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RESEARCH ARTICLE

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Pain Reduction Techniques to Overcome Back Pain Complaints in Third Trimester of Pregnancy

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ABSTRACT

The problem that is often experienced by pregnant women in the third trimester is low back pain, it is estimated that around 70% of women complain of some form of low back and back pain at some point in pregnancy, childbirth and post partum. One of the therapy that can be given to mothers with low back pain is acupressure. The purpose of the study was to determine the effect of pain reduction techniques with acupressure to overcome complaints of low back pain in the third trimester of pregnancy. The design of this study was one group pre-test post-test. The sample was taken by accidental sampling, with the research subjects being pregnant women in the third trimester who visited PMB "K" in March 2021 to May 2021. The statistical test used the Wilcoxon test. The results showed that the average degree of back pain before being given acupressure: median = 3.00, standard deviation = 2,917. The average degree of back pain after being given acupressure: median = 0.00, standard deviation = 2.095. There was an effect of acupressure on the pain scale of pregnant women with back pain with p-value of 0.000. It can be concluded that acupressure massage is a technique for reducing back pain experienced by pregnant women, which can occur in the first trimester of pregnancy and is increasingly being complained of in the third trimester of pregnancy. It is hoped that massage techniques can be taught by health workers, especially midwives as female companions to the patient's family, especially husbands so that they can do it independently.

Keywords: pain reduction techniques; back pain complaints

INTRODUCTION

Background

Pregnancy is a natural and normal process. The body of pregnant women undergoes major changes that can make pregnant women often feel uncomfortable. As for some of the problems that are often experienced by pregnant in the third trimester, back pain and lower back pain, this is due to the burden on the abdomen and because the lower spine, especially in the hip area, bends the spine and stretches the ligaments. ⁽¹⁾ Increased hormone levels also make the cartilage in the joints soften, resulting in reduced flexibility and back pain. In pregnant there is a change in the mechanical body in connection with the change in the fulcrum in pregnant women. This is mainly because weight gain is gained during pregnancy, with most of the weight being distributed around the abdomen. This causes the pregnant woman's center of gravity to shift forward, which results in a lower spinal curvature. ⁽²⁾

Back pain and lower back pain are one of the discomforts that occur in the third trimester of pregnancy that require intervention. Discomfort if not resolved properly can interfere with activities to cause more severe problems. The impact that will occur if low back pain and lower back pain in pregnant is not immediately resolved including the mother will experience stress, where if pregnant experience stress it will have an impact on delivery which affects the oxytocin hormone which causes inadequate contractions so that it will become labor long. ⁽³⁾

Based on the results of research conducted by Zahroh, it was found that about 70% of pregnant experience low back pain (LBP) which may begin in the early trimester, the peak incidence of LBP occurs in the second and third trimesters of pregnancy. In the first trimester = 16.7%, in the second trimester = 31.3%, and in the third

trimester = 53%. About 50-72% of women experience this when they are in the third trimester of pregnancy. ⁽⁴⁾ Based on quarterly report data in PMB K Cimahi City from August to October 2021, there were 30 respondent in third trimester pregnant who visited PMB "K" as many as 25 people complaining of low back pain, frequent urination and difficulty sleeping, 3 people complained of frequent urination and difficulty sleeping, 4 people complained of fear of childbirth, and 8 people did not experience any complaints.

There are 25 pregnant who experienced low back pain, most of them experienced an increase in body weight in 1 month an average of 3 kg, all pregnant women showed a leaning forward posture (lordosis). Mothers who complain of low back pain do spinal massage to treat it, but still feel pain both in the morning and at night so that it interferes with sleep rest, especially at night. Weight gain during pregnancy which puts more stress on the back muscles. The presence of back and ligament pain in late pregnancy is caused by increased pelvic movement due to the enlargement of the uterus forward due to the absence of abdominal muscles. ⁽⁵⁾

Various kinds of complementary techniques that can be applied to the treatment of low back pain in pregnancy that have been developed include massage, relaxation, chiropractic, acupuncture, yoga and acupressure. Acupressure is a form of physiotherapy by providing massage and stimulation at certain points on the body that are useful for reducing various aches and pains and reducing tension, fatigue and various diseases with the aim of re-activating the circulation of vital energy. ⁽⁵⁾

