

Urinary Incontinence, Its Risk Factors, And Quality of Life: A Prevalence Study, Among Young Adult Women of Ahmedabad City, Gujarat

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Abstract

Context: Urinary incontinence (UI) is a chronic debilitating disease that is often underreported, but it has a significant impact on one's quality of life (QoL) thus it is of public health importance.

Aims: This study aims to find out the prevalence of UI among young adult women, its associated risk factors, and treatment-seeking behavior, QoL in affected women.

Methods: It is a clinic-based observational study and simple random sampling conducted on 8th March 2022 in young adult women, A Prevalence of 285 women for the survey for urinary incontinence was taken, where 206 women between 30 to 45 age were included in the study on basis of answering appropriately with a response rate of 72.2%. women having urinary incontinence in their lifespan have filled out the Questionnaire for Urinary Incontinence Diagnosis (QUID).

Results: The result shows the descriptive characteristic of the study from 206 responses, prevalence rate shows 51% of women had suffered from urinary incontinence in their lifespan. women having urinary incontinence while coughing or sneezing is 20% rarely, 42% once in a while, 30% often, 6% most of the time, women's having urinary incontinence while bending down or lifting something is 36% rarely, 29% once in a while, 23% often, 10% most of the time, women's having urinary incontinence while walking quickly, jogging or exercising is 40% rarely, 31% once in a while, 20% often, 7% most of the time, women's having urinary incontinence, etc in their life span

Conclusions: In conclusion, our result has shown that more than 50% of young adult women have suffered from urinary incontinence in their lifespan and need physiotherapy for the different types of urinary incontinence

Keywords: Urinary incontinence, Quality of life, Urinary incontinence risk factor Questionnaire for Urinary Incontinence Diagnosis (QUID).

INTRODUCTION

The complaint of involuntary urine loss (leakage) is known as urinary incontinence ⁽¹⁾. Both sexes can have the disorder, although women experience it far more frequently. It significantly lowers quality of life when it comes to health and is linked to significant costs for both individuals and society. Urgency urinary incontinence, which occurs when there is an abrupt, strong urge to urinate, and stress urinary

incontinence, which occurs when there is physical activity, are the two main forms that are discussed. Mixed urine incontinence refers to the condition in which women suffer both symptoms ⁽²⁾.

Urgency incontinence and stress incontinence are the two main kinds of urine incontinence. The standard definition of stress incontinence, as provided by the International Urogynecological Association (IUGA) and the International Continence Society (ICS), is the complaint of urine leakage associated with coughing, sneezing, or physical exertion, while urgency incontinence is the complaint of urine leakage associated with a sudden, strong, and difficult urge to urinate. Due to their widespread prevalence, these two categories frequently coexist as mixed incontinence, a mixture of symptoms. The majority of women who experience urgency incontinence are also diagnosed with overactive bladder syndrome, of which urgency incontinence is one potential symptom.

According to estimates, 200 million people globally are thought to be affected by UI, and by 2018, that number is expected to rise to over 423 million. The prevalence of UI rises with age.

Women aged 20–39 account for 7% of cases of moderate to severe UI, compared to 17% in cases of 40–59, 23% in cases of 60–79, and 32% in cases of ≥ 80 ^[3]. Because the majority of women do not report UI to their healthcare professionals, this figure may be underestimated. ^[4] Growing older, parity, vaginal births, obesity, surgery, constipation, and persistent respiratory issues like coughing are risk factors for urinary tract infection (UI) ^[5].

The inability to control one's urination is a very uncomfortable and upsetting issue. It doesn't result in death, but it does cause significant morbidity, social isolation, and psychological stress, all of which lower quality of life. Many women feel too ashamed to discuss it, and some think there is no cure ^[6].

Other less common but equally significant conditions include "functional" incontinence, which is incontinence caused by a physical or cognitive impairment without a known lower urinary tract disorder, nocturia, or frequent nocturnal micturition, and nocturnal enuresis, or adult bedwetting. All of these conditions are linked to a significant patient burden. An elderly individual may be more likely to experience difficulties maintaining their continence due to age-related changes in the lower urinary tract. Functional magnetic resonance imaging has been used in several recent articles to show that OAB is linked to alterations in cerebral blood flow to specific brain regions. Numerous aging disorders, such as a deterioration in cognition, mobility, and continence, may be linked to the number of white matter alterations, which are detected as areas of hyperintensity on MRI. Additionally, there is growing proof that urinary ^[7].

