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Barriers of Rehabilitation Services among the Stroke Patients in the Selected Community area of Dhaka, Bangladesh

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Abstract

Health care service is a global issue. Now a day's rehabilitation services play a vital role to regain the normal health for participate in daily activities. At present, the need for rehabilitation services is largely unmet due the insufficient rehabilitation professionals, rehabilitation friendly infrastructures, skilled labor and awareness among the community, family and caregivers. World Health Organization (WHO) stated that in many low- and middle-income countries, there is a lack of trained professionals to provide rehabilitation services, with less than 10 skilled rehabilitation practitioners per 1 million populations. It is important to find the barriers in rehabilitation services provided among the stroke patients. The study was conducted to find out the barriers that effect on rehabilitation services among the stroke patients. So that concern authority can take necessary action to ensure the rehabilitation services among the mass people of the country. A qualitative phenomenological approach was used to collect information regarding the barriers experienced by stroke patients and their family. The main barriers to the rehabilitation services are low socio-economic status of the participants, inaccessible infrastructures and transports, high cost of the rehabilitation services, crisis of the graduate rehabilitation professionals, negative attitudes of the caregiver towards the stroke patients. Stroke rehabilitation service should be integrated towards the mainstreamed health system at community level to improve the lives of persons suffer from stroke in Bangladesh.

Keywords: Stroke, Barrier, Rehabilitation Service, Bangladesh

1. Introduction

Stroke is a medical condition that affects the blood circulation of the arteries in the brain. It may the cause of death or disability. The brain is a particularly complex organ that controls various body functions. If a stroke occurs and blood flow can't reach the region that controls a specific body function that a part of the body won't work. According to World Health Organization (WHO) it is estimated that up to 17 million people experience stroke every year. According to the world life expectancy meter stroke is the number one leading causes in Bangladesh. Stroke deaths in Bangladesh reached 128,190 or 16.27% of total deaths according to the WHO data published in 2017. WHO stated that rehabilitation was an essential component of universal health coverage. There is an increasing need for rehabilitation worldwide associated with changing health and demographic trends of increasing prevalence of non-communicable diseases and population ageing. The proportion of individuals aged over 60 is predicted

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to double by 2050 and there has been an 18% increase in the prevalence of non-communicable diseases in the last 10 years. 15% of all years lived with disability (YLDs) are caused by health conditions associated with severe levels of disability. Rehabilitation is a fundamental health intervention for people living with these conditions (WHO). The age adjusted death rate is 125.64 per 100,000 of population and Bangladesh ranks 34 in the world. So, it's a demand of time and human kind to reduce the death and disability rate, and prevent stroke by proper prevention, treatment and rehabilitation. Though Bangladesh doing well in the management of stroke but fall behind to ensure the rehabilitation after discharge due to some barriers.

Stroke is a medical emergency that needs immediate attention. In the United States, about 800,000 people each year suffer a stroke and approximately two-thirds of these individuals survive and require rehabilitation. The goals of rehabilitation are to optimize how the person functions after a stroke and therefore the level of independence, and to attain the simplest possible quality of life. Advances in emergency stroke treatment can limit damage to the brain, which occurs either from bleeding into and around the brain (hemorrhagic stroke) or from lack of blood flow to a region where nerve cells are robbed of vital supplies of oxygen and nutrients and subsequently die (ischemic stroke). Due to stroke a person may experience in impairments that may affect upper and lower limbs functions, vision, swallowing, cognitive function, speech and language problem. Assessment and treatment initiate by multidisciplinary teams (MDTs) in a stroke unit to improves patient outcomes which brings benefits for individuals, health services and the economy by enabling patients to leave hospital earlier, to return work or to other activities and live independent lives. A fundamental element of stroke unit care is work for the assessment and patients spacific therapy that are provided by multidisciplinary team consist with physiotherapists (PTs), occupational therapists (OTs) and speech and language therapists (SALTs). There is increasing evidence demonstrating the effectiveness of a range of interventions and that increased frequency and intensity of therapy leads to better outcomes (Veerbeek JM, van Wegen E, van Peppen R et al, 2014).

At present the need for rehabilitation services is largely unmet due the insufficient rehabilitation professionals, rehabilitation friendly infrastructures, skilled manpower and awareness among the community, family and caregivers. WHO stated that, in many low and middle-income countries, there is a lack of trained professionals to provide rehabilitation services, with less than 10 skilled rehabilitation practitioners per 1 million populations. That's why WHO declared rehabilitation is an element of universal health coverage and may be incorporated into the package of essential services, alongside prevention, promotion, treatment and palliation. To achieve universal rehabilitation coverage WHO take Rehabilitation 2030: a call for action, a commitment to key actions to strengthen rehabilitation services in Member States. This action includes improving rehabilitation governance and investment; expanding a high-quality rehabilitation workforce; and enhancing rehabilitation data collection. The United Nations (UN) projects that the urban population will grow from 48 million in 2011 to 84 million in 2030 in Bangladesh.

