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Impact of Early and Intensive Rehabilitation in Preventing the Functional Decline of Stroke Patient

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Purpose:

General objective:

To assess the impact of an early and intensive nursing rehabilitation program on preventing functional decline in hospitalized stroke patients.

Specific objectives:

- To compare the health gains of a daily nursing rehabilitation program (standard) with those of a twice-daily program in stroke patients' functional status;

- To establish associations between stroke patients' functional status and sociodemographic and clinical variables (age, gender, length of hospital stay

Methods:

A quasi-experimental study was conducted using a non-probability consecutive sample of 40 stroke patients in acute phase (experimental group (EG): 20; control group (CG): 20) who were hospitalized at the neurological unit of a University Hospital. The following inclusion criteria were applied: inpatients with clinical diagnosis of ischemic stroke; Grade 3 or Grade 4 hemiparesis documented in clinical record; orientated; motivated to achieve functional/motor recovery and tolerate the rehabilitation program.

Rehabilitation protocol: Both groups underwent a 30 to 45-minute standard nursing rehabilitation program with similar intensity. The protocol took into account the main alterations, with the implementation of several procedures and therapeutic exercises, such as: changes in mobility (muscle strength, muscle tone, sensitivity, postural control) – rehabilitation exercises in bed, antispastic pattern positioning, muscle and joint exercises (passive, active-assistive, active and resistive), stretching exercises, lifting and transferring techniques, gait training; sitting and standing balance changes (static and dynamic); fine motor skills – grip and pinch exercises; facial paresis – mime therapy, visual changes, communication, dysphagia – positioning technique, tongue and soft palate exercises; compensatory manoeuvres; bowel and bladder control – bowel training, bladder training, strength training; activities of daily living (ADLs) training (bathing and personal hygiene, dressing/undressing, eating and drinking).

Data were collected using the International Resident Assessment Instrument – Acute Care (InterRAI-AC-PT), validated for the Portuguese population (Amaral et al., 2014). It was applied in 3 different moments (Pre-Admission, Admission, and Discharge), between September 2016 and March 2017, and after permission from the authors and the hospital's Ethics Committee. Patients voluntarily participated in the study and signed an informed consent form.

Results:

Most of the sampled patients were women (52.5%), aged over 70 years, married (50%) and widowed (50%), living with their spouse in their own home (60%). Most of them reported that stroke symptoms had

started in the last 7 days prior to hospitalization (87.5%) and that they had not been hospitalized in the past 90 days. The mean length of hospital stay was 10-15 days, with most of them being discharged back home (57.5%).

Results showed a worsening in functional status between pre-admission and admission, as well as an improvement between admission and discharge. However, a trend of increased functional dependence between pre-admission and discharge was observed. Results also showed benefits in the functional status of stroke patients in the daily rehabilitation program at discharge, with increased autonomy in the performance of instrumental activities of daily living (IADLs) (t=2.45; p=0.019). With regard to correlations, results showed that the older the patients who attended the twice-daily rehabilitation program, the greater their dependence in the performance of IADLs at discharge (rs=0.464 e p= 0.039).

Conclusion:

This study confirmed the existence of benefits for stroke patients' functional status at discharge as a result of a twice-daily nursing rehabilitation program, with increased autonomy in the performance of IADLs. It also concluded that the older the patients, the greater their dependence on the performance of IADLs at discharge. These results may contribute to the development of best practices and the production and translation of new knowledge aimed at the development of the Nursing discipline. These results have to be communicated to and discussed by the health professionals working at the analyzed services, namely regarding the need for rehabilitation programs to be more intense and early implemented.

The dissemination of these findings in scientific meetings and journals will allow increasing nurses' knowledge about this health problem.

Future high-quality RCTs should be developed to analyze the differences in treatment between control and experimental groups.

Title:
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Abstract Summary:
The current scientific evidence indicates that an early start of intensive stroke rehabilitation may be associated with greater and faster improvement after strokes. In this context, this study intends to prove the importance of Rehabilitation Nursing care as a measure of prevention of the functional decline of the stroke inpatient.

Content Outline:
This article stems from a study about the importance of early and intense rehabilitation programs in preventing functional decline in hospitalized patients with stroke, resulting in a faster and more effective physical and psychological recovery, avoiding diverse health, social and economics complications, and a better quality of life for the patients. It is a new area of research that needs to be deepened and discussed, and that nurses must be alert to give their best contribution.

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