

## IMPLEMENTATION OF COMPLEMENTARY PELVIC ROCKING CARE TO REDUCE LOWER BACK PAIN IN 3RD TRIMESTER PREGNANT WOMEN

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### ABSTRAK: PENERAPAN ASUHAN KOMPLEMENTER PELVIC ROCKING UNTUK MENGURANGI LOW BACK PAIN (NYERI PUNGGUNG BAWAH PADA IBU HAMIL TRIMESTER III)

Latar Belakang : Kehamilan adalah periode unik dalam kehidupan yang terkait dengan perubahan hormonal dan fisiologis lainnya pada seorang wanita hamil, yang dapat memicu atau mengubah jalannya gangguan neurologis dan kejiwaan. Fenomena nyeri pada bagian punggung ibu hamil adalah salah satu keluhan yang paling sering dilaporkan di kalangan ibu hamil dan diperlukan upaya alternatif yaitu pelvic rocking exercise untuk mengurangi keluhan.

Tujuan : Studi kasus ini memiliki tujuan guna memberi asuhan kebidanan komplementer pada ibu hamil trimester tiga dengan melakukan pelvic rocking exercise untuk mengurangi keluhan nyeri punggung bawah di PMB "W" Bandar Lampung.

Metode penelitian : Desain penelitian mempergunakan desain deskriptif memakai pendekatan studi kasus. Penelitian dilaksanakan tanggal 20 februari – 13 maret 2023. Subjek penelitian merupakan Ny. N berumur 29 tahun. Alat ukur yang dipakai adalah format pengkajian. Subyek dilakukan pevic rocking exercise 1 kali dalam seminggu selama 3 minggu. Penelitian mempergunakan data primer. Subjek kasus sudah dimintai informed consent guna mengikuti penelitian.

Hasil Penelitian : Dalam studi kasus ini didapatkan hasil bahwa ibu mengalami nyeri pada punggung saat datang ke PMB, bidan mengajarkan Teknik latihan pelvic rocking serta memberikan edukasi pada ibu tentang postur tubuh yang benar, didapatkan perubahan yang dirasakan oleh ibu nyeri pada punggung semakin berkurang dan intensitas yang jarang.

Kesimpulan yang didapatkan bahwa ada pengurangan nyeri punggung pada ibu setelah diberikan latihan pelvic rocking .

Saran : Pada studi kasus tentang *pelvic rocking* ini dapat dijadikan acuan bagi tenaga kesehatan khususnya bidan di PMB dalam menangani keluhan nyeri punggung pada ibu hamil. Penelitian juga dapat dilakukan berdasarkan studi kasus ini.

Kata Kunci : Nyeri punggung bawah, Ibu hamil trimester III, pelvic Rocking

### ABSTRACT

Introduction : Pregnancy is a unique period in life associated with hormonal and other physiological changes in a pregnant woman, which can trigger or alter the course of neurological and psychiatric disorders. The phenomenon of pain in the back of pregnant women is one of the most frequently reported complaints among pregnant women and alternative efforts are needed, namely pelvic rocking exercise, to reduce complaints.

The Purpose : This case study aims to provide complementary midwifery care to pregnant women in the third trimester by carrying out pelvic rocking exercises to reduce complaints of lower back pain at PMB "W" Bandar Lampung.

Method : The research design uses a descriptive design using a case study approach. The research was carried out on 20 February – 13 March 2023. The research subject was Mrs. N is 29 years old. The measuring tool used is the assessment format. Subjects performed pevic rocking exercise 1 times a week for weeks. The research uses primary data. Case subjects have been asked for informed consent to participate in the research. In this case study.

The results : showed that the mother experienced back pain when she came to the PMB. The midwife taught pelvic rocking exercise techniques and provided education to the mother about correct body posture.

Conclusion was that there was a reduction in back pain in mothers after being given pelvic rocking exercises.