WHO suggest rehabilitation programs for cardiac and pulmonary conditions and patients following acute injury or illness. The proportion of population aged 50–69 years will increase from 10.4% (5.0 million /48.1 million) to 17.2% (14.5 million /84.1 million) in urban Bangladesh, (Bulletin of the World Health Organization, 2020). As the older population increasing so there is chance of increasing the rate of stroke. If rehabilitation services not endured as directed by WHO there are a great chance to increase the number of people and loss the number of productive people. As Bangladesh is doing well in the health sector against communicable diseases, so it's the time to address non-communicable diseases like stroke. So, it's important to know about the barrier of rehabilitation services in Bangladesh perspective so that government and non-government organization can focus to improve the situation. Some people are discharge without proper counseling about the emerging need of rehabilitation services like physiotherapy, occupational therapy, speech and language therapy, psychotherapy etc. People undergoing rehabilitation should be motivated by their family members, friends, caregivers and the hospital staffs. If there is lack of coordination it may hamper the rehabilitation services as well as the function of individual. Some other factor may play as cofounding factor in the rehabilitation services.

These included lacks of time, staffing issues, training/education, therapy selection and prioritization, equipment and team functioning/ communication. So, it's high time to find out the barriers and address them to ensure the rehabilitation services among the mass people of Bangladesh.

Rehabilitation helps someone who has had a stroke relearn skills that are suddenly lost when a part of the brain is broken. Research shows the most important element in any neuro-rehabilitation program is carefully directed, well-focused, repetitive practice the same kind of practice used by all people when they learn a new skill. The neuro-rehabilitation program must be customized to practice those skills impaired thanks to the stroke, like weakness, lack of coordination, problems walking, loss of sensation, problems with hand grasp, visual loss, or trouble speaking or understanding.

Stroke carries a considerable socio-economic burden to individuals, family and society. The average in-hospital length of stay was 9.8 days for major strokes and 3.6 days for minor strokes. There was an average of two outpatient clinic visits per patient in three months period. Outpatient rehabilitation involved 10 and 15 sessions for minor and major stroke respectively over six months (Aznida FAA, Azlin NMN, Amrizal MN, Saperi S & M AS et al. 2012).

2. Materials and Methods

Area

The study was conducted in Dashkhin Khan and Uttara Khan of Dhaka district. Dhaka district has a total population of over 2,10,00,000 having the highest density in the country (h ttps:/ /www. macrotrends.net/ cities/20119/dhaka/population). It is one of the most densely populated areas in the world, with a density of 23,234 people per square kilometer within a total area of 300 square kilometers.

Design

A qualitative phenomenological approach was used to collect information regarding the barrier experienced by stroke patients.

Sample, inclusion and exclusion criteria

In this study sample of 12 individuals suffering from stroke and living in selected area was purposively selected. Patients who needed help at least for one activity were included.

Procedure for data collection

The study started after getting permission from the necessary authorities. Interviews were conducted with the 12 participants in their own homes or comfortable area. The researcher contacted the 12 purposively selected patients who met the inclusion criteria to obtain their consent and willingness to participate in the study.

Ethical Considerations

Ethical clearance for the study is obtained from the Ethical Review Committee of SST, BOU. Written informed consent was obtained from the guardians and the participants. Participation in the study was voluntary, and the participants were informed of their right to withdraw from the study at any time they want as their wishes.

3. Results and Discussion

Results were analyzed by content analysis. By using this analysis process, the researcher organized collected data according to categories, coding and themes. The aim of the study was to identify the barriers experienced by the stroke patients and their caregiver to access in rehabilitation services. After the questionnaire we discuss in details about their thought, belief and attitude with 12 participants to know about their perception and fact about rehabilitation services. It has been possible to understand the participant opinions by content analysis, where some categories have been found. Under

the different categories, patient different opinions are expressed by different codes. Five major categories theme that emerged from data analysis were found these are:

(i) Participant's socio-economic status

In this study seven participants reported that socio-economic condition is barrier for them to accesses to rehabilitation services. And five participants reported that their socio- economic condition are not barrier for them to accesses to rehabilitation services.

(ii) Family and Social support

There were varieties of feelings with regard to social support. When asked if the society was supporting them, the participants described family members and other people to be supportive, but some participants reported lack of support from the relatives since they having stroke, and other participants felt that the support was decreasing as the time progressed. For example, a participant said that she was not supported by the family members:

"All my relatives have turned away from me. . . they do not care for me. I look after myself because I don't have anyone to take care of me" (P2).

Some participants emphasized in common that as the period of the disease lengthened; social support became less frequent as illustrated by the following quotes:

"At the first time of stroke, people were highly willing to help me, I was being helped by relatives and volunteers, but as it took a long time to recovery, they became tired, and often they no longer come to visit me" (P4).

