

Effect of Complementary Care Pregnancy Exercise to Level of Anxiety in Pregnant Women.

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Abstract

Background

Pregnancy is an event that involves many physiological and psychological changes. Pregnancy is also a complex phenomenon that also causes strong psychological and social changes, especially in first-time mothers. One of the psychological changes is anxiety, which tends to have a negative impact on the mother and fetus.

Material and Methods

The method used in this study was a quantitative experiment with one group pretest-posttest without a control group. The questionnaire to determine the level of anxiety used the Hamilton Anxiety Rating Scale (HARS) which was given before and after treatment. This research was conducted at the Sambau Public Health Center, Batam City, Indonesia. The sample used in this study was a non-probability sampling technique with the type of purposive sampling selected by the researcher. The number of samples was 15 pregnant women according to the inclusion criteria, namely first trimester III pregnant women without complications. Pregnancy exercise is carried out for 4 weeks with an interval of 2 times a week with a duration of 60 minutes. The data analysis technique used t-test with the first formality test using the Shapiro-Wilk test technique.

Results

Previous research showed that the average anxiety of pregnant women in the third trimester before pregnancy exercise was 60.33, and the moderate anxiety of pregnant women in the third trimester after being given pregnancy exercise was 47.53. This means that there is a change or decrease of 12.8. Statistically with the paired t-test, the t-count value was 7.388 and p-value = 0.000, which means p-value < (0.05).

Conclusion

Thus, the provision of complementary care for pregnancy exercise has an effect on reducing anxiety at the Sambau Health Center, Batam City, Indonesia.

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Introduction

Physical and psychological changes in pregnant women can cause discomfort or complaints from the first trimester to the third trimester. Symptoms such as nausea, vomiting, and weakness tend to be felt in the first trimester of pregnancy. However, it is different in the third trimester of pregnancy. Anatomical changes and hormonal changes will cause various complaints in pregnant women.

Some psychological changes happen to pregnant women, especially emotional changes like feeling fear, sadness, or happiness, even if it's just for a few minutes. They tend to be more sensitive, jealous, need more attention, have mixed feelings and have trouble sleeping. Pregnancy is also a complex phenomenon that also causes strong psychological and social changes especially among women who are pregnant for the first time, resulting in pregnancy anxiety[1].

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Keywords

Pregnancy, Complimentary exercise, Pregnancy, Anxiety.

Pregnancy is also a complex phenomenon that also causes strong psychological and social changes, especially among women who are pregnant for the first time, resulting in pregnancy anxiety [1].

Psychological changes, such as anxiety, will have a negative impact on the health of the mother and fetus. The unfavorable impact is not only during pregnancy but can also affect the birth process, after birth, and during lactation. The woman will go through psychological changes during pregnancy, including changes in emotions, sensitivity, laziness, jealousy, tension, and anxiety. These modifications are further aided by mothers' lack of knowledge about the changes that occur during pregnancy [2].

Several factors can contribute to anxiety in pregnant women. Pregnant women in their third trimester have more anxiety than those in their first and second trimesters, and there is a statistically significant association between age, education level, employment position, abortion record, marital relationship, and fear of giving birth[3].Pregnancy can cause anxiety in women, especially in mothers who are psychologically unstable. Anxiety in pregnant women can emerge at any moment during the pregnancy, but it is most common during the third trimester until delivery. During this time, pregnant women are concerned about a variety of factors, including the health of their babies, the pain they will experience, and so on [4].

Anxiety in pregnant women can be overcome with pharmacological and non-pharmacological therapy. In pregnant women, non-pharmacological therapy is preferred before pharmacologic efforts so that the side effects of anti-anxiety drugs can be minimized. One of the non-pharmacological therapies that can be implemented by pregnant women is carrying out pregnancy exercises.

One of the non-pharmacological actions to increase uterine contractions, among others, is pregnancy exercise. Pregnancy exercise is one of the physical activities that mothers can do during pregnancy because the movements tend to be light and contain a relaxing effect that helps stabilise anxiety and reduce fear. Another benefit for pregnant women is that they will get information about childbirth so that they have good knowledge and can prepare for childbirth[5].

