NURSING INTERVENTIONS TO THE PATIENT WITH STROKE IN REHABILITATION

INTERVENÇÕES DE ENFERMAGEM AO PACIENTE COM ACIDENTE CEREBROVASCULAR EM REABILITAÇÃO

INTERVENCIONES DE ENFERMERÍA AL PACIENTE CON ACCIDENTE CEREBROVASCULAR EN REHABILITACIÓN

Tahissa Frota Cavalcante¹, Amanda Peixoto Lima Nemer², Rafaella Pessoa Moreira³, José Erivelton de Sousa Maciel Ferreira⁴

ABSTRACT

Objective: to present the knowledge produced about the Nursing interventions directed at patients with stroke in rehabilitation. **Method:** integrative review, with a qualitative approach, carried out from April 2015 to May 2016, from the online access in Medline, Lilacs and Cochrane, with the controlled descriptors Nursing Care and Stroke and Rehabilitation. The studies were analyzed according to the checklist for the evaluation of the methodological quality and classified according to the levels of evidence. Nursing interventions were presented in three thematic categories - care, education and management Nursing interventions. **Results:** 29 publications were selected and most of the studies have levels of evidence II and VI. Among the Nursing care interventions, motor and functional rehabilitation were highlighted. In educational interventions, the patient's education about the disease was observed. Among the managerial interventions, the ones related to the coordination of care were highlighted. Nursing interventions aimed at caregivers were found. **Conclusion:** in the studies, a greater number of Nursing interventions were identified. To the caregivers, Nurses' interventions focus on the educational sphere. **Descriptors:** Nursing; Stroke; Rehabilitation; Nursing Care; Caregivers; Health Education.

RESUMO

Objetivo: apresentar o conhecimento produzido sobre as intervenções de Enfermagem direcionadas aos pacientes com acidente vascular cerebral em reabilitação. **Método:** revisão integrativa, com abordagem qualitativa, realizada no período de abril de 2015 a maio de 2016, a partir do acesso on-line na Medline, na Lilacs e na Cochrane, com os descritores controlados Cuidados de Enfermagem and Acidente Vascular Cerebral and Reabilitação. Os estudos foram analisados segundo *checklist* para a avaliação da qualidade metodológica e classificados de acordo com os níveis de evidência. As intervenções de Enfermagem foram apresentadas em três categorias temáticas - intervenções de Enfermagem assistenciais, educacionais e gerenciais. **Resultados:** foram selecionadas 29 publicações e a maioria dos estudos possui níveis de evidência II e VI. Dentre as intervenções de Enfermagem assistenciais, destacou-se a reabilitação motora e funcional. Nas intervenções educacionais, observou-se a educação do paciente sobre a doença. Dentre as intervenções gerenciais, sobressaíram as relacionadas à coordenação do cuidado. Foram encontradas intervenções de Enfermagem direcionadas aos cuidadores. **Conclusão:** identificou-se, nos estudos, um maior número de intervenções de Enfermagem assistenciais direcionadas ao paciente. Aos cuidadores, as intervenções de Enfermagem se concentram na esfera educativa. **Descritores:** Enfermagem; Acidente Vascular Cerebral; Reabilitação; Cuidados de Enfermagem; Cuidadores; Educação em Saúde.

RESUMEN

Objetivo: presentar el conocimiento producido sobre las intervenciones de Enfermería dirigidas a los pacientes con accidente vascular cerebral en rehabilitación. **Método:** revisión integrativa, con abordaje cualitativo, realizada en el período de abril de 2015 a mayo de 2016, a partir del acceso online en Medline, en la Lilacs y en la Cochrane, con los descriptores controlados Cuidados de Enfermería y Accidente Vascular Cerebral y Rehabilitación. Los estudios fueron analizados, según la lista de verificación para la evaluación de la calidad metodológica y clasificados de acuerdo con los niveles de evidencia. Las intervenciones de Enfermería se presentaron en tres categorías temáticas - intervenciones de Enfermería asistenciales, educativas y gerenciales. **Resultados:** se seleccionaron 29 publicaciones y la mayoría de los estudios tienen niveles de evidencia II y VI. Entre las intervenciones de Enfermería asistenciales, se destacó la rehabilitación motora y funcional. En las intervenciones educativas, se observó la educación del paciente sobre la enfermedad. Entre las intervenciones gerenciales, sobresalieron las relacionadas a la coordinación del cuidado. Se encontraron intervenciones de Enfermería dirigidas a los cuidadores. **Conclusión:** se identificó, en los estudios, un mayor número de intervenciones de Enfermería asistenciales dirigidas al paciente. A los cuidadores, las intervenciones de Enfermería se concentran en la esfera educativa. **Descritores:** Enfermería; Accidente Cerebrovascular; Rehabilitación; Atención de Enfermería; Cuidadores; Educación en Salud.

