Virtual Reality Rehabilitation as a Treatment Approach for Older Women with Mixed Urinary Incontinence: A Feasibility Study

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Neurourol Urodyn 2014; Epub ahead of print.

BACKGROUND: Motivated patients are more likely to adhere to treatment resulting in better outcomes. Virtual reality rehabilitation (VRR) is a treatment approach that includes video gaming to enhance motivation and functional training.

AIMS: The study objectives were (1) to evaluate the feasibility of using a combination of pelvic floor muscles (PFM) exercises and VRR (PFM/VRR) to treat mixed urinary incontinence (MUI) in older women, (2) to evaluate the effectiveness of the PFM/VRR program on MUI symptoms, quality of life (QoL), and (3) gather quantitative information regarding patient satisfaction with this new combined training program.

METHODS: Women 65 years and older with at least 2 weekly episodes of MUI were recruited. Participants were evaluated two times before and one time after a 12-week PFM/VRR training program. Feasibility was defined as the participants' rate of participation in and completion of both the PFM/VRR training program and the home exercise. Effectiveness was evaluated through a bladder diary, pad test, symptom and QoL questionnaire, and participant's satisfaction through a questionnaire.

RESULTS: Twenty-four women (70.5 ± 3.6 years) participated. The participants complied with the study demands in terms of attendance at the weekly treatment sessions (91%), adherence to home exercise (92%) and completion of the three evaluations (96%). Post-intervention, the frequency and quantity of urine leakage decreased and patient-reported symptoms and QoL improved significantly. Most participants were very satisfied with treatment (91%).

CONCLUSION: A combined PFM/VRR program is an acceptable, efficient, and satisfying functional treatment for older women with MUI and should be explored through further RCTs.