

Research Article

The Relationship Between Lower Back Pain and Functional Activity in Pregnant Women in The 3rd Trimester at The Paguyaman Community Health Center, Gorontalo Regency

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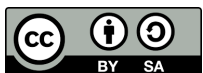
Abstract: Lower back pain is a common complaint often experienced by pregnant women, especially in the third trimester (TM 3). This condition can affect the functional activities of pregnant women, such as the ability to walk, stand, and perform daily activities. This study aims to determine the relationship between lower back pain and its effect on functional activities in TM 3 pregnant women at the Paguyaman Health Center, Gorontalo Regency. This study aims to identify a significant relationship between the level of lower back pain and disorders in the functional activities of TM 3 pregnant women at the Paguyaman Health Center. This study used an analytical design with a cross-sectional approach. The sample used was 30 pregnant women in the third trimester who experienced lower back pain. Data were collected through a questionnaire to measure the level of lower back pain and its effect on functional activities. Data analysis was carried out using the chi-square test, and the p-value obtained was 0.000. The results of the study showed that there was a very significant relationship between lower back pain and functional activity disorders in pregnant women in the 3rd trimester, with a p-value = 0.000 (<0.05), indicating a strong influence between the two. Lower back pain in pregnant women in the 3rd trimester has a significant effect on functional activity disorders in mothers. This indicates the need for more attention to the treatment of lower back pain to improve the quality of life and mobility of pregnant women. It is recommended for medical personnel to provide education on how to manage lower back pain and techniques that can help pregnant women reduce pain and improve the quality of their functional activities. In addition, pregnant women should be given information about safe physical exercise to help reduce pain and improve mobility.

Keywords: 3rd trimester, functional activity, Lower back pain, pregnant women

1. Introduction

Pregnancy is a phase of life full of physiological changes, where the pregnant woman's body undergoes various adjustments that can affect her physical and emotional comfort. One of the complaints often experienced by pregnant women, especially in the third trimester (TM 3), is lower back pain. Lower back pain in pregnant women is often caused by changes in body posture, weight gain, and hormones that affect body tissues, including ligaments and muscles.

Received: April 16, 2025
Revised: May 12, 2025
Accepted: June 19, 2025
Published : June 30, 2025
Curr. Ver.: June 30, 2025



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Lower back pain can have a significant impact on the quality of life of pregnant women, affecting their ability to carry out daily activities, and even affecting their psychological state.

Decreased functional activity in pregnant women due to lower back pain can cause disruption in the mother's ability to perform daily tasks, such as walking, standing, or even sleeping comfortably. The functional activity of pregnant women, which includes the ability to move and interact with the environment, plays an important role in maintaining quality of life during pregnancy. Therefore, it is important to evaluate the extent to which low back pain affects the functional activities of pregnant women, especially in the third trimester, which is a period with many physical and emotional changes.

Based on previous studies, the prevalence of low back pain in pregnant women is quite high, with reports showing that around 50-70% of pregnant women experience low back pain at some point during pregnancy. This pain occurs more often in the third trimester, where the mother's weight increases, and the fetus grows and develops rapidly. In addition, the hormone relaxin released during pregnancy functions to loosen the ligaments, which can cause instability and pain in the spine.

At the Paguyaman Health Center, Gorontalo Regency, the problem of low back pain in pregnant women in the third trimester has become a frequent complaint in routine pregnancy check-ups. Along with the increasing number of pregnancies receiving health services, many pregnant women complain of difficulty in carrying out daily activities due to the pain they experience. This raises an important question about the extent to which low back pain is related to impaired functional activities in pregnant women.

The purpose of this study was to determine the relationship between low back pain and functional activity disorders in pregnant women in the third trimester at the Paguyaman Health Center. By knowing this relationship, it is hoped that a scientific basis can be found that can be used to design effective interventions to help pregnant women overcome low back pain, so that their quality of life and functional activities are maintained.

This study also seeks to provide a clearer picture of the factors that can worsen or alleviate low back pain in pregnant women. Proper treatment of low back pain is expected to reduce the negative impact on the functional activities of pregnant women, as well as improve their comfort and well-being during pregnancy. This study will also provide useful information for health workers at the Paguyaman Health Center to design programs that can support pregnant women in managing symptoms of low back pain.

2. Research Method

This study used an analytical design with a cross-sectional approach. The sample used was 30 pregnant women in the third trimester who experienced lower back pain. Data were collected through a questionnaire to measure the level of lower back pain and its effect on functional activities. Data analysis was carried out using the chi-square test, and the p-value obtained was 0.000.

3. Results and Discussion

Results

In table 1, the age of the mother, all 30 respondents (100%) were >21 years old.

Table 1 Mother's Age

Information	Frequency	Percent
>21 year	30	100.0

In table 2, it was found that the majority of 25 respondents (75%) were work and a small proportion of 5 respondents (25%) housewives.

Table 2 Mother's Occupation

Information	Frequency	Percent
housewives	5	25.0
work	25	75.0
Total	30	100.0

In table 3, obtained from the chi square test table above, namely 0.000, meaning that there is a relationship between lower back pain and functional activity in pregnant women in the 3rd trimester at the Paguyaman Community Health Center, Gorontalo Regency. It was found that 12 people with moderate pain had limited activities and 13 people with moderate pain had slightly limited activities and 5 people with mild pain had slightly disturbed activities.

