

ACUPRESSURE TECHNIQUES AT POINTS BL 23, GV 3 AND GV 4 CAN REDUCE THE INTENSITY OF LOWER BACK PAIN IN TRIMESTER III PREGNANCY

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ABSTRAK : TEKNIK AKUPRESI PADA TITIK BL 23, GV 3 DAN GV 4 DAPAT MENURUNKAN INTENSITAS NYERI PUNGGUNG BAWAH PADA KEHAMILAN TRIMESTER III

Latar Belakang : Pada masa kehamilan banyak terjadi perubahan, salah satunya perubahan postur tubuh. Postur tubuh yang tidak tepat akan memaksa peregangan tambahan dan kelelahan tubuh, terutama pada bagian tulang belakang sehingga akan menyebabkan terjadinya sakit atau nyeri pada bagian punggung. Kombinasi terapi akupresur titik BL 23, GV 3, GV 4 merupakan terapi komplementer dan tambahan penekanan yang dapat mengurangi nyeri punggung bawah. Tujuan penelitian ini untuk mengetahui efektifitas teknik akupresur pada titik BL 23, GV 3 dan GV 4 terhadap penurunan nyeri punggung bawah pada kehamilan trimester III.

Tujuan dari penelitian ini adalah untuk mengetahui efektifitas teknik akupresure terhadap penurunan nyeri punggung bawah pada kehamilan trimester III.

Metode Penelitian : Penelitian ini menggunakan desain *quasi eksperimen* dengan pendekatan *Pre Test* dan *Post Test* pada kelompok kontrol dan dan intervensi. Analisis yang digunakan *univariat* dan *bivariat*. Sampel penelitian yaitu ibu hamil dengan usia kehamilan 28-37 minggu. Pengambilan sampel dengan menggunakan *Total sampling*. Akupresure dilakukan dua kali dalam satu minggu dan pengukuran nyeri menggunakan skala Hamilton. Data yang diambil merupakan data primer yang didapat melalui observasi yang diberikan kepada 45 ibu hamil. Uji Korelasi yang digunakan adalah *Uji-T*.

Hasil Penelitian prosentase rata-rata penurunan pre test dan post test untuk akupresur titik BL 23 = 7,4 %, titik GV 3 = 7,2 % dan titik GV 4 = 7,5 %. Berdasarkan hasil uji bivariat (Paired sampel t-Test) penggunaan teknik akupresur titik GV 3, GV 4 dan BL 23 nilai sig $0,00 < 0,05$. Penggunaan ketiga teknik akupresur tersebut berpengaruh terhadap penurunan rasa nyeri punggung bawah pada ibu hamil trimester III.

Kesimpulan pemijatan dengan menggunakan Teknik Akupresur Titik BL 23, GV 3 dan GV 4 efektif untuk menurunkan rasa nyeri punggung bawah pada ibu hamil trimester III.

Saran dapat menjadikan acuan dalam pemberian asuhan kebidanan khususnya asuhan kehamilan dalam pengurangan rasa nyeri.

Kata Kunci : Akupresur Titik BL23, GV 3 dan GV 4, Ibu hamil, Nyeri Punggung

ABSTRACT

Background: During pregnancy there are many changes, one of which is changes in body posture. Improper posture will force additional stretching and fatigue of the body, especially in the spine so that it will cause pain or pain in the back. Combination therapy acupressure points BL 23, GV 3, GV 4 is a complementary therapy and additional emphasis that can reduce low back pain. The purpose of this study was to determine the effectiveness of acupressure techniques at points BL 23, GV 3 and GV 4 to reduce low back pain in the third trimester of pregnancy. The purpose of this study was to determine the effectiveness of acupressure techniques on reducing low back pain in the third trimester of pregnancy.

Research Methods: This study used a quasi-experimental design with Pre-Test and Post-Test approaches in the control and intervention groups. The analysis used univariate and bivariate. The research sample is pregnant women with a gestational age of 28-37 weeks. Sampling using total sampling. Acupressure was performed twice a week and pain was measured using the Hamilton scale. The data taken are primary data obtained through observations given to 45 pregnant women. The correlation test used is the T-test.

