

The Effect of Pelvic Rocking on Back Pain Intensity in Third Trimester Pregnant Women

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ABSTRACT

Pregnancy is a physiological process. The most common complaint at the end of the trimester is lower back pain. These complaints will increase in the final trimester of pregnancy, resulting in disrupted daily routine. Various reports state that in pregnant women it is recorded that about 50% of women experience back pain and about 10% of women with chronic back pain begin during pregnancy. Lower back pain is experienced a lot when entering the 6th month of pregnancy. The purpose of this study was to prove that hip rocking has an effect on the intensity of back pain in the third trimester of pregnant women. The research design was a quasi-experiment with one group pretest-posttest design. The sample in this study were 21 respondents of third trimester pregnant women. Observation sheet research instrument. The results were analyzed using the Wilcoxon signed ranking statistical test. The results showed that pelvic sway was able to significantly reduce the intensity of back pain in third trimester pregnant women. Therefore, third trimester pregnant women can be given hip rocking therapy as an alternative to non-pharmacological interventions to reduce back pain during pregnancy.

I. Introduction

Pregnancy has a huge physiological effect on the female body, affecting not only the cardiovascular, endocrine, and kidney systems, but also the musculoskeletal system, in particular the axial skeleton. The distinct hormonal changes accompanied by an increase in body mass and the presence of a pregnant uterus cause a shift in the center of gravity, giving rise to additional static and dynamic loads on the axial framework (D. Casagrande, 2015). Soon a woman realizes that her body is going through a flurry of events, and then the "aches" and "aches" associated with pregnancy begin. The majority of pregnant women do not seek medical help until the discomfort actually starts to interfere with the activities of daily life. Much of this discomfort can be directly related to the physical changes that occur during pregnancy and the resulting biomechanical effects on functional movement (M. I. Usman, dkk, 2017). The prevalence of LBP varies across the world. Low back pain is a common condition in pregnant women with a prevalence varying from 50 to 90% worldwide (F. M. Kovacs, dkk, 2012) (M. G. Backhausen, dkk, 2017) (S.-M. Wang, dkk, 2004). Most studies report a prevalence of > 50%. (D. Casagrande, 2015). In Indonesia, the prevalence of back pain during pregnancy reaches 60% to 80% (I. Putri, 2020). Back pain is not a diagnosis, but a symptom that can follow a variety of medical, musculoskeletal, and neurological conditions. Back pain is considered a symptom of a variety of changes and disorders affecting the wooden spine, sacro-coxix, and pelvis, but it can also be a symptom of disorders affecting the surrounding organs (O. Ayanniyi, 2009). Therefore, it is important to focus on ways to reduce low back pain in pregnant women. There are many non-pharmacological pain management methods such as delivery ball, pelvic rocking, and endorphin messaging (P. M. Saptiyani, A. Suwondo, and R. Runjati, 2020). Pelvic rocking exercises are one way to keep your pelvic muscles tight and can relieve back pain (Alden KR, 2004). The hip rocking exercise is an exercise in the pelvic motion in the direction of rotation by shaking the pelvis from side to side, back and forth, and rotating. This activity can relax the body. Thus it can release endorphins during routine and continuous pelvic shaking exercises (I.-H. Han, 2010).



II. Methods

A. Design and Samples

Based on the research objective, it is an experimental type of research with a research design of One Group Pretest-Post Test Design. The independent variable in this study was the administration of Pelvic Rocking on Back Pain Intensity and the dependent variable in this study was Trimester Pregnant Women. The sample in this study was 21 pregnant women in the 3rd trimester who were willing. This research was conducted in Nganjuk Regency which was purposively selected Ngronggot District.

B. Data Collections

The sampling technique used was purposive sampling. This research was conducted by giving a pre test (initial observation) before being given treatment (X) after being given the treatment, then doing a post test (final observation) this was done for the difference between the pre test and post test. Researchers conducted research on several pregnant women who experienced low back pain. They would be given action in the form of pelvic rocking exercises which were carried out 3 times a week at intervals of 8 times 2 minutes. Pain levels were recorded before and after doing the hip shake exercise.

