscles (Yosefa, et al, 2013).

Exercise can reduce various disorders that generally occur during pregnancy, such as varicose veins, back pain and muscle and joint pain: increase stamina, which is very much needed during childbirth, and strengthen and tone the muscles that are most affected by pregnancy: the muscles pelvis, abdominal muscles and lumbar muscles. A good pregnancy exercise program can also improve posture, due to the influence of the expanding uterus and abdomen, causing the pelvic area to shift forward. Gymnastic movements tighten the muscles of the buttocks, back, shoulders and abdomen (megasari, 2015).

Physical exercise in pregnant women will increase the body's metabolic processes. This increase in metabolism will increase the need for oxygen needed during the metabolic process itself. Thus it can be said that physical exercise during pregnancy will increase the body's need for oxygen (Andarwati et al, 2018).

CONCLUSION

There are differences in the physical complaints of third trimester pregnant women in the control group and the intervention group with a p-value of 0.049, where physical complaints in pregnant women with the intervention were lower than those in the control group (without intervention).

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