

The Prevalence of Urinary Incontinence in Pregnant Women A Cross-Sectional Study

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ABSTRACT

Objective: The aim of the study was to assess the prevalence of urine incontinence in pregnant women.

Study design, Place and Duration: This cross-sectional study conducted at the department of urology LRH hospital Peshawar from January 2021 to July 2021, over a six-month duration.

Methodology: After 26 weeks of pregnancy, as determined by either the woman's LMP (last menstrual period) or an ultrasound performed in the first trimester, a random sample of 160 healthy pregnant women was questioned and their responses were recorded on a proforma. Urinary incontinence, renal failure, diabetes, and gestational diabetes were all conditions that disqualified women from inclusion in the study. Interview data was used as the primary method of assessing the prevalence of urine incontinence among pregnant women. SPSS 22.0 was used to analyze the data.

Results: The prevalence of urinary incontinence was 45%, with 74 out of 160 women reporting it. Of them, 58 had stress incontinence (SI), and 15 experienced urge incontinence. Overall, 36% of people have SI whereas just 9% have UI. Of the 65 first-time mothers who took part in the trial, 26 had urine incontinence. In the third trimester of pregnancy, 45 percent of women had UI.

Practical implication: By raising the level of awareness of urinary incontinence among medical personnel caring for pregnant patients, the findings will aid in the development of more comprehensive training programmes to prevent incontinence during pregnancy.

Conclusion: Urinary incontinence is quite common during pregnancy. The findings will aid in increasing healthcare providers' awareness of urine incontinence while treating pregnant patients and in the development of more thorough education campaigns to avoid pregnancy-related incontinence. We recommend regular pelvic floor exercises for all pregnant women.

Keywords: Prevalence of Urinary Incontinence, Stress urinary incontinence, urinary incontinence, Pregnant Women

INTRODUCTION

Medically, urinary incontinence (UI) is characterized by a variety of causes¹. Prevalence estimates for UI in pregnant women vary from 32-64 percent for all UIs and from 40-59 percent for UIs related to stress, including mixed incontinence, which persists in 7 to 30 percent of women after delivery². The pathophysiological effects of pregnancy and delivery on the pelvic floor and the lower urinary tract in particular have been discussed in the obstetric literature several times, although the exact nature of these effects is still unclear³. The incidence of UI is highest during pregnancy and decreases after delivery. Regardless of the mode or technique of delivery, being pregnant increases a woman's risk of UI. When it comes to estrogen's direct impact on UI, the jury is still out. Pregnancy affected urine incontinence regardless of obstetric practice and delivery course⁴. Having a high body mass index, being under the age of 35, having several pregnancies, and having a family history of UI are all significant risk factors for UI during pregnancy. Stress urinary incontinence and shared UI are the most prevalent types of UI in pregnant women, especially after the first birth. Intense estrogen and progesterone levels are known to increase the bladder's scaliness. Lower urinary tract symptoms¹⁰ are mirrored by physical changes in the bladder, including hypertrophy and hypotonia of the detrusor muscle. These shifts place the bladder higher and more anteriorly in the abdomen⁵. This is because the bladder trigon is more convex than concave and its base is also more convex than concave⁶.

Widens⁷. The fundus of the uterus has been demonstrated to deform the bladder on radiographs taken during pregnancy. These structural differences have been linked in several studies to decreased urinary tract symptoms in pregnancy⁸. Thorp et al. found that the average number of urinations per day and the number of urination episodes per day both rise with gestational age and decrease after delivery, with incontinence incidence increased in the third trimester and reducing after birth⁹. Most urogynecological issues manifest during pregnancy or immediately after delivery. Fecal incontinence, UTIs, problems of voiding and filling, and incontinence of the pelvic organs and the urinary system are among the most prevalent complications of pregnancy. Pregnancy-related or past physiological deviations may impede its

development^{10,11}. Very limited data is available in the literature about the urine incontinence in pregnant women. Therefore this study was carried out to provide guidelines for addressing the prevalence of urine incontinence among pregnant women, as well as its effects on these women's quality of life and the number and age of their children. By raising the level of awareness of urinary incontinence among medical personnel caring for pregnant patients, the findings will aid in the development of more comprehensive training programmes to prevent incontinence during pregnancy.

MATERIAL AND METHODS

This cross-sectional study conducted at the department of urology LRH hospital Peshawar. The duration of the current study was six months from January 2021 to July 2021. Non probability sampling technique was used. Totally 160 women were enrolled in the current study by using WHO sample size calculator. A detail description of the study was given to all the females enrolled in the study. An informed consent was taken from all the patients. According to their first-trimester ultrasound and the date of their last menstrual cycle, all healthy pregnant women in their 3rd trimester or after gestation of 28 weeks participated in the research. Women who were excluded from this research because they had incontinence, renal failure, or were taking medicines for a UTI before pregnancy was all healthy. a diagnosis of both gestational and Type-I diabetes. To fill out the survey, pregnant women were asked questions regarding their date of birth, age, number of pregnancies, experience with urine incontinence, kind of incontinence, and how it affected their participation in religious or social activities. All the data was recorded by using pre-designed proforma. Frequency and percentage were documented for variables like gender while means and standard deviation were calculated for variables like age. SPSS 23.0 was used to analyze the gathered data. Chi-square test was used for the categorical variables and p value of less than 0.05 was considered as significant.

