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URINARY INCONTINENCE OF RURAL OLDER WOMEN DRAMATICALLY IMPROVED BY BEHAVIORAL TECHNIQUES

Research has shown that rural older women with the common condition of urinary incontinence (UI), who received a behavioral management intervention in their homes, reduced UI severity by a surprising 61%, compared to the control group, whose UI severity increased by 184%. These findings were based on data collected two years after the women began the study. Details of the study appear in the February issue of *Research in Nursing and Health*. The research was funded by the National Institute of Nursing Research, part of the National Institutes of Health.

According to principal investigator Molly Dougherty, PhD, RN, a professor at the University of North Carolina School of Nursing, Chapel Hill, "A rural study of this magnitude has never been done before. These older women are particularly vulnerable, because they are often poor, and healthcare resources and long-term care facilities are lacking in rural areas," she said.

"These research results are good news for older women," said Dr. Patricia A. Grady, Director of the NINR. "They indicate that easy to use behavioral strategies work well, and that once women know about the techniques, many can manage their own continence." She also pointed out that "Since urinary incontinence is a leading reason for persons in rural areas to move to a nursing home, controlling this disorder means better control of quality of life and the ability to remain at home longer."

The study involved between 2 and 14 visits to the women's homes by nursing staff and behavioral techniques conducted in sequence to manage the urine loss that resulted from factors related to stress symptoms (such as coughing or sneezing), an overpowering urge to urinate, or both. The 178 research participants, 94 in the intervention group and 84 controls, were 55 years and older and lived in seven rural Northern Florida counties.

In older adults living in the community the prevalence of UI ranges between 15 – 35 %, with women having twice the prevalence of UI as men. The condition, often incorrectly thought to be a

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consequence of aging, is embarrassing, and many women choose not to discuss it with a healthcare professional. In addition to being uncomfortable, UI can be a symptom of other medical conditions, such as infection, nerve damage from diabetes or other illnesses.

The behavioral management intervention involved the women setting goals for their continence, followed by up to three behavioral phases in sequence. The intervention could take as long as 6 months if the women participated in all phases, but most women achieved their goals in one or two phases. Most began with bladder training, which involved emptying the bladder at regular timed intervals, gradually increasing the intervals until they were able to space them to every 2 ½ hours or more. Other women, however, began with the self-monitoring phase, which lasted for 4 weeks. They were selected for this phase based on such factors as drinking two or more cups of caffeinated beverages, urinating two or more times during the night, or urinating during the day at intervals longer than 4 hours apart. The women kept a bladder diary that included such information as descriptions of their liquid intake and intervals between urination. Based on the results, they were coached to reduce caffeine consumption and adjust fluid amount and timing of drinking, in order to decrease or increase urination intervals.

If women did not attain their goals in the first two phases, they moved on to the pelvic muscle (kegel) exercises with biofeedback phase. This intervention, which strengthens the muscles to prevent leaking urine, lasted up to 12 weeks. Sensors were placed on the skin over the pelvic muscles and attached to a notebook computer. Signals would appear on the screen that reflected the voluntary contractions of the pelvic muscles and allowed the women to monitor the effectiveness of their exercises.

Dr. Dougherty explained “the dramatic rise in severity of UI in the control group points to the progressive nature of this condition if not managed properly. It is also important to know that not everyone can benefit from behavioral techniques, and that advice should be sought from healthcare professionals for all forms of UI, even those amenable to behavioral modification.” She also stated that the intervention is well suited for dissemination by community-based nurses, and is particularly valuable to women living in isolated settings.

The three-phase behavioral intervention has been incorporated into the best practice guidelines of the Association of Women’s Health, Obstetric and Neonatal Nurses, the professional organization that specializes in improving the health care of women and children of all ages.

More information about nursing research is available at the NINR website at <http://www.nih.gov/ninr>.