

## THE EFFECT OF WARM COMPRESSES WITH REDUCING COMPLAINTS OF LOW PAIN FOR PREGNANT WOMEN

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### ABSTRAK : PENGARUH KOMPRESI HANGAT DALAM MENGURANGI KELUHAN NYERI BAWAH PADA IBU HAMIL

Latar Belakang : Kehamilan merupakan masa transisi, yaitu masa antara kehidupan sebelum memiliki anak yang saat ini berada dalam kandungan dengan kehidupan setelah anak lahir. Pada trimester ketiga, perubahan postur tubuh ibu hamil akan tampak signifikan seiring dengan ukuran janin yang juga mengakibatkan perubahan pada kurva lordosis lumbal. Dalam proses adaptasi tersebut, tidak jarang ibu mengalami ketidaknyamanan meskipun bersifat fisiologis namun tetap perlu diberikan pencegahan dan penanganan. Beberapa ketidaknyamanan pada trimester kedua dan ketiga antara lain sering buang air kecil 50%, keputihan 15%, sembelit 40%, perut kembung 30%, pembengkakan kaki 20%, kram kaki 10%, sakit kepala 20%, striae gravidarum 50%, wasir 60%, sesak napas 60% dan nyeri punggung 70%. Tujuan penelitian: Untuk mengetahui pengaruh kompres hangat terhadap penurunan keluhan nyeri pinggang bawah ibu hamil TM III di wilayah kerja Puskesmas Palas Desa Sukabakti Kecamatan Palas Kabupaten Lampung Selatan.

Metode penelitian: Jenis penelitian ini adalah kuantitatif, desain penelitian adalah metode pra eksperimen dengan pendekatan one group pretest – posttest design. Populasi dan sampel dalam penelitian ini adalah ibu hamil TM III di wilayah kerja Puskesmas Palas Desa Sukabakti Kecamatan Palas Kabupaten Lampung Selatan sebanyak 25 orang. Teknik pengambilan sampel dalam penelitian ini adalah total sampling. Pemberian kompres hangat dengan suhu 43°C-47°C pada daerah yang nyeri, pada pinggang atau bagian tubuh lainnya selama 10 menit klien merasa lebih nyaman dan rileks, perlakuan hanya dilakukan selama 10 menit dalam 1 kali intervensi. Analisis data menggunakan analisis univariat dan bivariat dengan menggunakan uji Wilcoxon.

Hasil: Rata-rata nyeri punggung bawah ibu hamil TM III sebelum diberikan kompres hangat dengan nilai rerata 5,80, nilai nyeri terendah 4 dan nilai nyeri tertinggi 8. Rata-rata nyeri punggung bawah ibu hamil TM III sesudah diberikan kompres hangat dengan nilai rerata 3,24 skor nyeri terendah 2 dan nilai nyeri tertinggi 6.

Nilai p sebesar  $0,000 < 0,05$  yang berarti ada pengaruh kompres hangat. Kesimpulan: terhadap penurunan keluhan nyeri punggung bawah pada ibu hamil TM III.

Saran: Dapat memberikan informasi bagi pengembangan keperawatan maternitas/kebidanan tentang teknik kompres hangat pada ibu yang mengalami nyeri punggung bawah pada kehamilan TM III, sehingga dapat mengurangi kecemasan terhadap nyeri yang ditimbulkan.

Kata kunci: Ibu hamil TM III, kompres hangat, nyeri punggung

### ABSTRACT

Background : Pregnancy is a time of transition, a period between life before having a child who is now in the womb and life later after the child is born. The third trimester changes in the posture of pregnant women will appear significant along with the size of the fetus which also results in changes in the lumbar lordosis curve. In the process of adaptation, it is not uncommon for mothers to experience discomfort even though it is physiological but still needs to be given a prevention and treatment. Some of the discomforts in the second and third trimesters include frequent urination 50%, vaginal discharge 15%, constipation 40%, flatulence 30%, leg swelling 20%, leg cramps 10%, headache 20%, striae gravidarum 50%, hemorrhoids 60%, shortness of breath 60% and back pain 70%.

