

## Frequency of Urinary Incontinence among Elderly - Male Population in Lahore City

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**Abstract:** Urinary Incontinence is one of the most unaddressed problems in elderly male patient in specific and all categories of individuals in general. Therefore, there was immense need to quantify the level of incontinence so that solid measure can be taken. The objective of study was to figure out level of urinary incontinence in elderly. The study design was Cross Section Survey. The data collection tool used was Urinary Incontinence Scale. Data was collected from multiple placements with convenience to approach elderly at mass level. Total 340 respondents were surveyed with sample of convenience. The main result showed total score of Urinary Incontinence Scale with mean = 17.08 and standard deviation = 5.08. The mean score for 60-64 year group was 18.55, 65-69 year group as 17.56, 70-74 year group as 14.69 and 75-79 year or more group as 16.62. The study concluded that there is moderate level of urinary incontinence in elderly aged people in Lahore City, Pakistan regardless of age sub levels and origin.

**Key words:** Urinary Incontinence • Elderly Aged • Physical Therapy • Urinary Incontinence Scale • Stress Incontinence

### INTRODUCTION

Uncontrolled leakage of urine is called Urinary incontinence (UI), regardless of the quantity or the frequency or it can be defined as “The complaint of any involuntary leakage of urine”. It is thought that UI affect millions of people worldwide. UI can have considerable impact on quality of life in older population but it is not related to higher death risk [1-5]. Recent studies have shown that UI affects both gender, male and female, but women have been reported to be more often affected than men. It affects 43.8% people older than 60 in the United States that were non-institutionalized. Prevalence of UI is about 3 to 39% in women and about 3 to 25% in men, the wide variation is due to differences in the methods that were used in different studies, including dissimilarity among populations, questions and definitions as well as participation rate [6].

There are three types of urinary incontinence (UI) urge, stress and mixed urinary incontinence. Stress urinary incontinence (SUI) is due to weakness of pelvic floor muscles that support the urethra and the bladder. Urine can leak if the sphincter and pelvic floor muscles are weak, as increased intra-abdominal pressure from climbing

stairs, coughing and laughing, sneezing, put stresses on the bladder through abdominal cavity. Urge urinary incontinence (UI) is unintentional leakage of urine in connection with intense urge to pass urine and inability to hold leakage long enough to reach the toilet. Mixed urinary incontinence (MUI) is a combination of urge and stress urinary incontinence, associated with urgency and activity and marked by unintentional leakage [7-10]. Numerous studies show that there is a moderate role of physical therapy by pelvic floor muscle training in the management of stress urinary incontinence [11, 12].

The purpose of this study was to determine the frequency of urinary incontinence in aged population. An attempt was made to aware the geriatric population about UI and put some preventive strategies to decrease the incontinence rate in the general population [13-16].

### MATERIALS AND METHODS

**Study Design:** It was a Cross sectional survey.

**Inclusion Criteria:** Elderly male aged more than 60 years residing in Lahore were included.

**Exclusion Criteria:** Elderly males having history of prostate surgery, dementia, tumor or any neurological disease were excluded.

**Data Collection Procedure:** Data was collected from the male population older than sixty years within Lahore city by non-probability convenient sampling. 340 people meeting the inclusion criteria participated in this study for data collection. A written informed consent was taken from each participant. Questionnaire for urinary incontinence diagnosis (QUID) and Revised Urinary Incontinence Scale (RUIS) was used for data collection. Information collected from the total scores of the questionnaires described the level of urinary incontinence in male population.

## RESULTS

Results regarding marital status showed that there were 7(2.1%) single males while rest of 333(97.9) were married in their life (Table 1). Results regarding age groups of respondents showed that there were 67 (19.7%) males in 60-64 year group, that of 134 (39.4%), 56 (16.5%), 83 (24.4%) in 65-69 years, 70-74 years and 75-79 or more year group, respectively (Table 2).

Bladder problems were experienced by subjects at least once in life. Leaking of urine even small drops during coughing, showed that there were 44 (12.9%) males responded none of time, 62 (17.6%) rarely, 60 (17.6%) once in a while, often 80 (23.5%), 69 (20.3%) most of time and that of 25 (7.4%) all the time (Table 5).

