

NAZIV DISERTACIJE: EFIKASNOST RAZLIČITIH PROGRAMA TERAPIJSKIH VJEŽBI U PREVENCIJI PADA OSOBA NAKON MOŽDANOG UDARA**Autor:** Vesna Samardžić**Mentor:** Prof. dr. Amila Jaganjac**Datum odbrane:** 18.03.2022.**DOI:** <https://doi.org/10.17532/DD.2022.09>**SAŽETAK**

Uvod Padovi su drugi uzrok smrti od slučajnih povreda u svijetu i predstavljaju ogroman globalni javno-zdravstveni problem. Padovi i povrede koje nastaju uslijed padova spadaju u najčešće komplikacije moždanog udara. Poremećaj balansa je česta posljedica moždanog udara. Rehabilitacija moždanog udara treba da bude usmjerena na problem balansa i hoda, da poveća samostalnost pacijenata u svakodnevnim aktivnostima, učešće u zajednici a samim tim i kvalitet života.

Radna hipoteza Inovativni program vježbi balansa, kao dopuna standardnom rehabilitacionom programu, pozitivno utiče na balans, smanjuje stepen zabrinutosti i rizik od pada nakon moždanog udara.

Nulta hipoteza Inovativni program vježbi balansa, kao dopuna standardnom rehabilitacionom programu, ne utiče pozitivno na balans, ne smanjuje stepen zabrinutosti i rizik od pada nakon moždanog udara.

Ciljevi istraživanja Ispitati uticaj inovativnog programa vježbi i uticaj rehabilitacije na balans, na rizik od pada i stepen zabrinutosti zbog pada, utvrditi stanje balansa, stepen zabrinutosti zbog pada i nivo rizika od pada na početku i na kraju rehabilitacije i ispitati korelaciju funkcionalnog statusa na početku i na kraju rehabilitacije.

Ispitanici i metode istraživanja Randomizovanim kliničkim istraživanjem obuhvaćeno je 86 ispitanika koji su raspoređeni u dvije jednake grupe: kontrolnu i ispitivanu. Kontrolna grupa je imala standardni rehabilitacioni program, a ispitivana grupa, uz standardni rehabilitacioni program, imala je program inovativnih vježbi balansa. Za sprovođenje inovativnih vježbi koristili smo stolice. Vježbe su se izvodile u sjedećem i stojećem položaju, u maloj grupi sa najviše šest ispitanika. Ocjena pacijenata u smislu ocjene balansa, funkcionalne mobilnosti, rizika za pad i zabrinutost od pada rađena je pomoću standardizovanih testova: Berg balans skale, Timed Up and Go testa i FES I upitnika. Ispitanike smo ocijenili dva puta: na početku i na kraju tronedjeljne rehabilitacije koja se sprovodi u Institutu za fizikalnu medicinu, rehabilitaciju i reumatologiju, „Dr Simo Milošević” u Igalu.

Rezultati Nakon rehabilitacije došlo je do poboljšanja balansa u obje ispitivane grupe i to za 3.16 ± 2.16 u kontrolnoj i za 8.33 ± 5.85 u ispitivanoj prema BBS. Funkcionalna mobilnost je poboljšana za $2.83 \pm 1.83s$ u kontrolnoj, a $4.95 \pm 1.86s$ u ispitivanoj grupi, prema TUG testu. Nakon rehabilitacije došlo je do smanjenja zabrinutosti zbog pada u obje ispitivane grupe i to u kontrolnoj za 4.63 ± 1.98 , a u ispitivanoj za 10.07 ± 1.08 , prema FES I upitniku.

Zaključak Inovativne vježbe, u trajanju od pola sata dnevno, pet puta sedmično u toku tri sedmice, su efikasna metoda koja poboljšava balans, funkcionalnu mobilnost, smanjuje rizik od pada i zabrinutost zbog pada nakon moždanog udara.

Ključne riječi Balans, rehabilitacija moždanog udara, prevencija padova.

DISSERTATION TITLE:**Author:** Vesna Samardžić**Mentor:** Prof. dr. Amila Jaganjac**Date of defence:** 18. March 2022.**DOI:** <https://doi.org/10.17532/DD.2022.09ABSTRACT>

Introduction According to the World Health Organization, falls are the second leading cause of death from accidental injuries in the world and represent a huge global public health problem. Falls and injuries caused by falls are among the most common complications of a stroke. A balance disorder is a common consequence of stroke. Stroke rehabilitation should be focused on the problem of balance and gait, to increase the independence of patients in daily activities, participation in the community, and thus the quality of life.

Working hypothesis The innovative balance exercise program, in addition to the standard rehabilitation program, has a positive effect on balance, reduces concern about falling and the risk for falling after a stroke.

Null hypothesis The innovative balance exercise program, in addition to the standard rehabilitation program, does not improve balance, does not reduce concern about falling and the risk for falling after a stroke.

Objectives To examine the impact of an innovative exercise program, and the impact of rehabilitation on balance, fall risk, and level of anxiety, determine balance status, fall concern, and level of fall risk before and after rehabilitation, and examine the correlation of functional status before and after rehabilitation.

Subjects and research methods A randomized clinical trial included 86 subjects who were assigned into two equal groups: control and experimental group. The control group had a standard rehabilitation program and the experimental group, in addition to the standard rehabilitation program, a program of innovative balance exercises. We used chairs to conduct innovative exercises. The exercises were performed in a sitting and standing position, in a small group with a maximum of six respondents. Patient assessment in terms of balance assessment, functional mobility, fall risk, and fall concern was assessed using standardized tests: Berg Balance Scale, Timed Up and Go test and FES I. Respondents were assessed twice: before and after a three-week rehabilitation at the Institute of Physical Medicine, Rehabilitation and Rheumatology Dr. Simo Milosevic in Igalo.

Results of the study After rehabilitation, the balance improved in both examined groups by 3.16 ± 2.16 in the control group and by 8.33 ± 5.85 in the experimental group according to the BBS. Functional mobility was improved by 2.83 ± 1.83 s in the control group and 4.95 ± 1.86 s in the experimental group, according to the TUG test. After rehabilitation, there was a decrease in concerns about falls in both examined groups, in the control group by 4.63 ± 1.98 , and in the experimental group by 10.07 ± 1.08 , according to the FES I questionnaire.

Conclusions Innovative exercises conducted for half an hour of therapy, five times a week, for three weeks, are an effective method that improves balance, functional mobility, reduces the risk of falls and anxiety about falls after a stroke.

Keywords Balance, stroke rehabilitation, falls prevention.