International Journal of Medicine and Health (IJMH)
Vol.2, No.2 June 2023
E-ISSN: 2962-1178- P-ISSN: 2962-0880, Hal 16-23
DOI: https://doi.org/10.55606/ijmh.v2i2.1733

The Effect Of Warm Water Therapy On Reducing Spinal Pain In Pregnant Women At Antang Health Center In Makassar City

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ABSTRACT. Spinal pain in pregnancy is caused by hormonal, musculoskeletal, and stressful changes. Spinal pain in pregnancy if left untreated will have an impact on the quality of life and daily activities of pregnant women The management of spinal pain in pregnancy can include pharmacological and non-pharmacological. Non-pharmacological pain management is warm water therapy. Warm water therapy provides the effect of rirelaxation, vasodilation of blood vessels, removes metabolic waste that is no longer in use, and reduces muscle spasmsThe purpose of this study is to determine the effect of warm water therapy on reducing spinal pain in pregnant women at the Antang Health Center, Makassar City in 2022 This research is a quantitative study with a quasi-experimental design non-equivalent with one group pre-test post-test. The total population of 64 respondents with a sample of 30 respondents who met the inclusion criteria, the independent variable was warm water therapy and the dependent variable was the reduction of spinal pain in pregnant women. The results of the spinal pain scale study before warm water therapy were carried out on a moderate pain scale (4-6) there were 15 respondents with a percentage (50%). And after a warm compress was carried out, there were 18 respondents with a percentage (60%). The result of p value is 0.000 (<0.05), so Ha is accepted. There is an effect of providing warm water therapy on reducing spinal pain in pregnant women at the Rsu at the Antang Health Center, Makassar City in 2022The conclusion of this study is the effect of warm water therapy on reducing bone pain in pregnant women at the Antang Health Center, Makassar City in 2022. It is hoped that there will be further research on other non-pharmacological techniques against spinal pain in pregnancy.

Keywords : Therapy, Warm Water, Spinal Pain

INTRODUCTION

Pregnancy is a condition where a woman is carrying and developing a fetus in her womb for nine months or as long as the fetus is still in the mother's womb (World Health Organization, 2020). Pregnancy allows changes to occur. Changes that occur during pregnancy include physiological and psychological changes (Saminem, 2009). One of the physiological changes encountered during pregnancy occurs in the musculoskeletal system (Salmah et al., 2005). Changes in the musculoskeletal system can cause spinal pain in pregnancy that often occurs lately (CaHealth.Canoe, 2014; Mochtar, 2020).

Received April 25, 2023; Revised May 22, 2023; Accpted June 16, 2023
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International Association for the Study of Pain (IASP) 2012, explains that pain as an unpleasant subjective condition includes sensory and emotional experiences, actual or potential that indicate tissue damage. Spinal pain in pregnancy is a problem that interferes with maternal comfort during pregnancy (Stewart, 2018). National Health System (NHS) 2021, explains that most women will experience spinal pain during pregnancy as a symptom of discomfort. Spinal pain during pregnancy is caused by changes in anatomical structure, hormonal and stress (Traccy, 2019). Anatomical changes occur because the role of the spine is getting heavier to balance the body with the enlargement of the uterus and fetus. Another cause is due to an increase in relaxin hormone which causes the spinal ligaments to be unstable so that they easily pinch blood vessels and nerve fibers (American Pregnancy Organization, 2019). Spinal pain experienced will trigger stress and mood changes in pregnant women which lead to worsening spinal pain (Assoiation Chartred Physiotherapist for Woman Health, 2021).

Spinal pain during pregnancy if not treated properly can cause the quality of life of pregnant women to be poor (Kartonis et al, 2020). Pregnant women who experience spinal pain will have difficulty carrying out activities such as standing up after sitting, moving from bed, sitting too long, standing too long, undressing and undressing, as well as lifting and moving objects around (Vermani, Era et al, 2019). More severe conditions occur when pain spreads to the pelvic and lumbar areas causing difficulty walking so that crutches or other walkers are needed. Management of spinal pain during pregnancy varies, such as pharmacological and non-pharmacological management (Sinclair, 2019). The administration of analgesics such as paracetamol, NSAIDs, and ibuprofen includes pharmacological pain management, while non-pharmacological management includes manual therapy such as massage and mobilization exercises, acupuncture, Transcutaneous Electrical Nerves Stimulation (TENS), relaxation and warm or cold water therapy (Potter & Perry, 2011; IASP, 2009; Brunner & Suddarth, 2020).

