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Using virtual reality in physiotherapy for women with urinary incontinence

Abstract:

Urinary incontinence (UI) affects nearly half of postmenopausal women and has a significant impact on quality of life, social functioning, and psychological well-being. Traditional pelvic floor muscle training (PFMT) requires active engagement and long-term motivation, which poses a challenge for many patients. This study aimed to assess whether the integration of virtual reality (VR) into standard urogynecological therapy could help reduce symptoms and improve the quality of life of women with overactive bladder (OAB). The study was conducted among postmenopausal women diagnosed with OAB. Participants were randomly assigned to two groups: an experimental group, which received pelvic floor muscle electrostimulation with EMG biofeedback supported by VR visualization, and a control group, which received electrostimulation with biofeedback only. Each participant underwent eight therapy sessions over a two-week period. Assessments included gynecological examination, analysis of pelvic floor muscle EMG activity, and standardized quality of life questionnaires. The results showed that the use of VR significantly increased patient engagement, motivation, and awareness of pelvic floor muscle activity, which translated into better therapeutic outcomes and a reduction in OAB symptoms. The study demonstrates that virtual reality can be an effective complement to traditional physiotherapy, introducing a new dimension to personalized treatment of urinary incontinence and potentially transforming urogynecological rehabilitation practice.

Keywords: Virtual reality; Pelvic floor rehabilitation; Overactive bladder

Biography: Dr. Gabriela Kołodyńska, In December 2020, She earned my PhD in Physical Culture Sciences. In September 2020, She obtained the title of urogynecological therapist.She have authored and co-authored numerous publications in peer-reviewed scientific journals. She am currently conducting research projects related to the use of the latest physiotherapy methods in the treatment of urinary incontinence in women.

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