

Original Article

Prevalence of Urinary Incontinence in Elderly Women of District Gujrat

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Abstract

Objective: To determine the prevalence of urinary incontinence among elderly women in Gujarat, Pakistan.

Methodology: The study design was a Cross section survey carried out in DHQ hospital and other health care center in Gujrat Pakistan in 2016. This study included all females over the age of 50 who had no psychological or neurological conditions. This convenient sampling was conducted in which a sample of 354 were included with estimated population of 2000 women, with 95% confidence interval and 5% margin of error. In this study, statistical analysis was done using SPSS version 2021. In addition, data on age, BMI, education level, number of children, total and successful pregnancies, constipation, menopause, cough, and UTI were collected using a self-constructed demographic questionnaire.

Results: In this study 354 participants who were above the age of 50 years were included. Statistical analysis of this study show that the prevalence of Urinary incontinence is 69.8% that is extremely high as compared to the western population. A p-value of 0.05 suggested that the quality of life of people with urinary incontinence was significantly impaired or disturbed.

Conclusion: According to the findings of this study, nearly 7 out of 10 females have either type of urinary incontinence. Although there was a lack of awareness, most women with UI were not treated and are still not diagnosed because they consider it a normal part of the natural process. The quality of life is very much impaired or disturbed, which limits the role or interaction of females socially, economically, mentally, and physically.

Key Words: Geriatric population, Incontinence, Urine.

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Introduction

The lack of bladder control, or urinary incontinence, is a wide spread and frequently humiliating issue.¹ The degree of urgency might range from occasionally dribbling pee when you cough or sneeze to having a sudden, powerful need to urinate that prevents you from reaching a toilet in time.² Urinary incontinence is a frequent issue with significant social and human consequences that can lead to discomfort, embarrassment, and a loss of self-confidence. It has a substantial financial impact in addition to affecting living quality. Despite the fact that numerous extensive studies

have concentrated on the epidemiology of urine incontinence in women from western countries, there is a dearth of information from Asian nations. Constitutionally and behaviorally, this population differs from Western populations. As a result, it is critical for prevention to attempt to define prevalence and potential etiological factors.³

Although some incontinence risk factors have been studied, several significant incontinence predictors have not.⁴ Tobacco chewing, a different form of nicotine consumption, and tea consumption, a very common

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beverage in the south-east Asian region⁵, have not been elucidated. Cigarette smoking, for instance, has been shown to have a positive association⁶. Conflicting results have been reported in studies of the relationship between hysterectomy and incontinence. Additionally, very few studies have examined the distinct risk factors for various forms of urinary incontinence.

The majority of factors associated with urinary incontinence (UI) in a cross-sectional study conducted in India have already been well-established by international studies, such as age, parity, history of vaginal deliveries, arterial hypertension, diabetes, and previous pelvic surgeries.⁶ If the urinary leakage occurs in response to physical activity it is known as stress Incontinence. Mostly it occurs when bladder got pressure while coughing sneezing or laughing. Childbirth can damage the structure supporting bladder (vagina ligaments, pelvic floor).⁷ It is said to be Urge incontinences when a person got urinary leakage after suddenly feeling the need to urinate. While sleeping or running water sound can lead to empty the bladder.

Different medication and medical condition can trigger this situation. When bladder muscles squeeze without warning it is said to be overactive bladder.⁸ Its symptoms are urge incontinences Nocturia frequency and urgency. Untimely leakage of urine due to either physical disability or having lack of access to the toilet or problem associated with psychological disorders are said to be diagnosed with functional incontinence.⁹ Overflow incontinence is when a full bladder causes small, unexpected leaks of urine.¹⁰ This happens when the bladder doesn't empty completely, spilling over. This kind of incontinence can be caused by either weak bladder muscles or a blocked urethra. It is rare in women. Mixed incontinence is a combination of more than one type of incontinence.¹¹ Transient incontinence is temporary leakage due to a situation that will pass infection, new medications, and colds with coughing.¹²

Urinary incontinence is a common problem affecting women of all ages that is associated with pelvic floor muscle weakness and other co morbidities. It influences the daily housekeeping and social activities among females and great impact on their quality of life.¹³ Most of them being affected are not aware of their problem and its cure. This study will determine the overall prevalence of urinary.

Methodology

The study design was a Cross section survey carried out in DHQ hospital and other health care center in Gujrat Pakistan in 2016. A sample of 354 women was calculator raosoft with non-probability, purposive sampling being used to recruit participants. Older women above 50 years of age from various health care centres were approached, and briefed about the study. Participants in the study who signed consent forms were included. The Isra Institute of Rehabilitation Sciences approved this study.

This study included all women over the age of 50 who did not have a psychological or neurological condition. Diagnosed cases of psychological conditions were used as exclusion criteria. Stroke Spinal cord injury Cancer patients Dementia. With a 95% confidence interval and a 5% error margin, this convenient sampling of 354 women from an estimated population of 2000 women was carried out. SPSS version 2021 was used for statistical analysis in this study.

