



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.4399529>Available online at: <http://www.iajps.com>

Research Article

**PREVALENCE OF LOW BACK PAIN AND ITS IMPACT ON  
QUALITY OF LIFE IN POST PARTUM WOMEN.**<sup>1</sup>Dr Zubia Ikram, <sup>2</sup>Dr Shahzad Ahmad Sattar, <sup>3</sup>Dr Faisal Bin Saeed<sup>1</sup>MBBS, Ameer ud Din Medical College, Lahore.<sup>2</sup>MBBS, Mohi-ud-Din Islamic Medical College, Mirpur AJ and K.<sup>3</sup>MBBS, Sahiwal Medical College, Sahiwal.**Article Received:** March 2020**Accepted:** April 2020**Published:** May 2020**Abstract:**

*In the postpartum period various changes in the hormone level occurs such as musculoskeletal changes which leads to excessive joint mobility, weakness of core stabilizers, and altered spinal mobility and function. The aim of the study is to evaluate the prevalence of low back pain in cesarean versus normal vaginal delivery and impact of low back pain in their lives. 80 participants were recruited into the study who met the inclusion criteria. Out of the 30 participants who had undergone cesarean section, 17(56.67%) participants were having low back pain and 13(43.33%) participants were not having low back pain. The prevalence of low back pain in postpartum women with cesarean section was high as compared with women who had normal delivery. The quality of life is higher in postpartum women with normal vaginal delivery because of less pain than the women with cesarean section. The disability level is lower in postpartum women with normal vaginal delivery than the women with cesarean section.*

**Corresponding author:**

**Dr. Zubia Ikram,**  
MBBS, Ameer ud Din Medical College, Lahore.

QR code



Please cite this article in press Zubia Ikram et al, *Prevalence Of Low Back Pain And Its Impact On Quality Of Life In Post-Partum Women.*, Indo Am. J. P. Sci, 2020; 07(05).

**INTRODUCTION:**

A postnatal period which is critical phase for survival of a mother and her newborn lasts till six weeks after birth. Many anatomic and physiologic changes take place during these 6 weeks. The changes which occur during pregnancy settle down in this phase. [1]

In the postpartum period various changes in the hormone level occurs such as musculoskeletal changes which leads to excessive joint mobility, weakness of core stabilizers, and altered spinal mobility and function. [2]

Commonest issues which arise in this period are postpartum hemorrhage, thromboembolism, postnatal anemia, backache, perineal pain, bowel problems, mastitis and psychological problems. [3]. One of the most common problems in post-partum period is back pain. It is defined as pain which is musculoskeletal in nature axial in location and feeling of discomfort or pain. Multiple factors could lead to back pain mechanical, physiological, hormonal, circulatory, and psychosocial factors. [4]. Back pain can influence any women in child bearing age despite the status of pregnancy. Almost 70% of women complain back pain in any stage of their lives. [5] A study has given the statistics in which it has shown that 59.1% pregnant women had reported backache at the time of delivery whereas 43.2% had continued back pain till 6 months after delivery. [6] The occurrence of low back pain was remarkably high in women who had undergone cesarean as compared to normal vaginal delivery. Backache after delivery may last up to one year and above. While the etiology of low back pain during pregnancy remains theoretical, three mechanisms regularly are described: biomechanical, musculoskeletal, hormonal and vascular. Research has concluded that low back pain proposed to occur in consequence of increased weight during pregnancy which results in postural changes and leads to backache. The displacement of center of gravity towards anterior direction causes the women to adapt bad posture unconsciously in which there is shift in their head and upper body posteriorly over their pelvis, inducing hyper-lordosis of the lumbar spine [7] [8]. The displacement initiates the pressure on the intervertebral discs facet joints and ligaments, stimulating joint inflammation [9]. The incidence of backache was 44% after 2 months of postpartum. Greater BMI, younger age, a history of low back pain during pregnancy, before pregnancy, multiparity and joint hypermobility have been found to be predisposing factors of low back pain in women after childbirth [10]

In the present scenario, the families are not aware of different delivery methods and their advantages

and disadvantages and there is no system to consult them on the matter. Regarding this, tendency toward caesarian to prevent labor pain and to save the genital system is increasing. Although regarding the family planning programs in our country, physical complications of normal vaginal delivery such as pelvic floor muscles loosening and dissatisfaction of sexual intercourse would reduce. Not many well-documented studies have been conducted on this subject especially in our state. So, this study will help us provide prevention and early intervention for post-partum back pain.

The aim of the study is to evaluate the prevalence of low back pain in cesarean versus normal vaginal delivery and impact of low back pain in their lives.

