VARIOUS ALERTNESS COGNITIVE STIMULATION ON THE OPTIMIZATION OF MOTOR RECOVERY AMONG POST STROKE PATIENTS IN NEUROREHABILITATION PROGRAM

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ABSTRACT

Background: Stroke affects the patient's cognitive ability. Cognitive ability also underlies the motor and functional recovery processes of post-stroke patients. Various Alertness Cognitive Stimulation (VACS) is a computer-based cognitive exercise that combines cognitive and motor components. This study aimed to examine the effect of VACS on the optimization of motor recovery among post-stroke patients.

Subjects and Methods: This was an experimental study with pre-test and post-test control design. This study conducted at the Mandiri Center and Neurorehabilitation Clinics, in November-December 2019. A total of 40 post-stroke patients were enrolled in this study and divided into 20 patients in control and 20 patients in treatment groups. The dependent variables were cognitive and motor skills. The independent variable was VACS. Data were collected using Cognistat and Modified Motor Assessment Scale (MMAS). The data were analyzed by means of a comparative test.

Results: The MMAS score of post intervention in the treatment group (Mean=3.40; SD= 1.88) was higher than the control group (Mean= 2.25; SD=1.68). The motor ability of the treatment group was significantly different from the control group ($t= 2.04$; $p= 0.048$).

Conclusion. VACS can optimize the motor recovery of post-stroke patients in a neurorehabilitation program.

Keywords: cognitive training, VACS, MMAS

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