The results of the study were the average percentage of decrease in pre-test and post-test for acupressure point BL 23 = 7.4%, point GV 3 = 7.2% and point GV 4 = 7.5%. Based on the results of the bivariate test (Paired sample t-Test) the use of point acupressure techniques GV 3, GV 4 and BL 23 sig $0.00 < 0.05$. The use of these three acupressure techniques has an effect on reducing lower back pain in third trimester pregnant women.

Conclusion: Massage using Point Acupressure Techniques BL 23, GV 3 and GV 4 is effective for reducing low back pain in third trimester pregnant women.

Suggestions can be used as a reference in providing midwifery care, especially pregnancy care in reducing pain.

Keywords: Acupressure Point BL23, GV 3 and GV 4, Low Back Pain, Pregnant women

BACKGROUND

The quality of a pregnancy begins with a pregnancy plan, where a pregnancy plan is an effort to reduce maternal mortality (World Health Organization, 2003). According to the Ministry of Health of the Republic of Indonesia (2016), pregnancy is a process of fertilization in order to continue that occurs naturally resulting in a fetus growing in the mother's womb (Heriana, 2015). The gestation period starts from conception to the birth of the fetus. Normal length of pregnancy is 280 days (40 weeks or 9 months 7 days) calculated from the first day of the last menstrual period. Pregnancy is divided into three quarters, namely the first trimester starting from conception to 3 months, the second trimester from the 4th to the 6th month, and the third trimester from the 7th to the 9th month. Changes that occur during pregnancy are often a complaint for pregnant women including nausea and vomiting in early pregnancy, constipation, varicose veins (veins), urinary disorders, hemorrhoids, and swelling of the legs and feet and back pain (Tyastuti S, 2016) and (Ulfah, 2014). These complaints lead to aspects of the discomfort of pregnant women so that they affect the quality of life of pregnant women (Siti Tyastuti, 2016), specific complaints about the musculoskeletal system experienced by 20% - 25% of pregnant women are back pain at the end of pregnancy (Robinson et al., 2010).) and (Irianti, 2014).

During pregnancy, as the uterus enlarges, the center of gravity will move forward so that pregnant women must adjust their standing position, where pregnant women must depend on muscle strength, weight gain, joint relaxation, fatigue and posture before pregnancy (Wiaro G, 2017). Improper posture will force additional stretching and fatigue on the body, especially in the spine so that it will cause pain or pain in the back of pregnant women (Eka Widayana, 2018) and (Frost and Stewart-Brown, 2006).

Based on a study conducted by Bullock et. Al (1987) found that about 88.2% of pregnant women experienced back pain. At 14-22 weeks of gestation, approximately 62% of pregnant women report an incidence of low back pain 2 . Pregnant women need to maintain their health by various

ways of walking in the morning, swimming, light exercise and pregnancy exercises. Pregnancy exercise is an exercise given to pregnant women to maintain the health of pregnant women and physically and mentally prepare pregnant women to achieve fast, easy and safe delivery (Eka Widayana, 2018)

This is in accordance with research (Ratna Dewi Permatasari, 2019) conducted at the Jelakombo Health Center Jombang on the effectiveness of acupressure techniques at points BL 23, GV 3, GV 4 on reducing low back pain in third trimester pregnant women (Suwondo, Meliala.L and Sudadi , 2017), which found that 63.8% of respondents who received acupressure stated that it was more effective in reducing low back pain. In pregnancy that have been developed include massage (61.4%), relaxation (42.6%), chiropractic (36.6%), acupuncture (44.6%), yoga (40.6%) and acupressure (Awliya , 2020). 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 activating the results of a literature review of 24 articles from 23,185 articles. Acupressure therapy has a significant effect in reducing health problems, including overcoming sleeplessness and labor pains, reducing nausea and vomiting in pregnancy (Muslim, 2020). Re-circulation of vital energy and chi (Ketut and Dewi, 2022). This is in accordance with research conducted by (Judha, Sudarti and Fauziah, 2012) on the treatment of low back pain with acupressure, with the results that acupressure is effective in overcoming back pain and the benefits last for six months and the application of acupressure looks effective in application for 6 times. Perform back massage techniques (Prabandani, Leny Wulandari and Zahriah, 2021) and (Smeltzer and Bare, 2022).

