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ORIGINAL ARTICLE

Postpartum Women with Urinary Incontinence and Low Back Pain

AZRA–A-GHANI[1], SAIMA[2], IBRAHIM SHAH[3], SIRAJ[4], SAMI ULLAH[5]
[1]*Assistant professor urology , MTI, Lady reading hospital Peshawar*
[2-5]*Trainee medical officer*
Corresponding author: Saima Humayun, Sami ullah, Email: dr.saimahumayun202@gmail.com, saah010198@yahoo.com

ABSTRACT

Background: Many women have urinary Incontinence after giving birth. Approximately 36%-44% of postpartum women have urine incontinence symptoms (UI). Incontinence in the postpartum period is often caused by damage to the urethra, the bladder, the nerves that control bladder function, malfunction in the pelvic floor muscles, or all four. Vesical denervation likely causes UI in women who have had a cesarean section by making the detrusor muscle unstable. F.Factors, Surgical Vaginal Birth, and Prenatal Bladder Neck movement owing to dysfunctional Pelvic Floor Muscles (PFM) and weakened Connective Tissue are further risk factors for the development of UI. Joint laxity, weakening of Connective Tissue, Loosened Ligaments and Stretched Abdominal Muscles from the growing uterus all contribute to the typical occurrence of lower back pain (LBP) in women after childbirth. It has been shown that postpartum women who experience low back pain and UI often do so together.

Objective: This study aims to determine whether or not Urine Incontinence and Low Back Pain are related in Postpartum Women.

Methodology: the study was conducted in Department of Urology at Lady Reading Hospital (LRH) Quota sampling was employed for this analysis. One group consisted of women with low back discomfort after delivery, whereas the other did not. In order to investigate the correlation between UI severity and LBP, participants were given UI questionnaires. Self-administered questionnaires were made available to respondents in English. Because some participants could not read the questionnaires, we had to collect the information from them verbally.

Results: Fisher's exact test was used to look at the distribution of ICIQ-UI scores; the p-value was > 0.05 therefore the null hypothesis was not rejected. This meant that there was no correlation between urinary Incontinence and Lower back pain in women postpartum.

Conclusion: This Study concludes disproving the hypothesis that UI and postpartum women experiencing low back discomfort.

Keywords: Urinary Incontinence UI), Low Back Pain (LBP), Post Partum period. Pelvic Floor Disorders,

INTRODUCTION

Back discomfort in the lumbar area, also known as lumbosacral pain, may be either isolated or spread down the leg and hip. According to Ghaderi's study, 84% of Iranian pregnant women had LBP.[1] It is A typical problem for women after giving birth. Katniss found that 67% of postpartum women have LBP.[2] Some of the negative effects of pregnancy include loosened joints and ligaments, weakened connective tissue, pulled abdominal muscles, and osteoporosis. caused by hormone imbalances are the leading causes of LBP[2].

When you contract your abs, you also contract your pelvic floor muscles, which comprise a significant portion of the muscles surrounding your midsection[3]. They are essential for maintaining intra-abdominal pressure and supporting the trunk and lumbopelvic areas. According to the Study, people with urine incontinence also suffer from LBP because their pelvic floor muscles are underused[4].

Urinary Incontinence is the involuntary loss of bladder control. Leaking urine with effort, such as coughing or sneezing, is the most common UI. Urgency UI, in which a sense of urgency accompanies urine leakage, is another common type. Mixed UI refers to a situation in which a patient perceives both types of UI. Among women of all ages, The most prevalent issue with personal hygiene and health is Urinary Incontinence.. Incidence rises as people become older. Pregnancy and the postpartum period are peak times for this illness, which primarily affects women. While pregnant, SUI affects around 41% of women (Vecchioli-Scaldazza and Morosetti, 2010) [5].

The manner of delivery is a substantial contributor to UI risk after birth. According to the available literature, vaginal births had a higher incidence of UI than C-Sections. Dysfunction of the Pelvic Floor Muscles, a shift in the bladder's neck position, increased urethral mobility, or Visceral Trauma (bladder damage or urethral injury) during vaginal birth may all contribute to this issue. Women who give birth through C-Section are at a lower risk of developing UI than those who give birth vaginally, and Study has shown that UI is more severe in women who give birth vaginally. Compared to women with a healthy levator ani muscle, women with an injured levator ani muscle showed a more significant increase in bladder neck descent[6].

