PERSONALIZED PHYSIOTHERAPY INTERVENTIONS IN MUSCULAR DYSTROPHIES: THE ROLE OF TECHNOLOGY, FAMILY, AND GLOBAL POSTURAL REEDUCATION (GPR)

[1] **Eva Illie**
[1] **Ligia Rusu**
[1] **Oana Bianca Budeanca- Babolea**

[1] **University of Craiova, Faculty of Physical Eduction and Sports**

Introduction: In the context of progressive neuromuscular disorders such as muscular dystrophies (Duchenne, Becker), individualized physiotherapeutic approaches are essential for preserving motor, respiratory, and psychosocial functions. Standardized therapies often fail to address patient-specific needs; therefore, tailoring interventions to age, disease stage, and personal goals significantly enhances rehabilitation outcomes.

Materials and methods: Recent studies support the implementation of personalized telerehabilitation programs that combine motor and respiratory exercises in children with hereditary muscular dystrophies (Yu et al., 2023). Children benefit from therapy through play and interactive strategies (e.g., ACTIVE-seated, motion sensors), whereas adults face challenges related to loss of autonomy. Technologies such as virtual reality, mobile applications with real-time feedback, and exergaming systems increase patient engagement and extend therapy beyond clinical settings.

Results: Global Postural Reeducation (GPR) has shown positive effects on respiratory function, postural correction, and pain reduction, particularly when combined with continuous physiotherapy and patient education. Active involvement of family members as co-therapists, along with collaboration among physiotherapists, physicians, and educators, further improve therapeutic outcomes and emotional support.

Conclusion: Successful rehabilitation in muscular dystrophies relies on a synergy of knowledge, empathy, and innovation. Therapy is not merely about movement; it is a process of restoring hope, individually shaped for each patient.

Keywords: personalized rehabilitation, muscular dystrophy, Global Postural Reeducation

Article received: 10.09.2025.

Article accepted: 24.09.2025.

Corresponding author:
Eva Illie
E-mail: eva_moldoveanu@yahoo.com