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RESEARCH ARTICLE

Frequency of urinary incontinence in post-partum multiparous women

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ABSTRACT

Background: Urinary incontinence (UI) is a widespread condition of uncontrollable urine leakage that has been strongly linked to natural delivery problem impacting one's wellbeing and quality of life.

Objective: The objective of study was to determine frequency of urinary incontinence in postpartum multiparous women in Karachi.

Methods: A descriptive cross-sectional study by using non-probability convenient sampling technique was conducted at different hospitals of Karachi in a duration of seven months, June 2020 to December 2020. A total of 267 women aged between 18 to 40 years, undergoing postpartum period after normal deliveries in last one year were included in the study. Ethical permission was taken from the Institutional review board of Hayat Institute of Rehabilitation Medicine. A consent form in their native language was taken before recruiting into the study. They were asked to fill the questionnaire Bristol Female Lower Urinary Tract Symptoms (BFLUTS). Data entry and analysis was done through SPSS version 26 and descriptive analysis was done. Data was presented in frequency and percentages, however, demographic information was presented in mean and standard deviation.

Results: A total of 267 women were recruited, the mean ±SD of age in years was 30.6 ±5.087 while all women were housewives. Females experienced symptoms like urgency 13.48%, bladder pain occasionally at 80.15%, and frequent visits to the toilet to urinate 41.2%. The current study discloses that 61.16% experienced urinary incontinence.

Conclusion: This study concludes that urinary incontinence is moderately found in postpartum multiparous women.

Keywords: Multiparous, Post-Partum,Pregnancy, Urinary Incontinence, Vaginal delivery.

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Introduction:

Urinary Incontinence (UI) is defined by the International Continence Society (ICS) as an involuntary loss of urine and it has notable psychological consequences.(1) Urine leakage can be acknowledged by its prevalence, severity, intensifying factor, and consequences on society.(2) Mixed UI is followed with urgency as well as activity, sneezing, or coughing.(3) Variety of factors such as pelvic floor muscle disorders, postmenopausal hypo-estrogens, pregnancies, vaginal births, trauma of pelvic floor muscles, pelvic surgeries, chronic constipation, obesity, being an athlete and diabetes mellitus are associated with urinary incontinence.(4) UI is a consequential problem associated with physical, psychological and social burden.(5) As a result, a big part of the population gets frustrated and is not actively involved in activities.(6) Urine leakage is a remarkably common condition having great influence on quality of life.(7-9) A couple of studies show that urinary incontinence has a strong association with vaginal birth.(10) According to epidemiological research, the prevalence of Stress Urinary Incontinence (SUI) during pregnancy rises with increase in gestational age, ranging from 18.6% to 67%.(11,12) While SUI in women after delivery is 56% and the condition progressively declines within 6 months.(13-15) Prevalence of SUI is high in comparison to urge and mixed incontinence with incidence increasing in the 5th decade of life.(16)

Parity is a risk element for urinary incontinence in adolescent women whereas C-section marginally

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increases the danger of urine leakage compared to the nulliparous state, natural delivery in addition will increase the chance significantly.(17,18) Several researches have looked at delivery parameters as possible factors for urinary incontinence. Contradictory outcomes have been reported for breech delivery, epidural analgesia, forceps and vacuum delivery. Furthermore, there is variability concerning the interdependence between urinary incontinence and trauma to the pelvis, such as episiotomy and sphincter tear. Finally, contradictory outcomes are reported related to neonatal parameters, for instance, high birth weight and head circumference.(19,20) According to conventional statistics, women above the age of 18 and 40 were 10% and 33% respectively. Even though being a common problem, it may not be reported and may result in long delays between their occurrence and seeking help.(21) It has been observed that only 20% of women seek help for condition they are facing. The main reasons are lack of knowledge and embarrassment.(22) A study shows a prevalence of 28.64% of participants reported moderate urinary incontinence. In countries like Pakistan data on prevalence of post-partum UI in females is limited and needs to be addressed.(23) Another study revealed that inability to urinate is a common condition in many people, especially the elderly, which reduces the quality of life so that 10 to 20 percent of all women and 77% of women living in nursing homes have an inability to urinate.(24) Urinary incontinence affects the life quality of women. But no recent studies have been done to find the recent proportion of urine incontinence among women within 12 months after child birth. The objective of this study was to investigate the frequency and its impact on quality of life of women after delivery.

