ABSTRACT
Objective: evaluating the effectiveness of a manual of guidelines for caregivers of patients with stroke. Method: a randomized prospective cross-sectional study. The sample consisted of 40 patients with secondary hemiplegia to a stroke, with the caregiver in the same residence. After developing the manual there were applied to 40 caregivers ten questions divided into two groups: A (with manual) and B (without manual). The test used was reapplied 7 days and after 18 months. In the statistical analysis it was used the Graph Pad Prism 5 program with significance level p<0,05. The research project was approved by the Research Ethics Committee, protocol 001801581912. Results: after 18 months: Group A - 50% of loss and 50% of the sample had no complications. Group B - 70% of loss, 20% without complications and 10% with decubitus ulcer. Conclusion: the guidance manual was effective to assist the home caregiver of the patient with hemiplegia. Descriptors: Stroke; Physiotherapy; Rehabilitation.

RESUMO

RESUMEN
Objetivo: evaluar la eficacia de un manual de directrices para los cuidadores de pacientes con accidente cerebrovascular. Método: estudio transversal prospectivo aleatorizado. La muestra consistió en 40 pacientes con hemiplejía secundaria a un accidente cerebrovascular, con el cuidador en la misma residencia. Después de la elaboración del manual se aplicó a los 40 cuidadores diez preguntas divididas en dos grupos: A (con manual) y B (sin manual). La prueba utilizada se volvió a aplicar con 7 días y después 18 meses. En el análisis estadístico el programa Graph Pad Prism 5 con el nivel de significación p<0,05. El proyecto de investigación fue aprobado por el Comité de Ética de la Investigación, de protocolo 001801581912. Resultados: después de 18 meses: Grupo A - 50% de la pérdida y el 50% de la muestra no tuvieron complicaciones. Grupo B - 70% de pérdida, 20% sin complicaciones y 10% con úlcera de decúbito. Conclusión: el manual de orientación mostró se eficaz para ayudar el cuidador casero al paciente con hemiplejía. Descriptores: Accidente Cerebrovascular; Fisioterapia; Reabilitación.
Avaliação de um programa de orientação fisioterapêutica... members of patients with manual motor sequelae of stroke. 12-8

**OBJECTIVE**

- Evaluating the effectiveness of a guidelines manual for caregivers of patients with stroke.

**METHOD**

This is a prospective randomized cross-sectional study, conducted at a city hospital of São Paulo, from December 2007 to December 2009. The study population consisted of patients with motor sequelae of stroke and their caregivers. Patients with stroke secondary to a recent sequel, exclusively motor (hemiplegia), were included; the patient caregiver accompanies the patient daily in the same home.

To conduct this research, it was prepared by the author, a printed manual of physical therapy, illustrated with plain language guidelines and the population studied. The guidelines in this manual are based on the definition of the disease, clinical presentation, appropriate to the hemiplegic patient positioning, exercises, and how to avoid transpostural changes and general complications. Then, 40 caregivers of patients with motor deficit were selected by stroke. The information of escorts was recorded on a record (name, sex, age, and marital status, number of children, relationship, home address, phone, profession, education and usual means of transport). The first stage occurred during the hospital stay and companions were informed about the proposed work. Those who agreed participating signed the consent form. The caregivers were divided by randomization into two groups A and B with 20 caregivers in each group. Then received the first test, called Test A, consisting of a multiple choice questionnaire on the subject addressed. The questions addressed to caregivers were: 1) What is the main feature of the clinical picture of stroke? ; 2) What is the main importance of moving the paralyzed arm carefully; 3) What precautions to avoid skin lesions; 4) What should be done with the patient after stroke, when having difficulty performing assets regardless movements; 5) What to do to prevent swelling of hands and feet; 6) What to do to prevent your toes from getting down with the couple lying belly up patient; 7) Ideal to avoid choking during meals position; 8) As the shoulder should be positioned when the patient lies down facing the affected side; 9) With the patient sitting in a chair, as I support the trunk preventing it

**INTRODUCTION**

Cerebrovascular accident (CVA) is a neurological disease that causes physical disability. According to the World Health Organization (WHO), stroke is the rapidly developing clinical signs of focal disturbance of cerebral function of presumed vascular origin; lasting longer than 24 hours can lead to death without another cause, and presents neurological signs and symptoms that occurred so suddenly, with loss of focal or generalized brain function.1-3