Warm water therapy is part of non-pharmacological therapy that can reduce pain (Petrofsky et.al, 2014; Potter & Perry, 2011; Brunner & Suddarth, 2020). Warm water can cause blood circulation to increase and bring oxygen to the pain area and relax muscles, tendons and ligaments (Cyntya, 2018). Warm therapy can be carried out using buli-buli (Marybetss, 2018). Research in Jomb-East Java 2019 explains that warm water therapy can increase comfort and reduce spinal pain during labor (Yani, 2019). Spinal pain can have a negative impact on the quality of life of pregnant women due to disruption of daily physical activities. Improper posture will force additional stretching and fatigue on the body, especially on the spine, causing pain or pain (Wahyuni et al, 2019).

Spinal pain in pregnancy can occur from the beginning of pregnancy, and in each trimester the intensity of pain will change. The first trimester there is an increase in the hormone relaxin which causes the spinal ligament to stretch so that there is instability in the position of the spine. Changes in pain are increasing in the second trimester, this is due to the enlargement of the uterus and the center of gravity of the body so that pain is increasingly felt. The third trimester of pregnancy spinal pain is increasingly severe, even spinal pain is felt throughout the day because the uterus is getting bigger and the workload of the spine to support it is getting heavier (Innes, 2014). Research conducted at Raja Mutiah Medical Collage and Hospital India 2014, explains the rate of occurrence of spinal pain in pregnancy occurs 53% at gestational age below 20 weeks, 76% occurs when gestational age ranges from 25-28 weeks, while the incidence rate increases to 80% of spinal pain occurs at 31-35 weeks of gestation in 106 pregnant women who experience spinal pain (Kurup et al, 2021).

The use of warm water therapy can be applied to overcome problems such as muscle specma, lack of circulation in certain areas, pain in muscles such as joint muscle pain, arthritis, and pain in the spine. Other problems that can be overcome by warm water therapy such as muscle injuries in athletes while exercising, migraines and tense innervation problems can use warm water therapy to overcome them (Sinclair, 2019). Based on data obtained at the Antang Health Center in Makassar City in 2022, in 2019 pregnant women who checked their pregnancy were 319, in 2020 there were 542 pregnant women, in 2018 there were 452 pregnant women, and in 2021 there were 325 pregnant women. From the results of interviews that have been conducted obtained from 10 pregnant women, 4 of them often experience spinal pain. Usually pregnant women who experience spinal pain deal with it by being massaged and smeared with eucalyptus oil / rubbing oil and sometimes just lying down or resting.

RESEARCH METHODS

Location, Population and Sample

This research is a quantitative Quasi Experiment research, where the Quasi Experiment design facilitates cause-and-effect relationships in situations. The Quasi Experiment design aims to test the cause-and-effect relationship of the treatment given. This study used a non-equivalent one group design approach with only one intervention group without a control group. This research was conducted at Antang Health Center, Makassar City. This research was conducted in March - April. The population in this study were all pregnant women who were at the Antang Health Center of Makassar City, totaling 188 people. part of the population to be studied or part of the number of characteristics possessed by the population and has met

the inclusion criteria set by the researcher. The sample in this study were all pregnant women who were at the Antang Health Center in Makassar City, totaling 30 people.

Data Collection.

The sampling technique is Purposive Sampling technique, which is a way of taking research subjects who will become respondents in research based on certain criteria, namely inclusion and exclusion criteria.

Data Processing Data Analysis

Data analysis techniques in this study are Univariate Analysis and Bivariate Analysis. The research test used is the paired sample T test.

RESULTS

1. Univariate Analysis

a. Spinal pain scale before warm water therapy

Table 1. Spinal pain scale in pregnant women before giving warm water therapy at Antang Health Center Makassar City Year 2022

Pain Scale	frequency	percentage (%)
light	6	20%
Medium	15	50%
weight	9	30%
Jumlah	**30**	**100%**

Source: Primary Data,data processed,2022

Based on the results of table 4.6 above, it is found that before giving warm water therapy (Pre-Test) the most respondents who experienced moderate spinal pain were 15 respondents with a percentage (50.0%) and the least was mild pain with a percentage (10%).

b. Spinal pain scale After warm water therapy

Tabel 2. Spinal pain scale in pregnant women after giving warm water therapy at Antang Health Center Makassar City Year 2022

Pain Scale	**frequency**	**percentage (%)**
light	18	60 %
Medium	9	30 %
weight	3	10 %
Jumlah	30	100 %

Based on table 5.6 above, it can be seen that after being given warm water therapy (Post-Test) there was a decrease in the degree of pain of 30 respondents, 18 respondents experienced a decrease in spinal pain which was in mild pain scale, namely having a presentation (60.0%), and the least respondents were on a severe pain scale with a total of 3 respondents with a percentage (10%).

