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Research Article

Prevalence of Pregnancy-related Pelvic Girdle and Low Back Pain in Working Women of Urban Population in the Age Group of 25 to 40 Years

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A B S T R A C T

Background: Pelvic girdle and low back pain in working women of the urban population has increased in recent years. The aim of this research was to investigate the prevalence of pregnancy-related pelvic girdle and low back pain in working women of the urban population in the age group of 25 to 40 years.

Method: A cross-sectional study was carried out among 89 patients in Maharashtra who suffered from pelvic girdle pain and low back pain during pregnancy. Random sampling method was used to select the participants on the basis of inclusion and exclusion criteria. The data that were collected included demographic data, a pelvic girdle questionnaire, and modified Oswestry low back disability questionnaire.

Results: Based on the statistical analysis, the prevalence of pelvic girdle pain and low back pain in working women of the urban population was considered extremely significant ($p < 0.0001$). Overall, the prevalence of low back pain and pelvic girdle pain in the participants was observed to be 45.45% and 34.73% respectively.

Conclusion: According to the collected data, it was concluded that a sedentary lifestyle and lack of exercise in working women can lead to an increase in the prevalence of low back pain and pelvic girdle pain.

Keywords: Pelvic Girdle Pain, Low Back Pain, Urban Population, Questionnaire, Working Women

Introduction

The most frequently occurring problems among pregnant working women of the urban population are low back pain (LBP) and pregnancy-related pelvic girdle pain (PGP). PGP commonly occurs in association with pregnancy, trauma, and osteoarthritis (OA). It arises from the posterior iliac crest and radiates up to the gluteal fold. LBP can be described as axial or parasagittal discomfort in the lower lumbar region.[1] Pregnancy-related PGP is multifactorial and may be related to hormonal, biomechanical, traumatic, genetic, metabolic,

and degenerative changes.[1] The common risk factors for pregnancy-related PGP and LBP are frequent or prolonged torso flexion, strenuous workload, and previous history of LBP and PGP. Depression, parity, and body mass index (BMI) are also found to be related to LBP and PGP. Pregnancy-related PGP and LBP influence daily living activities such as working, walking, and sleeping, thereby causing a reduction in quality of life.[2]

The pelvis is formed by the sacrum, ilium, ischium, and pubic. The pelvic bone consists of pubic symphysis and sacroiliac joint (SI joint). SI joint transmits the forces between the spine and lower extremities.[3]

Pelvic floor muscles perform two functions in a female:

- It supports the abdominal viscera and rectum (bladder, intestine and uterus).
- It controls the mechanism for continence for the urethral, anal, and vaginal orifices.

Pregnancy-related PGP may start during the 18th week of pregnancy and is known to peak between the 24th week and the 36th week. The pain is described as stabbing, shooting, and burning type of pain.[4]

A sedentary lifestyle increases the risk of PGP and LBP compared to a more active lifestyle. Patients with occupations that require them to be highly active and involved in physically demanding activities also lead to a higher risk of developing PGP and LBP during pregnancy.[5]

Method

The cross-sectional study was carried out among 89 patients. The study was carried out by sending Google Forms from different social media platforms. Pelvic girdle questionnaire[6] and Oswestry low back pain disability questionnaire[7] were sent to the participants to analyse their knowledge about PGP and LBP during pregnancy. A case sheet was made which included name, age, occupation, and email-id. The question started with pain intensity and how problematic a daily routine can be because of pain. The study duration was from May 2022 to October 2022.

The random sampling method was used because of limited time. The collected data were analysed by a statistician using an Instat application. Chi-square test was used to analyse the questions. Forms were sent to the women who were pregnant.

Inclusion Criteria

The study was conducted among antenatal females who belonged to the age group of 25 to 40 years. The questionnaire was given to those who were willing to participate in the study.

Exclusion Criteria

The research excluded individuals with any past history of low back injury, any recent fractures and women in the postnatal category.

Ethical Committee Approval

The study was approved by the Institutional Ethics Committee of Krishna Institute of Medical Sciences (Deemed to be University), Karad. An explanation about the study and questionnaire was given to respondents and informed consent was obtained from them. They also had the authority to not participate in the questionnaire. All the respondents participated voluntarily and their confidentiality was maintained throughout the study.