Purpose study: To know the effect of warm compresses on reducing low back pain complaints of pregnant women TM III in the work area of the Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency.

Research method: This type of research is quantitative, the research design is pre-experimental method with a one group pretest – posttest design approach. The population and sample in this study were pregnant women TM III in the working area of the Palas Public Health Center, Sukabakti Village, Palas District, South Lampung Regency, as many as 25 people. The sampling technique in this study is the total side. Giving a warm compress

with a temperature of 43°C-47°C in the painful area, at the waist or other body parts for 10 minutes the client feels more comfortable and relaxed, the treatment is only done for 10 minutes in 1 intervention. Data analysis using univariate and bivariate analysis using Wilcoxon test.

Results: The average low back pain of pregnant women in TM III before being given warm compresses with a mean value of 5.80, the lowest pain value 4 and the highest pain value 8. The average low back pain for pregnant women in TM III after being given warm compresses with a mean value of 3.24 the lowest pain score is 2 and the highest pain value is 6.

The p-value is 0.000 <0.05, which means that there is an effect of warm compresses Conclusion: on reducing low back pain complaints for pregnant women with TM III.

Suggestion: Can provide information for the development of maternity/midwifery nursing about the warm compress technique for mothers who experience low back pain in pregnancy TM III, so as to reduce anxiety from the pain caused.

Keywords : TM III pregnant women, warm compresses, back pain

## INTRODUCTION

Pregnancy is fertilization or union of spermatozoa and ovum and is continued by nidation or implantation. When calculated from the time of fertilization to the birth of the baby, a normal pregnancy will take place within 40 weeks or 10 months or 9 months according to the international calendar. Pregnancy is divided into 3 trimesters, where the first trimester lasts for 12 weeks, the second trimester is 15 weeks (weeks 13 to 27), and the third trimester is 13 weeks, weeks 28 to 40 (Walyani, 2015).

Pregnancy is a time of transition, a period between life before having the child now in the womb and life later after the child is born. This radical change in status is considered a crisis accompanied by a certain period to undergo a process of psychological preparation which normally exists during pregnancy and peaks at birth (Sukarni & Wahyu, 2019). Varney and Prawirohardjo (2008; Yuspina, 2018) suggest that during pregnancy, many women experience psychological and emotional changes.

The third trimester changes in the posture of pregnant women will appear significant along with the size of the fetus which also results in changes in the lumbar lordosis curve. Increased abdominal distension predisposes the pelvis to tilt forward. Meanwhile, decreased abdominal muscle tone requires re-alignment or readjustment of the vertebral curve. The shift of Center of Gravity (COG) forward causes the lumbosacral curve to become more lordotic. This causes the cervix to tend to flex anteriorly to maintain balance. This often causes low back pain (Jenaka, 2011; Anggraini, 2018).

Discomfort is a feeling that is lacking or unpleasant for the physical or mental condition of pregnant women. Pregnancy is a natural process in women that will cause various changes and cause

discomfort, this is a normal condition for pregnant women. Some mothers usually complain about things that make their pregnancy uncomfortable and sometimes make it difficult for the mother (Hidayat, 2008; Yuspina, 2018).

In the adaptation process, it is not uncommon for mothers to experience discomfort even though it is physiological but still needs to be given a prevention and treatment. Some of the discomforts in the second and third trimesters include frequent urination 50%, vaginal discharge 15%, constipation 40%, flatulence 30%, leg swelling 20%, leg cramps 10%, headache 20%, striae gravidarum 50%, hemorrhoids 60%, 60% shortness of breath and 70% back pain (Astuti, 2009; Ni'amah, 2020).

Discomfort during pregnancy TM III can be influenced by physical factors related to anatomical changes and psychological factors. In general, low back pain disorders are physiological, but can turn into pathology if not treated properly. For this reason, a thorough knowledge and understanding of midwives is needed in order to assist mothers in dealing with low back pain during pregnancy (Wahyuni, et al, 2016).

The physiological effects of hot compresses are vasodilation, relieve pain by relaxing muscles, have a sedative effect and relieve pain by getting rid of inflammatory products that cause pain. The physiological effect of cold compresses is vasoconstriction, making the area numb, slowing the speed of nerve conduction so that it slows down the flow of pain impulses (Aulia, 2018).

