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Original Article

Prevalence of Urinary Incontinence Among Married Females in Sialkot Pakistan

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ABSTRACT

Impairment in the pelvic floor muscles and nerves that control the continence of urine can occur due to various conditions in the women, which may affect the lifestyle of women. **Objective:** To find the prevalence of Urinary Incontinence in married females in Sialkot. **Methods:** This observational study was conducted at public and private settings of Sialkot in six months after ethical approval. A sample of 100 married females was targeted through non-probability convenient sampling. ICIQ-UI (International Consultation on Incontinence Questionnaire) short form questionnaire was used to collect the data. Middle aged women (35-55Years) were included, while unmarried females, pregnant females, females with any history of spinal cord injury and other comorbid conditions were excluded. Results are expressed as frequencies and percentages using IBM Software SPSS Version 20.0. **Results:** Mean age \pm SD of the participants was 38.4 \pm 6.615 years. While calculating the amount of urine leaking; 16% (n=16) had none, 57% (n=57) had a small amount, 25% (n=25) had a moderate amount and 2% (n=2) had a large amount. Similarly, interference with everyday life due to leaking urine was found in 79% (n=79) mild to moderate, 16% (n=16) not at all interferes and 5% (n=5) were greatly interfered. Mean ICIQ-UI score \pm SD was 9.53 \pm 0.36 ranging from 0-11. Most of the women reported urine leakage in a small amount, once a day effecting mild to moderately their daily livings usually due to coughing, sneezing or physical activity. **Conclusions:** Most of the females have episodic urinary incontinence mostly associated with cough, sneeze and physical activity.

INTRODUCTION

Urinary incontinence (UI) is the loss of control of the bladder. The incidence increases as the person crosses the middle age and it greatly affects the lifestyle of the patient [1]. With aging, the chance of developing urinary incontinence increase more in women as compared to men [2]. Risk of urinary incontinence is high in women due to pregnancy and child birth. Urinary incontinence is seen to be associated with the childbirth through vagina and stress incontinence is seen to be associated with the childbirth through C-section [3]. Women in the middle age who went through surgical removal of the uterus are even at higher risk for developing UI. Asian's are less prone to develop UI as compared to White people [4]. Women with increased body

weight are more prone to develop UI particularly the stress incontinence [5]. Muscles of the lower back and pelvis region are responsible for maintaining pelvic stability and continence of urine. Weakness of these muscles leads to disturbance in both the stability and urinary continence [6]. It was seen that urinary incontinence has association with the depression, increasing age, underlying pathology, sedentary lifestyle and increased BMI in the middle aged women [7]. Deterioration in the sexual life in the women is seen to cause UTI. Injuries due to fall are also associated with UI; rushing to the hospital that also increasing the hospital admission and stay [8]. Women suffering from UI do not visit hospital due to shame, they do not consult their

doctor regarding this nor they receive treatment which worsens their health condition [9]. Improvement in the daily living, changing the lifestyle and maintaining good health is seen to be most effective factor in preventing the UI. Staying active can help out in remaining healthy [10]. In a recent study from Pakistan, mixed type of UI was more prevalent and UI had bad effects on women's general health, well-being and quality of life [11]. This study aimed to generate evidence of the urinary incontinence in married female population in Sialkot Pakistan

METHODS

This observational study was conducted in six months after ethical approval. A Sample of convenience of size 100 participants was approached. Non-probability convenient sampling technique was used. Data was collected from CMH Sialkot, Civil Hospital Sialkot, Amin welfare & teaching hospital, International Consultation on Incontinence Questionnaire-ICIQ-UI Short Form (12) was used as data collection tool. ICIQ-UI SF is a 6 item questionnaire, out of which first two items seek information about age and gender, while 6th item is unscored. Items 3, 4 and 5 are scored with a total score ranging from 0-21, the higher the score the greater the incontinence and vice versa. Married females of age (35-55), both working women and house wives were included. Females with co-morbid conditions, with spinal cord injury and bed ridden females were excluded. Informed consent document was sign by all the participants. The data was analysed using SPSS and frequencies and percentages were calculated.

RESULTS

Study was conducted on 100 married females (35-55 years) in Sialkot. Mean age \pm SD was 38.4 \pm 6.615 years. Frequency of urine leakage is expressed as table 1.