C. Data Analysis

The research data will be analyzed with the Wilcoxon Signed Rank Test using the SPSS program, provided that if $p < 0.05$ then H_0 is rejected, meaning that there is a difference in the provision of pelvic rocking and deep back massage in lower back pain in third-trimester pregnant women.

III. Results and Discussion

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The results of this Effect Of Pelvic Rocking on Back pain Intensity in Third Trimester Pregnant Women.

Table 1 Characteristics of Respondents based on Maternal Age

No.	Age	F	%
1	<20 th	3	14,3
2	20-35 th	14	66,7
3	>35 th	4	19,0
	Total	21	100

Based on table 1 above, it can be seen that most of the respondents aged 20-35 years, namely a number of 14 respondents (66.7%).

Table 2 Characteristics of Respondents Based on Mother Parity

No.	Parity	F	%
1	Primigravida	11	52,4
2	Multigravida	10	47,6
3	Grandemulti	0	0
	Total	21	100

Based on table 2 above, it can be seen that most of the respondents with primigravida parity were 11 respondents (52.4%).

Table 3 Distribution of Low Back Pain Frequency of Pregnant Women Before Pelvic Rocking

No.	Pain Level Before Pelvic Rocking	F	%
1	No Pain	0	0
2	Mild Pain	8	38,1
3	Moderate pain	13	61,9
4	Severe pain	0	0
5	Very Severe Pain	0	0
Total		21	100

Based on table 3 above, it can be seen that most respondents before being given pelvic rocking experienced moderate pain, namely 13 respondents (61.9%).

Table 4 Distribution of Lower Back Pain Frequency for Pregnant Women After Pelvic Rocking

No.	Pain Level After Pelvic Rocking	F	%
1	No Pain	7	33,3
2	Mild Pain	8	38,1
3	Moderate pain	6	28,6
4	Severe pain	0	0
5	Very Severe Pain	0	0
Total		21	100

Based on table 4 above, it can be seen that almost half of the respondents after being given pelvic rocking experienced pain with a mild level, namely a number of 8 respondents (38.1%).

Table 5 Differences in Lower Back Pain in Pregnant Women Before And After Pelvic Rocking

Pelvic Rocking	Pain Level						Wilcoxon (α)	P
	N	No Pain	Mild Pain	Moderate pain	Severe pain	Very Severe Pain		
Before	21	0	8	13	0	0	0,05	0,000
After	21	7	8	6	0	0		
Valid N	21							

Based on table 5 above, it can be seen ($p = 0.000 < 0.05$) that H_0 is rejected, which means that there is a difference in the reduction of pain in pregnant women before and after being given pelvic rocking.

Lower back pain will usually increase in intensity with increasing gestational age because this pain is a result of a shift in the center of gravity besides hormonal changes are also a trigger factor for back pain, one of which is the relaxin hormone which is very functional during labor because its effect can increase relaxation of the pelvic ligament thereby increasing the diameter pelvis and ease of delivery also have an effect on pregnancy (M. I. Usman, 2017). As weight gain gradually during pregnancy changes body posture so that the body's center of gravity shifts forward (O. Ayanniyi, 2009). Therefore the need for pelvic floor exercises, this movement can maintain muscle tone so that it can continue to function properly and this exercise will increase the resistance of the postural muscle fibers that twitch slowly at the base of the pelvis and are effective during labor and reduce back pain during pregnancy (N. Marwiyah & L. S. Pusporini, 2017).

IV. Conclusion

There are differences in lower back pain in the third trimester of pregnant women before and after being given pelvic rocking. Pelvic rocking can reduce the pain level of third-trimester pregnant women. Therefore pelvic rocking can be used as an alternative to non-pharmacological interventions to reduce back pain during pregnancy.

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