

CHARACTERISTICS OF OLDER ADULTS WITH URINARY INCONTINENCE: HOMEBOUND VERSUS NON-HOMEBOUND

Aims of Study

Urinary incontinence is a common health problem among older adults with the prevalence increasing as the level of frailty increases. This study compared the characteristics of homebound and non-homebound older adults with urinary incontinence (UI).

Methods

This descriptive correlational study compared the baseline characteristics of homebound and non-homebound older adults enrolled in an ongoing randomized clinical trial examining the effectiveness of a relapse intervention in maintaining post-treatment continence levels following biofeedback-assisted pelvic floor muscle training. Subjects were classified as homebound or non-homebound based on Health Care Financing Administration criteria. Baseline data included demographic characteristics (age, gender, marital status, living arrangements and educational level), duration of UI, bladder diary data (24-hour frequency, incontinent episodes and the type of urinary leakage), cognitive function (measured by the Folstein Mini Mental State Examination and Clock Drawing Test), depressive symptoms (measured by the 15 item Geriatric Depression Scale – GDS-15), functional status (measured by the Older American Research and Service Center (OARS) physical and instrumental activities of daily living scales), toileting ability (measured by the Performance Based Toileting Assessment), co-morbidity (measured by a modified version of the Charlson Co-Morbidity Index), the number of prescribed medications taken daily (measured by an in-home review of medications) and quality of life (measured by the MOS SF-36 Health Survey and Modified Incontinence Impact Questionnaire). Parametric and non-parametric statistics were used to examine the relationship between homebound status and baseline characteristics. An alpha of .001 was used to identify significant differences between the characteristics of homebound and non-homebound subjects.

Results

Two hundred and thirty-seven subjects (mean age=76.4 years, 83.1% female, 92.4% Caucasian and 42.6% homebound) completed the baseline assessment. Subjects had been incontinent of urine for an average of 7.6 years and recorded a mean of 2.7 incontinent episodes per day in their baseline bladder diaries. Most subjects reported urge (29.1%) or mixed (57.8%) urinary incontinence. By design, all subjects were cognitively intact (MMSE= 24 or higher). Homebound subjects were significantly older (mean age=79.7 years) than non-homebound subjects (mean age= 74.0 years, $p<.001$) and were significantly more impaired in all of the functional domains assessed (Table 1).

Table 1: Significant Functional Differences

Functional Domain	Homebound	Non-Homebound	P
Cognition Function			
MMSE	28.8	29.4	< .001
Clock Drawing Test	9.3	9.8	< .001
Physical Function			
OARS Physical ADL	10.2	11.8	< .001
OARS Instrumental ADL	9.2	13.1	< .001
Time to traverse 15 feet and prepare to toilet	39.5 seconds	17.9 seconds	
Psychological Function			
GDS-15 Score	3.9	1.7	< .001

Homebound subjects had significantly more incontinent episodes at baseline (mean=3.7/day) than non-homebound subjects (mean=2.0/day, $p<.001$). There were not significant differences in the types of incontinent episodes reported at baseline (based on bladder diaries). Homebound subjects reported significantly worse general health-related quality of life in most domains measured by the MOS SF-36 and a significantly greater functional impact of urinary incontinence on the Modified Incontinence Impact Questionnaire (MIIQ) (Table 2). The only co-morbid conditions that were significantly more common among the homebound subjects were heart failure (present in 21.0% of homebound subjects and 4.4% of those who were not homebound, $p<.001$) and peripheral vascular disease (13.1% of homebound versus 2.2% of non-homebound subjects, $p=.001$).

Table 2: Significant Quality of Life Differences

Quality of Life Domain	Homebound	Non-Homebound	p
General Health-Related (MOS SF-36)			
Physical Function	19.3	57.2	< .001
Role Physical Function	45.3	65.9	< .001
General Health	55.7	67.8	< .001
Vitality	41.9	52.8	< .001
Social Function	77.9	89.1	.001
UI-Specific (MIIQ)			
Functional Impact	6.4	3.8	< .001

Conclusions

The severity of urinary incontinence is significantly worse in homebound elders than among those who are non-homebound and its functional impact is significantly greater. Homebound older adults with UI have significantly greater impairments in all domains of function and report worse health-related quality of life than non-homebound elders.