¹PhD, Nursing Course / Postgraduate Program in Nursing, University of International Integration of Afro-Brazilian Lusophony. Acarape (CE), Brazil. E-mail: tahissa@unilab.edu.br ORCID iD: <http://orcid.org/0000-0002-7758-4273>; mail: rafaellapessoa@unilab.edu.br ORCID iD: <http://orcid.org/0000-0003-2341-7936>; ²Master's Student, Master's Degree in Nursing, University of International Integration of Afro-Brazilian Lusophony. Acarape (CE), Brazil. E-mail: amanda.p23@hotmail.com ORCID iD: <http://orcid.org/0000-0003-4584-8550>; ⁴Student, Nursing Course, University of International Integration of Afro-Brazilian Lusophony. Acarape (CE), Brazil. E-mail: eriveltonsmf@live.com ORCID iD: <http://orcid.org/0000-0003-2668-7587>

INTRODUCTION

Stroke is the main cause of mortality in Brazil, becoming a serious public health problem.¹ In addition to the epidemiological importance of stroke in the world, it generates a wide variety of neurological deficits depending on the location of the lesion, the size of the inadequate perfusion area, and the amount of collateral blood flow.²

Dysfunctions such as anxiety, depression, sleep and sexual function disorders, motor, sensory, cognitive and communication disorders are prevalent changes in patients affected by stroke.²⁻⁴ Such a situation makes them dependent on Nursing interventions.

The Nursing Interventions Classification defines Nursing intervention as a treatment, based on clinical judgment and knowledge, carried out by nurses to improve the results obtained by the patient.⁵ Nurses provide assistance to the patient with stroke in the different clinical contexts of primary, secondary and tertiary care, as well as in the different stages of stroke - acute, subacute and rehabilitation.

There are studies published in the literature on Nursing interventions aimed at the patient with stroke in the acute and subacute phases.⁶ However, Nursing care to the patient in the rehabilitation phase is still little explored.

The Nursing team takes care of patients in rehabilitation. Its actions are directed towards favoring recovery and adapting to the limitations imposed by disability and to the needs of each patient and family, among which functional, motor, psychosocial and spiritual ones stand out.⁷ At all times, the health team seeks the independence of the patient in relation to the physical, cognitive and behavioral limits imposed by the incapacities resulting from stroke.⁸

The nurse collaborates with the other professionals in the multidisciplinary rehabilitation team, with other health sectors and with the community, building and sharing knowledge about the patient's condition so that the rehabilitation process reaches levels of excellence.^{3,9} Nurses are recognized as members of the rehabilitation team, but their role remains undefined and their contribution still limited. Therefore, the role of the nurse in the rehabilitation process is questioned and the way in which the own nurses and the other members of the interdisciplinary team see the contribution of Nursing care in this process.¹⁰

These considerations support an integrative review of the Nursing interventions aimed at patients with stroke in the rehabilitation phase. In this context, evidence-based practice encourages the use of health care research results that will provide a synthesis of the set of Nursing interventions targeted to these patients.

It is added that the integrative literature review, as one of the research methods of this research, will enable the synthesis of the state of knowledge of this subject, besides pointing out knowledge gaps that need to be filled with new studies and facilitate the making of intervention that may result in more effective care, especially in patients with stroke.⁶

OBJECTIVE

- To present the knowledge produced on the Nursing interventions directed to the patient with stroke in the rehabilitation phase.

