

ABSTRAK

EFEKTIFITAS *FINGER INSTRUMENT NURTURE GRIP EXERCISE REHABILITATION TRAINING (FINGERT)* TERHADAP KEKUATAN OTOT DAN RENTANG GERAK SENDI JARI TANGAN PASIEN STROKE

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Latar Belakang: Stroke iskemik merupakan salah satu penyebab utama disabilitas di seluruh dunia. Dampak signifikan dari stroke iskemik adalah kelemahan otot dan keterbatasan rentang gerak sendi pada ekstremitas atas maupun bawah, yang dapat mengganggu kemampuan pasien untuk melakukan aktivitas sehari-hari. Proses rehabilitasi menjadi bagian penting dalam meningkatkan kualitas hidup pasien stroke. Metode yang digunakan dalam rehabilitasi adalah latihan *range of motion* (ROM).

Tujuan: Menganalisis efektivitas FINGERT terhadap kekuatan otot dan rentang gerak sendi pada pasien stroke iskemik.

Metode Penelitian: Tahap pertama mendesain *prototype* dengan model ADDIE, tahap kedua mengujicobakan *prototype* dengan menggunakan desain penelitian *quasi experiment* dengan *control group pretest-posttest design*. Responden sejumlah 60 pasien post stroke iskemik dengan rincian 30 untuk kelompok intervensi dan 30 kelompok kontrol. Kelompok intervensi diberikan intervensi latihan ROM dengan alat FINGERT. Kelompok kontrol diberikan latihan ROM standar. Uji statistik yang digunakan uji *Mann-Whitne*.

Hasil: Analisis FINGERT, uji reliabilitas dengan *intraclass correlation coefficients* (ICC) dengan nilai 0,899 (reliabilitas baik), uji validitas alat dengan metode *Content Validity Index* (CVI) dengan nilai 1 (*valid*). Hasil uji *Mann-Whitney* menunjukkan nilai signifikan $p < 0,05$ untuk selisih peningkatan kekuatan otot, peningkatan rentang gerak sendi dan selisih peningkatan rentang gerak sendi.

Kesimpulan: FINGERT telah memenuhi syarat uji kelayakan dan terbukti dapat meningkatkan kekuatan otot dan rentang gerak sendi.

Kata Kunci: Kekuatan Otot, Latihan ROM, Rentang Gerak Sendi, Stroke Iskemik

ABSTRACT

EFFECTIVENESS OF FINGER INSTRUMENT NURTURE GRIP EXERCISE REHABILITATION TRAINING (FINGERT) ON MUSCLE STRENGTH AND RANGE OF MOTION OF FINGER JOINTS IN STROKE PATIENTS

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Background: Ischemic stroke is one of the leading causes of disability worldwide. A significant impact of ischemic stroke is muscle weakness and limited joint range of motion in the upper extremities, which can interfere with the patient's ability to perform daily activities. The rehabilitation process becomes an essential part of improving the quality of life for stroke patients. One of the methods used in rehabilitation is range of motion (ROM) exercises.

Objective: Analyzing the effectiveness of FINGERT on muscle strength and joint range of motion in ischemic stroke patients.

Methods: The first stage is designing a prototype using the ADDIE model, the second stage is testing the prototype using a quasi-experimental research design with a control group pretest-posttest design. Respondents were 60 post-ischemic stroke patients with details of 30 for the intervention group and 30 for the control group. The intervention group was given ROM exercise intervention with the FINGERT device. The control group was given standard ROM exercise. The statistical test used the Mann-Whitne test.

Result: FINGERT Analysis, reliability test with intraclass correlation coefficients (ICC) with a value of 0.899 (good reliability), test the validity of the tool using the Content Validity Index (CVI) method with a value of 1 (valid). The results of the Mann-Whitney test showed a significant value of $p < 0.05$ for the difference in muscle strength increase, increased joint range of motion and the difference in increasing joint range of motion.

Conclusion: FINGERT has passed the eligibility test and has been proven to increase muscle strength and joint range of motion.

Keyword: Muscle Strength, ROM Exercise, Joint Range of Motion, Ischemic Stroke