

Prevalence of Urinary Incontinence in Postpartum Women Across Ahmedabad City

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ABSTRACT

INTRODUCTION: Urge incontinence (UI) is involuntary urine loss induced by sudden, strong impulses to urinate, a common gynaecological urinary condition affecting postpartum women. Stress urinary incontinence (SUI) is the involuntary flow of urine from the urethra's external opening when abdominal pressure rises (as in sneezing, coughing, or laughing). Mixed urinary incontinence is defined as complaint of involuntary leakage related to exertion, effort, sneezing, or coughing, affecting psychosocial health significantly and is eventually associated to a decline in life quality.

AIM: This study aimed to determine the prevalence of urinary incontinence among postpartum women across Ahmedabad city.

METHODS: Primiparous women having an age between 25 to 35 years (< 6 months postpartum) following a vaginal delivery or cesarean section were included as per the inclusion and exclusion criteria. Participants were asked to complete the Questionnaire for Urinary Incontinence Diagnosis (QUID), used to determine the type of urinary incontinence as well as stress, urge, and mixed urinary incontinence.

RESULTS: The questionnaire was completed by 100 women in total (80%). In order to participate in this cross-sectional study, 100 primiparous women between the ages of 25 to 35 were chosen based on inclusion criteria. Their degree of urinary incontinence was evaluated using the Urinary Incontinence Diagnosis (QUID). The findings showed the prevalence of urge incontinence (21.13%), mixed incontinence (12.82%), and stress incontinence (57.53%).

CONCLUSION: The findings revealed that stress incontinence was more prevalent than urge incontinence and mixed incontinence. Urinary incontinence requires knowledge and awareness regarding indications, risk factors, repercussions, prevention, and treatment methods.

Keywords: Postpartum, Urinary Incontinence, Primiparous, Prevalence

INTRODUCTION

Urinary incontinence (UI), which has been linked to health issues for women and has been documented to have a strong association with vaginal birth, is the complaint of involuntary leaking on effort or exertion, such as sneezing, coughing, or laughing.^[1] After vaginal delivery and caesarean section (LSCS), stress urinary incontinence (SUI) and urge urinary incontinence (UI) have reportedly become more prevalent.^[2]

Sphincteric incontinence, also known as stress incontinence, can happen while performing everyday activities like laughing, sobbing, coughing, sneezing, ascending stairs, lifting heavy things, leaning over while passing urine or stools, or engaging in strenuous exercise.^[3] While symptoms of urge or bladder incontinence include wetting pants before using the restroom and increased frequency of micturition.^[3] In addition, Mixed Urinary Incontinence is characterised as an involuntary leaking

complaint that is accompanied by urgency as well as by effort, exertion, sneezing, or coughing.^[4]

Due to the damage that pregnancy and childbirth do to the pelvic floor, women are more susceptible to UI.^[5-7] Pregnancy causes physiological and mechanical changes that reduce the power of the pelvic floor muscles. By having a vaginal delivery, the consequences of pregnancy can last longer, which raises the chance of developing UI. The pelvic floor's muscles and nerves, which regulate urine flow, could be disrupted during childbirth.^[8-10] Women who deliver large babies vaginally or by forceps (instrumentation) are considerably more at risk of UI. Large babies can result in considerable stress to the pelvic floor muscles and nerves, which dramatically diminishes the perineal floor's strength.^[11-12] The rise of intravesical pressure over that of maximum urethral pressure is the basic pathophysiology of urinary incontinence.^[4] Although some large-scale studies conducted in Western nations have focused on the epidemiology of female urinary incontinence, data from Asian countries such as India is inadequate. Thus, it was the need of the hour to study urinary incontinence in primigravida women through a survey. Therefore the present study aimed to find out the prevalence of urinary incontinence in primigravida women with the age group between 25 to 35 years and the objectives were to observe the incidence of Urinary Incontinence and to estimate the percentage incidence of Stress, Urge and mixed urinary Incontinence by scoring.

MATERIALS & METHODS

This Cross-sectional study was conducted among primiparous women who has been pregnant and given birth once having the age between 25 to 35 years were included as per the inclusion and exclusion criteria. All the postpartum females were explained about the study and consent was taken for those who were willing to participate. A total of 100 such subjects were asked to fill the Questionnaire for Urinary Incontinence

Diagnosis (QUID) and was developed in English and Gujarati language which is a short, valid and responsive instrument that can serve as a diagnostic tool to determine Urinary Incontinence type and also as a measure of stress, Urge and mixed Urinary Incontinence.

At baseline, QUID internal consistency ranged from moderate to good, with Cronbach's alpha (lower 95% confidence bound) values of 0.75 (0.72) for QUID total scores and 0.64 (0.59) for QUID stress scores. Three items address the symptoms of stress incontinence, and three address the symptoms of urge incontinence. Each item has six frequency-based response alternatives ranging from "none of the time" to "all of the time," with a point value ranging from 0 to 5. Scores are added together to get distinct Stress and Urge scores ranging from 0 to 15 points. The use of QUID scores (Stress scores ≥ 4 for SUI and Urge scores ≥ 6 for UII) was compared to a full clinical examination done in urogynecology patients.^[13]

The Primiparous women (up to 6 months postpartum) with Age group between 25 to 35 years, with normal vaginal delivery (VD) or cesarean section (LSCS) and who are willing to participate were included in the study. The study excluded nullipara or multigravida female subjects, Primiparous women above 6 months postpartum and those who had recent surgeries such as any laparoscopic surgeries for Fibroids / Hernia surgeries and Women with diabetes mellitus (gestational or manifest), female genital mutilation, intrauterine growth restriction, stillbirth, breech presentation or those who are not willing to participate were excluded from the study.

