



The Effect of Dance Therapy on Psychoemotional State, Cognitive Functions, and Fast and Accurate Movement Learning of Elderly Persons

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Background and Aim. There is a rapidly growing interest in non-pharmacological interventions aimed at reducing age-related decline in cognitive and motor functions as well as improving psychoemotional wellbeing. Although physical activity and exercises has been associated with functional and emotional benefits in older adults, the effects of dance therapy remain insufficiently investigated. Therefore, the aim of this study was to determine the effect of dance therapy on psychoemotional state, cognitive functions, and movement learning in elderly adults.

Methods. The study involved 20 individuals aged >50 years, who were divided into two groups: experimental ($n = 10$) and control ($n = 10$). Participants in the experimental group completed a 30-minute dance therapy session, while the control group rested for the same duration. Assessments were conducted before and after the intervention, and again after 24 hours and one week, using the Brunel Mood Scale for mood evaluation, the Purdue Pegboard Test for motor learning evaluation, and Go/No Go task, Simple Response Time, Four Choice Response Time, and Stroop tests for cognitive function evaluation.

Results. Dance therapy reduced confusion, depression, and tension immediately after intervention, and these effects were maintained at the 24-hour and one-week follow-up assessments ($p < 0.05$), while fatigue increased significantly only immediately after the intervention ($p < 0.05$). In addition, dance therapy improved fast and accurate movements learning and simple reaction time immediately after the intervention and at the 24-hour follow-up ($p < 0.05$). Results of the control group remained unchanged.

Conclusions. Dance therapy temporarily improves cognitive functions and fast and accurate movement learning in older adults, while only the psychoemotional state changes persist at the one-week follow-up. Further research is needed to determine whether repeated dance therapy sessions produce long-term effects.

Keywords: Movement therapy; older adults; mood state; motor learning; reaction time

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Informed Consent Statement: This study was approved by the Ethics Committee of Lithuanian Sports University (No. MNL-KIN (M)-2025-806, dated 07 10 2025). All participants provided written informed consent prior to participation. The study was conducted in accordance with the Declaration of Helsinki.