In English therapy has the meaning of treatment or healing. It is in the word of Allah SWT, Qs. Yunus: 57.

يَأْتِيهَا النَّاسُ قَدْ جَاءَتْكُمْ مَوْعِظَةٌ مِنْ رَبِّكُمْ وَشِفَاءٌ لِمَا فِي
الْصُّدُورِ وَهُدًى وَرَحْمَةٌ لِلْمُؤْمِنِينَ

Meaning: "O mankind, indeed there has come to you a lesson from your Lord and a cure for all diseases that are in the chest and a guide of mercy for those who believe."

As a perfect religion, of course, Allah SWT has set the treatment for every Muslim. Islam has been given an understanding of medicine, so that in the process of endeavoring in treatment for healing, Muslims do not require methods that are forbidden by Allah SWT.

So far, acupressure techniques have been carried out to help reduce complaints of pregnant women such as nausea and vomiting, in childbirth such as induction of labor, reduce anxiety, and complaints of back pain during the delivery process (Fitriawati, Kurniawati and Juliningrum, 2020). Pregnant women have never done acupressure techniques to reduce complaints of low back pain. So far, pregnant women think that complaints of back pain are normal during pregnancy (Putri, Imandiri and Rakhmawati, 2020). So that the efforts that have been made to reduce complaints of low back pain are only resting (Maharani, Ayu and Widodo, 2019).

Based on a preliminary study conducted by researchers by interviewing midwife Khodiroh, S.SiT said that TPMB has a class program for pregnant women which is routinely run every month with counseling activities and pregnancy exercises. From the results of a preliminary study conducted there were 10 third trimester pregnant women at TPMB, it was found that 6 pregnant women said they had complaints of lower back pain since the age of 8 months of pregnancy. They said that to reduce their complaints, they just did rest (lying down). They rarely attend classes for pregnant women held by TPMB, with the excuse that they are working or on business.

Based on the above background, the researchers were interested in knowing the effect of pregnancy exercise and acupressure techniques on complaints of low back pain in third trimester pregnant women at TPMB Khodiroh, S.SiT.

RESEARCH METHODS

This study used a quasi-experimental design with Pre-Test and Post-Test approaches in the control and intervention groups. The analysis used is univariate and bivariate (Sugiyono, 2017). The research sample is pregnant women with a gestational age of 28-37 weeks. Sampling using total sampling (Gozhali, 2016). Acupressure is done twice a week and pain measurements use the Hamilton scale (Badriah, 2019) and (Judha, Sudarti and Fauziah, 2012). The data taken are primary data obtained through observations given to 45 pregnant women. The correlation test used is the T-test.

RESEARCH RESULT

Table 1
Comparison of Pre-test and Post-test
Techniques BL 23, GV 3, GV 4.

Point Acupressure	Statistical Size		
	S.D	Mean	Range
BL 23			
Pre Test	2,077	13,80	11 – 17
Post Test	1,981	12,07	9 – 15
GV 3			
Pre Tes	2,314	13,93	11 – 17
Post Tes	2,131	12,40	10 – 16
GV 4			
Pre Test	1,995	14,53	11 - 18
Post Test	2,492	12,93	9 - 18
Pre vs Post Comparison p value < 0,000*			

Table 1 shows that there is a post-use value of the BL 23 technique $p < 0.000$, the GV 3 $p < 0.000$ technique and GV 4 $p < 0.000$ which means that there is a difference in pain reduction in low back pain in third trimester pregnant women.

Table 2
Normality Test

	Titik Akupresur	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Hasil	1	,190	15	,150	,881	15	,049
Pengukuran	2	,211	15	,071	,884	15	,055
Akupresur	3	,141	15	,200*	,965	15	,784
	4	,156	15	,200*	,956	15	,632
	5	,207	15	,083	,892	15	,073
	6	,172	15	,200*	,922	15	,209

Based on Table 2 on statistical testing of data normality using SPSS (Kolmogorov-Smirnov), the results obtained from 6 measurements in the three groups studied, both Pre Test and Post Test, the results obtained were significance values greater than 0.05 or sig > 0, 05 which means the

data is normally distributed (SPSS test results are attached) (Notoatmodjo, 2014).