In line with Aulia's research (2018) with the title The Effect of Hot Compresses and Cold Water on Back Pain of Pregnant Women in the Third Trimester in the Rajapolah Health Center Work Area in 2018. The results showed that the value of low back pain intensity on warm compresses was 1.61

while the intensity of low back pain on cold compress treatment of 0.57.

Data on deliveries in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022, as many as 828 deliveries. Based on the results of a pre-survey conducted on 10 TM III pregnant women, 7 mothers experienced pain in the lower back to the buttocks as well as the back legs, while the other 3 mothers said that they only experienced pain in the waist.

## RESEARCH METHODS

In this study the author uses a type of quantitative research. In this study, the research design used a pre-experimental method with a one group pretest - posttest design approach. The population and sample in this study were TM III pregnant women in the Palas Health Center Work Area, Sukabakti Village, Palas District, South

Lampung Regency, as many as 25 people. The sampling technique in this study is the total side. Giving warm compresses with a temperature of 43oC-47oC in the pain area, waist or other body parts for 10 minutes the client feels more comfortable and relaxed, the treatment is only done for 10 minutes in 1 intervention. Data analysis using univariate and bivariate analysis using dependent t-test.

## RESEARCH RESULTS

### Characteristics of Respondents

From table 1 above, it can be seen that the characteristics of 25 respondents with the most age being not at risk were 21 respondents (84.0%), most parity was primipara 13 respondents (52.0%), the most gestational age was 30 weeks 7 respondents (28.0%), the highest BMI was high BMI (25 and 29.9) 16 respondents (64.0%), the highest TBJ was 3200gr, 15 respondents (60.0%).

**Table 1**  
**Characteristics of Pregnant Women TM III before being given a warm compress in the working area of the Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency in 2022**

| Characteristics              | Frekuensi | Persentase |
|------------------------------|-----------|------------|
| Usia                         |           |            |
| Beresiko (<20 dan >35 Tahun) | 4         | 16,0       |
| Tidak Beresiko (20-35 Tahun) | 21        | 84,0       |
| Paritas                      |           |            |
| Primipara                    | 13        | 52,0       |
| Multipara                    | 12        | 48,0       |
| Usia Kehamilan               |           |            |
| 28 Minggu                    | 3         | 12,0       |
| 30 Minggu                    | 7         | 28,0       |
| 32 Minggu                    | 2         | 8,0        |
| 34 Minggu                    | 1         | 4,0        |
| 35 Minggu                    | 2         | 8,0        |
| 36 Minggu                    | 3         | 12,0       |
| 37 Minggu                    | 4         | 16,0       |
| 38 Minggu                    | 3         | 12,0       |
| IMT                          |           |            |
| Normal (18,5-24,9)           | 9         | 36,0       |
| Tinggi (25 dan ≥29,9)        | 16        | 64,0       |
| TBJ                          |           |            |
| 2900gr                       | 1         | 4,0        |
| 3000gr                       | 5         | 20,0       |
| 3100gr                       | 4         | 16,0       |
| 3200gr                       | 15        | 60,0       |

**Tabel 2**  
**Differences in Pain Based on the Characteristics of Pregnant Women TM III before being given a warm compress in the work area of the Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency 2022**

