

THE EFFECTIVENESS OF THE COMBINATION OF EFFLEURAGE MASSAGE AND WARM COMPRESSES IN REDUCING BACK PAIN IN THE THIRD TRIMESTER PREGNANT WOMEN

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ABSTRACT

Background: Back pain in pregnant women is one of the discomforts felt by pregnant women, especially in the third trimester of pregnancy. Back pain is a condition where pain is felt in the lumbosacral, which is caused by several factors, including enlargement of the uterus, changes in body pos, tension, and increased hormones. This back pain is a physiological thing felt by pregnant women, but it will turn pathological if not treated properly and will have a fatal impact on both the mother and the fetus in the womb. Back pain in pregnant women can be treated non-pharmacologically by applying a combination of effleurage massage and warm compresses.

Purpose: This study aimed to determine the effectiveness of a combination of effleurage massage and warm compresses in reducing back pain in third-trimester pregnant women at UPT Tideng Pale Health Center.

Method: This study used a quasi-experiment design with a pre-test and post-test approach with a control group. The number of participants in this study was 34, and they met the inclusion criteria, consisting of 17 respondents in the intervention group and 17 in the control group. The pain assessment instrument used the Numeric Rating Scale (NRS). **Results:** Based on the Wilcoxon test, the P-value was $0.000 < \alpha (0.05)$, so H_a was accepted.

Conclusion: This indicates a difference in the results of the post-test in the intervention group and the control group because there is a very significant difference; it shows that the combination of effleurage massage and warm compress is effective in reducing back pain for pregnant women in the third trimester at UPT Tideng Pale Health Center Tana Tidung Regency.

Suggestion It is expected that pregnant women in the third trimester continue to apply a combination of effleurage massage and warm compresses to reduce back pain during pregnancy. Midwives and research sites should provide information to pregnant women about the use of this method as an alternative solution for back pain. Educational institutions are expected to use the results of this research as a reference in the development of midwifery science to improve the quality of midwifery care. In addition, researchers can further make the results of this study as a reference for further research

Keywords: Effleurage Massage, Warm Compress, Back Pain

ABSTRAK : EFEKTIVITAS KOMBINASI PIJAT EFFLEURAGE DAN KOMPRES HANGAT DALAM MENURUNKAN NYERI PUNGGUNG PADA IBU HAMIL TRIMESTER III

Latar Belakang : Nyeri punggung pada ibu hamil merupakan salah satu ketidaknyamanan yang dirasakan oleh ibu hamil secara khusus pada ibu hamil Trimester ke III. Nyeri punggung merupakan kondisi dimana nyeri yang dirasakan pada daerah lumbosakral yang disebabkan oleh beberapa faktor diantaranya pembesaran rahim, berubahnya postur tubuh dan juga peningkatan hormon. Nyeri punggung ini merupakan hal fisiologis yang dirasakan oleh ibu hamil namun akan berubah menjadi patologis jika tidak ditangani dengan tepat akan berdampak fatal baik bagi ibu maupun janin dalam kandungan. Nyeri punggung pada ibu hamil dapat ditangani secara non farmakologis yaitu dengan menerapkan kombinasi *effleurage massage* dan kompres hangat.

Tujuan : Untuk mengetahui efektivitas kombinasi *effleurage massage* dan kompres hangat terhadap pengurangan nyeri punggung pada ibu hamil trimester III di UPT Puskesmas Tideng Pale.

Metode : Penelitian ini menggunakan desain *quasy-eksperiment* dengan pendekatan *pre-test and post-test with control group*. Jumlah sampel dalam penelitian ini adalah 34 orang yang memenuhi kriteria *inklusi* yang terdiri dari 17 responden pada kelompok intervensi dan 17 orang pada kelompok kontrol. Instrumen penilaian nyeri menggunakan *Numeric Raiting Scale (NRS)*

Hasil: Berdasarkan uji *Wilcoxon* menunjukan nilai-Pvalue sebesar $0.000 < \text{daria } (0.05)$, sehingga H_a diterima.

