



BARRIERS TO SEEK EARLY PHYSIOTHERAPY TREATMENT IMMEDIATE POST-HOSPITALIZATION IN STROKE PATIENTS- A DESCRIPTIVE STUDY

Physiotherapy

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ABSTRACT

Background: Stroke causes loss of neurological function with multiple limitations on cognitive, sensorimotor and behavioral levels, posing a significant challenge in functional independence, and results in restrictions in the personal, social and occupational roles, thereby immensely affecting the quality of life. The period following discharge from hospital or inpatient rehabilitation is the most challenging for almost all stroke patients. It has potentially enormous physical, emotional and socioeconomic impact not only on patients but their families. It has been found that there is poor adherence to physiotherapy treatment in stroke patients. Therefore, the study was undertaken to determine the barriers faced by stroke patients to seek physiotherapy immediately post-hospitalization. **Methods:** A total of 174 stroke participants were included in the study, the data was collected through a Questionnaire and analysis was done. **Results:** Descriptive statistics were used to calculate the mean and standard deviation. A total of 174 participants participated in the study, out of which 68.9% were males and 31.1% were females. The mean age of patients was 52.8±10.7. The results show that Environmental factors (50.6%) proved to be a major barrier, followed by Socio-Economic factors (41.4%), to seek early Physiotherapy. **Conclusion:** The study concludes that barriers in seeking early physiotherapy treatment immediate post-hospitalization in stroke patients are mainly the environmental factors, such as transport and travel distance, followed by socioeconomic factors as they are dependent on their family's financial status.

KEYWORDS

Stroke, Physiotherapy, Barriers, post-hospitalization

INTRODUCTION

A stroke or brain attack is the sudden loss of neurological function caused by an interruption of the blood flow to the brain. The focal deficits may include changes in the level of consciousness, impairments of sensory, motor, cognitive, perceptual and language functions. The severity of neurological deficits in an individual patient depends on the location and extent of brain injury, the amount of collateral blood flow, and early acute care management.^[1] It is a global health problem identified as the second most common cause of death and a leading cause of disability^[2] and in India, it is one of the leading causes of death and disability. The estimated adjusted prevalence rate of stroke ranges, 84-262/100,000 in rural and 334-424/100,000 in urban areas. The incidence rate is 119-145/100,000 based on the recent population-based studies.^[3]

The available research suggests that 85.5% of total stroke deaths are reported from low and middle-income countries when compared to high-income countries. Low resources and continued exposure to modifiable risk factors have contributed to higher disability rates and mortality among patients with stroke in low and middle-income countries. In particular, countries like India have been reported to have 50–70% of stroke survivors regain functional independence, but 15–30% are permanently disabled, and 20% require institutional care at 3 months after onset. It imposes multiple limitations on cognitive, sensorimotor and behavioral levels, posing a significant challenge to functional independence, and results in restrictions in the personal, social and occupational roles, thereby immensely affecting the quality of life.^[4]

The period following discharge from the hospital or inpatient rehabilitation is the most challenging for almost all stroke patients. It has potentially enormous physical, emotional and socioeconomic impact not only on patients but their families and health care services.^[5] Adherence with treatment is an important factor that can influence the outcome of the treatment. However, it has been identified that there is poor adherence to treatment across many healthcare disciplines, including physiotherapy.^[6] This could be associated with a discharge without accurate assessment of the domestic environment, and the establishment of networks to meet critical needs such as personal care and home modifications. The number of studies suggests that it can lead to an increase in suffering, poor coordination and inefficient use of health services and poor outcomes for the patients.^[5]

However, it has been found that physiotherapy improves the lives of the patients by reducing pain, preventing complications, improving function and general quality of life, which cannot be attributed merely to spontaneous recovery.^[6] Adherence to prescribed treatment is essential for successful implementation of the intervention, but many

stroke survivors find it difficult to adhere physiotherapy exercises program.^[7]

Understanding the barriers faced by those who have suffered a stroke is useful to identify and to provide useful information to patient's families, hospital management and health care services providers on how to tackle most of these barriers and to enhance adherence to physiotherapy services to achieve better outcomes for stroke patients and ensure effective and efficient management. There is, however, a lack of information regarding the barriers faced by stroke patients in seeking early physiotherapy treatment immediately after hospitalization. Hence, this study was conducted with an aim to determine the barriers experienced by patients with stroke to seek early physiotherapy treatment immediately after hospitalization.