| Characteristics              | Frekuensi | Pretes | Postes | P-value |
|------------------------------|-----------|--------|--------|---------|
| Usia                         |           |        |        |         |
| Beresiko (<20 dan >35 Tahun) | 4         | 5,00   | 2,50   | 0,003   |
| Tidak Beresiko (20-35 Tahun) | 21        | 5,95   | 3,38   |         |
| Paritas                      |           |        |        |         |
| Primipara                    | 13        | 5,54   | 2,77   | 0,000   |
| Multipara                    | 12        | 6,08   | 3,75   |         |
| Usia Kehamilan               |           |        |        |         |
| 28 Minggu                    | 3         | 5,33   | 3,67   | 0,015   |
| 30 Minggu                    | 7         | 5,00   | 2,86   |         |
| 32 Minggu                    | 2         | 6,50   | 2,50   |         |
| 34 Minggu                    | 1         | 6,00   | 2,00   |         |
| 35 Minggu                    | 2         | 6,00   | 2,50   |         |
| 36 Minggu                    | 3         | 4,67   | 2,67   |         |
| 37 Minggu                    | 4         | 6,25   | 3,50   |         |
| 38 Minggu                    | 3         | 7,33   | 5,33   |         |
| IMT                          |           |        |        |         |
| Normal (18,5-24,9)           | 9         | 5,56   | 2,89   | 0,000   |
| Tinggi (25 dan ≥29,9)        | 16        | 5,69   | 3,54   |         |
| TBJ                          |           |        |        |         |
| 2900gr                       | 1         | 5,00   | 2,00   | 0,003   |
| 3000gr                       | 5         | 5,20   | 3,00   |         |
| 3100gr                       | 4         | 6,75   | 3,50   |         |
| 3200gr                       | 15        | 5,80   | 3,33   |         |

From table 2 above, it can be seen the characteristics of 25 respondents with the most age being the age not at risk as many as 21 respondents (84.0%) the average pretest pain was 5.95 and the average post-test pain was 3.38 p-value 0.003, the highest parity primipara 13 respondents (52.0%) the average pretest pain was 5.54 and the average post-test pain was 2.77 p-value 0.000, the most gestational age was 30 weeks 7 respondents (28.0%) the average pretest pain 5.00 and the average post-test pain 2.86 p-value 0.015, the highest BMI was high BMI (25 and 29.9) 16 respondents (64.0%) the average pre-test pain was 5.69 and the average the average post-test pain was 3.54 p-value 0.000, the most TBJ was 3200gr 15 respondents (60.0%) the average pre-test pain was 5.80 and the average post-test pain was 3.33 the p-value was 0.003.

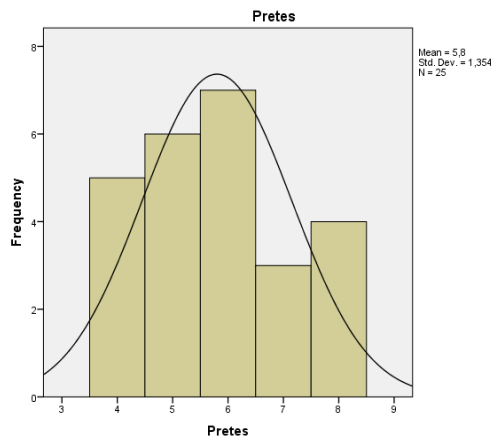
Health Center Work Area Sukabakti Village, Palas District, South Lampung Regency in 2022, with a mean value of 5.80 the lowest pain value is 4 and the highest pain value is 8.

**Table 3**  
**Average back pain of pregnant women TM III before being given a warm compress in the working area of the Palas Village Health Center Sukabakti, Palas District, Regency South Lampung Year 2022**

| Nyeri  | N  | Mean | Min-Max | SD    | SE    |
|--------|----|------|---------|-------|-------|
| Pretes | 25 | 5,80 | 4-8     | 1,354 | 0,271 |

### Univariate Analysis Waist Pain Pregnant Women TM III Before Giving Warm Compress

From table 3 above, it can be seen that the average low back pain for pregnant women TM III before being given warm compresses in the Palas

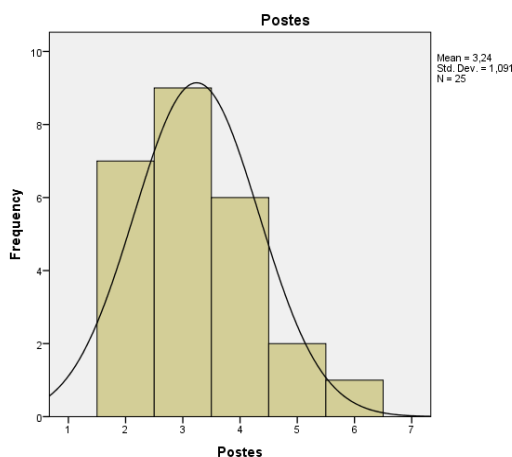


Low back pain for pregnant women TM III after being given a warm compress

**Table 4**  
Average waist pain of pregnant women TM III after being given a warm compress in the working area of the Palas Health Center, Sukabakti Village, Palas District, District South Lampung Year 2022

| Nyeri  | N  | Mean | Min-Max | SD    | SE    |
|--------|----|------|---------|-------|-------|
| Pretes | 25 | 3,24 | 2-6     | 1,091 | 0,218 |