The majority of research on this subject has been done on wealthy study populations in industrialized nations. There are few statistics on how common it is in India, among rural women, or people from poor socioeconomic backgrounds. Because of the unpleasant and culturally sensitive nature of the condition, many women are reluctant to seek medical attention or disclose symptoms to professionals, which results in an underreporting of the ailment. An updated picture of UI in rural women will be crucial for developing UI prevention and control measures, lowering the illness burden in India, and offering insightful and practical advice to other Asian nations as well as the rest of the world. This study looked at rural women's UI, risk factors that go along with it, how they seek treatment, and how well they live.

One safe and efficient way to lessen stress incontinence symptoms and indicators is through physiotherapy. Over the course of a 4-week treatment period, 14 out of 19 women either became dry or improved enough to not require wearing any protective garments. The use of a novel machine to measure pelvic floor squeeze did not improve the success of physiotherapy alone in this condition, but it may play a significant role in educating the patient about how to use the pelvic floor muscles correctly.

true incontinence due to stress. In fact, several assessments on that topic made no mention of it, while others questioned its utility outside of the most minor circumstances. Other employees observed that while the patient's cooperation and motivation as well as the instructor's passion and expertise were essential factors in a patient's success after physical therapy, the right patient selection is just as crucial. Giving the patient a tool to measure improvement objectively, such a perineometer, can help to increase motivation. Some contend that motivation alone should only come from subjective improvement^[8]. Very few investigations have taken into account the long-term effects of the workouts; instead, the results are often assessed quickly after the exercise program begins. If the exercises are to have a lasting effect, the pelvic floor must be continuously activated and aware of, along with new techniques for coughing, heavy lifting, and other activities that avoid overstretching the pelvic floor. The woman reported better benefits from exercises led by an experienced physiotherapist in the hospital compared with a home program, which is to be expected given her independence and lack of motivation for ongoing exercise. Should incontinence return following the exercise regimen, it indicates that the activities have postponed rather than prevented surgery.

METHOD

It is a clinic-based observational study and simple random sampling was done. The study was conducted in Ahmedabad city of Gujarat. The willingness of women to participate in the study was considered. We reached 285 women for the survey where 206 women between 30 to 45 age were included in the study based on answering appropriately with a response rate of 72.2%.

In the study for collecting a sample of prevalence, Two Forms were filled out by the participant, 1st form included the question if the participant ever had been through urinary incontinence in their entire life, if the answer is “yes” then the participant will fill 2nd questioner including The Questionnaire for Urinary Incontinence Diagnosis (QUID) and if the answer of a participant is “No” in 1st form then the prevalence will be recorded.

Urinary Incontinence Diagnosis (QUID)

The QUID identifies the presence and frequency of stress and urge UI symptoms. Three items focus on stress incontinence symptoms and three on urge incontinence symptoms. Each item includes six frequency-based response options, ranging from “none of the time” to “all of the time,” which are scored from 0 to 5 points. Scores are calculated in an additive fashion, resulting in separate, Stress and Urge scores each ranging from 0 to 15 points. Compared to a formal clinical evaluation performed in urogynecology patients, the use of QUID scores (Stress scores 4 for SUI and Urge scores 6 for UII) identified UI type accurately in 80% of participants. (3) UI-specific quality of life (QOL) instruments included the Urinary Distress Inventory (UDI) and Urinary Impact Questionnaire (UIQ). (6) Higher UDI and UIQ scale scores reflect increasing symptom bother and greater impact on daily activities from UI symptoms, respectively. UI severity was assessed using the Incontinence Severity Index (ISI), a validated 2-item questionnaire focusing on UI frequency and volume. Responses to each item are multiplied to obtain a severity score, which may be categorized as slight, moderate, severe, or very severe^[8].

