

The Effect of Pregnancy Exercises on Low Back Pain in Pregnant Women

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ABSTRACT

Low back pain is common in pregnancy with varying reported incidences. Low back pain is back pain that occurs in the lumbosacral region. In general, back pain that occurs in pregnant women is influenced by several factors, namely changes in body posture during pregnancy, low back pain usually increases with parity. The risk of back pain in pregnancy is increased in women who have previously had back pain and are overweight. National guidelines recommend that healthy pregnant women should do light physical exercise every day. Most women reduce physical activity during pregnancy and only a few studies have found that pregnant women are physically active during pregnancy. The purpose of this study was to determine the effect of Pregnancy Exercises on Back Pain in Pregnant Women. The method in this study is a literature review, which tries to explore how the effect. The results in this study indicate that the results of 8 previous studies indicate that there is a significant effect of Pregnancy Exercises on Back Pain in Pregnant Women. The conclusion in this study is that of Pregnancy Exercises can reduce Back Pain in Pregnant Women. Pregnancy exercise or exercise can provide benefits to maintain and improve the physical health of pregnant women, improve blood circulation, reduce complaints of cramps or aches, and prepare for breathing, muscle and pelvic activity to face the labor process. Pregnancy exercise has very important benefits for pregnant women.

Received : March 7nd 2022

Accepted : April 11rd 2022

Published : May 27th 2022

Keywords: Pregnancy exercises, Low back pain, Pregnant

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INTRODUCTION

Pregnancy is a unique period in life that is associated with hormonal and other physiological changes in a pregnant woman, the discomfort felt by pregnant women in the third trimester, such as back pain, urinary system disorders, vaginal discharge, varicose veins, and hemorrhoids, but the discomfort is the most common among mothers. Feel the back pain where the mother will experience back pain arising from excessive stretching or fatigue and excessive walking, back pain increases with gestational age. In some women, it can be demonstrated that there is movement of the pubic symphysis and lumbosacral joints, as well as general relaxation of the pelvic ligaments ^[1].

Pregnant women experience many changes in themselves, both physically and psychologically. Physical discomfort has been felt since the beginning of pregnancy. Then added to the image of the birth process and how the baby after birth ^[2]. Low back pain during pregnancy usually occurs due to stretching of the bones, especially in the lumbar region which corresponds to increasing gestational age ^[3]. Back pain in pregnant women can be reduced by exercise.

Low back pain (LBP) due to pregnancy is a syndrome characterized by the main symptom of discomfort in the back of the body starting from the last rib or 12th thoracic vertebra to the buttocks or anus due to the influence of hormones that cause disorders of the spine. basic support substances and connective tissue (connective tissue) cause a decrease in muscle elasticity and flexibility ^[4]. Back pain during pregnancy can also be caused by mechanical factors that affect the curvature of the spine by changes in attitude and increased load during pregnancy ^[4]. In America, England, Sweden and Norway, it is reported that 70-86% of pregnant women experience low back pain ^[5]. At 14-22 weeks of gestation, 62% of pregnant women reported the incidence of low back pain ^[5].

Efforts that can be done are to provide health education about the prevention and treatment of back pain in pregnant women, namely pregnancy exercise ^[5]. One of the discomforts that is often felt during pregnancy, especially in the third trimester is back pain. There are so many risk factors that cause back pain, including a history of previous back pain, no help with housework, this is shown by the results of the research by ^[6]. One way to reduce back pain is to do physical exercise or gymnastics. pregnant^[7]. Pregnancy exercise is a form of physical exercise that is useful for strengthening and maintaining the elasticity of the abdominal wall muscles, ligaments, and pelvic floor muscles. Based on this background, the authors are interested in making a literature review entitled " The Effect of Pregnancy Exercises on Back Pain in Pregnant Women

METHODS

Researchers chose literature review as the research method in this paper, which tries to explore how the effect . Sources for conducting this literature review include systematic computerized database search studies through Google Scholar media, e-journals, and books. Literature review is a research methodology that aims to collect and take the essence of previous research and analyze some of the expert's overview written in the text.

RESULTS AND DISCUSSION

Several studies have shown that . This can be seen in table 1. Effect of Pregnancy Exercises on Low Back Pain in Pregnant Women

Table 1. Research Results from Literature Review

Year	Author	Research purposes	Method	Result
2019	Holden S et.al ^[8] .	Prenatal yoga for back pain, balance, and maternal wellness: a randomized, controlled pilot study	A quasi-experimental study	No differences in back pain were observed between 2 groups.
2017	Backhausen, M. G ^[9] .	The effects of an unsupervised water exercise program on low back pain and sick leave among healthy pregnant women - a randomised controlled trial	This trial was a randomised, controlled, parallel-group trial.	Exercise group: 2.01 (95% CI 1.75–2.26) vs. 2.38 in the control group (95% CI 2.12–2.64) Mean difference = 0.38, 95% CI 0.02–0.74 p = 0.04