Results

The questionnaire for assessment was used to determine the prevalence of pregnancy-related pelvic girdle pain (PGP) and low back pain (LBP) in working women of the urban population. There were 25 questions for PGP with 2 questions for pain intensity, 20 questions about how problematic it was to carry on in daily life with the pain, and 3 questions related to the extent of PGP. There were 10 questions for LBP with 5 questions related to pain intensity and how problematic it was to take personal care, walk, sit, and lift objects, and 5 questions related to how problematic it was to walk, sleep, carry on social life interactions, travel, and do chores of homemaking.

Most of the respondents were working women in the age group of 25-40 years. The responses for PGP and LBP were given by 89 respondents.

It was seen that 34.75% of participants had knowledge about PGP during pregnancy whereas, 65.25% were unaware of it. 45.45% of subjects had knowledge about LBP during pregnancy whereas, 54.55% were unaware of it.

Among the urban population, women doing jobs and businesses showed more prevalence of PGP and LBP during pregnancy. The prevalence rates of PGP and LBP among women doing jobs was 56.8% and among women doing business, it was 30.7%.

As shown in Table 1, among the 89 participants, 56.8% were employed in jobs, 30.7% did business, 10.2% were housewives, and 2.3% were associated with other occupations.

Table 1.Distribution of Participants as per their Working Status

Occupation	Job	Business	Housewife	Others
Percentage of participants	56.8	30.7	10.2	2.3

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Table 2.Responses of Participants about the Pain

Questions	Total Responses	None (%)	Some (%)	Moderate (%)	Considerable (%)
How much pain do you experience in the morning?	89	3.5	51.8	38.8	5.9
How much pain do you experience in the evening?	89	4.1	48.8	46.5	0.6
To what extent do you do things more slowly due to your pelvic girdle pain?	89	7.1	50.6	40.0	2.3

As shown in Table 2, out of 89 women, 3.5% of participants did not experience pain in the morning, 51.8% experienced some amount of pain, 38.8% had moderate amount of pain, and 5.9% had considerable pain. 4.1% of respondents did not have pain in the evening, 48.8% experienced some amount of pain, 46.5% had moderate amount of pain, and 0.6% had considerable pain in the evening.

Discussion

The purpose of this article was to promote the importance and awareness regarding PGP and LBP and the importance of taking preventive measures for avoiding PGP and LBP.

In a previous study, out of 404 females who were interviewed, the prevalence of LBP was 62% during pregnancy whereas, this article showed a 45.45% prevalence of LBP due to pregnancy among a total of 89 people.[8] In another article, out of 869 pregnant women, the prevalence of PGP was 70% to 86% whereas, this article showed a prevalence of 34.73%.[9]

Among the participants, 30.7% were businesswomen and 56.8% were in the job sector. 70.5% of women noticed their pain intensity to be bad but manageable without having to take any pain medication. 58% of them found an increase in pain while performing their daily life activities and 43.7% found an increase in pain due to lifting activities. 43.7% of women found it difficult to walk with pain for more than half a mile and 42% found it difficult to stand for more than 1 hour due to pain. 50% of women were able to manage homemaking chores and jobs efficiently. 68% of women found difficulty in performing their daily life activities due to PGP among which 47.7% reported that they found even standing to be difficult.

54.7% of women found it difficult to even bend down due to PGP and 49.4% found it difficult to sit for even less than 10 minutes. 49.4% of respondents reported that even walking for less than 10 minutes was affected to a small extent due to PGP while 45% found it difficult to climb stairs or do their household activities to a small extent. 57% of women found that their sporting activities were affected due to PGP. Also, 54.1% of women reported that activities such as rolling over in bed were also affected to a small extent.

51.8% of participants found that their pain increased to some extent in the morning and about 48.8% felt the same in the evening. PGP also caused sleep interruption in around 48.8% of participants to some extent.

Conclusion

According to the responses and collected data, it was concluded that a sedentary lifestyle and lack of exercise in working women can lead to an increase in the prevalence of low back pain and pelvic girdle pain. Thus this study provides a valid reason for women to pay attention towards their health and it can also spread awareness regarding the importance of exercise, proper nutrition, and improvement in lifestyle that can lead a woman towards a healthy and pain-free life.

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Conflict of Interest: None

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