ASSESSMENT OF URINARY INCONTINENCE

The multifactorial nature of UI in older persons requires a comprehensive diagnostic evaluation, with a

careful search for all possible causes and precipitants beyond a focus on specific genitourinary diagnoses.

Consequently, urodynamics ought to be taken into account only in the absence of a clear diagnosis, before surgical intervention, or after empirical therapy has failed. Only bladder proprioception, capacity, detrusor stability, and contractility can be determined by cystometry; carbon dioxide cystometry may not be as accurate. Abdominal straining must be ruled out and DHIC must be identified simultaneously with abdominal pressure measurement. Stress UI is identified and measured by profilometry tests, abdominal leak-point pressure, and fluoroscopic monitoring. Studies of pressure flow identify blockage. A blockage is reliably excluded when peak urine flow rates are ≥ 12 mL per second (without straining for voids of at least 150 to 200 mL). Urodynamic testing is necessary for a correct diagnosis because low flow rates are nondiagnostic.

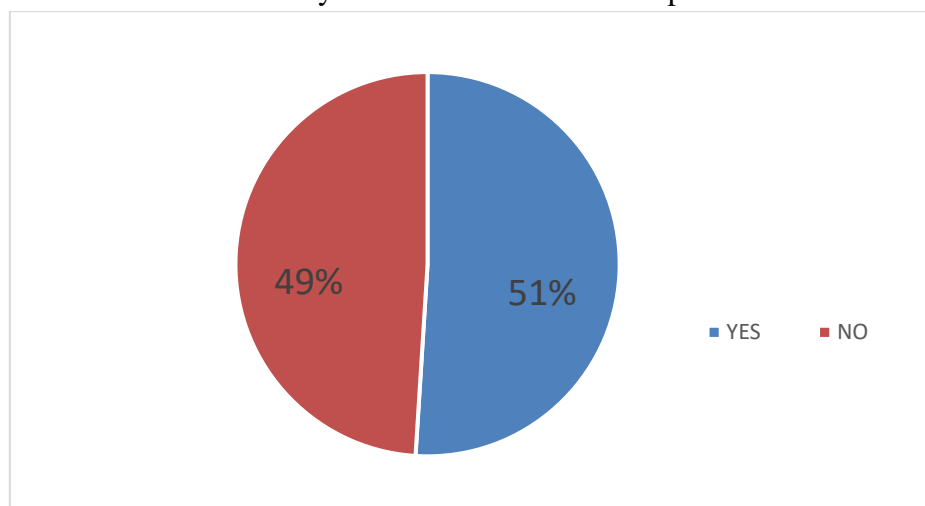
Bedside cystometry can assess bladder capacity and identify DO. Catheterization is used to assess PVR, and a syringe linked to the catheter is used to fill the bladder. An increase in the fluid level in the syringe column indicates DO. While bedside cystometry offers a modest level of sensitivity and specificity for DO in older individuals who are ambulatory, its actual usefulness remains uncertain. Its advantage over history and physical examination among older people living in the community is unknown. Low-pressure DHIC contractions may go unnoticed when it is used on long-term-care patients, and it could be challenging to distinguish DO from abdominal straining [9].

STATISTICAL ANALYSIS

Data were analyzed using IBM Statistical Package for Social Sciences version 16 (SPSS 16). First, a bivariate analysis was done to ascertain the relationship between socioeconomic, demographic, and certain known risk factors variables with UI. Only those who were found to be significant were entered into a multiple logistic model by the forced entry method. The strength of associations was assessed by odds ratio (OR) at a 95% confidence interval, and statistical significance for all analyses was set at $P < 0.05$. Spearman correlation between various.

RESULT

The result shows the descriptive characteristic of the study from 206 responses, prevalence rate shows 51% of women had suffered from urinary incontinence in their lifespan.

