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A COMPARATIVE EFFECTIVENESS STUDY OF OVERACTIVE BLADDER (OAB) TREATMENT USING A PELVIC FLOOR FITNESS PROGRAM FOR SENIOR WOMEN

Hypothesis / aims of study

This study compared the efficacy of a chair-based pelvic fitness/educational program to an educational program only for senior women with OAB in residential living facilities. The chair-based pelvic fitness/educational program was adapted from an evidence-based all-ages program previously demonstrated to improve OAB symptoms [1]. The hypothesis was that a fitness-based program for pelvic health would improve urinary symptoms and improve quality of life in women 65 years and older living independently who verbally indicated that they had UI or OAB symptoms.

Study design, materials and methods

Following IRB approval, independent-living women (>65 years) with OAB were assigned (4 treatment:1 control) to twice weekly chair-based program (9-15 women each) for 6 weeks vs an education only. Standardized pre/post assessments included General Health Short Form SF-1 [2] Visual Analog Scale (VAS) measuring symptom level, Urinary Distress Inventory (UDI-6), Incontinence Impact Questionnaire (IIQ-7), and Timed Up & Go Test (TUG)[3].

Results

Fifty-seven of 65 enrolled women completed the study: 43 fitness:14 control. The mean age was 83 years (67-95), most (96%) were Caucasian and 84% had a prior pregnancy (median vaginal parity 3). We did not detect significant demographic differences between groups. Baseline OAB symptoms were similar in the chair-based program vs control: moderately/greatly bothered by leakage related to urgency (49% vs. 38%), frequency (67% vs.46%) and urge incontinence (27% vs. 25%). Baseline IIQ and UDI-6 scores were similar (6.5 vs.4.5; 1.0 vs 1.0, respectively). Post-study, 91% were satisfied, 83% reported urinary symptom improvement and 2/3 achieved pre-study goals. More women in the chair-based program reported symptom improvement as measured by IIQ-7 (p=<.0001) and UDI-6 scores (p=.0036). A total of 82% planned to continue the program on their own. Statistically significant changes were also seen in TUG score in treatment compared to control (p=.0129). Several study participants also reported less night urgency, better bladder management, increased confidence, better posture and awareness of bladder-related health and nutrition. There were no adverse events.

Interpretation of results

The efficacy of this chair-based pelvic fitness program is a promising approach to reduce OAB symptoms and improve activity levels, function and overall quality of life for women over 65 with OAB.

Concluding message

Community-based pelvic wellness programs may serve an important role in enabling women to improve their OAB symptoms and related quality of life.

Table 1: Pre versus Post Fitness Class Urinary Distress Inventory (UDI-6)*			
Symptom (UDI-6)	Before Class	End of Class	*P*
TOTAL SCORE	6.50 (1.00, 12.00)	4.00 (1.00, 10.00)	<.0001
Frequent urination	2.00 (0.00, 3.00)	1.00 (0.00, 3.00)	<.0001
Urine leakage related to feeling of urgency	1.00 (0.00, 3.00)	1.00 (0.00, 2.00)	<.0001
Urine leakage related to physical activity, coughing, or sneezing	1.00 (0.00, 3.00)	1.00 (0.00, 3.00)	<.0001
Difficulty emptying bladder	0.00 (0.00, 3.00)	0.00 (0.00, 3.00)	0.3662
Pre versus Post Fitness Class Incontinence Impact Questionnaire (IIQ-7)			
Symptom	Before Class %	After Class %	*P*
TOTAL SCORE*	1.00 (0.00, 15.00)	0.00 (0.00,12.00)	0.0036
Household chores	21.95	7.32	0.0339
Physical recreation	20.95	16.67	0.1088
Entertainment activities	27.50	12.50	0.1088
Ability to travel	29.27	12.20	0.0522
Participation in social activities outside of home	29.27	14.63	0.0578

Feeling frustrated	50.00	28.27	0.0027
* analysis of ordinal variables			

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Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Rush University Medical Center Institutional Review Board**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**