

The Effect and Durability of Functional Exercises on Balance Evaluation Systems Test (Bestest) in Intellectual Disabilities: A Preliminary Report

Authors : Saeid Bahiraei, Hassan Daneshmandi , Ali Asghar Norasteh

Abstract : The present study aims at the effects of 8 weeks of selected corrective exercise training in stable and unstable levels on the postural control people with ID. Problems and limitations of movement in individuals with intellectual disability (ID) are highly common, which particularly may cause the loss of basic performance and limitation of the person's independence in doing their daily activities. In the present study, thirty-four young adult intellectual disabilities were selected randomly and divided into three groups. In order to measure the balance variable indicators, BESTest was used. The intervention group did the selected performance exercise in 8 weeks (3 times of 45 to 50 minutes a week). Meanwhile, the control group did not experience any kind of exercise. Statistical analysis was performed in SPSS on a significant level ($p < 0/05$). The results showed the compromise between time and the group in all the BESTest tests is significant ($P = 0/001$). The results of the research test compared to the studied groups with time measurements showed that there is a significant difference in the unstable group in Biomechanical constraints ($P < 0/05$). And also, a significant difference exists in the stable and unstable level instability limits/Vertically, Postural responses, and Anticipatory postural adjustment variables (except for the follow-up and pre-test levels), Stability in Gait and Sensory Orientation in the pre-test, post-test, and follow up- pre-test stage of the test ($P < 0/05$). In the comparison between the times of measurement with the groups under study, the results showed that Biomechanical Constraints, Anticipatory Postural adjustment and Postural responses at the pre-test-follow upstage, there was a significant difference between unstable-stable and unstable-control groups ($P < 0/05$), it was also significant between all groups in Stability Limits/Vertically, Sensory Orientation, Stability in Gait and Overall stability index variables ($P < 0/05$). The findings showed that the practice group at an unstable level has move improvement compared to the practice group at a stable level. In conclusion, this study presents evidence that shows selected performative practices can be recognized as a comprehensive and effective mediator in the betterment and improvement of the balance in intellectually disabled people and also affect the performative and moving activities.

Keywords : intellectual disability, BSETest, rehabilitation, postural control

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020