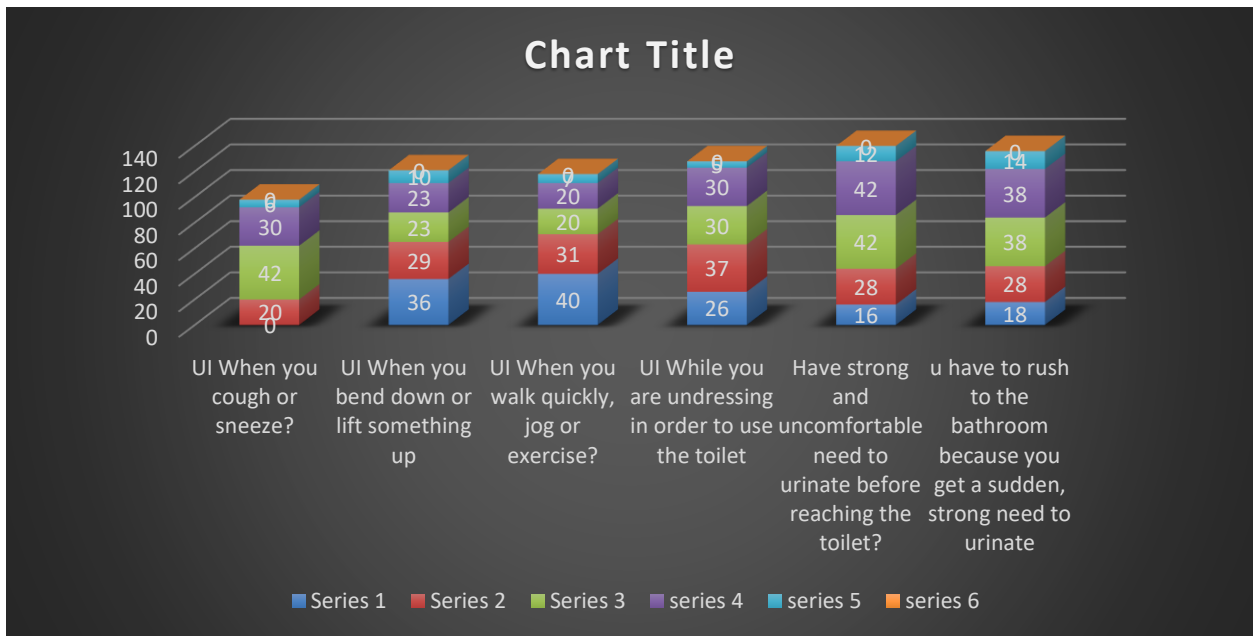


Graph 1

PREVALENCE AND IMPACT

Up until the age of 80, when both men and women are equally afflicted, the prevalence of UI rises with age and affects women more than men (2:1). 15% to 30% of people 65 years of age and older who live in the community and at least 50% of those receiving long-term care are incontinent. Morbidity from UI might include cellulitis, pressure ulcers, UTIs, fractures from falls, insomnia, social disengagement, depression, and malfunction in the sexual organs. There is no link between UI and higher mortality. UI lowers a person's quality of life by hurting their general health, social functioning, and emotional stability. Incontinent individuals frequently continue with their activities, but they must cope with feelings of embarrassment and low self-esteem. Elderly incontinent people have a greater caregiver load, which may influence judgments about it.

The Questionnaire for Urinary Incontinence Diagnosis questioner data shows that women’s having urinary incontinence while coughing or sneezing is 20% rarely, 42% once in a while, 30% often, 6% most of the time, women’s having urinary incontinence while bending down or lifting something-up is 36% rarely, 29% once in a while, 23% often, 10% most of the time, women’s having urinary incontinence while walking quickly, jogging or exercising is 40% rarely, 31% once in a while, 20% often, 7% most of the time, women’s having urinary incontinence while undressing in order to use the toilet is 26% rarely, 37% once in a while, 30% often, 5% most of the time, women’s having urinary incontinence while get such a strong and uncomfortable need to urinate is 16% rarely, 28% once in a while, 42% often, 12% most of the time, women’s having urinary incontinence while to rush to the bathroom because of getting a sudden, strong need to urinate is 18% rarely, 28% once in a while, 38% often, 14% most of the time.⁽⁹⁾



Graph 2

Urinary Incontinence Diagnosis (QUID)

DISCUSSION

Symptoms of urinary incontinence are quite common in women, significantly impact health-related quality of life, and incur significant personal and societal costs. Urgency urinary incontinence, which occurs when there is an abrupt, strong urge to urinate, and stress urinary incontinence, which occurs

when there is physical activity, are the two main forms that are discussed. Women with mixed urine incontinence are defined as having both symptoms. Research has shown that there are several overlapping potential reasons of incontinence, such as disruption of the bladder's immediate environment, malfunction of the brain mechanisms controlling voiding and storage, and dysfunction of the detrusor muscle or pelvic floor muscles.