Studyers have shown a strong correlation between SUI and persistent LBP in women aged 18 and above[7]. Low back pain is associated with UI in 78% of non-pregnant women, and the association between UI and LBP is cited across all age ranges. Previous studies have not identified a possible link while comparing UI to LBP in women following the postpartum period, although this is just a hypothesis[8]. The goal of this study is to determine the prevalence of UI in women with LBP Physiotherapists should focus on the postpartum period treating women with Low Back Pain can be aware of the possibility of Urinary Incontinence about those patients and work to alleviate it by strengthening the pelvic floor muscles (PFM) in addition to the lumbar back muscles (LB) [9].

MATERIALS AND METHODS

The methodology used here is Cross-Sectional analytical Study. From 05 March 2021 to 15 March 2022, information was gathered from the Department of Urology at Lady Reading Hospital (LRH). This Study used a quota sampling method. Women were separated into two groups, one consisting of those who had low back discomfort after childbirth and the other of those who did not. n=100 was determined to be the appropriate size for each sample. With this formula, we can estimate P=0.57 of the population and have an absolute accuracy of d=0.07 within a 90% confidence interval: n =100(25p).

Due to the lack of conclusive information about the prevalence/incidence of backache, the population percentage was calculated to be P=0.57. Ten women aged 18-40 who had previously given birth vaginally and were within the first 12 weeks of their postpartum recovery phase were studied. Women who had spinal surgery or had Incontinence before becoming pregnant were omitted. The severity of UI was evaluated using the UI Severity Index, whereas low back pain was measured using a visual analog scale.The information was gathered from the Department of Urology at Lady Reading Hospital (LRH). In this investigation, we took every ethical consideration into account. Participants informed consent was obtained. In addition to the data collected, each subject's demographic information was also recorded. Quota sampling was used here for the investigation. Females with postpartum low back pain and females who did not experience postpartum low back pain were separated into two groups. In order

to investigate the co-relation between UI severity and LBP, participants were given UI questionnaires. Self-administered questionnaires were made available to respondents in English. In this study, persons who could not read and write answered questions orally.

Mean and standard deviation was used to analyze continuous data (women's ages and the number of pregnancies), whereas frequency and percentages were used to characterize categorical variables such as women's occupations, postpartum periods, VAS scores, and ICIQ scores. Histograms were used to display data for continuous variables, while pie charts and bar graphs were used for categorical variables. Fisher's exact test found a statistically significant correlation between Urinary Incontinence and low back pain.

RESULTS

Stud years looked at the co-relation between Urine Incontinence and postpartum low back pain in women.

An overwhelming majority (80%) of the 100 women who filled out the survey were stay-at-home mothers, while just 20% were active in the labor force. The age range of our patients was between 18 and 40, and our mean age was 26. The standard deviation was 4.320 gravidas counted in total, with 1.95 as the mean and 1.079 as the standard deviation.

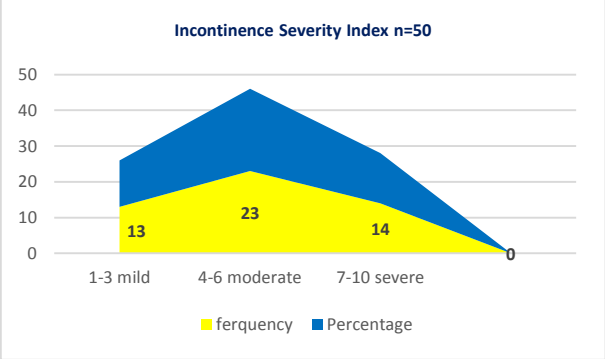

Figure 1: Bar graph showing the Incontinence Severity Index

Table 1: VAS score data is shown table

	Frequency	Percent
None	50	50
1-3 Mild	13	13.0
4-6 Moderate	23	23.0
7-10 Severe	14	14.0

The table below reveals that 50% (50) of the persons did not have any low back discomfort, whereas the other 50% (50) did experience some low back pain. Pain levels range from mild (13.0%) to moderate (23.0%) to severe (14.0%) among persons with LBP.