Kesimpulan: Ada perbedaan hasil *post test* pada kelompok intervensi dan kelompok kontrol, karena ada perbedaan yang sangat signifikan.

Kesimpulan : Kombinasi *effleurage massage* dan kompres hangat efektif terhadap pengurangan nyeri punggung ibu hamil trimester III di UPT Puskesmas Tideng Pale Kabupaten Tana Tidung.

Saran Diharapkan bagi ibu hamil trimester III untuk tetap menerapkan kombinasi pijat *effleurage* dan kompres hangat untuk mengurangi nyeri pinggang saat hamil. Bidan dan tempat penelitian hendaknya memberikan informasi kepada ibu hamil tentang penggunaan metode ini sebagai alternatif solusi nyeri punggung. Instansi pendidikan diharapkan dapat menjadikan hasil penelitian ini sebagai acuan dalam pengembangan ilmu kebidanan untuk meningkatkan mutu pelayanan kebidanan. Selain itu, peneliti selanjutnya dapat menjadikan hasil penelitian ini sebagai referensi untuk penelitian selanjutnya

Kata kunci : *effleurage massage*, kompres hangat, nyeri punggung

INTRODUCTION

Pregnancy is a process of a woman's life, there are many major changes for the woman herself, both from physical, mental and social aspects. There are factors that affect pregnancy itself, namely: physical factors, psychological factors, environmental, social, cultural, and economic factors. Each factor influences each other, because it is interrelated with each other and can be both a cause and effect. (Gultom, 2020).

During the process of pregnancy, there are physical changes that can cause discomfort, especially in the third trimester of pregnancy. such as frequent urination, shortness of breath, back pain, heartburn, constipation, insomnia, dyspnea, perineal discomfort, calf muscle cramps, varicose veins, ankle edema, fatigue, Braxton hicks contractions, erratic mood, and increased anxiety. Weight gain, fundus uteri height increase, and abdominal enlargement (Pudji & Ina, 2018).

The incidence rate of pregnant women with back pain in the world as much as 50-80% of pregnant women complain of back pain that is quite disturbing during pregnancy (Holingworth, 2017). In pregnant women, about 50% of women experience back pain and about 10% of women with chronic back pain. Back pain in pregnancy is mostly experienced when entering the 6th month of pregnancy. About 80% of women will experience back pain at some point during pregnancy. The prevalence of discomfort during pregnancy is around 3-17%, in developed countries 10% and in developing countries 25% (Ministry of Health, 2019), In 2018 and 2019, around 20% to 90% of pregnant women in Canada, Nepal, the United States, Europe, and parts of Africa complained of back pain that interfered with daily activities such as walking and sitting for long periods of time (Wanti & Fatmarizka, 2022).

In Indonesia in 2017 it was found that 68% of pregnant women experienced moderate intensity

back pain, and 32% of pregnant women experienced mild intensity back pain, there were 373,000 pregnant women. From data collected from the health department of North Kalimantan Province in 2020, the incidence of pregnancy discomfort, back pain in pregnant women ranges from 29.23%. (North Kalimantan provincial health office).

Tana Tidung Regency is the youngest district in North Kalimantan, has a population of 727,755 people, spread across 5 districts. And each sub-district in Tana Tidung Regency has 5 Puskesmas, one of which is UPT Puskesmas Tideng Pale, based on data from the Tana Tidung Regency Health Office, the Tideng Pale Health Center has a K1 visit coverage of 235 pregnant women and K4 visits of 250 pregnant women in 2022, followed by UPT Puskesmas Sesayap with K1 visits of 189 pregnant women, K4 visits 205 pregnant women and those who have the least number of K1 and K4 visits are UPT Puskesmas Tana Lia as many as 128 K1 visits and 156 K4 visits for pregnant women. Based on these data, researchers are interested in conducting a preliminary study at UPT Puskesmas Tideng Pale, Tana Tidung Regency. On June 6, 2023, researchers had the opportunity to conduct interviews with 10 III trimester pregnant women who were visiting at that time. 8 of them complained of back pain, 3 of them complained that they could not be brought to sleep well, difficulty standing, difficulty going to the bathroom and doing other housewife activities. 6 of them complained of frequent urination and back pain, 2 pregnant women complained of not sleeping well at night.