Suggestion: This case study about pelvic rocking can be used as a reference for health workers, especially midwives at PMB, in handling complaints of back pain in pregnant women. Research can also be conducted based on these case studies.

Keywords : Lower back pain, third trimester pregnant women, pelvic rocking

## INTRODUCTION

Pregnancy is a unique period in life associated with hormonal and other physiological changes in a pregnant woman, which can trigger or alter the course of neurological and psychiatric disorders. Pregnant women will experience discomfort, one of which is felt in the lower back in the third trimester from the final thoracic vertebra (T12) to the first sacral vertebra (S1) (Safitri, 2022).

The phenomenon of pain in the back of pregnant women is one of the most frequently reported complaints among pregnant women. Even though the incidence rate is quite high, there are still very few pregnant women who seek information about the problems that arise with lower back pain during pregnancy and their impacts. The availability of information regarding pain during pregnancy and its problems, especially lower back pain in the third trimester, is important for the development of health services for pregnant women (Tirtonegoro, 2024).

Back pain in pregnant women is caused by increased levels of the hormone relaxin, which has an effect on the flexibility of the ligament tissue and has an impact on increasing the mobility of the pelvic joints, causing back pain. Apart from that, the causes of back pain are increased body weight, changes in body shape, a history of past back pain and constant stretching (HN, 2022). Daily activities can affect lower back pain and have a negative impact on pregnant women's ability to carry out daily activities such as self-care, walking, sitting and involvement in sexual activities (Arummega et al., 2022).

The prevalence of lower back pain in pregnant women is more than 50% in the United States, Canada, Ice Land, Turkey and Korea. Meanwhile, the prevalence in non-Scandinavian countries such as North America, Africa, the Middle East, Norway, Hong Kong and Nigeria is higher, ranging from 21% - 89.9% (Lestari, 2023). In Indonesia the incidence of discomfort during pregnancy is around 28.7%, research by (Rahma & Sahrudi, 2024), for the Indonesian region, the prevalence of those experiencing lower back pain reaches 60-80%. Back pain is usually physiological, but can turn pathological if not treated properly. Back pain that is not handled properly will lead to higher risks such as long-term back pain, post partum back pain, and

chronic back pain which will be more difficult to treat (Rasyid & Igrisa, 2019).

One of the discomforts of pregnancy is progressive lordosis, namely the enlargement of the uterus to an anterior position, an effort to adjust the weight of the body, so that the center of the body's weight shifts backwards towards the legs. As pregnancy increases, the mobility of the sacroiliac, sacrococcygis and pubis joints will increase due to hormonal influences and result in changes in body posture and also cause pain in the lower back in the third trimester of pregnancy. Based on statistical tests conducted by (Hutaosoit et al., 2022) it was discovered that there was an effect of pelvic rocking on back pain in third trimester pregnant women ( $p = 0.001$ ).

Physiologically, pregnant women will experience hormonal changes, weight gain and the growth of the baby in the womb. Meanwhile, from psychological factors, pregnant women with increasing gestational age will experience discomfort, such as complaints of pain in the back area. To overcome pain in the back area, non-pharmacological interventions and complementary methods can be used. Complementary methods that can be used include pregnancy exercises, endorphin massage, pelvic rocking or pelvic rocking movements, and acupressure. These complementary methods can be used as treatment methods to reduce pain in pregnant women (Malia, 2024).

Based on the results of (Dwi Nur Cantika et al., 2023) research, 26 pregnant women experienced moderate pain in the lower back. After the pelvic rocking intervention was carried out, with the majority of the time using the birthing ball being 11-15 minutes, the pain decreased to mild pain. Pelvic Rocking Exercise is a movement where the pregnant woman sits on a ball and slowly swings her hips and shakes her hips (Pelvic Rocking) back and forth, right side and left side, and in circular movements. Pelvic Rocking Exercise makes pregnant women's pelvis more relaxed and also increases the release of transmitters in the form of natural endopins, where this hormone functions as a natural sedative produced by the brain which can provide comfort to pregnant women. (Yusri, 2020) it shows that there is an effect of Pelvic Rocking Exercise on reducing the

level of lower back pain in the third trimester of pregnancy at the UPTD Kutukan Health Center, Randublatung District, Blora Regency with a p value of 0.000.

