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Effect of sensor monitoring in an occupational therapy rehabilitation program for older individuals after hip fracture: the SO-HIP trial
A three-arm stepped wedge cluster randomized trial

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Introduction:

The Performance of activities of daily living (ADL) at home is important for the recovery of older persons after hip fracture. Fear of falling hinders older persons to perform ADLs. Sensor monitoring can be used as a coaching tool to reduce fear of falling and increase daily functioning.

Objective:

The aim of the study was to investigate the effect of sensor monitoring, embedded in an occupational therapy (OT) -program on the recovery of daily functioning among older persons after hip fracture, as compared to OT without sensor monitoring and as compared to usual care.

Method:

Six nursing homes in the Netherlands were randomized in a three-arm stepped wedge randomized trial. Participants in the first intervention group receive OT based on cognitive behavioral therapy (CBT). In the second intervention group, sensor monitoring was added to the OT.

Results:

A total of 256 persons participated in the study. Mean age was 83 years, 79% was female, 45% were cognitively impaired.

The sample powers the study to detect an assumed treatment effect on OT with CBT versus usual care and an assumed treatment effect on OT with sensor monitoring versus OT with coaching. The primary outcome is patient perceived daily functioning measured with the Canadian Occupational Performance Measure. The last data will be collected November 2017 and we will present the results during the WFOT congress.

Conclusion:

The trial combines CBT principles and OT with incorporating sensor monitoring as a coaching tool in order to improve daily functioning at home.