Lower back pain is pain in the lumbosacral region, which is affected by changes in posture, this is in line with gradual weight gain during pregnancy. The body leans forward due to stretching of the abdominal muscles which causes muscle imbalance around the pelvis and causes pain in the back (Resti, et.al 2020). Generally, lower back pain in pregnant women is physiological, but can turn pathological if

not treated properly. In severe cases, the pregnant woman may be unable to walk, sometimes anatomical, congenital, or traumatic abnormalities. Pain due to intervertebral disc herniation occurs in pregnancy with approximately the same frequency as at other times (Resti, et.al 2020).

Back pain in pregnant women can be overcome by pain management consisting of 2 ways, namely pharmacology and non-pharmacology. Pharmacological procedures are carried out by administering analgesics to reduce or relieve pain, while non-pharmacological procedures can be done by giving complementary therapies such as breathing techniques, changing positions, massage, hot or cold therapy, and finger grip relaxation therapy (Rosa et al., 2023).

In previous studies, non-pharmacological therapy has often been given and proven to help relieve back pain, especially for III trimester pregnant women, one of which is effleurage massage. The mechanism of action of effleurage massage in reducing back pain in the third trimester of pregnant women is a movement by using the entire surface of the palm attached to the rubbed body parts. The shape of the palms and fingers always adjusts to the part of the body that is rubbed. The therapeutic effects or healing effects of this effleurage include helping to improve venous blood circulation and lymph circulation / lymph fluid, helping to improve metabolic processes, improving the process of removing combustion residues or reducing fatigue, helping the absorption (absorption) of odema due to inflammation, relaxation and reducing pain (Andriani et al., 2023).

According to research conducted by Andriani Amelia, et.al of 2022 by giving therapy effleurage massage to third trimester pregnant women at UPT Puskesmas Yosomulyo Kota Metro, it was found that there was a decrease in the scale of back pain in respondents from a pain scale of 5 to a pain scale of 3 Third trimester pregnant women are advised to do effleurage massage regularly in the morning in order to reduce the scale of back pain so that mothers are comfortable in carrying out activities.

Another study that is in line is research from lin Setiawati (2019) entitled "The Effectiveness of Massage Effleurage Techniques and Relaxation Techniques Against Back Pain in Third Trimester Pregnant Women" Wilcoxon test results, in the massage effleurage group obtained p -value $0.003 < 0.05$ and the relaxation technique group p -value $0.003 < 0.05$. then H_a was impeached. So it was concluded that there was an influence before and after effleurage massage techniques and relaxation techniques were carried out on reducing back pain in

third trimester pregnant women in Socah, Bangkalan Regency.

In addition to effleurage massage, one of the non-pharmacological measures that have proven effective in relieving back pain in III trimester pregnant women is to use warm compresses. The mechanism of action of warm compresses in helping reduce back pain in III trimester pregnant women is The heat caused by warm compresses can cause dilation and physiological changes so as to facilitate blood circulation and relieve pain. This heat response is used for pain reduction therapy. The therapeutic effect of applying warm compresses will be able to reduce muscle spasms and reduce joint bone stiffness (Suryani et al., 2022).

According to research conducted by (Putri et al., 2023) entitled "The Effect of Warm Compresses on the Intensity of Back Pain in Third Trimester Pregnant Women at PMB D South Jakarta City in 2022" These results showed a decrease in back pain before and after with a difference of 2.97 and obtained significant results of 0.000 smaller than the significant level of 5% (p -value = $0.000 < 0.05$), then the conclusion is that H_a is accepted which means there is an influence of warm compresses on Back pain in III trimester pregnant women.

