AN EXPLORATION OF STROKE PATIENTS PERCEPTION OF THEIR PARTICIPATION IN A GROUP THERAPY

Elora Afrin

Bachelor of Science in Physiotherapy (B.Sc.PT)

Roll no: 1600

Registration no: 1908

Session: 2010-2011

BHPI, CRP, Savar, Dhaka

Bangladesh Health Professions Institute (BHPI)

Department of Physiotherapy

CRP, Savar, Dhaka-1343

Bangladesh

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We the under signed certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of this dissertation entitled

AN EXPLORATION OF STROKE PATIENTS PERCEPTION OF THEIR PARTICIPATION IN A GROUP THERAPY

Submitted by **Elora Afrin**, for the partial fulfilment of the requirements for the degree of Bachelor of Science in Physiotherapy (B.Sc. PT)

…….
Firoz Ahmed Mamin
Assistant Professor
Department of Physiotherapy
BHPI,CRP,Savar,Dhaka
Supervisor

……..
Mohammad Anwar Hossain
Associate Professor, Physiotherapy, BHPI &Head
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

……
Md.Sohrab Hossain
Associate Professor, Physiotherapy, BHPI&
Head of programs
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

……..
Md. Shofiqul Islam
Assistant Professor
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

……
Md. Obaidul Haque
Associate Professor & Head
Department of Physiotherapy BHPI, CRP, Savar, Dhaka

DECLARATION

I declare that the work presented here all my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of information of the study. I would bound to take written consent from my supervisor and Head of the Physiotherapy Department of Bangladesh Health Professions Institute (BHPI).

Signature: **Date:**

Elora Afrin

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Acronym

CRP Centre for the Rehabilitation of the Paralysed

PT Physiotherapist

WHO World Health Organization

TIA Transient Ischemic Attack

CVA Cerebro Vascular Accident

IRB Institutional Review Board

BMRC Bangladesh Medical & Research Council

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ABSTRACT

Purpose: The purpose of the study was to explore the perception of stroke patients about group therapy. *Objectives:* To identify the relation between group therapy and patient life, to ensure that whether the patients will be benefited or not by participating group therapy, to build up knowledge about group therapy among stroke patients, to find out patient expectations, needs, and recommendations. *Methodology:* Face to face qualitative research approach is applied with open ended question form. Total number of sample was 7 stroke patients with age ranging (45-50) and (55-60). Five male and two female were involved. *Results:* Majority of the patient have clear concept about group therapy activities but some of them are seems confused about the therapy, most of them are satisfied, they do not perceive any problem during continuing therapy. They suggested to increase the duration and adding some more higher functional activities for upgrading group therapy. *Conclusion:* In conclusion it can be said that stroke patient who receive group therapy are satisfied and confident but few patient thought individual physiotherapy is more effective for them as they have more physical problem and they want to recover soon. It is good news that group therapy impact a great significance in the rehabilitation of stroke patient. So the rehabilitation centres should have to arrange group therapy as a rehabilitation part of the stroke patient and beware about the duration and other higher activities.

Keywords: Stroke, Group therapy.

CHAPTER- I INTRODUCTION

1.1 Background

Bangladesh has a population of 162·2 million people, 26% of whom live in urban areas and the majority of them (74%) live in rural areas. This population spans an area of 147,570 km2, resulting in a population density of 966 people per km2. The male: female ratio in Bangladesh is 1·003:1. Bangladesh is one of the least developed and low-income countries in the world, with an approximate per capita gross domestic product (GDP) of $544. However, less than 2.70% of the GDP is spent on health care (Islam et al., 2012).

The South Asian Association for Regional Cooperation (SAARC) comprises eight countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. South Asia constitutes 22% of the world's population (1.56 billion), with three countries India, Pakistan and Bangladesh among the top 10 most populous countries in the world, and the South Asian region makes up more than 40% of the developing world. According to WHO estimates in 2001, 86% of deaths related to stroke worldwide occurred in developing countries. South Asia is thought to be the highest contributor to stroke mortality in the world, probably accounting for more than 40% of global stroke deaths. In this region, stroke mortality rates might be as high as those for coronary artery diseases and both stroke and coronary heart disease occur about 10 years earlier, on average, than in the rest of the world (Wasay et al., 2014).