One light movement that can reduce back pain for pregnant women is the pelvic rocking exercise technique. Pelvic rocking is highly recommended for pregnant women in the third trimester who complain of low back pain. Pelvic rocking can tighten the muscles and ligaments that support the organs as well as reduce muscle tension, improve body posture, increase blood circulation, and reduce lower back pain. (Riset et al., 2023). (Yesi, Tesi, 2021) Research results showed that the average back pain in TM III pregnant women before Pelvic Rocking therapy (pre test) was 7.53, and all (100%) pregnant women experienced severe pain. The average back pain in TM III pregnant women after Pelvic Rocking therapy (post test) was 4.86 and all (100%) pregnant women experienced moderate pain.

The results of Taufiq Jaman's (Jamaan et al., 2024) the average intensity of the back pain scale for pregnant women in the third trimester before being given pelvic rocking was 3.89, after being given pelvic rocking was 2.5, so it was concluded that there was an influence of pelvic rocking on the intensity of the lower back pain scale for pregnant women in the third trimester.

According to Rani Kasniati's research results, in 2023 (Kasiati, 2023) the average back pain before pelvic rocking was given was 73.50, which means experiencing moderate pain. The average back pain after being given pelvic rocking was found to be 38.44, which means it changed to mild pain. So it is concluded that there is effectiveness of pelvic rocking in reducing lower back pain in TM III pregnant women in the Seputih Banyak Health Center Work Area in 2023. Similar to research by Qonita Ulma Rahma and Sahrudi, 2024, the results show a significant effect in reducing back pain in third trimester pregnant women. who performed the pelvic tilt exercise with a p value  $(0.000) < \alpha (0.05)$  so it is hoped that the pelvic tilt exercise can be carried out in third trimester pregnant women.

## RESEARCH METHODS

This case study aims to provide midwifery care to pregnant women in the third trimester by performing pelvic rocking to reduce lower back pain at the Independent Practice of Midwives "W" Bandar Lampung City. The design used is descriptive using a case study approach. The case study was carried out from 20 February to 13 March 2023. The subject of this care was Mrs. N is 24 years old. The

instrument used is an assessment format in the form of a checklist for complementary care providing pelvic rocking to pregnant women in the third trimester.

Subjects underwent pelvic rocking exercises using a birthing ball once a week for 3 weeks starting at 35 weeks of gestation until 38 weeks of gestation. Pelvic rocking was first carried out by officers while teaching Mrs. N so that the next pelvic rocking is carried out by Mrs. N. Observations by officers are carried out every week at PMB. Data collection in this case study uses primary data by direct interviews, observations, and providing care to the case subjects. Case subjects have been asked for informed consent to participate in treatment.

## RESEARCH RESULTS

The care provided is carried out at the Independent Midwife Practice (PMB) "N" which is located in Bandar Lampung from 20 February to 13 March 2023. Mrs "N" is a 24 year old pregnant mother with her first pregnancy, her last education was a Muslim high school with ethnic origin. Java, mother does not have a job, only focuses on being a housewife. when the mother came to PMB complaining of pain in the back. The mother's gestational age is already in the third trimester, namely 35 weeks.

A physical examination was carried out on the mother with normal vital signs, the conjunctiva showed no signs of anemia, the fetal head was in the lowest part of the mother's abdomen, the head had not entered the upper pelvic inlet, the fetal heart rate was normal. HB and urine laboratory examinations were normal.

The diagnosis made was Mrs N G1P0A0 35 weeks pregnant singleton live intra uterine fetus with back pain.

