Ergonomics Study on Visual Contribution of Postural Stability Using Physio-Treadmill (PhyMill) for Kid with Cerebral Palsy

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ABSTRACT

Cerebral Palsy (CP) is a movement, muscle tone, and or posture congenital disorder. The partial body weight supported with treadmill training (PBWSTT) is one option successfully used to improve gait performance in children with CP. The treadmill exercise is used for repetitive activities. The emphasis is on enhancing the strength of the lower extremity, speed of walking, or endurance. The patient was a 6-year-old kid who was diagnosed with CP with GMFCS Level II. Five conditions with visual and angle diagram conflicts were selected to observe on balance control in the study participants. The use of a harness is for more control of posture and stability. The best posture during sitting on the harness, standing, and walking on the PhyMill were discussed in this paper. The posture of the body should correspond to the ability and correct angle of movement of the foot shown in the angle diagram. It also allows for the exploration of factors that limit the adaptability of gait in person with CP. Backward walking can reinforce rectal femoris and anterior tibialis in cerebral palsy treadmill training.

KEYWORDS

Treadmill; Physiotherapy; Cerebral palsy; Ergonomics; Stability; Postural; Visual contribution

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