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FREQUENCY OF PELVIC FLOOR DYSFUNCTIONS AFTER NORMAL VAGINAL DELIVERY

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HIGHLIGHTS

- This cross-sectional study highlighted the different social & health-related issues associated with a vicious cycle of pelvic floor disorders.
- The frequency of symptomatic pelvic floor dysfunctions in females' undergone normal vaginal delivery is 35% according to the present study.
- This study revealed that pelvic floor dysfunctions are more common in obese multigravida as compared to primigravida & nulliparous females showing obesity & multiple vaginal both as major contributors to Pelvic Floor Dysfunctions.

ABSTRACT

Background: Pelvic floor diseases include sensory and emptying abnormalities of the lower urinary and gastrointestinal systems, as well as urine incontinence, pelvic organ prolapse, and fecal incontinence. The major factors associated with it are obesity, increasing age & multiple pregnancies and childbirth.

Objective: To determine the frequency of pelvic floor dysfunctions after normal vaginal delivery.

Material and Methods: A cross-sectional survey was conducted on 50 females using a non-probability convenient sampling technique in different hospitals including Sultan Hospital Sheikhupura, Dar-ul-Barkat Medicare Hospital Sheikhupura, Nawaz Sharif Children & mother care Complex Sheikhupura, Military Hospital Lahore, Shifa International Hospital Islamabad, Holy Family Hospital Rawalpindi. Data was collected from Multigravida females having a childbirth history of normal vaginal delivery either having undergone episiotomy or not.

Results: Out of all, 15% of females were between 30-40 years, 30% were between 41-50 years and 55% of females were above 50 years. Around 64% of females had pain in the pelvic area and 18% had complained of pelvic organ prolapse. The overall frequency of symptomatic pelvic floor dysfunctions in females' undergone normal vaginal delivery was 35%.

Conclusion: Multiple births increase the risk of this traumatic injury and the frequency of pelvic floor dysfunctions was 35% among females with normal vaginal delivery. Among pelvic floor dysfunctions the most frequent complaint was the history of chronic pelvic pain, then was urinary incontinence, after it the fecal incontinence & least common complaint was pelvic organ prolapse.

Keywords: Fecal incontinence, Pelvic Floor Dysfunctions, Multigravida, Pelvic organ prolapse, Pelvic pain, Urinary incontinence

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INTRODUCTION

Pelvic floor dysfunction (pain or hypertonus, urinary incontinence, fecal incontinence, pelvic organ prolapsed) refers to a broad spectrum of problems caused by weak or tight pelvic floor muscles, as well as problems with the sacroiliac

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joint, lower back, coccyx, or hip joints. Pelvic pain, pressure, dyspareunia, incontinence, insufficient emptying, and gross organ protrusion are symptoms.[1] The weighted prevalence rate of at least one pelvic floor disorder was 25.0% (95% CI 23.6, 26.3), with prolapse being reported by 2.9% (95% CI 2.5, 3.4) of women and moderate to severe incontinence being reported by 17.1% (95% CI 15.8, 18.4) of women.[2] Between residency 2005 and 2010, there were no discernible changes in the prevalence rates of any specific issues or for all illnesses combined ($p>0.05$).[3]

After adapting to likely confounders, higher body mass index (BMI), more prominent correspondence, and hysterectomy were connected to higher dangers of having no less than one pelvic floor condition.[4] Higher BMI, more parity, and hysterectomy were linked to higher risks of having one or more pelvic floor disorders after controlling for potential factors.[5] This connection may be explained by muscle injury, neurovascular injury, and connective tissue remodeling.[6] The primary mechanisms of harm were covered in this chapter, along with the significance of risk factors including episiotomy and a protracted second stage of labor.[7]

According to a prospective cohort study including 300 women who delivered their babies vaginally[3], it was resulted out that 15.9% of women without diastasis developed pelvic organ prolapse six weeks after giving birth. It was determined that diastasis did not increase a woman's risk of pelvic organ prolapse, urine incontinence, or weaker pelvic floor muscles.[8] A study was conducted to compare the prevalence of urine incontinence (UI) in women with and without lateral or mediolateral episiotomies at 6 weeks following delivery.[9,10] The prevalence of urinary incontinence (37.5% vs. 46.6%) and stress urinary incontinence (23.6% vs. 35.6%) between women with and without episiotomies were not significantly different in the study, which included 238 females. Furthermore, findings led to the conclusion that a lateral or mediolateral episiotomy did not affect the function of the pelvic floor muscles or the prevalence of post-partum UI.[11]