2015	Haakstad, L. A. H. and Bø, K. et al ^[10] .	Effect of a regular exercise programme on pelvic girdle and low back pain in previously inactive pregnant women: a randomized controlled trial	observer-blinded randomized controlled trial	Low back pain: OR=1.10, CI=0.47–2.60
2015	Ozdemir, S. et al ^[11] .	Evaluation of the efficacy of an exercise program for pregnant women with low back and pelvic pain: a prospective randomized controlled trial	A randomized trial with a control group and an intervention	There was a statistically significant difference between the control and intervention groups with regards to the VAS scores. The final mean ODI2 scores for the control group were significantly higher than the mean ODI2 scores for the intervention group p=0.001
2012	M.H Eggen et.al ^[12] .	Can supervised group exercises including ergonomic advice reduce the prevalence and severity of low back pain and pelvic girdle pain in pregnancy? A randomized controlled trial.	observer-blinded randomized controlled trial with equal assignments to a training group and a control group was conducted.	Prevalence of LBP Odds Ratio=0.77, 95% CI=0.50 to 1.19 Secondary outcomes -0.4 (95% CI=-0.8 to 0.1) for pain intensity in the morning, -0.4 (95% CI=-1.0 to 0.2) for pain intensity in the evening, -1.0 (95% CI=-2.2 to 0.0) for disability, 1.8 (95% CI=0.0 to 3.7) for the SF-8 PCS, and -0.6 (95% CI=-2.2 to 1.4) for the SF-8 MCS.
2012	Peterson et.al ^[13] .	A pilot randomized controlled trial comparing the efficacy of	group design randomized controlled trial	MT and exercise generally performed slightly better than did NET for improving

		exercise, spinal manipulation, and neuro emotional technique for the treatment of pregnancy-related low back pain		function and decreasing pain, but the study was not powered to detect the between-group differences as statistically significant.
2018	Mirmolaei, S. T. et al. ^[14] .	Efficacy of a physical training program on pregnancy related lumbopelvic pain	A quasi-experimental study	No significant differences in sociodemographic or obstetric characteristics were observed between the groups VAS Control Before treatment: 7.69 After 4 weeks: 8.42 After 8 weeks: 9.03 PMR Group Before treatment: 7.78 After 4 weeks: 5.21 After 8 weeks: 3.72 SF-36 Subscale Scores Significant differences were found for every subscale at 4 and 8 weeks respectively P <0.001 P <0.001

One that is often felt during pregnancy, especially in the third trimester is the back. There are many risk factors that cause back pain, including a previous back history, no help with housework, this is shown by the results of the study by Sencan S, et al ^[6]. which states that the prevalence of low back pain is 53.9% in women in Turkey. happy childhood them. third trimester of pregnancy. One way to reduce the back is to do physical exercise or exercise during pregnancy. ^[7].

Back pain felt by pregnant women is caused because at the beginning of pregnancy the baby is located in the pelvic bone which is strong enough and can hold weight, but as the baby grows, the baby's weight pushes forward through the behavioral bones. If this happens, the force of gravity will pull the weight back and forth, compressing the back muscles until they arch. This continuous muscle pressure is what makes the lower back painful ^[15]. Low back pain during pregnancy is caused by pregnancy hormones which affect the elasticity of the bearings in the joints of the body and changes that increase will change the posture so that the curvature of the spine changes to be more inclined to the back which will result in a decrease in posture. back pain. Back pain is also caused by posture errors such as forward gaze, forward arching of the shoulders, forward bulging and excessive lordosis. This affects the position of the stool itself in normal conditions the lumbar sacral angle (perguson) 30 , the 1.5 vertebra mount on the sacrum provides a shear force of 50% this posture error will cause the muscles ^[16].

Pregnancy exercise is a way to maintain or improve the physical balance of pregnant women and is a sport for pregnant women with the aim of achieving a fast, easy and safe delivery ^[17].. Pregnancy

exercise is a sport that is carried out by pregnant women to get in top condition by training and maintaining the strength of the abdominal wall and pelvic floor muscles, supporting tissues and can improve the position of the fetus. Gymnastics or exercise during pregnancy can provide benefits for maintaining and improving the physical health of pregnant women, improving blood circulation, reducing complaints of cramps or aches, as well as preparing breathing, muscle and pelvic activity to face the labor process. Pregnancy exercise has very important benefits for pregnant women ^[15]

Pregnancy exercise is a form of physical exercise that is useful for strengthening and maintaining the elasticity of the abdominal wall muscles, ligaments, and pelvic floor muscles. The results of research found in the Journal of Orthopedic & Sport Physical Therapy show that physical exercise or physiotherapy can reduce back pain during pregnancy^[18]. This strengthens the theory from Manuaba (2012) that with pregnant exercise, pregnant women will obtain prime condition by training and maintaining the strength of the abdominal wall muscles, pelvic floor muscles and supporting tissues that work during childbirth ^[15]. Gymnastics also increases the ability to coordinate the strength of muscle contractions so as to achieve optimal results towards the birth canal and increase the physical and spiritual freshness of pregnant women. This is also in accordance with the research conducted regarding the relationship between pregnancy exercise and the back of pregnant women in Polindes, Tlanak Village, Kedungpring District, Lamongan Regency with a sample of 33 pregnant women in the second and third trimesters. pregnant women who have never done pregnancy exercises have back pain^[20].

CONCLUSION

There is an effect of pregnancy exercise on reducing back pain. During pregnancy exercise, pregnant women will get in top condition by training and maintaining the strength of the abdominal wall muscles, pelvic floor muscles and supporting tissues that function during labor. Gymnastics also increases the ability to coordinate the strength of uterine muscle contractions so that optimal results are achieved towards the birth canal and increase the spiritual and physical freshness of pregnant women. Relaxation movements in pregnancy exercise maximize the supply of oxygen into the body so that oxygen transport in the tissues becomes smooth and pain due to tissue ischemia can be reduced.

ACKNOWLEDGMENT

Thank you to the academic community and all parties involved who supported the completion of this journal. All members of the research team who continue to help each other and their extraordinary cooperation in making this journal.

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