From table 4 above, it can be seen that the average low back pain for pregnant women TM III after being given a warm compress in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022, with a mean value of 3.24, the lowest pain value is 2 and the highest pain value is 6



**Bivariate Analysis**

From table 5, it can be seen that the average pretest pain with a mean value of 5.80, the lowest pain value was 4 and the highest pain value was 8, and the average post-test pain with a mean value of

3.24, the lowest pain value was 2 and the highest pain value was 6.

**Table 5**  
The Effect of Warm Compresses With Reducing Complaints of Low Back Pain Pregnant Women TM III in the Palas Health Center Work Area Sukabakti Village, Palas District, Regency South Lampung Year 2022

| Nyeri  | N  | Mean | SD    | SE    | P-value |
|--------|----|------|-------|-------|---------|
| Pretes | 25 | 5,80 | 1,354 | 0,271 | 0,000   |
| Postes | 25 | 3,24 | 1,091 | 0,218 |         |

As for the p-value 0.000 <0.05, which means that there is an effect of warm compresses with a decrease in low back pain complaints of pregnant women TM III in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022.

**DISCUSSION**

**Average Characteristics of Pregnant Women TM III before being given warm compresses in the working area of Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency in 2022**

The characteristics of the 25 respondents with the highest age were age not at risk as many as 21 respondents (84.0%) the average pre-test pain was 5.95 and the post-test pain average was 3.38, p-value 0.003, the highest parity was primiparas, 13 respondents (52, 0%) the average pretest pain was 5.54 and the average post-test pain was 2.77 the p-value was 0.000, the most gestational age was 30 weeks 7 respondents (28.0%) the average pre-test pain was 5.00 and the average the average post-test pain was 2.86, the p-value was 0.015, the most BMI was more than 13 respondents (52.0%), the average pre-test pain was 5.69 and the average post-test pain was 3.54, the p-value was 0.000, the most TBJ was 3200gr 15 respondents (60.0%) the average pretest pain was 5.80 and the average post-test pain was 3.33 the p-value was 0.003.

This is in accordance with the statement of Fraser (2009) in the period of healthy reproduction, it is known that the safe age for pregnancy and childbirth is 20-35 years. Age less than 20 years and more than 35 years are at high risk in undergoing pregnancy and childbirth. Everyone has a different way of dealing with and interpreting pain.

According to Potter and Perry (2006) there is a relationship between pain with age, namely at the level of development. Adults will experience

neurological changes and may experience decreased sensory perception of stimuli and increased pain threshold.

Increasing gestational age will cause the muscles to stretch to accommodate the expanding uterus, when this stretch occurs it will cause a loss of ability to perform its function of maintaining posture, causing the back to support most of the increased weight. In addition, the enlarged uterus, increased fluid volume and fluid retention during pregnancy causes compression of the vena cava so that hypoxia will occur in the pelvic and lumbar spine. (Jennifer and Jonathan: 2008). In addition, increasing gestational age causes changes in posture in pregnancy so that a shift in the center of gravity of the body shifts forward, so that if the abdominal muscles are weak, it causes bone indentation in the lumbar region, causing back pain (Ulfah, M; 2014).

According to researchers, height is related to weight during pregnancy, the body will support the mother's weight during pregnancy. Persistent back pain can occur in women with low back and pelvic pain, low back pain in early pregnancy, back extensor muscle weakness, older individuals, and people who have job dissatisfaction. Throughout pregnancy, women experience physiological changes caused by anatomical and functional needs. Hygienic changes affect the musculoskeletal system and usually cause pain, including low back pain.