2. Bivariate Data Analysis

Table 3. Analysis of the effect of hanagat water therapy on reducing spinal pain in pregnant women at Antang Health Center Makassar City Year 2022

Intensitas nyeri	N	Mean	*Sd*	*ρ*	*α*
Pretest	30	2,30	0,651	0,000	0,05
Postest	30	1,50	0,682		

Source: Secondary data processed, 2022

Based on table 4.9 above, it shows that the average value before treatment is obtained at 2.30 with a standard deviation of 0.651 while the average value after treatment is obtained at 1.50 with a standard deviation of 0.682. From these results it can be concluded that the average value after treatment is smaller than the average value before treatment. From the results of the Wilcoxon test, the p value = 0.000 < α = 0.05, from these results, Ho is rejected and Ha is accepted, which means that there is an effect of warm water therapy on reducing spinal pain in pregnant women at the Antang Health Center, Makassar City.

DISCUSSION

1.The Effect of Warm Water Therapy on Decreasing Spinal Pain in Pregnant Women

Based on the results of data analysis of the spinal pain scale during pregnancy, it shows the average difference between before and after the warm water therapy intervention. The results of statistical analysis using the Wilcoxon test obtained Asymp. Sig. (2-tailed) 0.00 < α = 0.05. The results of statistical analysis of warm water therapy show a significant effect of warm water therapy on pain scale before and after intervention. This significant effect is similar to research on warm water therapy given to pregnant women who experience spinal pain entering the first stage of labor (Manurung et al, 2021).

After conducting research on "the effect of warm water therapy on reducing spinal pain in pregnant women at Dewi Sartika Hospital, Kendari City" it can be concluded that there is an effect of warm water therapy on spinal pain in pregnant women at Antang Health Center, Makassar City in 2022.

The results of this research are supported by research conducted by Ilzam Nuzulul Hakiki (2019) entitled the effectiveness of warm water therapy on spinal pain in pregnant women, where the research shows that there is an effect of warm water therapy on reducing spinal pain in pregnant women at the banana health center, with a value (p) of 0.000 (p <0.05).

Ria andreinie (2019), entitled analysis of the effectiveness of warm compresses on reducing the degree of spinal pain in pregnant women, in the study showed that the average score of menstrual pain before warm compresses was 2 with a minimum value of 1-3 and after warm compresses was 1 with a minimum value of 1-2.

The results of the Wilcoxon test p value show that there is a significant relationship between compresses with decreased menstrual pain. (After giving warm water therapy, it is able to reduce the scale of spinal pain. And after doing the wilcoxon test using the SPSS program, the Asymp.sig (2-tailed) result is 0.00 <0.05, this shows that there is an effect of warm water therapy on reducing spinal pain.

Based on the results of the study, researchers assume that warm water therapy given to the spine, the heat effect channeled through warm water therapy can reduce pain by improving blood circulation, reducing muscle stiffness, so that mothers can feel a sense of comfort and help reduce spinal pain during pregnancy. Based on what the researchers have observed, some respondents said that the spinal pain they felt was reduced and felt more comfortable after being given warm water therapy, and there were 3 respondents who did not experience changes in

the pain scale after being given warm water therapy, the absence of changes in the pain scale was caused by several factors, one of which was stress.

CONCLUSION AND SUGGESTION

1. Conclusion

The results showed that before and after being given warm water therapy, out of 30 respondents there were 27 respondents who experienced a decrease in spinal pain and 3 respondents with the same level of spinal pain and from the results of the Wilcoksondi test obtained a p value or Asymp.sig (2-tailed) 0.00 <0.05.There is an effect of warm water therapy on reducing spinal pain at the Antang Health Center, Makassar City, 2022.

2. Suggestions

For pregnant women or Respondents : The results of this study are expected to increase the knowledge and insight of pregnant women about the application of warm water therapy to reduce spinal pain in pregnancy. The results of this study are expected to contribute ideas and add insight for health workers in providing care to pregnant women with the application of warm water therapy to reduce spinal pain in pregnant women and For educational institutions The results of this study are expected to be used as reference material in the management of spinal pain during pregnancy to enrich the knowledge in maternity nursing.

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