RESULTS

The prevalence of urinary incontinence was 45%, with 74 out of

160 women reporting it. Of them, 58 had stress incontinence (SI), and 15 experienced urge incontinence. Overall, 36% of people have SI whereas just 9% have UI. Of the 65 first-time mothers who took part in the trial, 26 had urine incontinence. In the third trimester of pregnancy, 45 percent of women had UI. (table 1) Thirty-nine percent of first-time mothers had urine incontinence, 17% had stress incontinence, and 8% (33%) experienced urge incontinence. Forty of the 95 multiparous women who participated in the research reported having incontinence problems. The incidence of urine incontinence among multiparous women was 41%; 34 of these women (82%), or more than half, had SUI, whereas 07 women, or about 17%, had urge incontinence. Concerning urine incontinence, 9% of pregnant women had it, while the overall prevalence of SI was 38%. (Table Forty-five percent of women who suffer from urine incontinence say their condition has prevented them from participating fully in religious and social activities. Sixty-eight people (16–28 years old) out of 160 reported urine incontinence (44%); ninety people (29–44 years old) out of 160 reported urinary incontinence (49%). (table 2) Urinary incontinence is more common in women who have had a previous cesarean section (LSCS), where the prevalence is 45(31%) than in women who have given birth vaginally before, where the prevalence is 44%.

Table 1: Analyzing the relationship between stress and urge incontinence.

Incontinence	Frequency (%)
Stress urinary incontinence	58(78%)
Urge urinary incontinence	16(22%)

Table 2: Age analysis of the people who had urinary incontinence.

	16-28 years	29-44 years
Incontinent	29(41%)	45(48%)
Continent	41	40

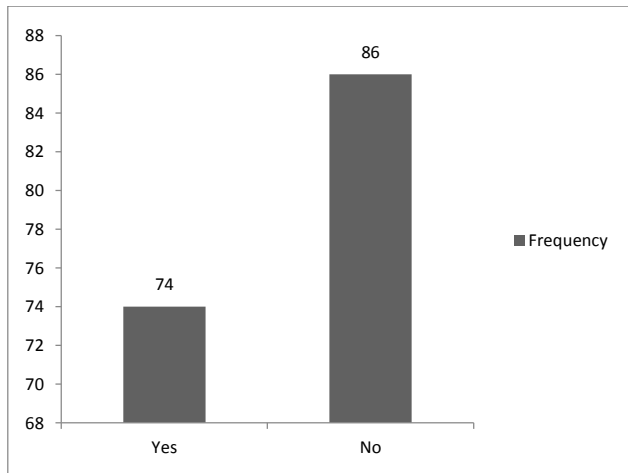


Figure 1: Prevalence of urinary incontinence

DISCUSSION

Multiple symptoms associated with the lower urinary system may occur during pregnancy, but UI is the most worrisome. Also, some women have persistent urine incontinence even after giving birth¹². Women who reported having UTIs throughout pregnancy had a 7 times higher risk of having a chronic UTI than women who remained continent throughout their pregnancies. Females experiencing their first pregnancy were more likely to have a UI associated with a higher risk of urine incontinence in the offspring compared to those whose mothers did not have UI during pregnancy¹². Comparable to the research by Bo et al.¹⁷, we found that 46% of women in our study had urine incontinence. One research revealed that 45% of South Asian pregnant women had urine incontinence, while another reported a prevalence of 58% among Spanish women. Stress incontinence was shown to be the

most prevalent kind of urine incontinence in this research (36%), followed by urge incontinence (9%). These findings are consistent with recent research demonstrating an increased prevalence of stress incontinence among pregnant women. Stress UI (SUI) (27% of cases) was more common than urge UI (5%) or mixed UI (6%) in a study of pregnant women in Taiwan (20-21)¹³. This finding has significance since it confirms that training the pelvic floor muscles is effective in preventing the onset of SUI throughout pregnancy and the postpartum period. Reduced symptom severity in pregnant women with SUI21-22 after 8 weeks of pelvic floor exercises¹⁴. Comparatively, the rates of incontinence among first-time mothers were 39% in our series vs 32% in the Zhu research and 32% in the Danish study²³. Incontinence affected 42% of women who were parous but as many as 61% of women who had more than four children. Having children has been linked to urine incontinence in more than one study¹⁵. This research shows that urine incontinence is more common among the elderly. Urinary incontinence is more likely to occur in older women. The elderly and new mothers were found to be at increased risk of developing urinary incontinence¹⁶. One other important finding in our cycle is how UI affects people's participation in social and religious activities. Nearly half (44%) of women who suffer from urine incontinence report that the condition has prevented them from participating fully in social and religious activities. This shows how widespread this criminal element is and how it affects women. The research may not be generalizable to the general population since it was done in an urban setting. Given that this is descriptive research, it is also unable to draw any conclusions about cause and effect¹⁷.

CONCLUSION

Urinary incontinence is quite common during pregnancy. The findings will aid in increasing healthcare providers' awareness of urine incontinence while treating pregnant patients and in the development of more thorough education campaigns to avoid pregnancy-related incontinence. We recommend regular pelvic floor exercises for all pregnant women.

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