Purpose

The purpose of the study was to determine the effect of pain reduction techniques with acupressure to overcome complaints of low back pain in the third trimester of pregnancy

METHODS

This research was a pre-experimental study with one group pre-test post-test design to determine the pain scale before and after being given acupressure massage. ⁽⁶⁾ The population in this study were all pregnant who visited PMB "K" in the last 3 months. The sample in this study were third trimester who visited Antenatal Care (ANC) at PMB "K" Cimahi city as many as 25 pregnant women.

The sampling technique used was non-probability sampling type of accidental sampling, namely all subjects who happened to visit PMB "K" in December 2021-November 2022 to check their pregnancy. ⁽⁶⁾ The variables in this study consisted of the independent variable, namely pain reduction techniques with acupressure massage and the dependent variable, namely the pain scale in pregnant with back pain. The research instrument was Visual Analog Scale (VAS) questionnaire consisting of 3 questions about low back/waist pain experienced by the mother to assess the client's pain scale while the instrument used to assess the technical variables of pain reduction with acupressure was using the Standard operating procedure sheet.

The questionnaire was not tested for validity because this instrument was standard. ⁽⁷⁾ Data collection was carried out when the client came to visit to assess the patient's pain scale before treatment, then the client was given acupressure massage and taught to do massage for 2 times/day at home. When the client made a repeat visit, the client's pain scale was reassessed for the back pain he was experiencing. Data processing was done by editing, coding, data entry, processing and cleaning.

Statistical analysis used in this study was the Wilcoxon test because the data were not normally distributed. Ethics in this research is applied with the principles of respect for persons, beneficence, justice, veracity, confidentiality, non maleficence.

RESULTS

Acupressure massage is a non-pharmacological therapy that aims to improve maternal and fetal health. In this study the number of respondents was 25 pregnant women with gestational age mostly 15 people (60%) in the third trimester of pregnancy, 10 people (40%) with gestational age in the second trimester, the research team intervened by training the patient's husband after the husband was given the task of doing an acupressure massage every day according to the SOP, the massage was carried out 5 days in a row morning and evening/night in 1 period, the massage was carried out for 30 rounds clockwise, with a discussion of the results of the study as follows:

The Degree of Back Pain Before and After Acupressure

Table 1. Distribution of pain degrees before acupressure techniques

Variable	n	Mean	Median	SD	Min	Max
Degree of pain before acupressure technique	25	3.56	3.00	2.917	1	9

Based on table 1, it was found that the average degree of back pain before being given acupressure had a median of 3.00 and standard deviation of 2,917.

Table 2. Distribution of pain degrees after acupressure techniques

Variable	n	Mean	Median	SD	Min	Max
Degree of pain after acupressure technique	25	1.16	0.00	2.095	0	7

Based on table 2, it was found that the average degree of back pain after being given acupressure had a median of 0.00 and standard deviation of 2.095.

The Influence of Acupressure Techniques on Complaints of Low Back Pain

Table 3. The effect of acupressure techniques on complaints of low back pain in third trimester of pregnancy

Variabel	n	Mean	p
Degree of pain before acupressure techniques	25	3.00	0.000
Degree of pain after acupressure techniques	25	0.00	

Based on table 3, the results show that there was an effect of acupressure on the pain scale of pregnant women with back pain with p-value of 0.000. This can be seen from the difference in the median value before and after being given treatment (3.00 and 0.00).

DISCUSSION

It was found that the average degree of back pain before being given acupressure had a median of 3.00, where a scale of 1-9 has a category of mild pain to severe pain, with the gestational age of most entering the third trimester between 28-40 weeks of pregnancy. In pregnancy, lower back pain occurs due to the influence of hormones that cause disturbances in the basic substance of the support and connective tissue, resulting in decreased muscle elasticity and flexibility. In addition, it is also caused by mechanical factors that affect the curvature of the spine by changes in static attitude and additional load during pregnancy.

