ABSTRACT

The main objective: To empirically assess the impact of integrating therapy incorporating elements of music and dance into a comprehensive rehabilitation plan for neurological patients, with a focus on its effects on their balance, gait, self-reliance, and psychological well-being compared to a control group.

Methods: In a non-randomized experimental study, two groups will experience a comprehensive neurological program following the standard protocol of FTN in Prague. The experimental group will receive additional therapy incorporating music and dance elements (2–3 times a week, 8 sessions over 4 weeks, each lasting 40 minutes). Participants will undergo pre – and post-program testing, with analysis comparing results between groups using a two-sample t-test, and within-group changes using a paired t-test.

Results: Improvements in balance and gait in Tinetti test were seen in both groups, but the differences weren't statistically significant, making it unclear which group improved more. Other gait tests (TUG test and 6 MWT) showed no significant changes. Both groups saw significant improvement in self-efficacy measured by the FIM scale, with the control group showing a superior improvement. Psychological evaluation also improved in SF-36 in both groups, but without statistical significance. Thus, there's potential for the experimental therapy to affect participants' psyche, that was also supported by their feedback.

Conclusion: Overall, while statistically significant differences between groups were not found, the results suggest that therapy with music and dance may have potential in impacting balance and psychological well-being in neurologically ill patients. However, further research is necessary to better comprehend the specific effects of this therapy and the underlying mechanisms.

Key words: balance, gait, self-sufficiency, psyche, therapy with elements of music and dance, Tinetti test, TUG test, 6 MWT, FIM, SF-36