Methods:

A descriptive cross-sectional study with non-probability, convenient sampling technique was conducted with a sample size of 267 women, calculated by open epi tool with confidence interval of 95% and 05% margin of error. An informed consent was taken from all the willing participants. Data was collected from Gynecology wards of Dar ul Sehat and Liaquat National Hospital in duration of seven months from June 2020 to December 2020 including female aged between 18 to 40 years who had delivered their newborns and agreed to participate in this study within 12 months of post-partum including vaginal delivery, vaginal assisted delivery and multiparous women. While females with C-section delivery, primiparous and nulliparousity were excluded. They were asked to fill out a Bristol female lower urinary tract symptoms (BFLUTS) questionnaire that is a valid tool for urinary incontinence (Cronbach Alpha= 0.78).(25) The questionnaire used in this study is designed to assess the wide range of symptoms, including incontinence impact on quality of life. The questionnaire assesses three domains, including incontinence, voiding, and filling with additional sub-scale for sexual function and quality of life. These domains were identified to assess symptoms: incontinence (5 items); voiding (3 items); and filling (4 items); sexual function (2 items) and quality of life (5 items). All scales have simple additive scores.

Ethical permission was taken from the institutional review board of Hayat Institute of Rehabilitation Sciences (Ref. No HIRM/DPT/REC/101). Permission was taken from the clinical setting prior to getting information from the participants and consent was taken according to the guidelines of Helsinki from every patient. All the data was entered and analyzed by using (SPSS) version 26. The demographic information was presented by mean and standard deviation and domain-wise analysis was also presented in the form of mean and standard deviation.

Results:

A total of 267 female participants were recruited in the study. The age of the participants ranged from 18 to 40 years with Mean± SD of 30.68±5.087 and the highest number of participants were at the age of 29 with 10.49%, while the lowest number of participants were of the age of 20 with 0.4%. All women in the current population were housewives and fulfilled the inclusion criteria.

The Mean± SD of filing severity was 5.78±3.012 and of voiding severity was 3.42±3.082. The mean± SD of leaking severity was 5.62±4.56, the mean± SD of sexual functional severity was 1.35±1.56 and of quality of life severity was 5.10±3.83. (Table 1)

In Section BFLUTS-sex most of the participants, i.e. 236 participants (88.4%) reported that they are active sexually, their sex life is not at all spoiled by urinary symptoms, and do not leak urine during intercourse, respectively. 143 participants (53.56%) does not leak urine during the sexual activity and 13 participants (4.87%) had leaked urine a lot during the sexual intercourse. 108 participants (40.45%) of the participants had a little problem to perform their daily tasks due to the urinary symptoms. Only 17 participants

Table 1: Showing all domains with frequencies and percentages of items

	Questions		Frequency (percentages)
Incontinence	No. of times to urinate on average	2 times	110 (41.2%)
		4 or more times	12 (4.5%)
	Rush toilet to urinate	Never	109 (40.8%)
		All the time	3 (1.1%)
	Pain in the bladder	Occasionally	98(36.7%)
		All of the time	10(3.7%)
	No. of times pass the urine during the day	Every 3 hours	103(38.6%)
		Hourly	30(11.2%)
Voiding	Delay before the start of urinate	Never	109(40.8%)
		All of the time	7(2.6%)
	Strain in urinating	Never	113(42.3%)
		All of the time	7(2.6%)
	Stop and start urinating	Never	110(41.2%)
		All of the time	10(3.7%)
Filling	Leakage before they get to the toilet	Never	129(48.3%)
		All of the time	3(1.1%)
	How often leakage occurs	Never	128(47.9%)
		Several times per day	25(9.4%)
	Leakage when they are physically active	Occasionally	115(43.1%)
		All of the time	5(1.9%)
	Leakage for no obvious reason	Never	120(44.9%)
		All of the time	7(2.6%)
	Leakage during sleep	Never	143(53.6%)
		Most of the time	12(4.5%)
Sexual function	Sex life spoiled by their urinary symptom	Not at all	141(52.8%)
		A lot	14(5.2%)
	Leakage of urine during sexual intercourse	Not at all	143(53.6%)
		A lot	13(4.9%)
Quality of life	Need to change clothing	Never	115(43.1%)
		All of the time	6(2.2%)
	Cutting down fluids	Occasionally	90(33.7%)
		All of the time	6(2.2%)
	Affected daily tasks	A little	108(40.4%)
		A lot	17(6.4%)
	Avoiding places	Occasionally	104(39%)
		All of the time	5(1.9%)
	Symptoms interfering with their routine life	Not at all	111(41.6%)
		A lot	11(4.1%)

