

*PROMPTED VOIDING TO REDUCE INCONTINENCE IN
COMMUNITY-DWELLING OLDER ADULTS*

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In-home caregivers were taught to implement a prompted voiding procedure with 2 older adults with cognitive impairments and urinary incontinence. Results suggested that the procedures can be implemented by family caregivers, and the intervention reduced incontinence for both participants.

DESCRIPTORS: caregiver training, community-based treatment, gerontology, incontinence, prompting

Urinary incontinence affects up to 30% of noninstitutionalized individuals over age 60 and is associated with social isolation and depression (Urinary Incontinence Guideline Panel, 1992). Many people with Alzheimer's disease continue to live at home with a family caregiver until repeated episodes of incontinence result in a decision to place the individual in a nursing facility.

A combination of habit training, pelvic muscle exercise, and biofeedback has been shown to be effective in reducing urinary incontinence (UI) in cognitively competent, community-dwelling older adults (e.g., Baigis-Smith, Smith, Rose, & Newman, 1989; McDowell, Burgio, Dombrowski, Locher, & Rodriguez, 1992). However, participants in these studies typically implemented the intervention independently and maintained a self-report bladder diary, skills that often are too complex for a person with Alzheimer's disease. Results of studies conducted with cognitively impaired nursing home residents

with UI, including residents with Alzheimer's disease, showed that when nursing home staff consistently prompted patients to use the toilet on a regular schedule, the frequency of UI decreased (e.g., Burgio et al., 1990; Schnelle, 1990). The present study evaluates the use of this prompted voiding procedure by in-home caregivers of persons with Alzheimer's disease.

METHOD

Two families participated in case studies. Mr. A was a 68-year-old man who had been diagnosed with probable Alzheimer's disease about 5 years before this study; he began exhibiting UI about 2 years before the study. He lived with his 68-year-old wife, who served as his primary caregiver, in a house located in a small midwestern town. Mr. A wore adult briefs beneath his underwear to absorb any urine lost during episodes of incontinence. Mrs. B was a 63-year-old woman who had been diagnosed with probable Alzheimer's disease 6 years before this study. She lived at home with her 80-year-old husband in a rural community. She had had problems with UI for about 4 years and wore a cotton hand towel beneath her underwear to absorb urine. Her primary caregiver was a live-in nurse's aide. Two different aides worked with Mrs. B during the study.

The primary caregiver was responsible for

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assisting each participant with his or her personal care (dressing, cleaning, toileting, and changing wet or soiled clothing). At the beginning of the study, the primary caregiver was asked to place each soiled undergarment (disposable diaper or towel) in a plastic bag and mark the bag with the time and date that it was collected. Dry undergarments were not bagged, and the experimenters made no recommendations regarding how or when to toilet the participant during the baseline condition. Marked bags were stored in a sealed plastic container in the family garage. One of the researchers went to the family home several times each week and weighed the soiled undergarments using a Pelonze portable scale. The dry weight of the diaper or towel was subtracted from the total to determine the weight of urine contained in each garment. This information was recorded on a data sheet similar to that recommended by Schnelle (1991, p. 129). Interobserver agreement was computed by having Mr. A's primary caregiver independently weigh and record the weight of his diapers for 8 days and by having Mrs. B's primary caregiver weigh her towels for 12 days (at least one reliability check was conducted in each experimental condition). There was 100% agreement on weight recorded by the experimenter and both primary caregivers.

During the prompted voiding condition, the primary caregiver was instructed to conduct a dryness check on a regular schedule. At that time, the caregiver checked to see whether the participant was wet or dry. If the participant was dry, the caregiver provided praise and offered to assist the participant in using the toilet. Dry diapers or dry towels continued to be used by the participant. If the participant was wet, the caregiver cleaned the participant, offered assistance in toileting, dressed him or her in clean clothing, bagged the wet undergarment, and marked the bag with the time and date. Ini-

tially, dryness checks were scheduled every 2 hr (between 6:00 a.m. and 9:00 p.m.) for Mr. A. After 6 days on the 2-hr voiding schedule, the schedule was changed to every hour. Mrs. B was checked every hour (between 9:00 a.m. and 9:00 p.m.) throughout the intervention condition. Day 15 of the study was the last day of employment for the first aide who worked for Mrs. B; her replacement was taught how to implement the prompted voiding procedure before she started her employment on Day 16. Caregivers were given a timer with an alarm to cue them to conduct dryness checks and toileting prompts.

RESULTS AND DISCUSSION

The top panel of Figure 1 shows the result of prompting on Mr. A's urinary incontinence. During baseline, a mean of 913.8 g of urine per day was collected in Mr. A's wet diapers. This decreased to a mean of 750.8 g during the 2-hr prompted voiding condition (a 22% reduction) and a mean of 285 g during the hourly prompted voiding condition (a 69% reduction from baseline levels). After Day 20, Mr. A's wife was hospitalized with appendicitis and the study was discontinued.