**SUBJECTS AND METHODS:**

It was an observational cross-sectional study which contains convenient sampling method. The inclusion criteria was Women between age group of 21-35 years ; All post-partum women upto 6 months after delivery. Exclusion Criteria (self-reported/observational): Back pain before pregnancy, Systemic diseases/ known other gynecological diseases, Known spinal/congenital deformities, Psychiatric diseases, Any previous lumbar or abdominal surgery except cesarean section. The written informed consent was signed after explaining the purpose of the study. Back pain was assessed by using numeric pain rating scale along with demographic data was conducted which contained personal information. The data was kept confidential at any level. The ethical committee of research approved the proposal. For outcome measures Oswestry disability index and SF-36 was used. The participants were personally interviewed for filling the questionnaires. The prevalence was calculated by using frequency table whereas descriptive analysis was done to calculate the pain and quality of life. To evaluate the correlation between mode of delivery and low back pain chi square test was performed. For pain and quality of life correlation coefficient was used. Unpaired T test was used to determine the disability level. The statistical analysis was performed using SPSS Version 20. The level of significance was 95%.

**RESULTS:**

80 participants were recruited into the study who met the inclusion criteria.

Out of the 30 participants who had undergone cesarean section, 17(56.67%) participants were having low back pain and 13(43.33%) participants were not having low back pain.

Of which 40 had undergone cesarean section among them 16 (57%) participants were having low back pain whereas rest of them reported no pain.

Out of 40 participants who had undergone normal vaginal delivery, 10 (33.33%) participants were having low back pain and 30 (66.67%) participants were not having low back pain

Prevalence of postpartum back pain in cesarean section was 57% whereas the prevalence of postpartum back pain in normal delivery was 33%. The average of numeric rating scale of cesarean women was 5.1 whereas of normal vaginal delivery the average pain rate was 3.9. Likewise, the quality of life was seen well in women who had undergone normal delivery as compared to caesarean.

The mean of disability level was high in those participants who had cesarean section than women with normal delivery. The higher pain indicates the advance level of disability.

### DISCUSSION:

Back pain is the most ignored issue in under develop countries whereas it requires more medical attention. All the problems arising from back pain causes significant problems in their daily life. Proper education about incidence of low back pain during pregnancy can aid in reducing the severity of pain.

On time treatment can help in good prognosis better outcomes and improved quality of life. A study conducted by N.Dooley has found that women with normal delivery had less pain and disability as-well similarly in current study the prevalence of disability due to back pain was 33%. [11] [12]. Also the prevalence of postpartum low back pain was found to be high in a previous study conducted by Shuttle and in this study the statistics of low back pain in postpartum period was 57%. [13]

The possible causes of back pain after normal vaginal delivery are hormonal changes, sudden lifting or twisting from the back, weakened abdominal muscles and incorrect posture. But apart from the above-mentioned causes, in cesarean section, there is also local inflammation of skin and the tissues through which needle was inserted, causing trauma to skin, muscles, ligaments or nerves of back. This might be led to higher prevalence of back pain in LSCS than NVD. [14][15][16] The results comply with previous study which states that there is increased incidence of back pain in patients who had undergone cesarean section, than in patients with normal vaginal delivery. [17] A study conducted in 2011 has concluded that persistent pain is more common after cesarean section than vaginal birth. [18] There was no remarkable association found between primigravida and multigravida which is in

agreement with literature that previous pregnancy is not the risk factor for low back pain after pregnancy. [19] Numerous studies have used NRS for measuring pain intensity. In this study, the average NRS was 5.1 in women with cesarean section, while 3.1 in women with normal vaginal delivery. This is accordingly similar with previous findings that the average NRS is about 5 in postpartum women.

Oswestry Index questionnaire was used to understand the limitation of activity and to find the disability scores. In this study the quality of life was found to be higher in women with normal vaginal delivery than cesarean section. This is in accordance with the study which states that overall mothers in normal delivery group reported a better health related quality of life and slightly scored higher (better) on the SF-36 questionnaire [20]

A significant effect of pain intensity on disability was found. Pain intensity can affect disability, but the episodic nature of low back pain also affects the ability to function in both work and personal life. Intermittent increases in pain can markedly alter disability [22]

Some limitation of the study was: management of low back pain during postpartum period interventional study can be carried out. Disability caused due to other musculoskeletal problems like diastasis recti, pelvic girdle pain and also the severity of these problems can be known. Prevalence of depression or other psychosocial changes and its influence on back pain and quality of life can be assessed.