Among the cerebrovascular diseases, aged 20-59 years old, in Brazil, the CVA corresponds to 80% of hospitalizations due to Unified Health System (SUS). Besides the high incidence, we have to consider the serious medical and social consequences, such as physical sequelae, communication, functional, emotional and other. Such sequelae cause some degree of dependence, especially in the first year, with about 30-40% of patients unable to return to work and requiring devices to performing activities of daily living (ADL). Cases of anxiety, depression, sleep disturbance, impaired sexual function, motor disturbances, sensory, cognitive and communication are common. 1,4

The motor and sensory recovery occurs between 6 months to 1 year. Regarding the language and cognitive functions, it occurs over long periods of time. Due to the physical and psychosocial sequelae changes are of fundamental importance, participation and family reorganization, providing a better return to the social environment and interaction. Thus, the rehabilitation will start in the hospital setting, should be continued in outpatient care and at the patient's own residence with a focus on family. 5-11

The guidance manuals are tools those assist families and caregivers of patients with special needs, facilitating the continuation of which was addressed by the healthcare professional. The realization of care as the use of cushions, change position every 2 hours, avoid antalgic postures, mobilize the patient properly are essential to prevent complications and accelerate the recovery. When the caregiver has access to an illustrated manual, addressing the disease and care with simplified language, is supposed to care is facilitated.

In literature there are publications that address stroke, but for the present study, which was prepared by the author, an illustrated, didactic, and simple and targeted specifically for lay caregivers and family
from falling to the side; 10) When we cannot take the patient to a rehabilitation clinic, what should we do?

Both groups A and B respond Test A, containing 10 questions. After it, the manual was delivered only to group A.

After 7 days, we performed the second step, was given the same test questions for both groups, called Test B, all responded. Group B received the manual this step. The doubts of the two groups were informed by the researcher.

The third stage, late assessment occurred after 18 months, through to the accompanying telephone contacts, we obtained information about the patient: health/death, presence or absence of pressure ulcers and development of pneumonia or not.

The content of the manual was evaluated by the staff physiotherapists Hospital for State Civil Servants on three items: the book is full for this situation; whether the provision of manual increase adherence to guidelines caregiver and help prevent the onset of complications of pressure ulcers, contractures and infections. The assessment of each item may vary from 0 to 10.

Statistical analysis was conducted through the statistical program Graph Pad Prism 5 with significance level p<0.05.

The research project was approved by Research Ethics Committee of the Municipal Hospital Doctor Fernando Mauro Pires da Rocha, Protocol 001801581912.

The study sample was with 40 caregivers, 29 females and 11 males with an average age of 35 years old. The relatedness among these was: 26 children (21 women and 5 men), the spouses and 12 others. The educational level was 26 to 14 with high school and elementary school.

The two groups were divided into 20 caregivers in group A (manual) and 20 caregivers in group B (no manual).

There was no significant difference in Test A, responded by Groups A and B with 100 and 90% accuracy respectively, on the first day after both groups receiving oral guidance of a physiotherapist. In group B, two companions missed only one question. Observing the results of Test B, it was applied 7 days after receiving the guidelines. There is difference in the successes of the issues between the two groups: Group A received 95% correct just the wrong question; Group B, only 2 caregivers had 100% success, 90% 8 hit, 80%4 hit; 70% 5 hit  and 1 escort hit 50%, p <0.05, this figure shows the degree of retention of acquired knowledge, group A with manual retained the knowledge and group B without manual had greater difficulty in answering the questions after 7 days, tend not to retain the knowledge received only orally. (Figure 1)
Lima CL, Pinto FCG, Torquato JA.

Avaliação de um programa de orientação fisioterapêutica...

Media without manual Test-A - 9.9 (SD10-9) and Test B -8.5 (SD10-6) p<0.05 *

Media with manual-test - 10 (SD10-10) -9.9 Test B (SD10-9)

We used the Mann - Whitney test to compare the difference between notes and males and females, people with stable and development marital status and educational level.

By analyzing the tests of both genders, we observed a significant difference, p = 0.034, with better performance of women. No differences in testing among people with no stable and stable p = 0.391 marital status. When comparing the level of education, it was noted difference between the successes of the questions test, p = 0.009, whichever is the higher grade level.