Frequency of Urine leakage	Frequency(%)
Never	16(16.0%)
About once a week or less often	23(23.0%)
Two or three times a week	20(20.0%)
About once a day	24(24.0%)
Several times a day	15(15.0%)
All the time	2(2.0%)
Total	100(100.0%)

Table 1: Frequency of Urine leakage

While calculating the amount of urine leaking; 16% (n=16) had none, 57% (n=57) had a small amount, 25% (n=25) had a moderate amount and 2% (n=2) had a large amount. Similarly interference with everyday life due to leaking urine was found in 79% (n=79) mild to moderate, 16% (n=16) not at all interferes and 5% (n=5) were greatly interfered. Mean ICIQ score (sum of above scores) was 9.5 \pm 0.36 ranging from 0-11. Activities leading to urine leakage are given as table 2.

Activities leading to Urine Leakage	Frequency(%)
Urine does not leak	16(16.00%)
Leaks before you can get to the toilet	16(16.00%)
Leaks when you cough or sneeze	39(39.00%)
Leaks when you are asleep	1(1.00%)
Leaks when you are physically active/ exercising	6(6.00%)
Leaks when you have finished urinating and are dressed	5(5.00%)
Leaks for no obvious reason	16(16.00%)
Leaks all the time	1(1.00%)
Total	100(100.00%)

Table 2: Activities leading to Urine Leakage

DISCUSSION

We have found that most of the women reported urine leakage in a small amount, once a day effecting mild to moderately their daily livings usually due to coughing, sneezing or physical activity. Females have episodic urinary incontinence associated with coughing, sneezing and physical activity. Nygaard I et al., in 2003 found that approximately 16% reported either mild-moderate or severe incontinence [7]. Another study was conducted in 2000 and reported that the prevalence of urinary incontinence was 28%, 3.5% having daily leakage. Stress urinary incontinence was the dominant type. The odds ratio (OR) of having incontinence increased from 1 to 3.5 with increasing age and from 1 to 2.7 with increasing parity [8]. A study was conducted in 2002 and reported that out of the 1700 women (mean age 40.0years) who returned the questionnaire, 467 (27.5%, 95% confidence interval, CI, 25.4-29.7) reported UI, comprising 210 (12.4%, 10.8-14.0) with stress UI, 28 (1.6%, 1.1-2.4) with urge UI and 229 (13.5%, 11.9-15.2) with mixed UI, Study showed that stress UI is most commonly seen in the women who was above 40 years of age, recently had vaginal childbirth, surgery of uterus and pregnancy [11]. Result of our study shows similar results that UI chances increases due to multiple factors including weakness of the pelvic floor muscles, multi-parity, multiple pregnancies and deliveries Overactive bladder and stress incontinence are related with each other. The metabolic defects like increase in the BMI level and it most commonly leads to the stress urinary incontinence [12]. Results of our study shows that urinary incontinence is most commonly seen in the middle aged women and is related with the multiple pregnancies and weakness of pelvic floor muscles. The most common risk factors associated with the UI are increased body weight, poor health status, cough, sneezing, underlying pathology of urinary tract and depression [14]. Result of our study shows that urinary incontinence results from weakness of pelvic floor muscles, multi-parity, multiple pregnancies, deliveries and multiple caesarians and chances increase with coughing

and sneezing. Weakness of the pelvic floor muscles is associated with the UI and stress incontinence is most commonly seen [15]. Result of our study shows that pelvic floor muscles, multiple pregnancies and increased BMI increases the prevalence of incontinence. A study was conducted and 43% of the women reported incontinence and women who were aged 50 to 54 years had 1.81 times the odds of severe incontinence compared with women who were less 40 years old (95% CI, 1.66-1.97); women with a body mass index of ≥ 30 kg/m² had 3.10 times the odds of severe incontinence compared with a body mass index of 22 to 24 kg/m² [16]. In a study, 35% of the women reported involuntary urine loss in last one month, mostly owing to stress. In this study including 4 European countries, Spain had the lowest prevalence (23%) as compared to France (44%), Germany (41%) and Germany (42%) respectively [17]. A study was conducted in Pakistan to determine the frequencies of different types of urinary incontinence and their impact on quality of life in women. It was observed that out of 436 women, 281 had mixed type of urinary incontinence and had a greater impact on life quality [18]. Similar findings were observed in another recent study published in 2022, where approximately 46% of female married population had some sort of urinary incontinence which impacted their life adversely [19]. A study carried out in Saudi Arabia in 2022 had also similar observations that urinary incontinence was common in Saudi females especially older age, multiparous and menopause was also a risk factor [20].

CONCLUSIONS

This study showed that, mild urinary incontinence is prevalent among females and is mostly associated with coughing, sneezing and physical activity. Despite of our work there are some gaps that require more researches in this area. Main point of concern for the researchers should be that, which type of health-related consequences of urinary incontinences can occur. Awareness about lifestyle and health-related factors should be given to middle aged females.

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