### CONCLUSION:

The prevalence of low back pain in postpartum women with cesarean section was high as compared with women who had normal delivery. The quality of life is higher in postpartum women with normal vaginal delivery because of less pain than the women with cesarean section. The disability level is lower in postpartum women with normal vaginal delivery than the women with cesarean section.

### REFERENCES:

1. Charlotte Warren, Pat Daly. (2014). Postnatal Care. Section 3, Chapter 4; 80-90.
2. Dr Colin Tidy, Dr Hayley Willacy et al, (2011). Postnatalcare (Puerperium). <http://patient.info/in/doctor/postnatal-care-puerperium>
3. Sarvaiya Bhavisha Deepak Kumar Ingrid M. Mogren, Anna I. Pohjanen, (2008). Study on Prevalence of Pregnancy Related Low Back Pain and its Associated Factors.

4. American society of regional anesthesia and pain medicine: patient information.
5. Ingrid M. Mogren, Anna I. Pohjanen, (2005). Low Back Pain and Pelvic Pain during Pregnancy: Prevalence and Risk Factors. *SPINE*; 30(8):pg 983–99
6. Ostgarad HC, Anderson GBJ, Karissonk, (1991). Prevalence of back pain in pregnancy. *Spine (Phila Pa 1976)*. 1991 May;16(5):549-52
- Gutke A, Josefsson A, Oberg B,(2007).Pelvic girdle pain and lumbar pain in relation to postpartum depressive symptoms. *Spine (Phila Pa 1976)*. 2007 Jun 1;32(13):1430-6
7. Glanzener CMA, Stroud P. Tempton, (2009).Postnatal maternal morbidity: extent, cause, prevention.. *BMC Pregnancy and Childbirth*9:4
8. Nilsson -Wikmar L, Pilo C, (2003). Perceived pain and self-estimated activity limitations in women with back pain post-partum. Volume 8, Issue 1, Pages 23–35
10. Cheng CY, Li Q, (2008). Integrative review of research on general health status and prevalence of common physical health conditions of women after childbirth. *Women Health Issues* 2008, 18:267-280
9. Fairbank JC, Couper J, davies JB, et al., (1980). The Oswestry low back pain disability Questionnaires. *Physiotherapy* ; 66(8):271-3.
10. Vincent JI, Macdermid JC, (2014). Translation of Oswestry Disability index into Tamil with cross cultural adaptation and evaluation of reliability and validity (§). *Open Orthop J* ;8:11-9
11. Kainu JP, Sarvela J, (2010). Persistent pain after caesarean section and vaginal birth: a cohort study. *Int J Obstet Anesth*. 2010 Jan;19(1):4-9
12. Elizabeth Gayle Subocz, (2007). Pain after cesarean- A pilot study assessing pain and health related quality of life in women after cesarean section. *Placenta* 28(8- 9):A45
13. Jennifer Sabino, Jonathan N, (2008). Pregnancy and low back pain.*Curr Rev Musculoskelet Med* ; 1(2): 137–141.
14. N. Dooley, T. Tan,(2013).A survey of the prevalence of persistent pain after vaginal delivery: A pilot study;*Ir J Med Sci*.;182(1):69-71
15. ShuttLE, Valentine SJ, (1992). Spinal anaesthesia for caesarean section: comparison of 22-gauge and 25- gauge Whitacre needles with 26-gauge Quincke needles. *Br J Anaesth*. 69(6):589-94.
16. Breen TW, Ransil BJ, (1994). Factors associated with back pain after childbirth. *Anesthesiology*. 1994 Jul; 81(1):29-34.
17. De BritoCançado TO, Omais M, Ashmawi HA, (2012). Chronic pain after cesarean section. Influence of anesthetic/surgical technique and postoperative analgesia. *Rev Bras Anesthesiol.*; 62(6):762-74.
18. Kehlet H, Pavlin D J, (.2011). Persistent postpartum pain after vaginal birth and cesarean section. *Periodicum Biologorum* Vol. 113, no 2, 239–241.
19. Nilsson-Wikmar L, Pilo C, (2003). Perceived pain and self-estimated activity limitations in women with back pain post-partum. *Physiotherapy Research International*, Volume 8, Issue 1, Pages 23–35.
20. Seyed Abbas Mousavi, Forough Mortazavi, (2013). Quality of Life after Cesarean and Vaginal Delivery. *Oman Med J*. 2013 Jul; 28(4): 245–251.
21. McGorry RW, Webster BS,(2000).The relation between pain intensity, disability, and the episodic nature of chronic and recurrent low back pain: *Spine (Phila Pa 1976)* . ; 25(7):834-41