Efforts to handle the improvement of back pain complaints carried out at the Tideng Pale Puskesmas UPT are based on preliminary studies, namely in the form of IEC on rest needs and preventive treatment that has been carried out in the form of pregnancy exercises in pregnant women classes at the Tideng Pale Health Center UPT. To maximize the rate of reducing back pain in pregnant women, especially the Third Trimester, researchers are interested in improving back pain with non-pharmacological measures, in line with previous studies above, researchers are interested in providing effleurage massage and warm water compresses in reducing back pain in III trimester pregnant women. So based on these data, researchers are interested in proving the effectiveness of the combination of Effleurage Massage and Warm Compresses on reducing back pain in third trimester pregnant women at UPT Puskesmas Tideng Pale

RESEARCH METHODS

Type of quantitative research with quasy-experimental method with pre-test and post-test approach with control group. The population of all third trimester pregnant women of 28-36 weeks gestation who experience back pain as many as 40 people. The sample used 33 respondents with purposive sampling techniques. The research was

conducted at the Tideng Pale Health Center. The instrument uses numeric rating score (NRS) observation sheet and standard operating procedure (SOP) for effleurage massage. Analysis of univariate and bivariate data (t-test).

RESEARCH RESULTS

Univariate Analysis

Based on table 1 on the age characteristics of the intervention group, most respondents aged 31-35 years amounted to 9 pregnant women (52.9%), and in the control group also found almost half aged 31-35 years amounted to 8 pregnant women (47.1%). In the characteristics of education, the level of junior and senior high school education in the intervention group was the same, which was almost half of the respondents (35.3%), while in the control group

showed the level of high school education almost half, namely 7 pregnant women (41.2%). Job characteristics showed that most of the respondents' jobs were IRT in the intervention group (64.7%), While in the control group most were 10 pregnant women (58.8%). In the characteristics of gestational age, gestational age obtained different results between the intervention and control groups, in the intervention group based on gestational age 34-36 weeks was the number of mostly 9 pregnant women (52.9%) while in the control group obtained some gestational age of 26-30 weeks, namely 9 pregnant women (52.9%). In the parity characteristic, there were multipara respondents in the intervention group, mostly 12 pregnant women (70.6%), while in the control group, almost all multiparaly, namely 14 pregnant women (82.4%).

Table 1
Frequency Distribution of Respondents at UPT Puskesmas Tideng Pale

Characteristic Responden	Intervention Group		Control Group	
	frek	%	frek	%
Age				
20-25 Years	3	17.6%	5	29.4%
26-30 Years	5	29.4%	4	23.5%
31-35 Years	9	52.9%	8	47.1%
Education				
Primary School	2	11.8%	3	17.6%
Junior High School	6	35.3%	5	29.4%
Senior High School	6	35.3%	7	41.2%
College	3	17.6%	2	11.8%
Job				
Civil Servants	1	5.9%	1	5.9%
Honoror	5	29.4%	6	35.3%
Housewife	11	64.7%	10	58.8%
Gestational Age				
26-30 Weeks	7	41.2%	9	52.9%
31-33 Weeks	1	5.9%	2	11.8%
34-36 Weeks	9	52.9%	6	35.3%
Paritas				
Primipara	5	29.4%	3	17.6%
Multipara	12	70.6%	14	82.4%

Table 2
Identification of back pain scale for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency before a combination of effleurage massage and warm compresses was carried out

Pain Scale	Intervention Group		Control Group	
	Frek	%	Frek	%
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	2	11.8%	2	11.8 %
6	2	11.8%	1	5.9 %
7	9	52.9%	4	23.5%
8	4	23.5%	10	58.8%
9	0	0	0	0
10	0	0	0	0

Based on the data in Table 2, the results of the statistical test identifying the scale of back pain for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency before the combination of effleurage massage and warm compresses in the intervention group was that most (52.9%) respondents experienced severe pain with a pain scale score of 7. While in the control group, most (58.8%) respondents experienced severe pain with a pain scale score of 8.

