

Prevalence of Low Back Pain in Women after Two Years of Delivery

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ABSTRACT

Background: Pregnancy leads to important changes in women's body. Although mechanical and hormonal factors for the occurrence of low back pain in pregnancy are well known. However, a small population of individual's complaints of low back pain persist and symptoms last for years. This pain can have an adverse impact on the quality of life and on ordinary daily activities.

Objectives

1. To screen the women with low back pain after two years of delivery.
2. To find out the prevalence rate of low back pain in women after two years of delivery.

Methods: Ethical clearance was obtained from the Institutional Ethical Committee. 42 subjects were selected from in and around Karad, according to the inclusion and exclusion criteria aged between 25 to 35 years. After taking prior consent assessment was done using the outcome measures and result were recorded for the study and conclusion was made.

Result: NPRS shows 71% of population were scored above 5 and remaining 29% were below 5. RMDQ shows 64% of population were scored between 0 to 12 and remaining 36% were between 13 to 24.

Conclusion: The study concluded that there is significant difference in prevalence of low back pain in women after two years of delivery and showed 71% of population scored above 12 in RMDQ and 64% of population scored above 5 in NPRS.

Keywords: Low back pain, pregnancy, prevalence rate, physiotherapy

INTRODUCTION

Pregnancy leads to important changes in women's body. Although mechanical and hormonal factors for the occurrence of low back pain in pregnancy are well known. After delivery the complaints usually disappear within period of 6 months. However, a small population of individual's complaints of low back pain persist and symptoms last for years.⁽¹⁻⁴⁾

This pain can have an adverse impact on the quality of life and on ordinary daily activities such as loading bearing,

cleaning, sitting and walking abilities of women affected and there is some evidence of socioeconomic detriment, mainly job absenteeism.^(5,6)

During pregnancy back pain is the common problem faced. Previous studies have shown the incidence rate of back pain during pregnancy is 20% to 50%.^(7,8)

Pathophysiology leads to back pain in antenatal period have been seen, including the increase in load on the back as a result of the total weight gained during pregnancy and the weight of the fetus⁽⁹⁾;

hormonal changes in the pregnant woman, which destabilizes the spine and sacroiliac joints⁽¹⁰⁾; and connective tissue microtrauma in the sacroiliac joints resulting from trunk extensor muscle forces to balance the anterior flexion moment caused by the growing fetus⁽¹¹⁾.

The incidence rate of back pain in postpartum period seen between 30% and 45%⁽¹²⁾. This incidence is believed to be particularly high in those receiving epidural anesthesia during labor^(13,14), despite the fact that the role of epidural in postpartum back pain is still controversial⁽¹²⁻¹⁵⁾

Need for study

Postural changes take place during the pregnancy and have impact on women life after delivery. So it is important to study these changes and signs and symptoms occurring after the delivery. These signs and symptoms like low back pain which is the major problem faced by women after delivery. So it is important to know and study the prevalence rate of low back pain in women after delivery.

Aim & objectives

Aim: To find out the prevalence of low back pain in women after two years of delivery.

Objectives:

- 1) To screen the women with low back pain after two years of delivery.
- 2) To find out the prevalence rate of low back pain in women after two years of delivery.

MATERIALS AND METHODOLOGY

Methodology

- Type of study: Observational study
- Study design: Survey
- Sampling method: Simple random sampling
- Place of study: Krishna college of physiotherapy, KIMSUDU, Karad
- Sample size: 42
- Duration of study: 6 months

Inclusion criteria

- Primigravida women
- Age group between 25 to 35 years

Exclusion criteria

- Multigravida women
- Participants with the history of delivery before 36 weeks
- Participants who diagnosed with orthopaedic conditions and previous spinal surgery

Materials

- Data collection sheet
- Questionnaire

Outcome measures

- Numeric pain rating scale (NPRS)
- Roland Morris disability questionnaire (RMDQ)

Procedure

In this study 42 subjects were selected from in and around Karad, according to the inclusion and exclusion criteria aged between 25 to 35 years. The inclusion criteria were prim gravida women and age group 25 to 35 years and exclusion criteria was multigravida women, women who delivered before 36 weeks and who were diagnosed with orthopaedic conditions and previous spinal surgery. Participants were explained about the procedure of the study and written consent was taken. After taking consent assessment was done using the outcome measures and result were recorded for the study. The interpretation of the study was done on the basis of assessment taken. Thus, statistical analysis was done and conclusion was made.