RESULT

A total of 100 women (80%) completed the questionnaire. This Cross-sectional study was undertaken wherein 100 Primiparous women with the age group of 25-35 years were selected through purposive sampling. The Urinary Incontinence Diagnosis (QUID) was administered to determine their status of

urinary incontinence. data were analysed using descriptive statistics and Microsoft excel work sheet. Results showed the prevalence of urinary incontinence in primigravida to be 78%. Stress urinary

incontinence (SUI) is the most prevalent type (66.67%) followed by Urge urinary incontinence (20.51%) and Mixed urinary incontinence (12.82%).

FIGURE 1: PREVALENCE OF URINARY INCONTINENCE

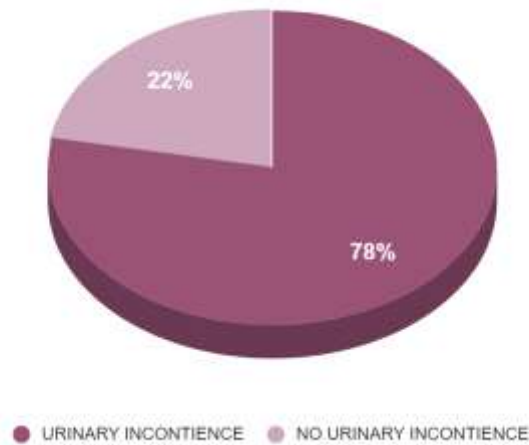
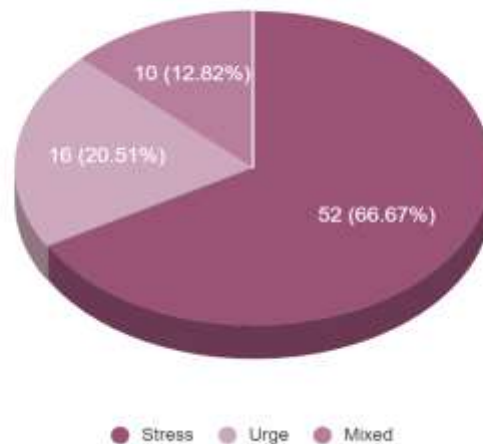


FIGURE 2 : TYPES OF URINARY INCONTINENCE



INTERENCE: Out of 78 primigravida having the presence of urinary incontinence 66.67% had stress incontinence followed by urge incontinence 20.51% and lastly mixed incontinence 12.82%

DISCUSSION

The present study showed the prevalence of urinary incontinence in primigravida females to be (78%). Where the stress urinary incontinence (SUI) was found to be most

prevalent type (66.67%), followed by Urge urinary incontinence (20.51%) and lastly Mixed urinary incontinence (12.82%).

Jens A. Svare et al., conducted a study among primiparous Danish women where they concluded that SUI or MUI after the first vaginal delivery was strongly associated with UI and almost 4 out of 10 women reported UI symptoms.^[14] In a cohort study by Brown et al., conducted a study on Consultation about urinary and faecal incontinence after

childbirth where the findings provide robust evidence that many women experiencing urinary incontinence where 46.9% of 1,507 primiparous women reported UI within the first 12 months postpartum.^[15] Gartland et al., conducted a study on onset, recurrence and associated risk factors for urinary incontinence in the first 18 months after a first birth where they concluded that Persistent UI is common after childbirth and is more likely following prolonged labour in combination with operative vaginal birth in which 1 in 4 women reported persistent UI during the first 4–18 months postpartum, and 79% of these had had UI during pregnancy.^[16]

A review by Press et al. found that caesarean section was not protective, as the prevalence of SUI and UI was equivalent, regardless of the mode of birth in studies with follow-up longer than 1 year.^[17] Previous studies revealed how hormonal changes during pregnancy, along with the weakened support of the bladder neck and urethra, cause changes in the tissue's structure and tone on the pelvic floor.^[19] The results of this study support the hypothesis that UI postpartum could result from neuromuscular damage or loss of urethral and bladder support during pregnancy rather than from birth-related circumstances.^[18] Prolonged labor have been shown by other studies to have an associated factor for developing urinary incontinence, and physiological changes during delivery are attributed as a potential cause.^[19]

3405 primiparous women were found to have a 29% prevalence of urinary incontinence at three months after giving birth, according to Glazener et al.^[20] UI prevalence ranged from 31% to 35% at three months postpartum, according to a study designed to evaluate the efficacy of a program for preventing it in women. There were 676 women participants who had forceps delivery or high birth weight of baby (>4kg) or both in the study.^[21]

CONCLUSION

The prevalence of urinary incontinence among postpartum primigravida females is

78%. Where the Stress urinary incontinence (SUI) is the most prevalent type (66.67%), followed by Urge urinary incontinence (20.51%) and lastly Mixed urinary incontinence (12.82%). There is a need for knowledge and awareness about the symptoms of urinary incontinence, related risk factors, complications, prevention and treatment interventions

LIMITATIONS

- This study was constrained with insufficient sample size.
- Additionally, the various aetiologies of urinary incontinence that include obesity, constipation, diuretics etc. were not taken into consideration.

FUTURE RECOMMENDATION

- Study can done with larger sample size
- Postpartum Primigravida and multigravida females can be evaluated to compare and find out the prevalence of urinary incontinence
- Future studies can screen the females for urinary incontinence and can educate them regarding the exercises which can strengthen their perineal floor and thus we can prevent incontinence and prolapse after pregnancy and can improve their quality of life.

Declaration by Authors

Ethical Approval: Approved

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