



INDIVIDUALS' ACCESS AFTER CEREBROVASCULAR ACCIDENT TO THE PHYSICAL THERAPY SERVICES

ACESSO DE SUJEITOS PÓS-ACIDENTE VASCULAR CEREBRAL AOS SERVIÇOS DE FISIOTERAPIA

ACCESO DE SUJETOS POST-ACCIDENTE VASCULAR CEREBRAL A LOS SERVICIOS DE FISIOTERAPIA

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ABSTRACT

Objective: to characterize the access to physical therapy services to individuals after a stroke. **Method:** this is a longitudinal study clipping with post-stroke individuals admitted to a public hospital in a capital of the Northeast. Data were collected through structured interviews after 15 and 21 days hospital discharge and after 90-105 days of the first one. Then, the data were processed using the statistical software R. The Research Ethics Committee, CAAE 06573712.9.0000.5188, approved the research project. **Results:** 66.7% of patients had moderate to severe disabilities classified; 30.8% had access to physiotherapy services; 41.7% used the public service for appointments; 66.7% had physical therapy at home; 58.3% have paid for the service and had treatment from two to three times a week e 50% between 11 and 20 sessions. At the time of the interview, only 50% were being treated. **Conclusion:** it is highlighted the need to expand access to physiotherapy services. The study can support better planning and reorganization of the health system in its different levels of care. **Descriptors:** Access to Health Services; Cerebrovascular Accident; Rehabilitation; Chronic Disease; Public Health.

RESUMO

Objetivo: caracterizar o acesso aos serviços de fisioterapia de sujeitos após o AVC. **Método:** recorte de estudo longitudinal com indivíduos pós-AVC admitidos em um hospital público de uma capital do Nordeste. Os dados foram coletados por meio de entrevistas estruturadas, entre 15 e 21 dias após a alta hospitalar e 90 e 105 após a primeira entrevista. Posteriormente, esses dados foram processados no *software* estatístico R. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE nº 06573712.9.0000.5188. **Resultados:** 66,7% dos pacientes apresentavam deficiência classificada de moderada a grave; 30,8% tiveram acesso aos serviços de fisioterapia; 41,7% utilizaram o serviço público para a marcação; 66,7% realizaram a fisioterapia em domicílio; 58,3% pagaram pelo serviço e realizaram duas a três sessões semanais e 50% entre 11 e 20 sessões. No momento da entrevista, apenas 50% estavam em tratamento. **Conclusão:** destaca-se a necessidade de ampliar o acesso aos serviços de fisioterapia. O estudo pode subsidiar um melhor planejamento e reorganização da rede de saúde em seus diversos níveis de atenção. **Descritores:** Acesso aos Serviços de Saúde; Acidente Cerebrovascular; Reabilitação; Doença Crônica; Saúde Pública.

RESUMEN

Objetivo: caracterizar el acceso a los servicios de fisioterapia de sujetos después de un AVC. **Método:** recorte de estudio longitudinal con individuos post-AVC admitidos en un hospital público en una capital del Nordeste. Los datos fueron recogidos por medio de entrevistas estructuradas, entre 15 e 21 días después de alta hospitalaria y 90-105 después de la primera. Posteriormente, los datos fueron procesados en el *software* estadístico R. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, CAAE nº 06573712.9.0000.5188. **Resultados:** 66,7% de los pacientes presentaban deficiencia clasificada de moderada a grave; 30,8% tuvieron acceso a los servicios de fisioterapia; 41,7% utilizaron el servicio público para la marcación; 66,7% realizaron la fisioterapia en su domicilio; 58,3% pagaron por el servicio y realizaron dos a tres sesiones semanales y 50% entre 11 y 20 sesiones. En el momento de la entrevista apenas 50% estaban en tratamiento. **Conclusión:** se destaca la necesidad de ampliar el acceso a los servicios de fisioterapia. El estudio puede subsidiar un mejor planeamiento y reorganización de la red de salud en sus diversos niveles de atención. **Descriptores:** Acceso a los Servicios de Salud; Accidente Cerebrovascular; Rehabilitación; Enfermedad Crónica; Salud Pública.