METHOD

Integrative review, with a qualitative approach, since it brings together and synthesizes research results on a delimited topic, in a systematic and organized way, contributing to the deepening of the knowledge of the researched subject and following these steps: identification of the research question, literature search, data evaluation focusing on methodological quality, data analysis including division, exposure and comparison and presentation of results.¹⁰

The question elaborated to guide the research was: What interventions have been used by nurses to care for patients with stroke in the rehabilitation phase?

This study was carried out from April 2015 to May 2016. The literature search was carried out in the Latin American and Caribbean Health Science Literature Database (Lilacs), the Medical Literature Analysis and Retrieval System Online (Medline) and Cochrane.

For the Lilacs search, the structured vocabulary DeCS - Descriptors in Health Sciences was adopted. The descriptors were: Nursing Care and Stroke and Rehabilitation. With regard to the search in Medline and Cochrane, the proposed terminology was used: the vocabulary MeSH - Medical Subject Headings of U.S. National Library of Medicine in English. The controlled descriptors used were Nursing Care and Stroke and Rehabilitation.

The inclusion criteria established for the studies were: a) available in Portuguese,

English or Spanish; b) complete that address Nursing care directed to adult and elderly patients with stroke in the rehabilitation phase; c) that they present methodological quality, with a minimum of five points, according to a specific checklist of critical evaluation of the studies¹¹.

It should be noted that each database accessed was exhausted in a single day with the recording of the search page. The selection of studies was carried out on subsequent days. After the bibliographic search, the studies collected, initially in the databases and in the library, were read so that the researcher applied, in its entirety, the inclusion criteria.

The selection of the studies was as follows: Pubmed - 115 papers were found and 18 were selected; Lilacs - found four and three selected; Cochrane - 30 papers were found and eight were selected. Thus, in total, 149 papers were found and 29 selected studies that composed the final sample.

It should be noted that the exclusion of the works occurred for the following reasons: they were not available electronically; do not address the issue; written in other languages, besides Portuguese, English and Spanish; be Editorials or Letters to the Editor and do not present sufficient methodological quality (above five points) according to the critical research evaluation checklist.¹¹

All the selected studies were synthesized according to some characteristics: identification, methodological description, proposed Nursing interventions and the levels of evidence of the work according to a specific instrument used in another study.⁶

The selected studies were also evaluated according to the classification of levels of evidence.¹² Nursing interventions were grouped according to the established thematic categories according to other work in care, management and education interventions.⁶

RESULTS

29 publications were selected. Among the studies evaluated, the studies with levels of evidence I, II and III representing strong clinical evidence of the Nursing interventions proposed to patients with stroke in the rehabilitation phase.

Most of the studies were conducted in the United Kingdom followed by the United States of America. The low number of studies carried out in Brazil indicates a low index of Brazilian production on the subject, considering the prevalence of cerebrovascular disease in the country and its complications.

The following are the figures referring to the Nursing interventions found for patients with stroke in the rehabilitation phase.

Patient Care Nursing Interventions
1. Motor and functional rehabilitation. ¹³⁻⁶
2. Evaluation of physiological functions and prevention of complications. ¹⁷⁻⁸
3. Emotional care. ^{17,19-20}
4. Care related to activities of daily living. ¹⁷
5. Care related to urinary incontinence and catheterization. ^{14,21}
6. Prevention of ulcers. ¹⁴
7. Oral care. ²²
8. Correct positioning in bed. ¹⁶
9. Preventing falls. ³

Figure 1. Nursing care interventions aimed at patients with stroke in the rehabilitation phase. Acarape (CE), Brazil, 2016.

Among the Nursing interventions most found in the publications are the motor and functional rehabilitation, the evaluation of physiological functions and emotional care.

Nursing Education Interventions to the Patient
1. Patient education about the disease and its implications. ^{13,17,23-4}
2. Education about care plans and stroke prevention. ^{3,15}
3. Coping skills and counseling. ^{15,25}
4. Nutrition guidelines. ¹⁵⁻⁶

Figure 2. Nursing educational interventions aimed at patients with stroke in the rehabilitation phase. Acarape (CE), Brazil, 2016.