Stress urinary incontinence was verified if the patient reported urinary leakage with coughing, sneezing, heavy weight lifting, or exercise, and urge urinary incontinence was diagnosed if she reported urinary leaking before racing to the restroom.¹⁴

Females who do not leak urine subconsciously at any moment were deemed "continent," but females who leak urine while doing activities or showing indicators of urinary incontinence were considered "incontinent." Females with stress urinary incontinence were identified by asking "whether they leak urine when coughing or sneezing, lifting weights, or walking swiftly or exercising?" Hence whether they leak pee "none of the time," "occasionally," "once in a while," "frequently," "most of the time," or "all of the time," their diagnosis was verified.

Similarly, for urge urinary incontinence, questions such as "do you experience urinary leakage before going to the toilet, strong urgent desire to urinate, or rush to the bathroom because of a sudden urge to urinate" were asked to determine whether or not they had urge urinary incontinence and how severe it was. Patients with both stress and urge UI were classified as having mixed incontinence. In addition, data on age, BMI, education level, number of children, total and successful pregnancies, constipation, menopause, cough, and UTI were collected using a self-constructed demographic questionnaire.¹⁵

Results

In this study 354 participants who were above the age of 50 years were included. Out 354 participates prevalence ratio of urinary incontinence in women with either form of urine incontinence were 246 (69.4%) and women without urinary incontinence were 108 (30.05%). The prevalence of Urinary incontinence in elderly females. Values for age, weight and height are outline in table I.

Table I: Age of Population.

Value	Urinary Incontinence	N	Mean	SD	P-value
Age	Yes	246	57.58	8.46	.000
	No	108	60.35	11.48	
Height	Yes	246	5.30	.44	.317
	No	108	5.32	.46	
Weight	Yes	246	66.76	12.51	.000
	No	108	61.13	8.43	
Marital status	Yes	246	1.06	.34	.000
	No	108	1.25	.58	
No. of Children	Yes	246	4.24	2.00	.186
	No	108	4.18	2.07	

Further evaluation elaborated that quality of life of urinary incontinence was significantly impaired or disturbed suggested by p-value <0.05. Majority researched has been conducted to find out prevalence in Urinary incontinence in pregnant women.¹⁶

Discussion

All the measure assessed in this study show that was shown to have significance co-relation with the Urinary incontinence in elder women. Suzanne Phelan et al founded that type II diabetes shows as most important risk factor for the prevalence of Urinary incontinence.¹⁷

A cross sectional study found that Stephanie J. Madill et al showed that ratio of stress urinary incontinence was initiated by coughing which raises the pressure of intra-abdominal organs. In females who have stress UI, their PFM were activated at slower rate during the coughing mechanism, so their abdominal and pelvic floor muscles need to be activated at a quick response to change the measurable pressure.¹⁸

A study conducted by Jennifer Perera et al reported that mean age of their sample was 41.94 years including patients between 21-88 years and women experiencing urinary leakage more than one time daily were (25%) as

compared to weekly urinary leakage once.¹⁹ Regarding the median age of the study sample, the median age of females with UI was 30±14 and median age of females without UI were 30(12.25) with a range from 18 to 65 years. The ratio of women who experience urinary leakage few times a week were (30.1%) which means they were more affected with UI as compared to daily urinary leakage.

A study conducted by Rahime Bedir Findik et al showed that UI ratio was more in females after menopause when compared with premenopausal females because, with the increase in age, PFM weakness can occur which is also the source of UI, besides this urge urinary incontinence, it is found to be more common in postmenopausal females as compared to premenopausal females. The ratio of stress urinary incontinence symptoms were more in postmenopausal females (46.7%) and also the ratio of urge urinary incontinence was higher in postmenopausal females (67.4%).²⁰ In the current study (83.92%) postmenopausal females reported that they have UI while only (16.07%) postmenopausal females reported no urine leakage. So, most of the females reported urinary leakage after menopause, so, there is strong correlation of UI with menopause in the present study.

A study conducted by Waleed Altaweel et al showed that type 2 diabetes is the most important concerned factor associated with UI which is almost same to another study conducted by Hsieh et al.²¹ While their study showed that N=124 females with diabetes were incontinent and their ratio was (98%) showing positive strong relation of diabetes with UI and only (1.27%) females with diabetes were continent and with significant p value of <0.01.²² Another study conducted by Suzanne Phelan et al has also showed type II diabetes as most important risk factor for UI and obesity, with diabetes in females also make it more vulnerable to developing UI symptoms. This study also showed that by reducing weight in these diabetic females can lead to an important reduction in symptoms of UI.²³ In present study diabetes showed strong relation with UI as (92.85%) females showed urinary incontinence with diabetes and (7.14%) were reported without UI while they were still diabetic.

The ratio of women without diabetes showing UI symptoms was 70.86%, indicating that urinary incontinence has a strong relationship with type II diabetes in the current study, as diabetic patients showed more urinary leakage than females without diabetes.

Conclusion

Our study concludes that almost every 7 out of 10 females presented with either type of urinary incontinence. Although due to lack of awareness, most of the female with UI were not treated and still not diagnosed because they consider it as a normal part of natural process.

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