Table 3
Identification of back pain scale for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency after a combination of effleurage massage and warm compresses

Pain Scale	Intervention Group		Control Group	
	Frek	%	Frek	%
0	12	70.6%	0	0
1	5	29.4%	0	0
2	0	0	0	0
3	0	0	1	5.9%
4	0	0	0	0
5	0	0	2	11.8%
6	0	0	1	5.9%
7	0	0	4	23.5%
8	0	0	9	52.9%
9	0	0	0	0
10	0	0	0	0

Based on the data in Table 3, from the results of the statistical test of the back pain scale scale for

third trimester pregnant women at UPT Puskesmas Tideng pale, Tana Tidung Regency after a combination of effleurage massage and warm compresses in the intervention group, most (70.6%) respondents experienced a decrease in the pain scale to painless with a pain scale score of 0. While in the control group, very different results were obtained, namely only a small percentage (5.9%) of respondents experienced changes in pain to mild with a pain scale score of 3.

Bivariate Analysis

Table 4
Statistical Test Results The effectiveness of a combination of effleurage massage and warm compresses towards reducing back pain for pregnant women at UPT Puskesmas Tideng Pale

Variabel	Z	p-value
Intervention Group	-3.714	0.000
Control Group	-1.000	0.317

Based on the data in Table 4 The results of the statistical test show a p-value of 0.000 smaller than α (0.05), it can be concluded that there is a difference between the scale of back pain of III trimester pregnant women in the pre-test and post-test in the intervention group so that it can be concluded that there is an effectiveness of the combination of effleurage massage and warm compresses on reducing back pain of third trimester pregnant women at UPT Puskesmas Tideng Pale. while in the control group, a p-value of 0.317 was greater than α (0.05), so it can be concluded that there is no difference between the scale of back pain of third trimester pregnant women at UPT Puskesmas Tideng Pale in the pre-test and post-test in the control group.

DISCUSSIONS

Identification Of The Scale Of Back Pain For Third Trimester Pregnant Women At UPT Puskesmas Tideng Pale Kabupaten Tana Tidung Before A Combination Of Effleurage Massage And Warm Compresses Is Carried Out

The results of the identification of the back pain scale for third trimester pregnant women at UPT Puskesmas Tideng pale Tana Tidung Regency before the combination of effleurage massage and warm compresses in the intervention group were a small percentage (11.8%) of respondents experienced moderate pain complaints with a pain scale score of 5, a small percentage (11.8%) of respondents experienced moderate pain with a pain

scale score of 6, most (52.9%) respondents experienced severe pain with a pain scale score of 7 and a small part (23.5%) Respondents experienced severe back pain with a pain scale score of 9. While in the control group, a small percentage (11.8%) of respondents experienced moderate pain with a pain scale score of 5, a small percentage (5.9%) of respondents experienced moderate pain with a pain scale score of 6, a small part (23.5%) of respondents experienced severe pain with a pain scale score of 7 and most (58.8%) respondents experienced severe pain with a pain scale score of 8.

Back pain is more widely felt by pregnant women, especially when entering the second and third trimesters and is a common complaint that is often felt so that it is estimated that around 70% of pregnant women complain of some form of back pain during pregnancy, labor to postpartum. Back pain is a very frequent problem in pregnancy, especially in the third trimester of pregnancy. The phenomenon of pain today has become a complex problem defined by the International society for the study of pain as "unpleasant sensory and emotional experiences resulting from tissue damage, both actual and potential". Pain causes fear and anxiety and can increase stress and drastic physiological changes during pregnancy. These changes are caused by the weight of an enlarged uterus, excessive bending, walking without rest, and lifting weights. Symptoms of back pain are also caused by the hormones estrogen and progesterone that relax the joints, bone bundles and muscles in the hips. (Purnamasari & Widiyawati, 2019)

Back pain in pregnant women can be overcome by pain management consisting of 2 ways, namely pharmacology and non-pharmacology. Pharmacological procedures are carried out by administering analgesics to reduce or relieve pain, while non-pharmacological procedures can be done by giving complementary therapies such as breathing techniques, changing positions, massage, hot or cold therapy, and finger grip relaxation therapy (Rosa et al., 2023).