The implementation of care is carried out based on an assessment carried out by the author both in terms of anamnesis and the results of a physical examination. Mothers are given IEC regarding management in reducing back pain by not doing heavy work, adopting correct body posture, avoiding bending when picking up items that are below you. If you want to pick up items that are below or parallel to your feet, you should squat first, then stand up slowly while keeping your back straight, when you want to carry something that is quite heavy then carry it in your arms and it is not recommended to carry it with one hand.

Mothers are also taught to do pelvic rocking movements using a gym ball by moving their hips to the right and left five times, then resting for a count of nine times, then continuing again five times, then

moving their hips to the front and back, and moving their hips. like a half circle with the same count as the initial movement.

The results of observations on Mrs. N can be seen in table 1.

**Table 1**  
**Observation Results Applying Complementary Pelvic Rocking Care to Mrs. N with Back Pain**

Time	Assessment	Observation	
		Observation Result	Action
1 <sup>st</sup> Observation	<p>Anamnesis Results</p> <ol style="list-style-type: none"> <li>1. Mother complains of frequent back pain, especially during activities</li> <li>2. Mothers do daily work as housewives</li> <li>3. First time pregnant mother</li> </ol> <p>Check up result :</p> <ol style="list-style-type: none"> <li>1. KU good mother, composmentis awareness. Vital Signs: BP: 120/70 mmHg, R: 22 x/minute, N: 79 x/minute, T: 36.4.0C.</li> <li>2. The conjunctiva is pink</li> <li>3. The fetus has not entered the pelvic outlet, head presentation, fetal heart rate</li> </ol>	Discomfort in the mother due to back pain	<ol style="list-style-type: none"> <li>1. Encourage mothers not to do heavy work</li> <li>2. Adopt correct body posture by avoiding bending which can cause back strain. When going to pick up an item from the floor, first squat down and when standing, keep your back straight.</li> <li>3. Encourage mothers to carry heavy items in their arms, not carry them on their side.</li> <li>4. Teach the mother pelvic rocking movements</li> <li>5. Observe changes in the mother</li> </ol>
2 <sup>nd</sup> Observation	<p>Anamnesis Results:</p> <ol style="list-style-type: none"> <li>1. Mother still complains of back pain with intensity that is starting to decrease</li> <li>2. Mothers still do daily work as housewives but no longer lift heavy things</li> </ol> <p>Check up result :</p> <ol style="list-style-type: none"> <li>1. Good KU, composmentist awareness. Vital Signs: BP: 110/80 mmHg, R: 21 x/minute, N: 83 x/minute, T: 36.0C.</li> <li>2. The conjunctiva is pink</li> <li>3. The fetus has not entered the pelvic outlet, head presentation, fetal heart rate is normal</li> </ol>	Discomfort due to back pain	<ol style="list-style-type: none"> <li>1. Reteach the pelvic rocking movement</li> <li>2. Observe changes in back pain in the mother</li> </ol>

Time	Assessment	Observation	
		Observation Result	Action
3rd observation	<p>Anamnesis Results:</p> <ol style="list-style-type: none"> <li>1. Mothers rarely complain of back pain</li> <li>2. Mother always adopts correct body posture and does not look down when picking up items that are under her feet</li> </ol> <p>Check up result:</p> <ol style="list-style-type: none"> <li>1. Composentary consciousness, good general condition, vital signs R 22 x/minute, BP: 110/80 mmHg, S 36°C, N 80 x/minute.</li> <li>2. Pink conjunctiva</li> <li>3. The fetus has entered the pelvic outlet, head presentation, fetal heart rate is normal</li> </ol>	Back pain has reduced a lot	<ol style="list-style-type: none"> <li>1. Motivate mothers to continue to maintain correct body posture</li> <li>2. Invite the mother to do pelvic rocking movements.</li> <li>3. Observe changes in back pain in the mother</li> </ol>

