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Outcome Evaluation of Functional Movement in Clients with Neuromotor Disabilities

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Introduction

Outcome measurement has become a great interest in seating service. One challenge is the lack of feasible, reliable and valid tools for measuring clinical outcomes and evaluating service effectiveness. The Seated Postural Control Measure (SPCM), criterion-referenced, an observational scale was constructed to evaluate change in postural control of clients requiring adaptive seating intervention. SPCM was designed to measure specific aspects of postural alignment (SPCM-A) and functional movement (SPCM-F). The Level of Sitting Scale (LSS) was designed to classify sitting ability.

Objectives

The purpose of this paper is to investigate the functional movement of prescribed seating system in clients with neuromotor disabilities.

Methodology

A convenient sample of 10 clients with neuromotor disorders who applied seating system for postural control was selected between January and February 2013. The SPCM-F and LSS were administered by an occupational therapist and a research helper in reviewing the functional movement of prescribed seating system in clients with neuromotor disabilities. SPCM-F included 12 items in assessing the achievement of seating function: head & trunk control, reaching, grasping & releasing objects, opening & closing a screw-lid jar, manipulation of small objects and mobility (operation of wheelchair).

Result

The mean age of the clients was 10 years old (ranging from 2 years old to 27 years old). Majority of them (80%) were suffered from cerebral palsy. LSS showed that almost all of them (80%) required supported from shoulders and trunk downward in sitting posture. Half of them needed dependent manual wheelchair, three of them required tilt-in-space wheelchair, one of them sat in a rocker chair and one could independently maneuver wheelchair. Total mean score of SPCM was 21.0 (ranging

from 13 to 44; full score of 48 indicated good performance in all functional movement) More than half of them (60%) could lift head upright and maintain for 5 to 10 seconds. Most of them (70%) could not reach toys. Most of them (80%) could not manipulate small objects. Only one of them (10%) could maneuver own wheelchair. SPCM-F and LSS demonstrated promising and responsive outcome measure for clients with adaptive seating intervention. This standardized measurement instrument can be used to evaluate therapeutic outcomes and facilitate service development in future. As it was a preliminary report, a larger sample will be recruited in the coming months. In future, a longitudinal follow-up study will be carried out based on the data collected.