

## Mitigating Symptoms and Enhancing Quality of Life among Women with Stress Urinary Incontinence

Sir,

Urinary incontinence (UI) is a significant health-care issue with considerable social and economic impact among women. As this health problem poses social embarrassment and isolation, millions of women have failed to seek timely care and attention to their existing condition. Reviews have reported that the prevalence of stress UI (SUI) is between 4% and 35%. It is calculated that 25%–45% of women have involuntary urine loss in the different age groups. The World Health Organization has classified UI as a disease as it is affecting >5% of general population. UI has found to be a social and hygienic problem among women living in the community, leading to withdrawal from all kinds of social activities. The current study aims to offer help to the women with incontinence by individualized training on pelvic floor muscle exercise which is a cost-effective approach and could turn out to be a boon to the women failing to seek advice due to embarrassment.

The current interventional study was carried out among 53 women. The sample size estimation was done based on the previous study.<sup>[1]</sup> Women aged between 40 and 60 years attending urology OPD were screened for UI by a urologist. Women who were likely to come for follow-up and able to practice the intervention as per the guideline were the study participants, and women who had a surgical intervention for UI were excluded from the study. Purposive sampling method was used for the data collection. Demographic pro forma and King's health questionnaire, a standardized tool, to assess symptoms and quality of life (QoL) of women with UI, were utilized for the study. Purpose of the study was explained, and informed consent was obtained from all respondents. Privacy and confidentiality of participants were ensured. On the 1<sup>st</sup> day, baseline information along with risk factors was assessed. The symptoms and QoL were assessed using the Kings Health questionnaire.<sup>[2]</sup>

Participants were provided individualized supervised training on pelvic floor muscle exercise. An illustrative information leaflet depicting the steps of pelvic floor exercise was handed

over to the participants with an advice to carry out the home-based practice.

The intervention involved controlled contraction and release of the muscles at the base of the pelvis where the participant was asked to hold the contraction for 10 s followed by 10 s of relaxation, which was to be performed ten times (1 set) for three times a day for 3 months. The intervention evaluation observation was monitored during the follow-up visits for 3 months. Weekly follow-up was undertaken through telephonic conversation. The outcome variables, namely, symptoms and QoL were assessed using the Kings Health Questionnaire during the monthly follow-up period for 3 months, and it was blinded.

Result showed that the mean age of the participants was  $53.3 \pm 4.5$  years. Of 53 women, majority 41 (77%) were housewives and had primary education 18 (34%). Many participants (24 or 45%) had an income ranging between Rs. 5000 and 10,000. Majority of participants (61%) had body mass index (BMI) within the normal range. Factors contributing to UI showed that majority of them 50 (94%) were multiparous and had attained menopause 49 (93%). Follow-up results of QoL revealed that, in the third follow-up, significant changes were observed in general health perception, role limitation, physical limitation, social limitation, personal relationship, emotions, sleep, and severity measures ( $P < 0.05$ ). Pelvic floor muscle exercise had significantly influenced the QoL before and after the intervention [Table 1].

Table 2 depicts the changes in the symptoms after the intervention by means of frequency and percentage. Results also depict that mean score of symptoms after the intervention was lesser than the mean score of symptoms before the intervention ( $t = 16.49$ , at  $< 0.001$ ). Thus, it was concluded that the training on pelvic floor muscle exercise was an effective intervention in reducing the distressing symptoms of women with UI.

The mean age of the women enrolled in the study was 53.3; which was similar to the study done by Swenson *et al.*<sup>[3]</sup> where the mean age was 53.1. In the current study, majority of the women 18 (34%) had low educational level, i.e., primary education, similar finding was obtained in a study by Saadia.<sup>[4]</sup> Most of the participants had a BMI within the healthy range (18–25 kg/m<sup>2</sup>) which was contrary to another study analysis, which depicted increased BMI as a contributing factor of urinary infection.

Findings of the present study suggest that intervention yielded improvement in all the domains, similar findings were observed in the analysis of another study which demonstrated that

**Table 1: Effectiveness of pelvic floor muscle exercise on quality of life of women with urinary incontinence (n=53)**

	Mean ± SD	t-test	P
Before intervention	59.52 ± 13.95		
1 <sup>st</sup> follow-up	55.13 ± 16.20	1.72	0.09
2 <sup>nd</sup> follow-up	35.67 ± 9.9	11.75	0.0001*
3 <sup>rd</sup> follow-up	36.51 ± 10.92	10.635	0.0001*

\*Level of significance ( $P < 0.001$ ). SD: Standard deviation

**Table 2: Frequency and percentage distribution of participants based on the severity of symptoms before and after the pelvic floor muscle exercise (n=53)**

Symptoms	Baseline				1 <sup>st</sup> follow-up				3 <sup>rd</sup> follow-up			
	Not at all, F (%)	Little, F (%)	Moderate, F (%)	Severe, F (%)	Not at all, F (%)	Little, F (%)	Moderate, F (%)	Severe, F (%)	Not at all, F (%)	Little, F (%)	Moderate, F (%)	Severe, F (%)
Frequency urination	-	8 (15)	27 (51)	8 (34)	1 (2)	10 (19)	36 (68)	6 (11)	1 (2)	44 (83)	8 (15)	0
Nocturia	10 (19)	21 (40)	11 (20)	11 (20)	7 (13)	24 (45)	12 (30)	6 (11)	31 (59)	18 (34)	4 (6)	0
Urgency	3 (6)	14 (26)	21 (40)	15 (28)	3 (6)	27 (51)	18 (34)	5 (9)	10 (19)	42 (79)	1 (2)	0
Stress incontinence	5 (9)	15 (28)	28 (52)	5 (9)	12 (23)	14 (26)	25 (47)	2 (4)	30 (57)	15 (28)	8 (15)	0
Nocturnal enuresis	20 (38)	16 (30)	15 (28)	28 (2)	30 (57)	11 (21)	12 (22)	0	44 (83)	9 (7)	0	0
Intercourse incontinence	40 (76)	6 (11)	6 (11)	1 (2)	45 (85)	3 (6)	4 (7)	1 (2)	44 (83)	9 (7)	0	0
Urinary tract infection	32 (60)	11 (21)	6 (11)	4 (8)	38 (72)	9 (17)	6 (11)	0	43 (81)	7 (12)	0	2 (4)
Pain	30 (57)	12 (23)	10 (19)	1 (2)	33 (62)	7 (13)	8 (15)	0	47 (89)	6 (11)	0	0

conservative treatment had improved QoL domains such as the performance of household duties, physical activity and traveling, social limitations, emotions, sleep problems, and fatigue among women with UI.

The present study depicts effectiveness of pelvic floor muscle exercise on QoL ( $t = 10.63$ ,  $P < 0.001$ ). These findings are supported by another study by Cavkaytar *et al.*<sup>[5]</sup> which statistically proved 68.4% of the women in the SUI group reported significant improvements ( $P = 0.02$ ). Further analysis found that the mean score of symptoms after the intervention was lesser than the mean score of symptoms before the intervention ( $t = 16.49$ ,  $P < 0.001$ ). This depicts that pelvic floor muscle exercise had a strong influence on reducing the distressing symptoms of UI after the intervention.

UI is a very distressing problem and is a matter of great concern. Hence, generating awareness regarding UI and proving nurse lead interventions such as training on pelvic floor muscle exercise may help to improve health-seeking behavior and QoL of women with UI.

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### Conflicts of interest

There are no conflicts of interest.

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