Data Analysis, Presentation and Interpretation

1. Age distribution

Table No: 1 Age distribution

Age group (in years)	No of subjects
25 to 29	18
30 to 35	24
Total	42

The above table shows 18 subjects were aged between 25 to 29 years and 24 subjects were aged between 30 to 35 years.

2. Numeric pain rating scale

Table No: 2 Numeric pain rating scale

NPRS	No of subjects
0-5	12
6-10	30

The above table shows 12 subjects were having score <5 and 30 subjects score was >5.

3. Roland Morris disability questionnaire

Table No: 3 Roland Morris disability questionnaire

RMDQ	No of subjects
0-12	15
13-24	27

The above table shows 15 subjects were having score between 0 to 12 and 27 subjects score was between 13-24.

DISCUSSION

This study “Prevalence of low back pain in women after two years of delivery” was conducted to find out the prevalence rate of low back pain among women after two years of delivery. The study was conducted with 42 subjects from Krishna institute of medical sciences deemed to be university, Karad. Subjects were selected according to the inclusion and exclusion criteria and written consent was taken. The inclusion criteria were primigravida women aged between 25 to 35 years. Exclusion criteria was multigravida women, participants with the history of delivery before 36 weeks and participants who diagnosed with orthopaedic conditions and previous spinal surgery. Subjects were explained about the procedure of the study. Then they were asked to fill the questionnaire accordingly. The questionnaire included two scales Roland Morris Disability Questionnaire and Numeric Pain Rating Scale. Survey was done according to the results obtained and hence conclusion was given. Postural changes take place during the pregnancy and have impact on women life after delivery. Previous studies done by Britt Stuge, Marit Bragelien Veierød, Even Lærum, et al. The Efficacy of a Treatment Program Focusing on Specific Stabilizing Exercises for Pelvic Girdle Pain After Pregnancy A Two-Year Follow-up of a

Randomized Clinical Trial. (2004) concluded that significant differences between the groups in functional status, pain, and physical health (SF-36) were maintained 2 years after delivery. Minimal disability was found in 85% of the specific stabilizing exercise group as compared to 47% in the control group. The control group showed significant improvement in functional status with median change score of 6.0. Physical therapy was seen effective for pregnancy related changes after few years of delivery. W. W. K. To and M. W. N. Wong. Factors associated with back pain symptoms in pregnancy and the persistence of pain 2 years after pregnancy in which a follow-up questionnaire survey was administered 24 months after delivery to the group who reported back pain symptoms in the first survey. The absence/presence of persistent symptoms at 24 months was correlated with the characteristics of their pregnancy, as well as their daily life activities at the time of the survey. Significantly more patients with presence of pain in pregnancy had history of previous back pain episodes when not pregnant (48% vs. 19.7%, $p < 0.001$), as well as during previous pregnancies (66% vs. 40%, $p < 0.025$), or in the postpartum period (40% vs. 6.6%, $p < 0.001$). So it is important to study these changes and signs and symptoms occurring after the delivery. To treat these symptoms first it's important to know the prevalence rate for which this study was done. So study shows that there were 71% of population scored above 12 in RMDQ and 64% of population scored above 5 in NPRS. The limitation of the study was there were no homogenous population included, small geographic area and study duration was short and limited. Suggestions and recommendations can be given that this study could done on larger population and Further research for literature is advised for planning treatment strategies.

CONCLUSION

The study concluded that there is significant difference in prevalence of low

back pain in women after two years of delivery. This study shows that there were 71% of population scored above 12 in RMDQ and 64% of population scored above 5 in NPRS.

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Conflict of Interest: The authors declare that there are no conflicts of interest concerning the content of the present study.

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Ethical Approval: Approved

Authors Contribution

Chaitali Solanki conducted the study by working on protocol preparation, collecting samples, literature review for this manuscript, developed introduction section of the manuscript, together with the discussion of the study findings, collected data and analysed the data. Dr Mandar Malawade guided in providing a description of the background information and participated in preparation of manuscript.

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