**Table 3 Pain Level * Functional Activity
Crosstabulation**

		Functional Activities		
Information		Limited activity	Activities are slightly limited	Total
Pain Level	Moderate	12	13	25
	Light	0	5	5
Total			30	30
Uji Chi square				0.000

Discussion

In this study, the chi-square test conducted showed a p-value of 0.000, which is smaller than 0.05, indicating a significant relationship between lower back pain and functional activity in pregnant women in the third trimester at the Paguyaman Health Center, Gorontalo Regency. These results are in line with previous studies which stated that lower back pain can

inhibit the functional activity of pregnant women, affect their ability to carry out daily activities, and reduce their quality of life during pregnancy.

The main finding of this study was that 12 respondents who experienced moderate lower back pain showed quite significant activity restrictions. These activity restrictions were caused by the discomfort and pain they felt, which made it difficult for them to carry out activities such as walking, standing for a long time, or even doing housework that they could usually do without hindrance. This shows that higher levels of pain are associated with greater disruption to the functional activity of pregnant women.

Meanwhile, 13 pregnant women with moderate lower back pain experienced milder activity disorders. Although they were still able to perform daily activities, they reported quite disturbing pain, especially when doing certain physical activities, such as walking long distances or standing for long periods. This shows that although lower back pain does not completely hinder their activities, it still affects the comfort and ability of pregnant women to carry out their daily lives.

In addition, five pregnant women with mild lower back pain reported relatively less disruption to their activities. Although they still felt discomfort, the impact on their functional activities was not as severe as pregnant women with moderate pain. This shows that the severity of lower back pain has a direct correlation with the level of disruption to the functional activities of pregnant women.

This decreased ability to carry out activities not only affects the physical aspects of pregnant women, but can also affect their psychological aspects. Decreased quality of life due to lower back pain can cause stress and anxiety in pregnant women, which in turn can worsen their health conditions. Therefore, it is important to pay special attention to the management of lower back pain in pregnant women, especially in the third trimester.

Several factors that influence lower back pain in pregnant women include changes in posture, weight gain, and ligament relaxation due to the influence of the hormone relaxin. In the third trimester, the fetus continues to grow and the mother's weight increases, which causes additional pressure on the spine and back muscles. This explains why pregnant women in the third trimester are more susceptible to lower back pain which can limit their activities.

In addition to physical factors, psychological factors also play a role in worsening lower back pain. Anxiety and stress experienced by pregnant women can increase muscle tension and worsen the pain felt. Therefore, emotional and psychological support are very important in dealing with lower back pain in pregnant women. Research conducted by Meyer et al. showed that pregnant women who received psychological support were better able to manage lower back pain.

It is also important to consider the long-term impact of untreated lower back pain. Prolonged functional activity disorders can affect the overall quality of life of pregnant women and interfere with their well-being after delivery. Research by Chou et al. suggested that earlier intervention in addressing lower back pain can help reduce the negative impact on functional activities of pregnant women.

Efforts to reduce lower back pain in pregnant women can include various approaches, such as regular physical exercise, physical therapy, use of support devices, and relaxation techniques to reduce muscle tension. One effective intervention is education about correct posture and ways to reduce back muscle tension.

In addition, providing safe pain relievers for pregnant women can also be a solution to reduce pain that interferes with daily activities. However, the use of drugs must still be supervised by medical personnel to ensure the safety of the mother and fetus. A multidisciplinary approach involving medical personnel, physiotherapists, and psychologists can provide more optimal results in treating lower back pain in pregnant women.

It is also important for medical personnel to provide education to pregnant women about the importance of maintaining body health and avoiding activities that can worsen lower back pain. The use of relaxation techniques, such as prenatal yoga or meditation, has been shown to help reduce muscle tension and improve the comfort of pregnant women.

This study provides a clear picture of the relationship between lower back pain and impaired functional activity in pregnant women in the third trimester. This can be the basis for designing a more effective intervention program at the Paguyaman Health Center to reduce the negative impact of lower back pain on pregnant women, which can ultimately improve their quality of life.

However, this study also has several limitations, such as the relatively small sample size. Further research with a larger sample size and more in-depth measurements of pain severity and functional activity will be needed to strengthen these findings. In addition, further research can explore other factors that may contribute to impaired functional activity in pregnant women.

4. Conclusion

Based on the results of the study conducted at the Paguyaman Health Center, Gorontalo Regency, it can be concluded that there is a significant relationship between lower back pain and functional activity disorders in pregnant women in the third trimester. The results of the chi-square test showed a p value = 0.000, which indicates that the more severe the level of lower back pain, the greater the disturbance felt in the functional activities of pregnant women.

These findings indicate that pregnant women with moderate lower back pain experience more significant activity restrictions, while pregnant women with mild pain experience milder disorders. This confirms that lower back pain has a direct impact on the ability of pregnant women to perform daily tasks, such as walking, standing, and doing housework.

Decreased functional activity caused by lower back pain not only affects the physical aspect, but can also affect the psychological condition of pregnant women, such as anxiety and stress. Therefore, proper treatment of lower back pain is needed to improve the quality of life of pregnant women, especially in the third trimester which is a period full of physical and emotional challenges.

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