Based on data from the WHO, 80% of health practitioners in developing countries prefer alternative medicine to chemical medicine. Indonesia is a country rich in the diversity of traditional medicine. The development of the use of traditional medicine has great potential for improving the health and welfare of the nation [6].

Pregnancy exercise is complementary care, and in some communities, midwifery has become an important part of midwifery practice. Women, especially pregnant women, are the highest consumers of complementary medicine. One of the reasons why complementary care is the client's choice is dissatisfaction with conventional

treatment and ignoring a holistic approach, as well as concerns about drug side effects [7].

Complementary treatments in midwifery care can be used to promote a normal pregnancy and birth process while also respecting women's autonomy. Complementary and alternative medicine are included in the paradigm of midwifery care. Knowledge about the use of complementary therapies for pregnancy and childbirth continues to be developed [7]. One of the types of complementary midwifery care that can be implemented for pregnant women is pregnancy exercise.

Research that agrees with this is the study [8], whose results find that efforts to reduce anxiety in pregnancy, namely pregnancy exercise, which is one of the prenatal services, are an alternative therapy that can be given to pregnant women. Pregnancy exercise can minimise the effects of physical and psychological changes in pregnant women, which result in various complaints. It differs from the study undertaken by [5], in which there was no significant difference in anxiety levels between the exercise and control groups, according to the findings. From this phenomenon, the researchers concluded that they should conduct research on the effect of complementary care exercise on anxiety levels in pregnant women in Batam City, Indonesia.

Methodology

The method used in this study is a quantitative experiment with a one-group pretest-posttest design and no control group. This means that the same group is watched twice, once before treatment and once after treatment. The anxiety measuring instrument that will be used in this study is the Hamilton Anxiety Rating Scale (HARS), which was given before and after treatment. Implementation At this stage, it is divided into two stages, namely, the first stage of providing material about the benefits of exercise for pregnant women, and the second stage of implementing complementary care for pregnant women's exercise.

Research Location and Time

This study was carried out in the Sambau Health Center in Batam City, Indonesia. This research was conducted from November until December 2021.

Sample

In this investigation, a non-probability sampling technique involving purposive sampling was applied. According to the inclusion criteria, the sample size for this study was 15 pregnant women. Purposive sampling was utilised as the sample methodology. Pregnant women without difficulties who are willing to participate in the study until the end are eligible. Pregnant women who do not engage in the study until it is completed will be considered dropouts.

Intervention

Pregnancy exercise is done for 4 weeks with an interval of 1 time a week with a duration of 60 minutes. The data analysis technique used the t-test with the first formality test using the Shapiro-Wilk test technique. This paper

has already to Ethics Clearance No.371/EA/KEPK-UNIBA-IX-2021.

Results

To find out the effect of providing complementary care for pregnant women in the third trimester of pregnancy on reducing anxiety, statistics were used with a paired t-test, but before being analyzed, it was necessary to test for normality first as a prerequisite for the t-test. The normality test uses the Shapiro-Wilk test because the number of samples is < 50. The results are as follows:

Table 1. Frequency Distribution of Anxiety Levels After Complementary Care for Pregnancy Exercises at Sambau Health Center Batam City 2021

Group	Mean	Median	± SD	Min-Max	95% CI
Before Pregnancy Exercise	60.33	64.00	8.575	45-71	55.58 – 65.08
After Pregnancy Exercise	47.53	47.00	11.951	29-65	40.91 – 54.15

The test results shows that the p value for anxiety data at the pretest is 0.089 and at the posttest 0.265, which means > a value of 0.05, thus the data is declared to be normally distributed so that it can be continued with paired t test analysis.

Based on Table 1, anxiety in third trimester pregnant women before being given complementary care for pregnancy exercise obtained an average of 60.33 with a median of 64.00 and a standard deviation of 8.575. The lowest anxiety was obtained at 45 and the highest at 71. According to the 95% CI results, it is believed that the anxiety of pregnant women before the complementary care treatment for pregnant exercise at the Sambau Health Center in Batam City in 2021 is between 55,58 – 65,08.