MATERIALS & METHODS

The study was a descriptive study, with 174 participants diagnosed with stroke, from hospitals in Navi-Mumbai were involved in the study by purposive sampling method. After finding suitability according to the inclusion criteria, male and female patients diagnosed with stroke, which failed to seek early physiotherapy immediately post-hospitalization and willing to participate were included. The participants were then asked to fill out the validated self-made questionnaire, which included questions based on health status, awareness of physiotherapy, socio-economic and environmental domains.

RESULT

The collected data was analysed by descriptive statistics to calculate the mean and standard deviation. Table 1. illustrates the demographic data, a total of 174 participants participated in the study, out of which 68.9% were males and 31.1% were females. The mean age of patients was 52.8 with a standard deviation 10.7.

Table 1: Demographic Data

Gender	Total No of participants	Mean age	Standard deviation
Male	120 (68.9%)	52.8	10.7
Female	54 (31.1%)		

Table 2. illustrates the questionnaire with the responses. In the current study, fig. 4 showed that environmental factors such as distance and availability of transportation to the physiotherapy centre and dependence on family members to drive to the physiotherapy centre were major barriers in delaying early physiotherapy treatment immediate post-hospitalization. Fig 3 showed that out of 174, 41.4% participants think their financial condition is the reason for delayed physiotherapy treatment. However, it was observed that majority participants were aware of physiotherapy as seen in fig 2 and home visit services provided by the physiotherapist still many had delayed

the physiotherapy treatment.

Table 2: Questionnaire

Domain: Health status	YES (%)	NO (%)
Are you suffering from any other medical illness other than stroke?	44.8	55.2
Are you on any medication other than stroke?	52.9	47.1
Did side effects of medication prevent you from seeking early physiotherapy intervention?	14.9	85.1
Domain: Awareness of Physiotherapy	YES	NO
Are you aware about physiotherapy?	79.9	20.1
Did you receive physiotherapy treatment during hospital stay?	77.6	22.4
Are you aware of availability of home visit services provided by physiotherapist?	77	23
Domain: Socio-economic factor	Yes	No
Were you employed at the time of your diagnosis?	65.5	34.5
Did you lack support from family /friends in past few months?	25.3	74.7
Do you think financial condition is one of the reasons to delay seeking early physiotherapy intervention?	41.4	58.6
Domain: Environmental Factors	YES	NO
Was transportation to physiotherapy center available?	72.4	27.6
Do you have a private vehicle to travel to physiotherapy center?	54.7	45.3
Were you able to travel by public transport?	54	46
Do you think the distance and transport delayed you from seeking early physiotherapy intervention?	50.6	49.4

