

Abstract

Effects of the Neurodevelopmental Treatment (NDT-Bobath) in the Mobility of Adults with Neurological Disorders

Thomas Besios^{1*}, Aggeloussis Nikolaos², Gourgoulis Vassilios² and Mauromatis Giorgos³

¹Department of Physical Therapy, University of Thessaly, Lamia, Greece

²Department of Physical Education and Sport Science, Democritus University of Thrace, Orestiada, Greece

³Department of Physical Education and Sport Science, Aristotelio University of Thessaloniki, Thessaloniki, Greece

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ABSTRACT

Background: Bobath method was initially applied in adults and then in children with cerebral palsy. Studies conducted in recent years have shown that the NDT-Bobath method improves function and mobility among persons with Multiple Sclerosis (MS) and Hemiplegia.

Purpose: The purpose of the present study was to investigate the effect of NDT-Bobath method in the mobility of patients with neurological disorders (hemiplegia, multiple sclerosis), as evaluated using the TUG, BBS, TMT, and MAS tests.

Methods: The study included 20 persons with neurological disorders (11 persons with multiple sclerosis and 9 persons with hemiplegia). The mean age of the participants was 38.7 ± 13.9 years and mean body mass was 65.1 ± 13.1 kg. The participants in the two groups Low Frequency (LF) and High Frequency (HF) followed two different intervention Bobath-NDT programs in terms of frequency. For the statistical analysis a two-way repeated measures analysis of variance (ANOVA) was performed.

Results: Bobath-NDT method improves both mobility and functionality of patients with neurological disorders (BBS, $p = 0.095$ and Tinetti test, $p = 0.099$) but did not improve spasticity according to the results of MAS scale, $p = 0.095$.

Conclusions: Overall, the results of the present investigation provided considerable evidence suggesting that Bobath-NDT method improves mobility according to the tests (BBS, TMT), but did not improve spasticity according to the results of MAS scale. Therefore, it was concluded that Bobath-NDT method improves both mobility and functionality of patients with neurological disorders. More research will have to be done in the future.

Keywords: Bobath, NDT, BBS, TMT, MAS, Hemiplegia, MS

Corresponding author: Thomas Besios, Department of Physical Therapy, University of Thessaly, Lamia, Greece, E-mail: tbесios@uth.gr

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