Table 2: The correlation between ICIQ-UI Score & Lumbar Spine Pain

ICIQ score	Lumber pain		Total
	Yes	NO	
None	22	28	50
1-5 Mild	8	11	19
6-12 Moderate	10	15	25
13-18 Severe	2	3	5
19-21 Very severe	0	1	1

There were 28.5% of women who were less than a month postpartum, 32.8% who were between 1-3 months postpartum, 17.6% who were between 4-6 months postpartum, 16.5% who were between 7-9 months postpartum, and 4.6% who were 10-12 months postpartum.

A breakdown of the ICIQ-UI score distribution is shown in the following table. The Fisher's test results indicate , the absence of evidence disproves H0 should not be disregarded because the p-value was too high is more prominent than 0.05.

a. There are four cells (40%) with a count of less than 5. at the very least, we anticipate a total of. There is a consensus statistic at 50.

b. -2.259 is the standard statistic.

Incontinence Severity Index (ISI) Because there is no evidence that postpartum Relationship between female low back pain and incontinence are linked, Examination of the Incontinence Severity Index Statistically, superfluous. There is no use in determining whether postpartum women with UI also experience more severe low back pain.

Table 3: Statistics on the range of ICIQ-UI scores

	value	df	Asymptotic Significance (2-sided)	Same sig. (2 sided)	Same sig. (1 sided)	Point probability
Fisher's exact test	8.210			.060		

DISCUSSION

This study aimed to quantify the degree to which postpartum women with low back pain also suffered from Urine Incontinence. Women who were experiencing low back pain and women who were not experiencing low back pain were divided into two equal groups for this Study [10]. They were tested to see how common and severe UI was amongst them. Although several studies have shown a link between UI and postpartum women's low back discomfort [11].

I was unable to replicate these findings in my study. Seventy-eight percent of non-pregnant women with low back pain in the Eliasson trial also experienced UI. Seventy-three percent of them had mild UI, 23% had moderate UI, 4% had severe UI, and 23% of women had significant UI [12]. Among these ladies, 93% said they had had low back discomfort. Eighteen % said they had used tampons, and 32% said they could not go about their normal day-to-day activities without being impacted. Both nulliparous Additionally, several women who were parous noted severe UI. Also, it was shown that women who gave birth through Caesarean Section had the same rates of UI as those who gave birth naturally [13].

In contrast to the population of interest in Eliasson's Study, which consisted of non-pregnant women with LBP, the population in the present study consisted of women with LBP who had just given birth. A possible explanation for why actual values differ from those predicted [14].

Low UI prevalence has been shown in prior Study. Regarding the early stages of postpartum,only 11.36 percent of women had UI at 6 weeks, 9.32 percent at 3 months, 10.51% at 6 months, and 13.25% at 12 months. While the overall rate of UI did not vary, the average number of UI episodes each year dropped from 15.9 at 6 weeks, 7.9 at 3 months, 8.6 at 6 months, 4.8at 12 month [15]

Kim JS found a negative link between UI and static balancing and LBP. Just 22.8% of females reported UI symptoms. However, Studyers found a correlation between women's UI and their low back pain level and ability to maintain their balance in static positions. Science, headed by Kim et al., demonstrated this to be the case (2010) [16].

Study by Hulago Kaptan using the Mann-Whitney U Statistical Analysis Test indicated no statistically significant association between UI and low back discomfort. No association was seen between UI and LBP ($p = 0.131$ for total incontinence, $p = 0.103$ for urge incontinence, and $p = 0.68$ for stress incontinence) [17].

According to the findings of a recent survey, Forty percent of

As early as 12 months postpartum, women were reporting discomfort from UI and LBP. There was a significant statistical link between being Caucasian (p = 0.023), being overweight (p = 0.018), having labor induced (p = 0.038), and giving birth by vaginal delivery (p 0.001). At 12 months postpartum, UI has been linked to moderate to severe impairment in daily duties for both obese and vaginally delivered women [18].

One Study found a correlation between leaky bladder and back pain, while another found that pelvic floor therapies did nothing to help persons with back pain [19]. PFM strength is inadequate females experiencing low back ache, independent of the existence of UI, according to another Study. The transverse abdominis and internal oblique muscles are less active in women with urge incontinence [20].

CONCLUSION

This Study showed that postpartum women who have urine incontinence do not also experience an increased risk of developing low back discomfort.

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