

EFFECTİVENESS OF NEURODEVELOPMENTAL TREATMENT (BOBATH CONCEPT) ON POSTURAL CONTROL AND BALANCE İN CEREBRAL PALSİED CHILDREN

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Introduction: The aim of this study was to show the effects of an 8-week Neurodevelopmental Treatment (NDT) on postural control and balance in diparetic or hemiparetic Cerebral Palsied children (CPC).

Patient and Methods: 15 CPC (aged 5-15 yrs) were included in this study. All participants recruited from Denizli Yağmur Çocukları Special Education and Rehabilitation Center. The Gross Motor Function Classification System and the Gross Motor Function Measure were used to evaluate the CPC. Balance ability was assessed using by a 1-Min. Walking Test (1MWT), Modified Timed Up and Go Test, and Pediatric Balance Scale. Functional Independence Measure for Children (WeeFIM) was used to evaluate the independence in terms of daily living activities of the CPC. Postural control was assessed using by Seated Postural Control Measure (SPCM). An 8-week NDT based intensive postural control and balance training was applied to the CPC in one session (60 min.) 2 days in a week. All participants were evaluated twice (before and after the treatment program).

Results: After the treatment program, all participants showed statistically significant improvements in terms of gross motor function ($p<0,01$). They also showed statistically significant improvements about 1MWT, MTUGT, PBS, and WeeFIM ($p<0,01$). SPCM-Alignment and SPCM-Function scores increased after the treatment program compared to before treatment ($p<0,01$).

Discussion: The results obtained from this study indicate that an 8-week NDT based intensive postural control and balance training is an effective approach in order to improve functional motor level and functional independency improving postural control and balance diparetic or hemiparetic CPC.