According to researchers, it is very necessary to take actions that help pregnant women in the third trimester to reduce back pain, considering that if back pain does not get proper and proper management it can have a long impact on pregnant women and greatly interfere with the activities of third trimester pregnant women. According to researchers, non-pharmacological intervention can greatly help trimenster III pregnant women to reduce back pain, because it has no long-term and serious effects for pregnant women.

Identification of the scale of back pain for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung regency after a combination of effleurage massage and warm compresses

The results of the identification of the back pain scale for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency after a combination of effleurage massage and warm compresses in the intervention group were most (70.6%) respondents decreased the scale to painless with a pain scale score of 0 and almost half (29.4%) respondents experienced a decrease in the pain scale to mild with a pain scale score of 1 While in the control group only partial results were obtained Small (5.9%) respondents experienced a change in pain to mild with a pain scale score of 3, while a small percentage experienced moderate pain (11.8) respondents with a pain scale score of 5, a small percentage (23.5%) respondents continued to experience severe pain with a pain scale score of 7 and most (52.9%) respondents continued to experience severe pain with a pain scale score of 8

In previous studies conducted by (Andriani et al., 2023) non-pharmacological therapy has often been given and proven to help relieve back pain, especially for third trimseter pregnant women, one of which is effleurage massage. The mechanism of action of effleurage massage in reducing back pain in the third trimester of pregnant women is a movement by using the entire surface of the palm attached to the rubbed body parts. The shape of the palms and fingers always adjusts to the part of the body that is rubbed. The therapeutic effects or healing effects of this effleurage include helping to improve venous blood circulation and lymph circulation / lymph fluid, helping to improve metabolic processes, improving the process of removing combustion residues or reducing fatigue, helping the absorption (absorption) of odema due to inflammation, relaxation and reducing pain (Andriani et al., 2023).

In addition to effleurage massage, one of the non-pharmacological measures that have proven effective in relieving back pain in III trimester pregnant women is to use warm compresses. The mechanism of action of warm compresses in helping reduce back pain in III trimester pregnant women is that the heat caused by warm compresses can cause dilation and physiological changes so as to facilitate blood circulation and relieve pain. This heat response is used for pain reduction therapy. The therapeutic effect of applying warm compresses will be able to reduce muscle spasms and reduce joint stiffness (Suryani et al., 2022).

According to researchers, the decrease in the scale of back pain in the intervention group in the third trimester of pregnant women occurred due to an increase in comfort, relaxation produced by effleurage massage and a warm feeling that made stiff back muscles relax because of the warm feeling of warm compresses given to the back of III trimester pregnant women. The decrease in pain scale was obtained after a combination intervention of effleurage massage and warm compresses, this was evidenced by 5 assessments of pain scales that were getting smaller in value on each parameter.

In the control group did not experience changes in the scale of pain, this was because the control group was not given any intervention, only given leaflets about the management of back pain of pregnant women by means of a combination of effleurage massage and warm compresses on the back of III trimester pregnant women. This is in line with research that conducted by (Simbung et al., 2022) with the title of research on the effectiveness of progressive muscle relaxation techniques with effleurage massage on back pain in III Trimester Pregnant Women, statistical analysis was obtained in the control group using the Wilcoxon Signed Ranks Test in the control group was 0.157 ($\alpha \leq 0.00$) so that it can be concluded that in the control group (the group that was not given any treatment) it could not affect the reduction of maternal back pain Third trimester pregnancy, this is because IEC alone is not proven effective for changing one's behavior because each individual has a different response to the information obtained.

The effectiveness of the combination of effleurage massage and warm compresses on reducing back pain for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency

The results of the study based on the output of statistical tests in this study are known to be p-values of 0.000 smaller than α (0.05), so it can be concluded that there is a difference between the scale of back pain of III trimester pregnant women in the pre-test and post-test in the intervention group so that it can be concluded that there is an effectiveness of a combination of effleurage massage and warm compresses on reducing back pain for third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Regency Tidung. While in the control group, the p-value of 0.317 was greater than α (0.05), then HA was rejected and it can be concluded that there is no difference between the scale of back pain of III trimester pregnant women in the pre-test and post-test in the control group.