The patient's education about stroke and its implications (activities of daily living, sequelae, outpatient follow-up and treatment of comorbidities) was the educational Nursing intervention most found in the analyzed publications.

Interventions of Managerial Nursing to the Patient
1. Coordination of care and follow-up. ^{17, 25-6}
2. Coordination of multidisciplinary assistance. ^{22,26}
3. Coordination of patient referral and discharge. ²²
4. Assistance in community services. ²⁴

Figure 3. Nursing management interventions aimed at patients with stroke in the rehabilitation phase. Acarape (CE), Brazil, 2016.

Among Nursing management interventions, the coordination of Nursing care and multidisciplinary care stood out.

Next, it follows the framework with the Nursing interventions directed to the caregivers of patients with stroke, considering that these are fundamental pieces in the process of rehabilitation due to their daily experience in the care to patients in rehabilitation.²⁶

Nursing Interventions Directed to Caregivers
1. Guidance on the disease and rehabilitation process. ^{19,26}
2. Caregiver training. ^{22,26}
3. Caregiver education on stroke prevention. ¹⁶⁻⁷

Figure 4. Nursing interventions directed to caregivers of patients with stroke in the rehabilitation phase. Acarape (CE), Brazil, 2016.

The most cited Nursing interventions for the caregivers were the guidance on the disease and the rehabilitation process and their training regarding the various care that should be performed at home.

DISCUSSION

The motor and functional rehabilitation involves several actions such as: orientation on the accomplishment of activities and speech training to improve communication; balance, gait and strength training that, in addition to improving patient mobility, still reduce the incidence of falls. Therefore, motor rehabilitation is performed in order to achieve the patient's maximum level of mobility and normal joint alignment and, consequently, their independence.¹³⁻⁶

The assessment of physiological functions includes maintaining normal functions that are directed to the prevention or reduction of common problems such as constipation, skin disruption, spasms and nutritional problems, to prevent complications and trauma, assisting patients in their basic human needs. Other Nursing cares carried out are: evaluation of the presence of dysphagia; maintenance of venous hydration; dressing exchange; hygiene and prevention of the use of invasive enteral feeding artifacts that may hinder rehabilitation. Another intervention related to the prevention of complications is the preparation of the individual to live with the limitations imposed by the stroke and the promotion of their reintegration into public health projects in order to prevent new episodes of the disease.^{17,28}

Neurological assessment of the patient can also be carried out by neurological testing to identify specific problems related to recovery to prevent complications and new episodes of stroke. Among the actions performed by

nurses, the use of a technique widely used in sports whose principle is based on the imagination of performing a certain movement without this movement is actually being done by the patients. This technique is intended to improve cognitive ability.¹⁷

Emotional care involves actions taken to alleviate pain and emotional distress by providing support and recognition of the difficulties of the affected individuals and their family.²⁹ One aspect observed was listening to the patient as an intervention much appreciated by the frail individuals. Another study found that interventions in functional and emotional skills and coping strategies, such as problem-solving therapy, reduced patients' feelings of impotence, thus improving quality of life.^{17,19-20}

Care related to activities of daily living involves actions aimed at helping the patient to integrate newly acquired skills such as dressing, eating, getting out of bed and going to the bathroom. These actions vary from the aid in the execution of the ability, until the positive inference about its execution.^{17,28}

Interventions related to bladder incontinence involve evaluation of the bladder related to the presence of dysuria, measurement of frequency and volume, retention and training of the bladder and formation of the voiding habit through the exercise of the pelvic floor. Valsalva maneuvers and intermittent catheterization are also employed. The nurse evaluates the need for catheterization and observes cutaneous-mucosal integrity.^{14,21}

Also in this sphere, some interventions on the prevention of pressure ulcers were also observed in a study, through the use of urinary sheaths in order to keep the patient dry and preserve the integrity of the skin, since, if the patient and / or bed are wet,

especially in parts of the body where there is a lot of pressure, development of pressure ulcers may occur.¹⁴