To figure out the predominance of UI and different side effects of pelvic floor dysfunctions in females with and without lumbopelvic pain (LPP), a review was directed in Australia. The concentrate likewise explored expected connections between the side effects of pelvic floor brokenness and LPP. Through the completion of a questionnaire, 62 females with LPP and 54 without LPP were enrolled in this study. A survey of the Australian Pelvic Floor (APFQ)[12] was utilized to find how normal UI and pelvic floor dysfunctions were in this populace. The findings support the need for specialists to know about possible urinary incontinence and pelvic floor dysfunctions in ladies encountering lumbopelvic distress.[13] In terms of preventive measures, they discovered that using stem cells to increase the body's natural healing response is advantageous. Despite seeming futuristic, scientific data supporting its effectiveness was mounting.[14]

This study focused on the emergence of symptoms brought on by weakened or damaged pelvic floor muscles. The purpose of this study was to determine how frequently pelvic floor dysfunction occurs following a typical vaginal delivery (either with or without episiotomy).[15] Additionally, this study identified the dysfunction that multigravida ladies with normal vaginal delivery experienced more frequently.[9]

METHODS

A cross-sectional survey was conducted on a sample of 50 multigravida females with diagnosed symptomatic cases of pelvic floor dysfunctions from hospitals of different cities of Punjab, Pakistan, including; Sultan Hospital Sheikhupura, Dar-ul-Barkat Medicare Hospital Sheikhupura, Nawaz Sharif Children & mother care Complex Sheikhupura, Military Hospital Lahore, Shifa International Hospital Islamabad, and Holy Family Hospital Rawalpindi.

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Participants were selected on a volunteer basis to participate in this study. The sample size was calculated through the Raosoft sample size calculator, whereas CI-90%, the margin of error-5%, population size-20000 and response distribution was kept at 25%. Non-probability Convenience Sampling technique was utilized to choose the patients since the sample met the source of the exclusion and inclusion criteria. The duration of the study was 3 months from April 2nd to June 30th, 2021. The study included multi-gravida females who gave birth through Normal vaginal delivery; either undergone episiotomy or not. Whereas, females with a cesarean section birth history, benign or malignant tumor in or around the pelvis, adnexal cyst, diabetes, hypertension & females having a history of hyperthyroidism were excluded.

The present study used a close-ended self-generated questionnaire regarding clinical presentation & symptoms. A total of 18 questions were asked out of which, 3 main questions were; pain in the pelvic area, urinary incontinence or involuntary urinary leakage, and third fecal leakage or incontinence. The diagnosis of pelvic organ prolapse was made by a gynecologist after a detailed physical examination and oral history. The study was unbiased and there was no favoritism included. All investigations were statistically carried out with SPSS statistical software (version 18). Distributions of frequency and percentages had opted for categorical variables.

RESULTS

The total numbers of participants were 50, out of which, 15% were between 30-40 years 30% were between 41-50 years and 55% females were above 50 years. The parity status of females was varying from 3 to 7 vaginal births and 75% of females were housewives. Among all, 20% of females were falling in the upper-class status, 25% were in the middle class and 55% of females were in the lower socioeconomic status (Table I).

It has been shown that the frequency percentage of urinary incontinence among the total population. According to the current study, 23 of 50 females had to complain of urinary incontinence, 18 women had fecal incontinence, 64% had pain in the pelvic area and 18% had pelvic organ prolapse (Table II).