"People used to come forward and help me to perform my daily activities and this was for first three months. After that they were annoyed to help me" (P2).

(iii) Cost

" . . . now, I do not respect the physiotherapy appointments because my parents cannot continue to pay the transport fees three times a week. . . just after I got sick they were able to pay all the transport fees three times a week, but now they cannot. . . money is finished" (P1). "After discharged from the hospital, the doctor told me to continue physiotherapy for three months. Oh, it is hard for me! I cannot walk by myself and I need transport with care giver to reach there, and arrange all these very expensive" (P5).

(iv) Inaccessible infrastructure

Many participants expressed that they could not attend physiotherapy and rehabilitation center due to problems of accessibility. The following quotes illustrate the problem

" . . . I have stay at home; I cannot go anywhere because my weakness I need someone to assist me . . . When I want to go outside by wheelchair, I cannot push it myself because of stones and stairs within the ways I use to go for rehabilitation" (P2).

". . . . . .I can walk with the support of a stick, but it is not possible when there are stairs and no lift in rehabilitation center" (P6).

". . . I walk very slowly . . . I am no longer able to walk for a long distance. As the ways from my home are uneven with many road divider and vehicles" (P12).

(v) Availability of the rehabilitation professionals

Many participants stated that they have felt the crisis of rehabilitation professionals to get quality service. The following quotes illustrate the problem

"My husband seeks information about the rehabilitation professionals. The owner of the center told that physiotherapist come here only three days and stay from 5 pm to 7pm. Physiotherapist assistant provide rehabilitation service as he prescribed and instructed" (P2).

"We looking for Physiotherapist, Occupational therapist and Speech therapist. But in the rehabilitation center there were none of them. The owner of the rehabilitation center told that he provides the rehabilitation service." (P2).

In develop countries like Australia, Turkey, Canada, Brazil, United States and Italy stroke patients after the clinical stability of stroke is achieved in an acute treatment hospital, are transferred into rehabilitation setting, but in our country there are no such rehabilitation settings for stroke patients in the community level, so the stroke patients are discharged to their homes and most of them are remains disabled due to lack of rehabilitation service. The United Nations (UN), in its Standard Rules on the Equalization of Opportunities for Persons with Disabilities (PWDs), recommends that every state should ensure that all re- habilitation services are available in the local community where the PWDs live. However, in our country there is lack of opportunity of home-based, outreach or community-based re- habilitation programmes, and PWDs can only get the rehabilitation services at the hospital as outpatients.

The inaccessibility of rehabilitation services is experienced by the study participants is likely to interfere with the functional outcomes, social participation and social reintegration, and responsible for increase other medical complications. Therefore, the study results emphasize the need of provision of accessible infrastructure and transport facilities, home-based or community-based rehabilitation program for stroke patients.

4. Conclusion and Limitation

As stroke is a major cause of long-term disability and has potentially enormous emotional and socioeconomic results for patients, their families, and health services. Although some patients still show improvement up to at least one year after stroke, this doesn't reach statistical significance for the group as an entire, and between 3 and 5 years many patients experience increasing disability rather than improvement, perhaps due to co-morbidity and increasing age. Multidisciplinary treatment process and strategy to helping a person who has suffered from an illness or injury to restore lost skills and function so that he/she can regain maximum self-sufficiency and independent functions. Physical environment issues such as inaccessible entryways, bathrooms, and transportation systems, with key barriers including door thresholds and lack of handrails were identified as barriers to community participation among survivors of stroke. The reported social environmental barriers experienced by stroke patients include having little social support from friends owing to stroke-related disability and having a limited social network.

It's a matter of sorrow that the rehabilitation services policy and implantation is delayed by the policy maker and mass people are not aware about importance of rehabilitation in non-communicable disease conditions like stroke. Some people are discharge without proper counseling about the emerging need of rehabilitation services like physiotherapy, occupational therapy, speech and language therapy, psychotherapy etc. People undergoing rehabilitation should be motivated by their family members, friends, caregivers and the hospital staffs. If there is lack of coordination it may hamper the rehabilitation services as well as the function of individual. Some other factor may play as cofounding factor in the rehabilitation services. This included lack of time, staffing issues, training/education, therapy selection and prioritization, equipment and team functioning/ communication. So, it's high time to find out the barriers and address them to ensure the rehabilitation services among the mass people of Bangladesh.

The responses of patients depend upon their socio-economic profile, personality and their perceptions about rehabilitation services; some may be satisfied with average services, while other may be dissatisfied even with the best. In the present study, most of the respondents belonged to urban areas and middle or low socioeconomic class. Henceforth, it implies caution while comparing results from such a survey wherein the outcome is largely associated with the socio-demographic profile of the study population. The study was conducted at a tertiary care centre only but the level of patient satisfaction with different types of health providers could have given more insight into various aspects of factors related to patient satisfaction about rehabilitation services. This could not be done due to paucity of the resources. Sample size of the study is too small due to Cov-19 pandemic

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