Anxiety of pregnant women in the third trimester after exercise was obtained at an average of 47.53, with a median of 47.00, and a standard deviation of 11.951. The lowest anxiety was obtained at 29 and the highest was 65. According to the 95% CI results, it is believed that the anxiety of third trimester pregnant women facing childbirth after exercise at the Sambau Health Center in Batam City in 2021 is between 40,91-54,15.

being given complementary pregnancy exercises is 47.53. This means that there is a change or decrease of 12.8. Statistically, with the paired t-test, the t-count value was 7.388 and the p-value = 0.000, which means the p-value < (0.05). Thus, the provision of complementary care for pregnancy exercise has an effect on reducing anxiety at the Sambau Health Center, Batam City, in 2021.

Discussion

1. Frequency Distribution of Anxiety Levels Before and After Complementary Exercises for Pregnant Women in the Third Trimester at the Sambau Health Center, Batam City in 2021
The results of the study found that the average anxiety before providing complementary services in third trimester pregnancy exercise at the Sambau Health Center Batam City in 2021 was 60.33 and after giving complementary pregnancy exercises was 47.53. This shows that there is a change or decrease in anxiety after the provision of complementary care for pregnant women by 12.8.

These results are reinforced by the results of research from[9], which found that the level of anxiety after the intervention was lower than before the intervention. The significance value (p = 0.000) for the level of anxiety was< = 0.005, indicating that there was an influence on the mother's anxiety level before and after the intervention. Thus, it can be concluded that giving pregnant women exercise has an effect on their anxiety. Anxiety in pregnant women can be triggered by a stressor, namely the body's natural response to a stimulus, so that the mother experiences fear, worry, and discomfort about something. If anxiety is disturbing to pregnant women, it can affect the delivery process [10]. A severe level of anxiety will cause a decrease in the individual's ability to relate to other people. The extreme and prolonged intensity of anxiety, accompanied by the limited ability of individuals to cope with problems, is believed to cause various problems related to social isolation [11].

Table 2. The Effect of Complementary Care for Pregnant Gymnastics Before and After on Anxiety Levels for Pregnant Women at the Sambau Health Center, Batam City 2021

Anxiety	Mean	N	SD	t-value	p-value
Before Pregnancy Exercise	60.33	15	8.575	7.388	0,000
After Pregnancy Exercise	47.53	15	11.951		

It can be seen in Table 2 that the average anxiety of pregnant women in the third trimester before being given pregnancy exercises is 60.33 and the average anxiety of pregnant women in the third trimester after

Anxiety is one of the causes of prolonged labour and foetal death, while prolonged labour contributes 5% to the causes of maternal death in Indonesia. Anxiety during the prenatal period is associated with adverse

effects on the foetus and child. Prenatal anxiety is also associated with adverse delivery outcomes [12].

In the results of [13], it is known that the results before the pregnancy exercise intervention were 33% experiencing mild anxiety, 44% experiencing moderate anxiety, and 22% experiencing severe anxiety. After pregnancy exercise, the anxiety of pregnant women decreased; namely, 44% did not experience anxiety, 22% experienced mild anxiety, and 22% experienced moderate anxiety.

Research shows that there are still a lot of pregnant women who don't exercise. This is because the mother doesn't know and understand the benefits of pregnancy exercise, such as how it can help reduce anxiety and make childbirth easier. The impact of not doing pregnancy exercise is that it can increase the anxiety of the mother facing childbirth, and if the anxiety is not immediately addressed, it can complicate the labour process or make the delivery take longer.

2. The Effect of Complementary Care for Pregnant Gymnastics in Third Trimester Pregnant Women on Reducing Anxiety at the Sambau Health Center, Batam City in 2021

The results of this study showed that the provision of complementary care for pregnancy exercise had an effect on reducing anxiety in third trimester pregnant women at the Sambau Health Center, Batam City, in 2021 (p-value = 0.000). This effect is because pregnancy exercise can create a sense of comfort and calm. Besides that, it can also strengthen the muscles of pregnant women so that mothers, when facing labor, can be more prepared and less anxious, and delivery will be smooth.