Table 2: Showing frequencies and percentages of important parameters

Parameters	Frequency	Percentages
Urinates two times during the night.	110	41.20%
Urinates on average 1 time	65	24.34%
Urinates 3 times on average	60	22.47%
Sometimes rushed to the toilet	79	29.59%
Most of the times rushed to the toilet for urination	33	12.36%
Pain in their bladder	10	3.75%
Experiences pain all the time	7	2.62%
Experiences pain sometime	53	20%
Never experienced leakage of urine.	128	47.94%
Experienced it once or less per week	42	15.73%
2-3 times per week	25	9.36%
Experienced leakage once	37	13.86%
More than once in a while	35	13.11%
Never experienced leakage of urine during sleep	143	53.56%
Experienced it most of the time	12	4.49%

(6.37%) had responded that they have a lot of problems in performing their daily tasks due to the urinary symptom. 104 participants (38.95%) occasionally avoided the places and only 5 participants (1.87%)had responded positively that they avoided such situations all the time. 110 participants (41.57%) did not have such complains at all. 103 participants (38.58%) had stated that there was a little inference in their life. 42 participants (15.73%) have somewhat agreed to the question whereas 11 participants (4.12%) have complained a lot about it. (Table 2)

Discussion:

The findings of the study revealed that most of the female participants (61.16%) experienced symptom like Nocturia and get up to two to four times during night to urinate, 13.48% of the participants experienced urgency to urinate almost all the time, 80.15% of females experienced pain in bladder occasionally, sometimes, most of the time or all the time, and around 41.2% of women went to toilet to urinate in every one to two hour. Similar study was conducted by Zoha Gilani and her colleagues to find out the urinary incontinence prevalence in Post-Partum Females in Hayatabad, Peshawar in which majority of women (84.4%) experienced Nocturia and it is the most reported symptom, 43.9% of females experience urgency, 48.3% experience bladder pain and about 54.7% female participants frequently void.(23)

In the present study, about 52.06% of women reported that they experienced leakage of urine one to four times a week within first year of post-partum whereas in MacArthur and colleges' study, 13 months to 9 years after their most recent delivery, 11% female experienced incontinence symptoms.(26)

Another study disclosed that women who gave natural birth had a higher prevalence of urinary incontinence over the first year postpartum.(27) The findings of similar studies showed that stress incontinence symptoms were found in one out of five women within first year. Various studies have revealed that there is an association between urinary incontinence and multi-parity.(17,28) In the study conducted by S. Mørkved and K. Bø , the number of multiparous women with urinary incontinence was 36%.(29) .A study was carried out by Erica Schytt and his colleagues on the topic “Symptoms of stress incontinence 1 year after childbirth: prevalence and predictors in a national Swedish sample”. This study disclosed that increased pressure on the pelvic floor muscles due to obesity, constipation or any other reason in women who delivered a baby via SVD, increased the risk of stress urinary incontinence.(30) Wilson and colleagues study revealed that regular antenatal PME could reduce the risk of postpartum urinary incontinence by 50%, and similar figures have been reported for postpartum exercises in the study conducted by Glazener CM and his colleagues.(31,32)

The finding of our studies gives a better understanding of urinary incontinence. There are few limitations of this study. The factors that increase the prevalence of urinary incontinence 1-year post-partum were not studied. Only one route of delivery was studied. Other routes of delivery should be considered in future studies. This study was done on very small

scale with a small sample size. Future studies should be carried out on larger scale with larger population including females of different cities.

Conclusion:

The findings of our study concluded that moderate symptoms of urinary incontinence (nocturia, urgency, and bladder pain) occur in females during their postpartum period.

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Conflict of interest: None to declare.

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Authors Contribution:

Tasneem S: Conception, design and final approval of work

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Shaheen HW: Drafting, analysis, acquisition, and interpretation of work

Saeed M: Drafting and acquisition of work

Javaid A: Acquisition of data

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