This is in line with previous research conducted by (Suryani et al., 2022) with the research title "The effectiveness of massage effleurage and relaxation techniques on the level of back pain of third trimester pregnant women at the Puskesmas Kenali Besar Jambi City" this study they used the Wilcoxon test to show that p-value = 0.000 which means there is an effect of giving effleurage massage on reducing back pain for III trimester pregnant women. and also in line with research conducted by (Dian Agustriyani Putri et al., 2023) with the research title "The effect of warm compresses on the intensity of back pain in third trimester pregnant women at PMB D South Jakarta City in 2022" the results of this study using the Wilcoxon test obtained significant results of 0.000 smaller than the significant level of 5% (p-value = $0.000 < 0.05$), then the conclusion is that Ha is accepted which means there is an effect of warm compresses on back pain in III trimester pregnant women.

Effleurage massage is a long, uninterrupted gentle stroke, causing a relaxing effect. Some patterns of effleurage massage where the selection of massage patterns depends on the wishes of each user and its benefits in providing comfort, as well as the role of warm compresses to reduce back pain, where compresses given to the back will produce a warm sensation and can reduce pain, and also improve blood circulation, vascularization smoothly and vasodilation occurs which makes relaxation in the muscles because the muscles get excess nutrition carried by blood so that muscle contractions decrease and cause effects to relieve pain, one of which is back pain that is often felt by III trimester pregnant women.

While in the control group, the results of the Wilcoxon test obtained a p-value of 0.317 greater than α (0.05), then Ha was rejected and it can be concluded that there is no difference between the scale of back pain of third trimester pregnant women at UPT Puskesmas Tideng Pale, Tana Tidung Regency in the pre-test and post-test in the control group who were not given any treatment, but purchased by KIE regarding reducing the scale of back pain using leaflet media. In previous research conducted by (Hudana et al., 2022), Where this study also examined the reduction of back pain in III trimester pregnant women obtained significant results between the intervention group and the control group. In the intervention group, bakom massage treatment was given to 15 respondents of III trimester pregnant women and carried out a Wilcoxon static test of 0.000 ($\alpha \leq 0.00$) then Ha was accepted, while in the kontrol group that was not

given treatment only given IEC obtained results of 0.157 ($\alpha \leq 0.00$) then H_a was rejected. So the conclusion of the study in the control group that was only given intervention only given IEC alone proved not to be petrified in reducing back pain felt by pregnant women in the third trimester, this is because the response of each individual to the information conveyed was different.

According to the researchers, there is a very prominent difference between the intervention group and the control group, this is because the intervention group is given routine treatment of effleurage massage combined with warm compresses, this is effective for reducing back pain felt by pregnant women. While in the control group, researchers only provided leaflets about reducing back pain using effleurage massage and warm compresses without special treatment, this is because each individual's response to the information provided is different. From this study, researchers also concluded that there is an effectiveness of the combination of effleurage massage and warm compresses to reduce back pain for III trimester pregnant women, specifically for III trimester pregnant women in the working area of UPT Puskesmas Tideng Pale, Tana Regency, Tidung Province, North Kalimantan.

CONCLUSION

Research at UPT Puskesmas Tideng Pale, Tana Tidung Regency showed that third trimester pregnant women who experienced moderate to severe back pain experienced a significant decrease in pain scale after being given a combination of effleurage massage and warm compresses. Before the intervention, all respondents experienced moderate to severe back pain, but after the intervention, almost all respondents reported a decrease in pain scale to mild pain or no pain at all. These results indicate that the combination of effleurage massage and warm compresses is effective in reducing back pain in III trimester pregnant women.

SUGGESTION

It is expected that pregnant women in the third trimester continue to apply a combination of effleurage massage and warm compresses to reduce back pain during pregnancy. Midwives and research sites should provide information to pregnant women about the use of this method as an alternative solution for back pain. Educational institutions are expected to use the results of this research as a reference in the development of midwifery science to improve the quality of midwifery care. In addition,

researchers can further make the results of this study as a reference for further research

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