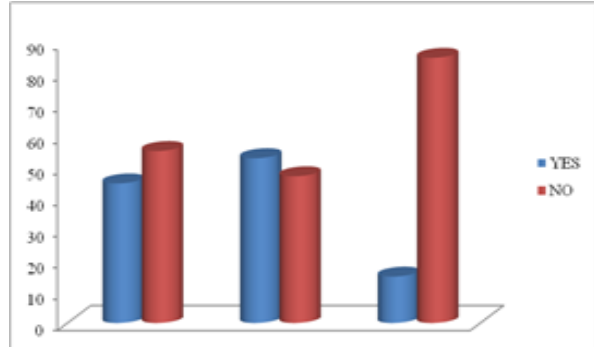


Figure 1: Health status

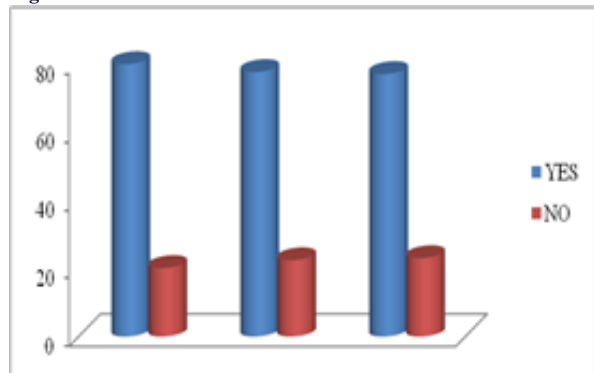


Figure 2: Awareness

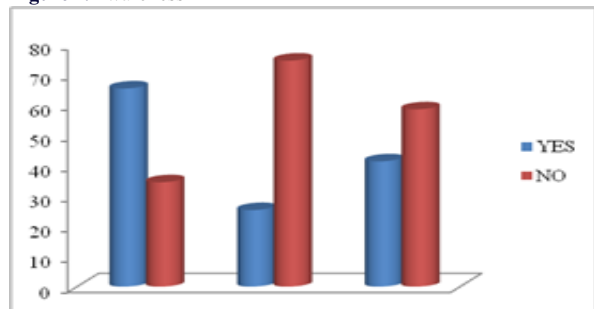


Figure 3: Socio-Economic Factors

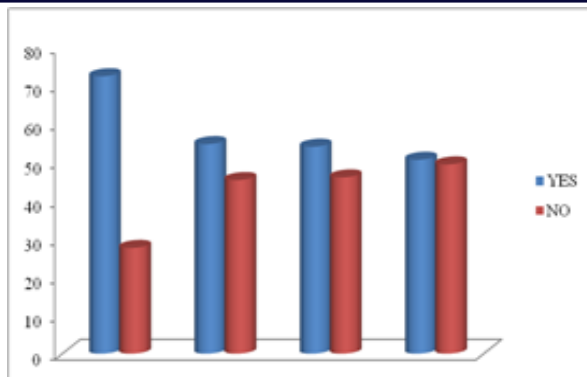


Figure 4: Environmental Factors

DISCUSSION

Stroke patients experience several environmental barriers, limiting their re-integration.^[8] A general overview shows that the quality and quantity of stroke care is largely patchy in low-income and middle-income countries, with areas of excellence intermixed with areas of severe need, depending upon patients' location, socioeconomic status and education.^[9] The period following discharge from the hospital or inpatient rehabilitation is the most challenging for almost all stroke patients.

In the present study, it was observed that 79.9% participants were aware of physiotherapy treatment, but could not seek early physiotherapy treatment due to environmental barriers. The result suggests that 50.6% think the environmental factors, such as distance and transport to the physiotherapy centre, were one of the factors delayed physiotherapy treatment. Many participants were unable to travel to the nearest physiotherapy centre as they were dependent on family members to drive them, and they were unable to travel by public transport. A study conducted by Hale L, Bennett D, Bentley M, Crawshaw A, Davis H. they found that the participants' expressions regarding the lack of transport to access physiotherapy rehabilitation were consistent with the findings from the in-depth interviews in New Zealand used to explore the perceptions of individuals with stroke towards outpatient physiotherapy in the hospital, and home based settings and it was difficult for them to attend outpatient physiotherapy in the hospital due to lack of transport.^[10]

In the socioeconomic domain, it was observed that 41.4% participants think financial condition was one of the major factors to delay physiotherapy treatment. It can be related to unemployment as 34.5% participants were unemployed at the time of diagnosis. In a study conducted by Pandian JD, Sudhan P., it was found that according to the Mumbai registry study, only 306 of 456 (67.2%) patients with first-ever stroke were managed at a health-care facility ('in-hospital') and the remaining 150 (32.8%) patients were cared at home or in nursing homes. This indicates that one out of every 3 patients with stroke is not accessing appropriate healthcare, probably due to non-affordability, usage of alternative medicines, and difficulty in conveyance.^[11]

The statistics show that environmental factors proved to be a major barrier, followed by socio-economic factors, to seek early physiotherapy. However, the health status and awareness domain does not prove to be a major barrier, but it can affect adherence to the treatment.

CONCLUSION

The study concludes, the barriers in seeking early physiotherapy treatment immediate post-hospitalization in stroke patients are mainly the environmental factors, such as transport and travel distance, followed by socioeconomic factors. However, it was found that, though the patients were aware of physiotherapy, they delayed the treatment immediate post-hospitalization. It thus seeks to provide useful information to hospital administration and the families of stroke survivors on how to tackle these barriers and to enhance adherence to physiotherapy services to achieve better outcomes for stroke patients and ensure effective and efficient management of stroke patients.

LIMITATIONS

- The study was conducted only in an urban area.
- The duration between hospital discharge and beginning of

physiotherapy treatment was not taken in consideration.

Future Scope

- A comparative study can be conducted between urban and rural areas to identify the factors delaying early physiotherapy treatment in stroke patients.
- Similar study can be conducted in other neurological conditions.

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