Low back pain that is felt during pregnancy is not only caused by changes in spinal posture but is caused by an increase in the diameter of the abdomen and sagittal diameter which shifts the center of mass of the body to the anterior, thereby increasing the burden on the lower back and pressure on the lower back caused by the increased weight of the baby in the abdomen. mother.

During pregnancy, relaxation of the joints around the pelvis and lower back of pregnant women may occur due to hormonal changes. Along with the gradual weight gain during pregnancy and the redistribution of concentration there is a hormonal influence on muscle structure that occurs during pregnancy. Both of these factors lead to changes in body posture in pregnant women. Changes in the musculoskeletal system occur as the gestational age increases. These musculoskeletal adaptations include: weight gain, shifting of the center of gravity due to uterine enlargement, relaxation and mobility. The greater the possibility of instability of the sacroiliac joint and an increase in lumbar lordosis, which causes pain (Purnamasari, 2019).

### **Average back pain of pregnant women TM III before being given a warm compress in the working area of the Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency in 2022**

The average low back pain of pregnant women TM III before being given warm compresses in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022, with a mean value of 5.80, the lowest pain value 4 and the highest pain value 8.

In line with the theory put forward by (Mc. Caffery, 1979; Zakiyah, 2015) Pain is a phenomenon that is difficult to understand, complex and mysterious which affects a person and its existence is known when someone experiences it. Pain is a very unpleasant experience that is felt by a person against a certain stimulus and cannot be shared with others. Pain is an unpleasant sensory and emotional experience resulting from actual and potential tissue damage (IAFSP, 2010; Zakiyah, 2015).

This study is in line with research conducted by Rosdiana (2014) Side sleeping position is effective in reducing low back pain in third trimester pregnant women at the Kia Rs Rahman Rahim Polyclinic, Saimbang Sukodono Village, Sidoarjo. The results of the study, most (66.7%) pregnant women did not regularly sleep on their side and half (50%) experienced moderate pain levels. Pain in pregnant women TM III muscle and bone strength to support the mother's weight which has been increasing for several days.

According to researchers pain as a condition that affects a person whose existence is known only if the person has experienced it, pain will get worse if a person is unable to bear the pain, or divert the pain.

### **Average low back pain of pregnant women TM III after being given a warm compress in the working area of the Palas Health Center, Sukabakti Village, Palas District, South Lampung Regency in 2022**

The average low back pain of pregnant women TM III after being given a warm compress in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022, with a mean value of 3.24, the lowest pain value is 2 and the highest pain value is 6.

In line with the theory put forward by (Kozier., Erb, 1983; Zakiyah, (2015) Pain is a sensation of discomfort manifested as a sufferer caused by real perceptions, threats, and fantasies of injury. Pain is an unpleasant sensory experience, elements The main thing that must be present to be called pain is an unpleasant feeling. Without that element it cannot

be categorized as pain, although on the contrary everything that is unpleasant cannot be called pain (Zakiyah, 2015)

This study is in line with research conducted by Rosdiana (2014) Side sleeping position is effective in reducing low back pain in third trimester pregnant women at the Kia Rs Rahman Rahim Polyclinic, Saimbang Sukodono Village, Sidoarjo. The results of the study, most (66.7%) pregnant women did not regularly sleep on their side and half (50%) experienced moderate pain levels.

According to the researcher, pain measurement by looking at the respondent's pain scale, the pain scale is a subjective assessment to find out how severe the pain is felt by an individual, this is because each individual's perspective is different, especially in assessing the pain he suffers. This condition can be seen when the treatment given is the same, each person will experience different results. Likewise in this study, although all respondents experienced a decrease in pain scale, in some respondents with the same pain scale before treatment, different pain scales were obtained after treatment.

#### **The Effect of Warm Compresses With Reduction of Complaints of Low Back Pain Pregnant Women TM III in the Palas Health Center Work Area Sukabakti Village, Palas District, South Lampung Regency in 2022**

As for the p-value of 0.000 <0.05, which means that there is an effect of warm compresses with a decrease in complaints of low back pain for pregnant women TM III in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022.