Table 1: Marital status of Participant

	Frequency	Percent	Valid Percent	Cumulative Percent
Single	7	2.1	2.1	2.1
Married	333	97.9	97.9	100.0
Total	340	100	100	

Table 2: Age of Participant

	Frequency	Percent	Valid Percent	Cumulative Percent
60-64 Years	67	19.7	19.7	19.7
65-69 Years	134	39.4	39.4	59.1
70-74 Years	56	16.5	16.5	75.6
75-79 Years	83	24.4	24.4	100.0
Total	340	100.0	100.0	

Table 3: Leakage During Bending or Lifting Activities

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	27	7.9	7.9	7.9
Rarely	12	3.5	3.5	11.5
Once in a While	38	11.2	11.2	22.6
Often	152	44.7	44.7	67.4
Most of the Time	107	31.5	31.5	98.8
All the Time	4	1.2	1.2	100.0
Total	340	100.0	100.0	

Table 4: Leakage During Undressing Yourself to Use Toilet

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	44	12.9	12.9	12.9
Rarely	62	18.2	18.2	31.2
Once in a While	77	22.6	22.6	53.8
Often	73	21.5	21.5	75.3
Most of the Time	62	18.2	18.2	93.5
All the Time	22	6.5	6.5	100.0
Total	340	100.0	100.0	

Table 5: Leakage, when you cough or sneeze?

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	44	12.9	12.9	12.9
Rarely	62	18.2	18.2	31.2
Once in a While	60	17.6	17.6	48.8
Often	80	23.5	23.5	72.4
Most of the Time	69	20.3	20.3	92.6
All the Time	25	7.4	7.4	100.0
Total	340	100.0	100.0	

Table 6: Leakage During Brisk Walking, Jogging or Exercise?

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	13	3.8	3.8	3.8
Rarely	42	12.4	12.4	16.2
Once in a While	49	14.4	14.4	30.6
Often	135	39.7	39.7	70.3
Most of the Time	86	25.3	25.3	95.6
All the Time	15	4.4	4.4	100.0
Total	340	100.0	100.0	

Table 7: Leakage During the Duration to Reach Toilet,

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	21	6.2	6.2	6.2
Rarely	33	9.7	9.7	15.9
Once in a While	44	12.9	12.9	28.8
Often	133	39.1	39.1	67.9
Most of the Time	103	30.3	30.3	98.2
All the Time	6	1.8	1.8	100.0
Total	340	100.0	100.0	

Table 8: When You Feel strong and Sudden Need to Urinate then Do You Have to Rush To the Bathroom?

	Frequency	Percent	Valid Percent	Cumulative Percent
None of the Time	22	6.5	6.5	6.5
Rarely	36	10.6	10.6	17.1
Once in a While	61	17.9	17.9	35.0
Often	128	37.6	37.6	72.6
Most of the Time	81	23.8	23.8	96.5
All the Time	12	3.5	3.5	100.0
Total	340	100.0	100.0	

Table 9: Marital Status wise Comparison of Mean Score of Incontinence Scale

		t-test for Equality of Means								
		Levene's Test for Equality of Variances				95% Confidence Interval of the Difference				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total Score of Urinary Incontinence Scale	Equal variances assumed	.397	.529	-.557	338	.578	-1.08108	1.94261	-4.90221	2.74004
	Equal variances not assumed			-.518	6.219	.623	-1.08108	2.08882	-6.14896	3.98680

Table 10: Age Wise Comparison of Urinary Incontinence Scale Score

Total Score of Urinary Incontinence Scale								
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95% Confidence Interval for Mean								
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	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
60-64 Years	67	18.5522	4.89367	.59786	17.3586	19.7459	7.00	26.00
65-69 Years	134	17.5672	5.41433	.46773	16.6420	18.4923	5.00	29.00
70-74 Years	56	14.6964	4.83893	.64663	13.4006	15.9923	6.00	24.00
75-79 Years	83	16.6265	4.23893	.46528	15.7009	17.5521	3.00	25.00
Total	340	17.0588	5.08129	.27557	16.5168	17.6009	3.00	29.00

Leaking of urine during bending or lifting activities showed that there were 27 (7.9%) elderly who answered none of time, 12 (3.5%) rarely, 38 (11.2%) once in a while, 152 (44.7%) often, 107 (31.5%) most of time and that of 4 (1.2%) answered all the time (Table 3).