In Bangladesh, stroke has been ranked as the third leading cause of death after coronary heart disease and infectious diseases such as influenza and pneumonia. The mortality rate of stroke increased from 6·00% (in 2006) to 8·57%, (in 2011) with an age adjusted mortality rate of 108·31 per 100,000 people (in 2011). The World Health Organization (WHO) ranks mortality due to stroke in Bangladesh as number 84 in the world (Islam et al., 2012).

It is a form of cardiovascular disease affecting the blood supply to the brain. Also reffered to as cerebrovascular disease or apoplexy, strokes actually represent a group of diseases that affect about one out of five people in the United States.

It has also a significant economic impact in terms of acute intervention and long term health and social care (Lawrence et al., 2010).When physicians speak of stroke , they generally mean there has been a disturbance in the brain function, often permanent, caused by either a blockage or a rupture in a vessel supplying blood to the brain.

Limited data obtained from hospital-based studies and extracted from stroke registries suggests that stroke is common at a relatively young age especially in young women in South Asia as compared with North America or Europe. Some of the earlier studies from India showed that about 10–15% of strokes occur in people below the age of 40 years. In addition, data are available to suggest that the onset of stroke and ischemic heart disease is almost 10 years earlier in this region than in the rest of the world (Wasay et al., 2014).

Stroke is reported to be the second leading cause of death worldwide, resulting in post stroke disability in 50-75% of survivors (World Health Organization, 2004).An estimated 70% of the patients who survive a stroke are unable to walk independently during the first three to four weeks post stroke. Dependence in mobility is one of the primary reasons of admission for inpatient rehabilitation after stroke. Much effort goes into helping these patients regain the ability to walk at least in the home prior to discharge (Vij & Multani, 2012).

Emotional and cognitive functioning may be affected after stroke. Common psychological difficulties include anxiety, depression, grief, frustration, reduced emotional control and anger are more common after stroke (Stroke Association, 2008).National guidance on rehabilitation outlines several areas in which patients may require assessment and support (Intercollegiate Stroke Working Party, 2008).These include physical difficulties as well as depression and anxiety, which highlights the importance of multidisciplinary team input.

Clinical guidelines for rehabilitation following stroke from countries around the world recommend that stroke survivors should be provided with intense task-specific practice to aid in the recovery of arm function, and restoration of balance and mobility. The Australian guidelines specify that task-specific group class therapy

should be used to increase the amount of practice in rehabilitation. Therefore, centres providing therapy to stroke survivors should consider providing task-specific group class therapy to this population. Implementing group circuit class therapy can be difficult as it often involves a change of practice for therapists used to providing therapy individually to their clients. Changing practice in the workplace is a specialty in itself, and the matter of implementing change is worthy of a chapter in its own right, however, an attempt will be made here to summarise the crucial points required to ease the transition when introducing an alternate method of therapy service delivery such as group circuit class therapy (English et al., 2012).

1.2Rationale

Stroke rehabilitation is not available in Bangladesh like other developed countries. Only medical management is not enough for stroke patient. For proper rehabilitation of stroke patients special group physiotherapy is organized by different rehabilitation centers. This study will focus the patients perception that means what their views, thoughts, satisfaction and expectations regarding group therapy. Through this study the therapists can concern what the views of the patients and what they think about group therapy whether they benefited or not. It is very important to know the perspective of stroke patients towards receiving group therapy. Otherwise there will not have a good relationship between patients and physiotherapist. If the physiotherapist fails to access the patient's needs and expectations then sometimes may fiction arise. But if the physiotherapist is able to access the patient's needs and expectations then he/she can set up appropriate intervention, which will be very helpful for the patients and the therapists. Several investigators have examined patients perceptions of physicians skill. Patients with chronic obstructive pulmonary disease, AIDS and cancer were asked about their perceptions of physicians skill at providing end of life care. Communication with patients was one of the top themes identified by patients as vital to a skilled physician and included listening skills, openness to questions, speaking with honesty and sensitivity. Emotional support, accessibility and continuity were other commonly identified themes for these patients. This study will help the therapists and different rehabilitation centers to determine how important it is to include a group physiotherapy program for stroke patients in rehabilitation stage. This understanding may enrich the quality service of neurology group physiotherapy in future at CRP even in physiotherapy practice in Bangladesh. From professional point of view, this study may help as a baseline study for further study exploring several aspects of stroke rehabilitation.

