

The Role Of An Occupational Therapist In Tele-Rehabilitation For Stroke Patients

Metka Javh¹, Marko Rudolf¹, Nika Goljar¹, Nataša Bizovicar¹, Drago Rudel², Dare Oberžan², Helena Burger¹

¹University Rehabilitation Institute Republic of Slovenia, Ljubljana, Slovenia, ²MKS Electronic Systems d.o.o., Ljubljana, Ljubljana, Slovenia

Introduction: Rehabilitation after a stroke is a long-term procedure and should be continued after discharge from a rehabilitation institution (RI). To help with rehabilitation after institutional therapy, a tele-rehabilitation method (TR) was developed, where stroke patients (SP) are supervised by occupational therapist (OT) and physio therapist (PT) in rehabilitation exercises at home.

Objectives: A pilot study was performed to determine the effectiveness of the exercise at home after discharge from the RI.

Methods: The study included 10 SP, engaged in rehabilitation at the University Rehabilitation Institute divided into two groups of five. One group continued with TR performing various upper-limb exercises by following multimedia contents (MC) with weekly supervision of OT and PT in video-conferencing form. Therapists assigned MC to each SP individually to best fit their capacity. Group 2 received exercises in written form and practiced them at home without additional supervision.

Both groups were evaluated at the beginning and after 3 months of home rehabilitation with: Wolf Motor Functional test (WMFT), Modified Ashworth Scale (MAS), Visual Assessment Scale (VAS), Fugl-Meyer Assessment upper-limb (FMA), Functional Independence Measure (FIM).

Results: Both groups displayed improvement: improved upper-limb function, decreased muscle tone and pain. However the difference between the groups was not statistically significant.

Conclusion: The participants responded positively to TR, therefore it shows potential. Further studies on larger test groups are necessary, as are improvements of MC. These should be extended to fit a broader range of SP.