As the degree of kinship has three levels (child, spouse, etc.), the Kruskal-Wallis test was used to assess whether there was a difference between the notes: no difference, p = 0.360.

After 18 months, 40 caregivers were interviewed by telephone regarding: occurrence of death, presence or absence of pressure ulcers and pneumonia episodes. The results are shown in Figure 2 and the difference is the development of pressure ulcers in 2 patients in group B, with no reports of complications in group A.

Figure 2. Prevention of late avoidable complications after 18 months.

Group A-50% loss, by death, does not answer phone, has changed the telephone number and 50% of the sample had no complications.

Group B-70% loss, by death, for not answering the phone, 20% without ulceration or lung infection, and 10% with ulcer.

As for the evaluation of manual therapists requested to Hospital for State Civil Servants (HSPE), we can see in Figure 3.

Question 1: For this situation the manual is complete? (0 - 10)

Question 2: The supply of manual caregiver increase adherence to guidelines? (0 - 10)

Question 3: Helps to prevent complications such as pressure ulcers, contractures and infections? (0 - 10)

A review of the manual for 25 of HSPE physiotherapists in relation to three items: full manual, caregiver adherence guidelines and would help prevent complications. Observe the notes of 25 physiotherapists ranged from 7 to 10 and the amount of physical therapists for each note.
With the advancement of world health organization (WHO), in the construction of the SUS (Unified Health System), established by the Constitution of 1988, we highlight the motto “Health is a citizen’s right and duty of the State”, arises a challenge in the training of professionals: role in health education and communication programs including quality.  

Health education can be understood as any activity related to learning, to achieve health. Occur through three different application methods: Individual work in specific group and community. In the case of this study, the choice of individual application was made because the care and guidance were performed at the bedside and the attention was solely for that companion. 

A university education, specified by the MEC (Ministry of Education), highlights the physiotherapist as a professional capable of working at all levels of health care, not only in direct patient care. However, according to Marla Flinkler Neuwald and Luis Fernando Alvarenga, lack of initiative or lack of teaching, hinders the transmission of knowledge and guidance to caregivers and patients. 

Communication is a prominent factor that hinders understanding, impairing learning. Due to this factor, the language used in this study was low, avoiding technical terms and when used, explained afterwards. In both groups, one of the exclusion criteria, the level was lower than 4th grade education; it impairs reading comprehension after the orientation. Nevertheless, it is important to highlight that an escort was guided by patient, but, in some quarters, there were two or three companions with lower level of education needed for research, so they were excluded from the review. However, such family was the guidelines for showing great interest in research. Some of these, illiterate, observed the guidelines, the manipulations and the figures of the manual and then repeated the same. 

Although the level of education of most companions was low, it was remarkable the interest on this work. Their caretakers, as any other disabling disease require close attention and guidance, as are lay people who are living with a reality that for most it is absolutely new and after discharge will have difficult access to rehabilitation centers near residing in the region among others. These patients present when the clinically stable, discharged to their homes, sometimes early in view of the accompanying dealing with an extremely delicate and frightening situation. However, currently the incentive policy is discharged as soon as possible, a challenge to the multidisciplinary team, which is not always prepared to guide the family. 

Often, family members do not know how to handle and cannot handle, afraid of injuring and end up avoiding the touch, mobilizing little or inappropriately, facilitating the onset of contractures, pressure ulcers, or hurt by move improperly. After the theoretical and practical guidance, the companions were more peaceful, enlightened, interested in learning and performing the exercises with the patient, confident and mostly welcomed. 

Physical therapists, like other health professionals, need to change linked to the unique vision and expand rehabilitation and individuals, working in primary health care activities. Should hold his own public health, also acting as educators and promoting ideas that contribute to disease control. Thus, professionals seeking careers in concrete social practice, and sensitized to the importance of the disease, should commit to pedagogical issue, valuing the
Due to the importance of involving family and community in the rehabilitation process, most developed countries have developed strategies to decentralize care involving community members. International organizations such as CBR (Community Based Rehabilitation), created aiming to deal with the challenges of the disease, has as primary goal physiotherapy. The programs aim to promote the involvement of the whole family in the care and improving the health of the patient presenting in the family training sessions to enhance the effectiveness of physiotherapy care and meet the low number of professionals.