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INTRODUCTION

The Cerebrovascular Accident (CVA) is a neurological disorder of the rapid development caused by the interruption of blood flow in a certain encephalic area.¹ Currently, it represents the leading cause of prolonged disability and functional impairment in adults and a major cause of death throughout the world.²

The rehabilitation process is intended to improve the physical, functional and/or mental capacity, encouraging the reinsertion and reintegration to society of people with disabilities.³ The intensity of the treatment, the period between the injury and the early rehabilitation are factors that influence the recovery of neurological function after it.⁴ The early rehabilitation onset (within six months) of individuals after CVA stands out to be possible, during this period, achieving better responses to treatment with reducing negative impact on the functional ability.⁵

In this context of rehabilitation, physical therapy plays an important role in contributing to the reduction of pain conditions, prevention of complications, and improvement of functional status and collaborate in adapting the limitations resulting from a CVA. It assists in the social reintegration and mitigate the impacts of the disease. Considering the services involved in the rehabilitation process, research found that physical therapy approach has been the defendant in the post-CVA.⁶

According to the Brazilian Federal Constitution of 1988, health is everyone's right and duty of the State, being granted to individual in a universal and equal access to actions and services for its promotion, protection and recuperation.⁷ However, studies have shown that limited access health services are in all levels of care.⁸ However, access to specialized services, where rehabilitation is located, has been considered by managers and researchers as one of the main obstacles to the realization of the completeness of the Unified Health System - SUS.⁹

Concerning physical therapy, the access limitations are related to the physical, bureaucratic, and financial issues of monitoring and scheduling.¹⁰ The provision of physiotherapy services by SUS is still insufficient and need further investment, either by hiring human resources, expanding the network of services and provision of adequate transport for users.¹⁰⁻¹

Therefore, the relevance of research on access to physiotherapy services for individuals after CVA is shown. These investigations can provide subsidies for the expansion of knowledge within the health care of this segment, as well as being a tool to enhance existing access strategies to ensure comprehensiveness in care. Based on the above, this study aimed to characterize the individuals' access to physiotherapy services after a CVA.

METHOD

It is the cut of a longitudinal study conducted in four phases of home interviews. The population consisted of individuals of both genders, residents of the cities of João Pessoa and Cabedelo, admitted to a public hospital in João Pessoa/Paraíba between the months of April and May 2013, with CVA (ischemic or hemorrhagic) as their primary cause in the Emergency Report.

For this study the data of the two periods were used, the first interview, held between 15 and 21 days after hospital discharge (T0) and the second (T1), between 90 and 105 days after T0. After the identification of individuals by secondary data available from the Medical Records Department and Statistics (SAME) of the hospital, a team of properly trained researchers contacted the individuals and/or their legal caregivers, informing about the research objectives and inviting them to participate. Home visits were previously scheduled by phone. The eligibility criteria for subjects were: patients with a confirmed diagnosis of CVA during home visits and residents in the cities mentioned above.

There were 107 subjects identified, 27 of them had dead between the discharge and the time when the first interview was scheduled, five of them refused to participate, 23 were not located by their address or phone or had difficulty in scheduling the interview, being impossible to carry it out in good time, two went to live in another city, totaling 50 individuals. Because of losses by address change (5), new refusal (1) and deaths (5), three months after the first interview, the study population totaled 39 individuals.

To collect the data, the instruments used were elaborated from a literature review. In the first interview, issues related to socioeconomic, demographic and clinical of the participants were investigated, access to physiotherapy services. For the assessment of functional impairment, the Rankin Modified Scale was used.¹² In the second interview general health conditions, the presence of risk

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factors for CVA and access to rehabilitation services were investigated.

Data were stored and analyzed in free and statistical software R. Descriptive statistics was used to show the results. The project was submitted to the Research Ethics Committee of the Health Sciences Center of the Federal University of Paraíba, approved with the protocol number 0372/12 (CAEE: 06573712.9.0000.5188).

RESULTS

The 39 individuals of the study (respondents of the first and second interviews) showed a homogeneous distribution related to gender, age ranging from 60 years old (average age=61.6 years old, SD=15.7). However, there is a percentage of people aged between 40 and 59 years old. Concerning clinical characteristics of the participants, the prevalent type was ischemic, with the right hand as the most affected and most of them reporting up to two CVA (Table 1).