The bottom panel of Figure 1 shows the results for Mrs. B. During baseline, a mean of 111.5 g of urine per day was collected in Mrs. B's hand towels. This decreased to a mean of 49.7 g per day during the hourly prompted voiding condition (a 55% reduction). Telephone interviews conducted at 3 and 6 months after completion of this study indicated that the hourly prompted voiding procedure was still in place, and both Mrs. B's husband and the nurse's aide were satisfied with the effects of the procedure.

Due to limitations of this study (e.g., AB design, no data on integrity of the intervention), results of this study should be viewed with caution. However, the sharp decline in

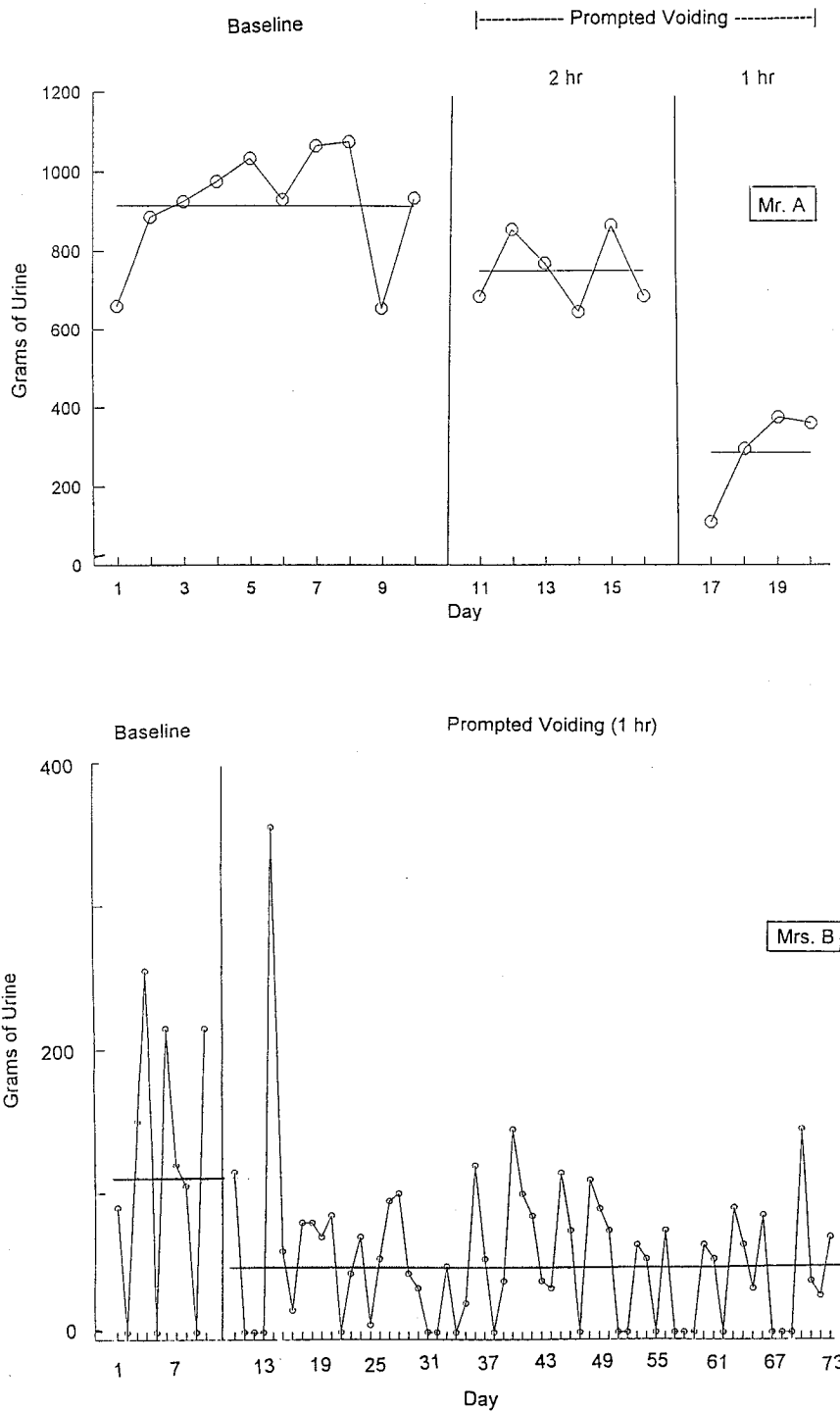


Figure 1. The number of grams of urine collected each day from Mr. A (top panel) and Mrs. B (bottom panel).

UI incidents following the intervention and the fact that baselines were collected at different points in time inspires some confidence in the potency of the intervention. In addition, the experimenters had several opportunities to informally observe that the procedures were implemented as specified. Nonetheless, future research could extend these findings by improving upon the design and including formal integrity measures.

Caregivers for community-dwelling elders with dementia are under tremendous stress and have many responsibilities (Ory, Wyman, & Yu, 1986). This study demonstrates a simple, low-cost intervention that can be implemented by a family caregiver to reduce the incidence of UI in elders with cognitive impairments. However, a series of controlled case studies and larger scale clinical trials of the use of behavioral interventions for UI in the home are still needed.

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