Table I: Demographics

Variable	Construct	Frequency	Percentage
Age Group	30-40 years	8	15%
	41-50 years	14	30%
	Above 50 years	28	55%
Occupation Status	Working Wom	13	25%
	Housewife	37	75%
Birthtype	Normal Vagina Delivery with episiotomy	41	83%
	Normal Vagina Delivery witho episiotomy	9	17%
Socioeconom Class	Upper class	10	20%
	Middle class	13	25%
	Lower class	27	55%

Table II: Variables of Pelvic Floor Dysfunction

Variable		Frequen	Percenta
Urinary Incontine	Yes	23	46.0%
	No	27	54.0%
Fecal Incontine	Yes	18	36.0%
	No	32	64.0%
Pain inthe Pelvic Are	Yes	32	64.0%
	No	18	36.0%
Pelvic Or Prolapse	Yes	9	18.0%
	No	41	82.0%

DISCUSSION

This study focused on the emergence of symptoms brought on by weakened or damaged pelvic floor muscles. The purpose of this study was to determine how frequently pelvic floor dysfunction occurs following a typical vaginal delivery (either with or without episiotomy).

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Overall, there were 55% females above 50 years, 55% were in lower socioeconomic class and 75% were housewives and 83% had a normal vaginal delivery with episiotomy.

According to a review conducted in a tertiary urogynecology center in Brazil, the prevalence and effects of unreported gastrointestinal secondary effects on quality of life (QOL) in multigravida women were assessed on 172 participants with pelvic floor problems (PFDs).[16] The audit bunch consisted of patients who displayed any feces or poise issues, whilst the benchmark bunch was composed of more patients. Additionally, sufferers with urinary tainting were contrasted with individuals who had PC-based understanding and either twofold incontinence (DI) or UI. Using the Mann-Whitney U test, accurate nonparametric data were obtained in a univariate survey. Defecatory anomalies were reported by 54.6% (n = 94) of the patients, with obstruction, man-made rationale, and waste genuineness accounting for 67.0%, 41.4%, and 34.0%, respectively. Women from the review group did worse on the QOL studies than women in the benchmark group. In addition to having UI, 23.21% of women also have linked artificial intelligence. The QOL questions were answered more regrettably by women with DI.[17]

An investigation of the prevalence of and risk factors for PFDs in multigravida women was conducted in Bangladesh. In that, 1590 Bangladeshi women between the ages of 30-59 years were selected as a representative sample between September 2013 and March 2014 using a multistage group inspection approach. The weighted commonness of UI was 23.7%, FI was 5.3%, POP was 16.2%, and having at least one PFD was 35.3%, with a 95% confidence interval (CI) of 32.6-37.9%.[18] Women aged 40-49 had a higher possibility of encountering at least one pelvic floor break than ladies matured 30-39 (changed possibilities extent (AOR) 1.46, 95% certainty span (CI) 1.02-2.08; p=0.040), or 50-59 years (AOR 2.39, CI 1.59-3.58; p 0.0001). When contrasted with the most vital PFD, having around one PFD was unequivocally connected with having something like three youngsters as opposed to less (AOR 1.61, 95% CI 1.14-2.27; p=0.007), being in the center (AOR 3.05, 95% CI 1.72-5.41; p 0.0001), being in the second-generally decreased (AOR 2.49, 95% CI 1.39-4.47; p = 0.002), or being in the most reduced quin (AOR).

As per quantifiable discoveries from the examination, 33% of Bangladeshi ladies between the ages of 30 and 59 had somewhere around one pelvic floor problem. Risk factors were higher equity, a lower financial status, and self-revealed diabetes. Because of the extended expansion in the commonness of these crippling illnesses, more consideration is expected to be paid to PFD examination, treatment, and expectation in Bangladesh.19 It was recommended to females suffering from pelvic floor dysfunctions to take proper care of personal hygiene & should consult or report symptoms or complaints at an early level rather than making the condition chronic in which case the result of the treatment will not be appreciable & QOL is compromised.

CONCLUSION

It is being concluded that pelvic floor dysfunctions are directly related to trauma imparted to pelvic floor muscles & anal canal during birth. Moreover, multiple births increase the risk of this traumatic injury. Findings of the present research demonstrated that among pelvic floor dysfunctions, the most frequent complaint was a history of chronic pelvic pain, then was urinary incontinence and after the fecal incontinence & the least common complaint was pelvic organ prolapse.

DECLARATIONS

Consent to Participate: Written consent had been taken from patients. All methods were performed following the relevant guidelines and regulations.

Availability of data and materials: Data will be available on request. The corresponding author

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will submit all dataset files.
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