Table 1. General characteristics of the study population

Characteristics	n	%
Gender		
Female	22	56,4
Male	17	43,6
Age group		
15 to 39 years old	4	10,3
40 to 59 years old	14	35,9
60 years old or more	21	53,8
Type of CVA		
Ischemic	27	69,2
Hemorrhagic	12	30,8
Number of CVA		
Up to two	34	87,2
More than two	5	12,8
Affected part		
Right	18	46,2
Left	16	41,0
Both	5	12,8
Number of episodes		
Only one episode	22	56,4
Two episodes	12	30,8
More than two episodes	5	12,8

It is noteworthy that 79.5% of the participants were not referred to physiotherapy services. According to the results of the Modified Rankin Scale, shown in Table 2, more than half of the participants had disabilities rated between moderate and severe in the first interview. In the second interview, it was found that about one-third

of these individuals had had access to physiotherapy services so far. There were 50% remained in treatment at the time of the second interview who reported having had access in the period. Among those who reported having had access to physiotherapy, it was found that most of them had moderate to severe disabilities classified.

Table 2. Functional characteristics of the participants and access to physiotherapy services

Rankin classification	Popul ation (n=39)	Access in T1 (n=12)	In treatment (n=06)
Without symptoms	6	-	-
No significant disorder with the symptoms	5	-	-
Mild disorder	2	-	-
Moderate disorder	10	3	2
Moderate-severe disorder	12	6	3
Severe disorder	4	3	1

Table 3 shows the characteristics of access to physiotherapy. Most of the participants began physical therapy for up to eight weeks after discharge, often two to three times a week with between 11 and 20 sessions in their home, paying for this service.

Table 3. Characteristics of the access to the physiotherapy services of the subjects with a Cerebrovascular Accident (n=12)

Characteristics	n	%
Treatment onset (after discharge)		
Up to 2 weeks	6	50,0
4-8 weeks	2	16,7
More than 8 weeks	1	8,3
Not informed	3	25,0
Frequency (weekly)		
Once	4	33,3
Twice to three times	7	58,3
More than three times	1	8,4
Treatment place		
At home	8	66,7
Rehabilitation Center	3	25,0
Others	1	8,3
Sessions		
Up to 10 sessions	3	25,0
11-20 sessions	6	50,0
21-40 sessions	3	25,0
Rehabilitation service paid		
Yes	7	58,4
No	4	33,3
Not informed	1	8,3

DISCUSSION

Observational longitudinal studies with post-CVA individuals have been developed featuring a similar sample size to this study.¹³ They aimed to follow the subjects for a period without interfering with their living conditions and understand the possible changes in the course of the disease and its risk factors. Regarding population characteristics, homogeneity was found regarding the involvement between the gender.¹⁴

As to age, it was observed a higher prevalence of individuals aged 60 or older, consistent with other studies showing an increased incidence of CVA among the elderly.¹⁵ However, 35.9% of the subjects were in the age group between 40 and 60 years old, representing a considerable percentage of the economically active young population being affected by this problem.¹⁶ One of the factors that justify the occurrence of CVA in younger people is the prevalence of hypertension,¹⁷ imposing the need for more effective strategies for the prevention and health promotion, aiming at its control.

Regarding clinical characteristics of the CVA, in this investigation, there was a higher frequency of occurrence of ischemic CVA, affecting the right side,¹⁸⁻⁹ Respondents reported that they had been affected by up to two episodes of CVA, comparing the findings of the study performed in the city of Vitória - Espírito Santo²⁰ in which most people had only one episode. This recurrence of CVA can worsen the clinical status of the subjects and aggravate the functional picture.

Most of the subjects had moderate to severe disability score (between 3 and 5). This

result indicates that most people affected by CVA in this study had significant levels of functional dependency.²¹ Research held in São Paulo revealed that 40% of individuals with CVA showed some level of functional dependence in 28 days and 34.4% of them had some level of functional dependency in 6 months.²²

Despite the presence of a functional impairment, it was found that only 30.8% of individuals had access to physiotherapy services after three months of involvement. In developing countries, the information on access, availability, and quality of rehabilitation services are minimal, hindering to search for such services.²³ These issues can also be a reality in the Brazilian health system. In another study, it was observed that 26% of people affected by CVA never had access to treatment even with an average of 5.5 years.²⁴ Therefore, the restrictions on access to physiotherapy services do not seem to be a new and unique situation of the municipality studied.