From the findings of the research by [14], stated that there was a significant difference in anxiety scores ($p < 0.05$) between primigravida mothers who did pregnancy exercise and primigravida mothers who did not do pregnancy exercise. The median anxiety score of primigravida mothers who did pregnancy exercise was 14, while the median of primigravida mothers who did not do pregnancy exercise was 24.

In the third trimester, anxiety about the delivery of the first pregnant woman will appear. Anxiety that occurs in mothers before childbirth is actually a natural thing, because childbirth is not only an exciting thing but also a scary process for those who have never experienced it because it is a struggle against death to get a baby out, and the process does not always run smoothly or normally. This is a concern and source of anxiety for pregnant women [15].

Fear during pregnancy is manifested as anxiety about having a miscarriage, worrying about foetal abnormalities, and worrying about not being a good mother. The last few months of pregnancy are the most stressful for pregnant women, mostly because they are afraid of giving birth and the pains of labour [16]. Women worry and fear during pregnancy and childbirth because they don't know enough and don't know what to do about their anxiety [17]. Fear, anxiety, and

depression are linked to problems like early labour and low birth weight.

Pregnancy exercise will produce better delivery outcomes than pregnant women who do not do pregnancy exercise. Pregnancy exercise can reduce anxiety. This agrees with the research of [18], which found a significant effect on the frequency of pregnancy exercise and the number of gestations on the level of anxiety. This shows that the more often you exercise during pregnancy, the lower the anxiety level and the more frequent the number of pregnancies. mother, During pregnancy and exercise, there are relaxation techniques that can reduce anxiety. When individuals experience tension and anxiety, the sympathetic nervous system works, while when relaxed, the parasympathetic nervous system works [19].

Pregnancy exercise consists of several body movements in the form of gymnastics with rules, systematics, and principles of particular activities adapted to pregnant women's conditions [20]. Further research states that pregnancy exercise movements contain a relaxing effect that can stabilise the emotions of pregnant women. Through pregnancy exercise, pregnant women will be taught how to reduce anxiety and reduce fear by means of physical and mental relaxation and get information that prepares them to experience what will happen during labour and birth [21].

Pregnancy exercise is done not only for fitness but also to strengthen muscles, flex joints, and train concentration so that you can divert your mind so you can forget the pain during childbirth and also strengthen your breath. Pregnancy exercise is proven to ease the labour process. In addition, pain during the labour process can also be minimized by regulating breathing, concentrating, and diverting the mind, so that stress during childbirth is automatically reduced. Then labour can run more smoothly and briefly [22].

Based on research, [23], argue that most third-trimester pregnant women experience apprehension in the face of childbirth. Anxiety experienced by pregnant women can be influenced by several factors, such as maternal age, the mother's education, and family support given to the mother.

When a woman is pregnant and has anxiety, it can affect both her and the baby's health. So that pregnant women need psychosocial support to prevent and overcome anxiety [24]. In this study, pregnancy exercise was proven to have a positive impact on balancing pregnant women's psychological health. The three core components of pregnancy exercise (breathing exercises, strengthening and stretching exercises, and relaxation exercises) have the effect of relaxing breathing and relaxing muscles. The three core components have different effects on pregnant women's health. When pregnant women do breathing exercises, especially deep breathing, they feel their breaths become more regular, lighter, less rushed, and longer. Strengthening and stretching exercises also have an impact on reducing tension in pregnant women. At the

end of the pregnancy exercise program, there are relaxation exercises that combine muscle relaxation and breathing relaxation. In this exercise, pregnant women do it while imagining that the condition of the baby in their stomach is fine. This is enough to bring about a relaxing effect; just imagining something pleasant can make the body relax.

Conclusion

Pregnancy exercise activities affect anxiety levels during pregnancy at the Sambau Health Center in Batam City, Indonesia, for primigravida mothers who take part in pregnancy exercise in the third trimester of pregnancy.

Suggestion

It is intended that health workers continue to raise social awareness about the value of pregnancy exercise, which is done on a regular basis in order to reduce pregnant women's worry, which has an impact on the mother's and fetus's health both during pregnancy and birth. It is recommended that an additional study be conducted on moms with high anxiety levels utilising an in-depth observational technique with a sufficient number of samples.

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