A medical history, physical examination, urinalysis, quality of life assessment, and, in the event that conservative measures prove ineffective, invasive urodynamics are all necessary for a comprehensive diagnostic diagnosis of urine incontinence. Interventions might include non-surgical methods (such medication, training the pelvic floor muscles, and lifestyle changes) as well as surgical methods (like supporting the urethra or expanding the bladder's capacity). Research in the future may focus more on primary prevention by identifying genetic and environmental factors that increase the incidence of incontinence.

Few research up until recently demonstrated that PT on its own helped reduce true stress incontinence. Several assessments on that topic made no mention of it, while others questioned its usefulness outside of the most minor circumstances. Other employees observed that the patient's cooperation and motivation, as well as the instructor's enthusiasm and expertise, were crucial for the effectiveness of physiotherapy; however, the right patient selection is just as crucial (Harrison 1983, Montgomery & Shepherd 1983). Giving the patient a tool to measure improvement objectively, such as a perineometer, can help to increase motivation.

Training the patient to identify, execute, and practice voluntary contraction of the pelvic floor muscles has been the mainstay of physiotherapy treatment. The goal is to increase muscle mass and strength to promote urethral closure, particularly under pressure. Patients have been assisted in recognizing levatorani contractions using electrostimulation. Additional physiotherapeutic tools for promoting pelvic floor contractions are vaginal cones, perineometers, and general exercises. The particular course of treatment for a patient suffering from stress incontinence must be determined by the physiotherapist, however, the effectiveness of various forms of physiotherapy has not been well-documented. Furthermore, it's unclear what happens when a woman receives such treatment and her stress incontinence gets better.⁶

To plan future efficacy trials, we looked at the most prevalent ways that physiotherapists treat women with simple stress urine incontinence injuries. Techniques An eight-page comprehensive questionnaire was issued to the senior superintendent or district physiotherapist in each of the 192 health authorities in England in February 1989. The cover letter only listed JM as one of the authors, and the responders were unaware that this study had a gynecological focus. The purpose of the questionnaire was to gather information about the physiotherapy services that are currently offered to patients who have been referred for mild stress incontinence.

We requested that the district's most frequently treating physiotherapist for stress incontinence complete the questionnaire and try to reflect the views of the community as a whole. The purpose of the questions was to gather data on the following topics: (a) the seniority and qualifications of the physiotherapy staff who typically treat these patients; (b) the agency and reason for referral ranked in order (equal rankings allowed); (c) the modalities available and the two most frequently selected; (d) specifics of treatment techniques; (e) the physiotherapists' assessment of the effectiveness of each available modality as expressed on a visual analog scale; (f) the physiotherapists' assessment of the prognostic features in a patient at presentation; and (g) the current annual caseload.

At the end of March 1989, a second questionnaire was sent out to the authorities that had not responded. Three months later the districts still outstanding were contacted again. Five months after the initial questionnaire was sent out the survey was closed.

CONCLUSION

In conclusion, our result has shown that more than 50% of women have suffered from urinary incontinence in their lifespan and need physiotherapy for the different types of urinary incontinence. In the current study, UI is predicted by certain modifiable risk factors, proper management of which is wanted to reduce the burden of UI and thus improving QoL. Several treatment choices for UI are now available with greater effectiveness and feasibility. For example, pelvic floor muscle training is established to be an effective first-line intervention for improving urinary symptoms as well as QoL as evidenced in some of the studies.

Thus, encouraging pelvic floor muscle training in at-risk women and those who are affected is useful in both the prevention and management of UI. An attempt should be made by doctors or health professionals to screen at-risk women for UI at every given opportunity by asking leading questions so that the affected can be timely referred for relevant management. ^[10-12]

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