During pregnancy, the pelvic will turn slightly forward due to hormonal influences and ligament laxity. In a state of spinal hyperextension, friction occurs between the two facets and makes the weight support, so that the joint surface is depressed, this situation will cause pain. Sometimes it can irritate the sciatic nerve and if there is a narrowing of the spinal cord, the pain will get worse. This situation will cause an imbalance between the abdominal muscles and back muscles.

There are several problems that are often experienced by third trimester pregnant women including low back pain and lower back pain, this is due to the burden on the abdomen and because the lower spine, especially in the hip area, the spine is bent and the ligaments stretched, which is what causes some mothers in the third trimester of pregnancy. have back pain/lumbago.

The results of this study is in accordance with the results of research conducted by Zahroh, it was found that about 70% of pregnant women experience low back pain (LBP) which may begin in the early trimester, the peak incidence of LBP occurs in the second and third trimesters of pregnancy. In the first trimester = 16.7%, in the second trimester = 31.3%, and in the third trimester = 53%. About 50-72% of women experience this when they are in the third trimester of pregnancy.

It was found that the average degree of back pain after being given acupressure had a median of 0.00, where a scale of 0-7 has a category of mild pain to moderate pain. From these results, it can be seen that there is a decrease in the pain scale from severe pain, after the intervention it becomes moderate pain. In this study, acupressure massage was very effective in reducing back pain. Acupressure is a therapy by pressing points on the body which are the meridian pathways with emphasis using hands or assistive devices. Acupressure is a derivative of acupuncture. The benefits of acupressure in pregnancy: reduce complaints during pregnancy such as: nausea and vomiting, low back pain, leg cramps, difficulty sleeping, improve sleep quality. Stress and anxiety management improves sexual life. When all energy pathways are open and energy flow is no longer blocked by muscle tension or other obstacles, the body's energy will be balanced to activate the meridians.

Various kinds of complementary techniques that can be applied to the treatment of low back pain in pregnancy that have been developed include massage, relaxation, chiropractic, acupuncture, yoga and acupressure. Acupressure is a form of physiotherapy by providing massage and stimulation at certain points on the body that are useful for reducing various aches and pains and reducing tension, fatigue and various diseases with the aim of re-activating the circulation of vital energy.

Purnamasari (2019) wrote that back pain during pregnancy is caused by anatomical factors related to the increased burden of pregnancy and hormonal factors where smooth muscle relaxation occurs. Pain peaks mainly at the end of pregnancy (36 weeks) and decreases up to 3 months after delivery. Most pregnant women do massage independently and drink warm water to reduce complaints (70%) while 16% of pregnant women let these complaints and 7% of pregnant women have to take analgesics.

The results show that there is an effect of acupressure on the pain scale of pregnant women with back pain. This can be seen from the difference in the median value before and after being given treatment. Back pain during pregnancy is related to joint and muscle relaxation due to hormonal changes and weight gain. There are several non-pharmacological therapies to deal with the discomfort of back pain, including acupressure massage.

The intervention carried out in this study was psychoeducation provided by the midwife, where the midwife provided information to the mother and husband before doing acupressure massage. Pregnancy massage is a massage technique in a soft and smooth way on certain parts to make the mother feel more refreshed and comfortable. Pregnancy massage can make mothers happy because of the touch from people who care to help as a source of mother's strength.

Based on the analysis of researchers, massage technique is a non-pharmacological technique that can be used as an effective and efficient way to reduce back pain during pregnancy TM III. The massage technique can be done by the family, especially the husband as the main support for the mother during pregnancy

CONCLUSION

Acupressure massage is a technique for reducing back pain experienced by pregnant, which can occur in the first trimester of pregnancy and is increasingly being complained of in the third trimester of pregnancy. The massage technique is carried out gently and gently on certain parts to make the mother feel more refreshed, relaxed and comfortable and is carried out by the husband as the closest person. The benefit of self-massage is to reduce the intensity of back pain so that the mother feels comfortable. It is hoped that the massage technique can be taught by health workers, especially midwives as female companions to the patient's family, especially husbands, can do it independently and give a strong psychological effect because it is massaged by the closest person so that the hope is that the delivery process will take place safely and smoothly and pleasantly.

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