The idea of doing this project arose from the need to develop educational work for this population, we are faced with a completely new situation in relation to the physical health of your family, in the absence of rehabilitation centers near their homes and afraid of would happen in the future with your loved one installed at home.

When the proposal was addressed to family members, explaining what would be their participation in the work, emphasizing the goals (guidance and patient care at home), the acceptance was 100%, however, many of them before answering, questioned what the cost of their participation, it is not trivial such offer any service, be it private or public.

The manual used at work was further developed and now called “Exercises and Postures - For patients with sequelae of stroke and other Neurological Diseases”, Paper released in December 2010 by the authors Cintia Lima Lessa and Fernando Campos Gomes Pinto. The book presents similar language and the same proposal the manual applied at the hospital where the study was done, which is to guide the general population. However, the new material is available to the entire population.

Regarding the profile of caregivers of patients with sequelae of stroke, it was noted that in other studies the prevalence was also female, with the degree of kinship prevalent daughter or wife. The first study assesses the psychological profile of caregivers of patients with sequelae of stroke and its objectives were to identify changes in the routine of family life, time devoted to care, lost wages, emotional adjustments, leisure, financial and emotional support and state complaints health of the caregiver. Much of these changes were identified in the daily routine of family members and caregivers who provided assistance to the person admitted to hospital Field Clean (local search), 201-1,24-6.

Some caregivers could “change the call” with another person to rest for a period, while others remained full-time beside the patient. Certain family requesting helps from others to accompany the patient during their working hours. Others worked all day and free, to attending the sick night time. But even with the divisions among the family members, who did not work out were the most requested. All that need to relocate people to care for the patient, changing working hours among other changes in routine life, cause physical and emotional exhaustion, beyond the concern with the patient and the endless questions about future changes in the lives of the entire family. 201-1,24-6

The family receives little guidance on the multidisciplinary team caring for the patient. Knowing the activities of caregivers and their difficulties, it is possible to design an interdisciplinary project, making life easier for the caregiver. The use of programs to promote family involvement in the care and gain the patient's health can benefit not only the patient, but to all involved. 201

Another study conducted in the city of Fortaleza in a public hospital aimed to identifying the problems of the patient's family with sequelae of stroke and discussing the problems of the family home. The sample consisted of 154 families, 104 women, 122 changes of daily life and 115 companions were not instructed. These results emphasize the multidisciplinary team in the role of educators, guiding the family about care after hospital discharge, which is the goal of this work. 27

Health Policies to subsidize reasonable steps necessary for the line of family members to perform specific care patients are dependent. The impact of family illness can cause emotional, financial and otherwise altering the family structure problems, demonstrating urgency to implement actions of the multidisciplinary team, improving the quality of family life in the face of new situation. 26-8

There are also home care teams, who perform a specialized multidisciplinary work, visiting patients in their homes according to family need and service availability, but this type of care, unlike the family need, is short few times a week and not all families have access to answer questions. 29

The intended result is that family and interdisciplinary team approach is positive, there is a mutual interaction with the patient,
actively participating in the process rehabilitation. The family assistance is critical to the rehabilitation of patients with sequelae of stroke. This should be properly instructed all staff that caters to the patient, from admission, discharge and outpatient. It is essential that the family follow the guidelines at all stages of rehabilitation with proper care and exercise performance. This way we can accelerate the recovery of the patient and promote a gain for your entire family.

CONCLUSION

It was presented to caregivers of patients with motor sequel per stroke a physiotherapeutic orientation program through an illustrated manual.

The orientation program with illustrated manual has proved effective in the degree of retention of knowledge transmitted to caregivers, detected by the best score of the group with manual tests applied p <0.05.

The prevention of late avoidable complications, such as pressure ulcers, was effective in the group that received the manual and in the group without manual there was no occurrence of complications.

REFERENCES


9. Rabelo DF, Neri Al. Bem- estar subjetivo e senso de ajustamento psicológico em idoso que sofreram acidente vascular cerebral: uma revisão; Estudos de psicologia. Rede de Revistas Científicas da América Latina, Natal [Internet]. 2006 May/Aug [cited 2014 June 2];11(2):[about 5 p.].


Lima CL, Pinto FCG, Torquato JA.