The SPSS test with the Shapiro – Wilk formula also obtained a significance value greater than 0.05 or sig > 0.05, which means the data is normally distributed (SPSS test results are attached).

Table 3
Paired Sample T-Test

	T	Df	Sig. (2-tailed)
Pair 1 Pre Tes GV3 - Post Tes GV3	6,487	14	,000
Pair 2 Pre Tes GV4 - Post Tes GV4	7,483	14	,000
Pair 3 Pre Tes BL23 - Post Tes BL23	9,539	14	,000

Based on Table 3, the results above regarding bivariate analysis using the Paired Sample T-test, the results are as follows:

The significance value of the pre-test and post-test measurements on the acupressure treatment of the BL 23 point was 0.000, which means the sig < 0.05. The interpretation if sig < 0.05 indicates that there is an effect of BL 23 acupressure massage technique on reducing back pain in third trimester pregnant women (complete results of SPSS calculation are attached).

Referring to the results of the bivariate analysis calculation using Paired sample t-Test, it can be stated that the alternative hypothesis is accepted, namely: "There are differences in complaints of low back pain in third trimester pregnant women before and after treatment in the BL 23 point acupressure group"

DISCUSSION

From the results of the analysis, based on the data of 45 pregnant women who did the acupressure technique, they were divided into 3 groups, each group of 15 people. The first group of 15 pregnant women who underwent the BL 23

acupressure technique experienced a decrease in low back pain from 10 people who felt severe pain and moderate pain 5 people to no pain 13 people and 2 people felt moderate pain.

The second group of 15 pregnant women who were subjected to the GV3 point acupressure technique, experienced a decrease in low back pain from 11 people who felt severe pain and moderate pain, 4 to no pain, 11 people and 4 people felt moderate pain.

The third group of 15 pregnant women who underwent the GV 4 point acupressure technique, there was a decrease in lower back pain from 11 people who felt severe pain and moderate pain 4 people to no pain 11 people and 4 people felt moderate pain.

This shows that many mothers who during the third trimester of pregnancy did not experience lower back pain after doing the acupressure technique twice a week.

Acupressure techniques will prevent the incidence of low back pain (Ratna Dewi Permatasari, 2019). Massage is also very important to reduce various aches and pains (Andarmoyo S, 2017). One effort that can be done to prevent low

back pain in the third trimester of pregnancy is acupressure techniques (Sari and Farida, 2021). The acupressure technique is one of the oldest and surest ways to improve health, blood flow, reduce tension and relax back muscles when low back pain occurs. Acupressure techniques can accelerate the healing process of the perineum (Setyowati, 2018). Other studies have shown that massage on BL23 can cause a decrease in back pain in third trimester pregnant women (Science et al., 2022).

Based on research that has been conducted by (Ratna Dewi Permatasari, 2019) on the effectiveness of Acupressure Techniques at points BL 23, GV 3, GV 4 on Reducing Lower Back Pain in Third Trimester Pregnancy at Jelakombo Health Center Jombang, the results of acupressure are very effective for reducing pain lower back in pregnant women. This opinion is also in line with the results of research (Salam, 2016)

This is in line with the results of research conducted by (Maharani, Ayu and Widodo, 2019) and (Sari and Farida, 2021) that there is an influence on the effectiveness of the acupressure technique points BL 23, GV 3, GV 4 with the incidence of low back pain with $\text{sig} < 0.05$, the research results obtained a significant number of 0.000, the number shows that there is an influence. In accordance with the results of studies that have been discussed previously, pregnant women who do acupressure techniques on the lower back have a chance of not experiencing low back pain compared to pregnant women who do not do acupressure techniques.

CONCLUSION

From the results of hypothesis testing and discussion of research, it can be concluded that massage with acupressure techniques at points BL 23, points GV3 and points GV4 is effective in reducing low back pain in third trimester pregnant women.

SUGGESTION

The suggestions recommended in this study are that the results of this study can be applied to health facilities both in Midwife Practice Places, clinics, health centers, and hospitals in providing care to pregnant women who experience low back pain so as to reduce pregnancy discomfort.

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