Access to physiotherapy services promotes functional gains, assisting in the social integration of people with disability and rehabilitation to the activities of daily living. A study conducted with 25 elderly, CVA victims treated in the health services in the city of Campinas,²⁶ showed that individuals with CVA who had access to rehabilitation services showed better functional capacity than those who did not. That access to treatment is directly related to clinical and functional results of the affected. In a study conducted in German²¹ hospitals, it was evident that the greater the functional impairment, identified by modified Rankin

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scale, the greater the need for access to physiotherapy services.

In this study, most of the subjects who reported having had access started treatment over a period of up to two weeks. Research conducted with thirty individuals affected by CVA after three months of hospital discharge revealed that most of them started physical therapy between 6 and 15 days after discharge.²⁷

Literature suggests that the ideal is to start treatment immediately after the involvement aimed at enhancing the reorganization of brain tissue, maximizing the functionality in their activities of daily living.⁵ It is worth noting that the late start of physical therapy intervention can cause the onset of contractures and deformities, pain - especially for shoulder subluxation -, decreased muscle strength, delay in motor relearning, difficulties in balance and walking.²⁸

Regarding the frequency of treatment, the study found that most of the subjects performed it two to three times a week.²⁹ Currently, the regulation of access to physical therapy in the public advocate ten sessions, disregarding the particularities of the subject, and in most cases insufficient. Also, the difficulty in renewing these sessions, having to return to the doctor and start routing the flow slows continuity of care.¹⁰

Most of the subjects underwent physical therapy in their homes maybe by the difficulty to move to the centers or the unavailability of vacancies. However, another study³⁰ states that this home in intervention has a positive influence on the recovery of the subject with CVA, but also to involve the family with guidelines.

It is known that CVA is a striking pathology that causes several changes in life and their families, and that these changes imply financial costs. It was found that more than half of the study subjects needed to pay for treatment of physiotherapy. Considering the principle of comprehensive care in the SUS, according to which access to all health care levels must be ensured to fully meet the health needs, we question how these services are structured, what the number of professionals involved and how they organize this care demand. It is noteworthy the fact that 59% of the study subjects had an income of up to two minimum wages while 35.9% received up to four times the minimum wage. In this socioeconomic context, which bear the physical therapy treatment costs, as well as all the expenses that the health condition of these subjects requires, is an excessively high expense for these families. Possibly this

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financial issue interferes with the continuity of care, which is reflected in the fact that only half of those who had had access, remained in treatment at the time of the second interview, representing 15.4% of all subjects.

It is also important that these professionals can meet the demand.¹⁰ On the other hand, despite being checked the need for expansion of physical therapy services to balance supply and demand relation, it should be tried, while defining the criteria for access, speeding up service and enabling rotation services.

CONCLUSÃO

It is highlighted the difficulty of access to people who need physical therapy care, from the period of hospitalization to three months after the CVA. Faced with this, it highlights the need for reorganization of services in the various health care levels, to ensure access to physical therapy services and avoid the problems arising from lack of treatment, such as functional dependency and social isolation.

A low percentage of referrals are highlighted as well as few of them had access to physiotherapy, and most of them had to pay for it. This study contributes the discussion on access to physiotherapy services, being important for planning and reorganization of the health system in its different levels of care. Also, it sought to highlight the importance of early in the rehabilitation process, considering the intrinsic factors to the disease and the social context of the affected in an attempt to soften the remaining barriers.

Although this is a local study, its results appear to be illustrative of the reality of many municipalities, which can be verified by other studies. A limitation of the study is related to the fact that the public hospital where the subjects were captured, released just two months after the completion of data collection, preventing a larger number in the population. The longitudinal study also presents difficulties with losses due to death, change of address or even lack of interest in the subject to participate or continue in research during the study.

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