Actions aimed at oral care involve activities about tooth brushing, tongue, flossing, mouthwashing, lips and choosing the right brush. There is a need to perform these activities at least twice a day, as they promote comfort, improve swallowing, reduce colonization and risk of aspiration.²⁹

Assistance in correct bed positioning involves placing the patient with the hemiplegic side facing the center of the room in order to stimulate the maximum of the senses. For clinically stable and well-conscious patients, passive and active bed mobilization should be performed with trunk and head control and armchair transfer in order to stimulate mobility and move forward in the rehabilitation process.¹⁶

The prevention of falls is performed by identifying the risks of falls such as the use of rubber mats in the bathroom, the use of auxiliary devices, personal assistance, lighting and carpeting, as these topics are fundamental and, if not organized in an effective way, they promote the fall of the patients, harming the process of rehabilitation.^{3,30-2}

In summary, the Nursing interventions directed to the care of the patient involve actions ranging from an evaluation of the individual, such as the performance of activities directed to speech training, gait, voiding habit evaluation and exercise training of the pelvic floor, evaluation of the oral hygiene and assistance directed to the correct positioning of the patient, besides the evaluation of the risks of falls and prevention of a new stroke.

Nurses play a very important role in educating patients about the disease and its implications, guiding aspects of the pathology, treatment and symptomatology of a stroke as a form of prevention of severe complications.^{12,16,22-3} Furthermore, they guide the care plan, the need to rearrange the home, tackle obstacles, use auxiliary equipment to walk, care for the feet and learn how to protect themselves from falls.^{5,26}

The coping ability is a strategy carried out by nurses to guide patients about the difficulties encountered after stroke, advising when necessary and teaching them to develop coping mechanisms, to improve their quality of life and reduce the risks of hospitalization, optimizing recovery.¹⁵⁻⁶

Another aspect addressed was the need for contributions related to the nutrition of these

patients through guidelines on a healthy diet low in cholesterol and sodium and rich in the necessary supplementation for rehabilitation. This requires, from the nurse, an accurate observation and a more specific planning to the nutritional needs of the patients.¹⁵⁻⁶

The nurse, as a leader of the Nursing team, develops several managerial actions. These include: patient care and follow-up by providing the necessary material and personnel to improve the rehabilitation process and to carry out the training of a multidisciplinary team related to patient manipulation, mobility and transfer techniques. In addition, they supervise and encourage patients, each day, to carry out their self-care activities.^{17,22,26}

Regarding patient referral and discharge, nurses make appropriate referrals as links to rehabilitation services or integrated community care, including contacts for volunteer support sites, as well as emotional support, patient tracking, and planning discharge.^{22,24}

The nurse, as care coordinator, must be a versatile, experienced, proactive and conscientious care provider in a holistic way focused on improving the patient's quality of life with the scope of becoming a key player in the rehabilitation process.²⁴

Nurses carry out the training of caregivers of stroke patients through information on the disease, treatment, consequences and prevention of stroke and on the process of rehabilitation and maintenance of health.^{18,25} Carry out training aimed at mobility and life activities help solve problems and learn how to deal with them.^{22,26}

The nurse, as an educator, must recognize the profile of caregivers and identify their difficulties and facilities in order to direct learning to provide quality care, improve health and prevent a new stroke.¹⁶⁻⁷

CONCLUSION

A greater number of Nursing care interventions aimed at the patient were identified, in the analyzed publications. To the caregivers, nurses' interventions focus on the educational sphere.

The interventions of the care domain are more related to the biological sphere, as the evaluation of the physiological functions and functional motor rehabilitation, although the Nursing care in the psychological sphere was very cited in the works found.

It is believed that the results obtained may support the elaboration of instruments or protocols by nurses who are involved in the

care of patients with stroke in the rehabilitation phase. They may also be a guide for the teaching of this care to Nursing undergraduate students and to Nursing assistants.

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Corresponding Address

Tahissa Frota Cavalcante
Rodovia CE 040 km 22
Alphaville Eusébio - F115
Pires Façanha
CEP: 61760-903 – Eusébio (CE), Brazil