In line with the theory put forward by Simkin., Penny (2008; Susilawati, 2019) Warm compresses can provide a warm feeling that aims to provide a sense of comfort, overcome pain, reduce or prevent muscle spasms and provide a feeling of warmth in certain areas. Warm compresses have a physiological impact on the body, namely softening fibrous tissue, affecting tissue oxygenation so as to prevent muscle stiffness, vasodilatation and improving blood flow, so as to reduce or eliminate pain. In addition, the excess of warm compresses can help wound recovery, reduce infection and inflammation, facilitate the supply of blood flow and provide calm and comfort to the client.

This study is in line with research conducted by Prata (2020) Comparison between Warm Compresses and Acupressure to Reduce Low Back Pain in Third Trimester Pregnant Women. There was a significant difference in respondents' lower back

pain before and after the warm compress intervention ( $p=0.000$ ). The mean value before being given a warm compress intervention was 4.5 to 2.2 with a mean difference of 2.3. There was a significant difference in respondents' lower back pain before and after being given acupressure intervention ( $p=0.000$ ). The mean value before being given acupressure intervention was 3.5 to 2.3 with a mean difference of 1.2. There was a significant and significant difference for respondents' low back pain between the warm compress and acupressure intervention ( $p=0.001$ ).

According to researchers, pregnancy is a condition in which a woman is pregnant and develops a fetus in her womb for nine months. Pregnancy is a physiological process and in the trimester it affects pregnancy pain, which is caused by changes in body shape and the growing fetus, and has an impact on spinal pain. According to the Indonesian Ministry of Health (2010), changes in the musculoskeletal system in pregnant women will cause mothers to often feel low back pain. Low back pain is discomfort that occurs below the ribs and above the inferior gluteal (Prabowo, 2012). Back pain will increase with increasing gestational age (Ummah, 2017; Pratama, 2020).

The results of the bivariate analysis obtained the pretest pain value with a mean value of 5.80 and the average post-test pain with a mean value of 3.24. In this study, warm compresses can reduce low back pain in pregnant women before warm compresses by an average of 5, and after being given warm compresses to an average of 3. This proves that warm compresses can reduce pain, because warm compresses can have a vasodilating effect, namely widening blood vessels.

According to researchers, warm compresses have an effect on reducing low back pain in TM III pregnant women, warm compresses function to increase blood flow so as to accelerate healing, increase lymph node flow to get rid of substances that are not needed by the body. Warm compresses also work to reduce pain by blocking the sensation of pain. The warm sensation also relaxes the body thereby reducing muscle and joint stiffness.

The physiological effects of hot compresses are vasodilation, relieve pain by relaxing muscles, have a sedative effect and relieve pain by getting rid of inflammatory products that cause pain. This is because giving a warm compress using a bag filled with warm water with a temperature of 43OC-47OC can soften fibrous tissue and make muscles more relaxed, so that it can reduce pain and facilitate blood flow supply and provide calm to the patient (Ihina Angelina, 2013). In accordance with the findings in

the study, that when giving warm compresses to the painful area for 15-25 minutes the client feels more comfortable and relaxed.

## CONCLUSION

The average low back pain of pregnant women TM III before being given a warm compress with a mean value of 5.80 as many as 13 people experienced pain above the average, and as many as 12 people experienced pain below the average. The average waist pain of pregnant women TM III after being given a warm compress with a mean value of 3.24 as many as 9 people experienced pain above the average, and as many as 16 people experienced pain below the average. The p-value is  $0.000 < 0.05$ , which means that there is an effect of warm compresses with a decrease in complaints of low back pain for pregnant women TM III in the Palas Health Center Work Area, Sukabakti Village, Palas District, South Lampung Regency in 2022.

## SUGGESTION

In health care institutions, especially midwives, it is hoped that they can provide education through leaflets or banners that are displayed in front of the Puskesmas or midwifery services, so that mothers will read and remember when doing ANC, or classes for pregnant women. Can provide information for the development of maternity/midwifery nursing about warm compress techniques for mothers who experience low back pain in pregnancy TM III, so as to reduce anxiety from the pain caused. It is hoped that the results of this study can be used as reference material and input for further researchers with different variables, and can compare with the group that was given cold compresses.

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