There were 13 (3.8%) elderly males who responded it as none of time, 42 (12.4%) who answered it as rarely, 49 (14.4%) as once in a while, 135 (39.7%) as often, 86 (25.3%) as most of time and that of 15 (4.4%) as all the time complaint of leaking urine during brisk activities (Table 6).

Leaking of urine during undressing for toilet use showed that there were 44 (12.9%) responded as none of time, 62 (18.2%) who answered it as rarely, 77 (22.6%) as once in a while, 73 (21.5%) as often, 62 (18.2%) as most of time and that of 22 (6.5%) as all the time complaint of leaking urine during undressing for toilet use (Table 4).

Leaking of urine during way of reaching for toilet use showed that there were 21 (6.2%) responded as none of time, 33 (9.7%) who answered it as rarely, 44 (12.9%) as once in a while, 133 (39.1%) as often, 103 (30.3%) as most of time and that of 6 (1.8%) as all the time complaint of leaking urine during undressing for toilet use (Table 7).

Leaking of urine while rush towards toilet during strong urge showed that there were 22 (6.5%) responded as none of time, 36 (10.6%) who answered it as rarely, 61 (17.9%) as once in a while, 128 (37.6%) as often, 81 (23.8%) as most of time and that of 12 (3.5%) as all the time complaint of leaking urine during undressing for toilet use (Table 8).

Urinary Incontinence Scale showed an average score of 17.08 with standard deviation 5.08. The mean score for 60-64 year group was 18.55, 65-69 year group as 17.56, 70-74 year group as 14.69 and 75-79 year or more group as 16.62 (Table 10).

## DISCUSSION

Urinary Incontinence is one of the most unaddressed health care problems especially in Pakistan. Although in

women it is being examined, discussed and managed in a variety of adjunct manners such as during gynecological and obstetric problems. Yet the issue remains unaddressed in otherwise healthy women or the women who have mild level of problem [17-21]. However, in MEN the issue is undermined because of multiple reasons, one is unawareness that it is a medical or health related issue, other "Shame" or linked feelings. Internationally there is literature available; however, there was less local literature available. Starting from total mean score of Urinary Incontinence Scale, there was moderate level of Incontinence found, however, standard deviation showed a great deal of range between upper and lower possible scores. As this study was focused in elderly, it showed that there is need to screen incontinence related issue at a deeper level [22].

While going in details of scale items, it was found a comprehensive number of respondents who complaint an often leakage during coughing sneezing. It links with stress incontinence that is not only a problem of elderly but it is found equally in adults and younger men. It is also found to be linked with greater Body Mass Index. If these results be compared with a perception in elderly about this problem, their seems a big difference [23-26].

The next item i.e. related to leakage during bending or lifting activities also merges with aforementioned problem addressed. The mechanism is different however that funnels down to same problem i.e. weakening of sphincters and adjunct stabilizers. In lifting objects or bending activities involves activation of straining process due to lack in awareness of performing activities while keeping on breathing. On the whole, the results of this study and those found internationally are similar i.e. moderate to high level of incontinence [27].

Next two points are interestingly different from each other technically. The results regarding leakage during undressing are less prone to incontinence while those of covering distance for toileting are more prone to incontinence. This is may be due to strategic patience

effect that elderly stop leakage for few seconds but when distance is long there would be issue with endurance of sphincters i.e. it would be difficult to hold for long duration. The results are in accordance with the previous literature found in other part of world, conducted on similar population [28].

### CONCLUSION

The findings led to a conclusion that there was moderate level of urinary incontinence in elderly male population in Lahore City.

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