## DISCUSSION

Mrs. When N came to PMB, she complained of frequent back pain, the mother experienced discomfort due to back pain. Midwives provide education to mothers regarding complaints that mothers feel by recommending that mothers do not do heavy work, helping mothers to adopt correct body posture such as not bending when picking up items that are placed below. If you want to pick up items from below, you should squat first, if When carrying items that are quite heavy, it is better to hug them and not carry them with one hand. Pregnant women, especially in the third trimester, can experience discomfort such as back pain, therefore they must pay attention to correct body posture.(Sutanto, 2018) The midwife also teaches the pelvic rocking movement to reduce the pain felt by the mother, the movement is done five times with the sequence of the first movement being the mother sitting on a gym ball then moving the hips to the right and left five times then resting relaxed for a count of 9 followed by another movement. 5 times, in the second movement the hips are moved forward and backward, in the third movement the hips are shaken in a half circle, the duration of the second and third movements is the same as the first movement.

At the next visit, re-education was still given as at the previous visit, the back pain was still felt but the intensity began to decrease, the midwife continued to invite the mother to do pelvic rocking movements.(Anggrawati Wulandari, 2021) there is a significant connection in reducing back pain by doing pelvic rocking movements, the movements carried out can also relax the muscles in the back and will provide comfort ,(Novaes FS, Shimo AK, 2019)

this movement is also easy to do and can reduce pain(Purnani, 2019).

According to(Susanti et al., 2021), mothers who experienced back pain were also given pelvic rocking exercises which were previously measured for pain using the Numerical Rating Scale, getting a pain scale of 6 before the exercise and after the exercise there was a change with the pain scale score being 4. Likewise, what was done by(Chorida, 2019) was that pregnant women with moderate back pain after pelvic rocking treatment reduced their pain to a mild intensity by 62% and no longer felt pain by 38%.

As pregnancy progresses, there will be changes in body weight, so that standing, sitting and walking can cause back pain due to gravitational pressure which weakens the abdominal muscles so that the pressure on the back increases (Wiarto, 2017), Likewise, according to (Amin, 2023), in carrying out activities and how the body mechanics of pregnant women affect back pain.

Research conducted by(Mariyatul, 2021) shows that pelvic rocking exercises can reduce back pain in pregnant women. In line with research conducted(Kasmandra, 2020) that the pelvic shaking technique can increase muscle flexibility thereby reducing moderate pain to milder pain in the back.

Carrying out pelvic rocking exercises has a low risk. Apart from being able to reduce back pain(Anggrawati Wulandari, 2021), pelvic rocking with forward, backward then right and left movements and shaking the hips can improve blood flow.(Puspitasari & Safitri, 2021)

Pelvic rocking can be done anywhere and is very good at reducing back pain for pregnant women (Purnani, 2019). Pregnant women who experience back pain after doing pelvic rocking movements can reduce the pain, with pelvic rocking movements mothers do not need to take anti-pain medication which makes them worry about the negative impact on the growth and development of their fetus

At the third visit, the mother rarely felt back pain, no longer bent over, was able to maintain the correct body position, the midwife still asked the mother to do pelvic rocking exercises. Improper body position such as bending or lifting heavy weights can cause back pain. The older the gestational age, the heavier the burden felt by the mother. Due to the greater growth and development of the fetus, the mother's body position leans more forward. (Mohamed et al., 2021). The back muscles will experience additional stretching and fatigue when the mother does not maintain the correct posture which can cause back pain (Andarmoyo, 2017).

With increasing gestational age, pregnant women experience back pain, so pelvic rocking exercises using a gym ball are really needed to reduce back pain (Astuti et al., 2021) in (Ekasari, 2022) pelvic rocking exercises are also one of the efforts made to reduce back pain. pregnant women, because back pain will limit the mother's activities and make it difficult to sleep.

## CONCLUSION

Pelvic rocking exercises for treating back pain in pregnant women can relieve pain in the back of pregnant women

## SUGGESTION

In the case study about pelvic rocking, it can be used as a reference for health workers, especially midwives at PMB, in dealing with complaints of back pain in pregnant women. Research can also be carried out on the basis of this case study.

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