1.3 Research question

What are the perception of stroke patients about their participation in group physiotherapy attended at CRP?

1.4 Objectives

General objective

1. To find out the perception of stroke patients about group therapy

Special objectives

1. To identify the relation between group therapy and patient life
2. To ensure that if the patients will be benefited or not by participating group therapy
3. To identify the level of knowledge about group therapy among stroke patient
4. To evaluate current functional outcome being achieved after group therapy
5. To find out patient expectation, needs and recommendation

1.5Operational definition

Stroke

The World Health Organization defined stroke as a "Neurological deficit of cerebrovascular cause that persists beyond 24 hours or is interrupted by death within 24 hours", although the word stroke is centuries old.

Group therapy

A meeting in which several patients with the same condition meet with a single counsellor to discuss a condition or problem shared by all patients; generally thought helpful because patients may share perceptions and understanding.

Perception

Perception is the process by which organisms interpret and organize sensation to produce a meaningful experience of the world.

Perception is the process of being aware of objects; consciousness, receiving sensory impression, the elaboration of a sensory impression, the ideational association modifying and usually completing the primary impression or stimulus.

CHAPTER: 2 LITERATURE REVIEW

Stroke is classically characterized as a neurological deficit attributed to an acute focal injury of the central nervous system by a vascular cause, including cerebral infarction, intracerebral haemorrhage, and subarachnoid haemorrhage and is a major cause of disability and death worldwide. Despite its global impact, the term "stroke" is not consistently defined in clinical practice, in clinical research, or in assessments of the public health. Advances in basic science, neuropathology, and neuro imaging have improved the understanding of ischemia, infarction, and haemorrhage in the central nervous system (Sacco et al., 2013).

The World Health Organization, WHO (2011) defines stroke as, " Rapidly developing clinical signs of focal (at times global) disturbances of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin". stroke is a medical emergency, where prompt treatment is crucial. Early action can minimize brain damage and potential complications (Mayo Clinic, 2015). More recent studies, using clinical observation and modern brain imaging, have shown that the duration and reversibility of brain ischemia are variable. Brain tissue that is deprived of needed nutrients can damaged. In some patients, survive without permanent injury for a considerable period of time several hours or even, rarely days while in most other individuals, irreversible damage or infarction occurs quickly. There is now general agreement that a fixed time designation should not be the primary distinguishing factor between stroke and TIA (Sacco et al., 2013). It is believed that the average age of patients with stroke in developing countries is 15 years younger than that in developed countries (Sridharan et al., 2009).

A silent stroke is a documented central nervous system infarction that was asymptomatic. Trouble with speaking and understanding patient may experience confusion. Patient may slur his words or have difficulty to understanding speech. Paralysis or numbness of the face, arm or leg patient may develop sudden numbness, weakness or paralysis in patients face, arm or leg, especially on one side of the body. Trouble with seeing in one or both eyes patient may suddenly have blurred or blackened vision in one or both eyes, or may see double. A sudden, severe headache,

which may be accompanied by vomiting, dizziness or altered consciousness, may indicate patient is having a stroke. Trouble with walking patient may experience sudden dizziness, loss of balance or loss of coordination. Seek immediate medical attention if see " FAST". "F" for if found patients face droop, "A" for one arm drift downward during raise both arms, "S" for if his or her speech slurred or strange and "T" for time (Mayo clinic, 2015).

Stroke subtypes was diagnosed from the results of the first CT or MRI scan (Heuschmann et al., 2014).Studies of subtype of stroke suggested that the rates of ischemic stroke and intracerebral haemorrhage were higher in men than in women whereas rates for subarachnoid haemorrhages were higher in women, or no gender differences were reported. One paper on stroke incidence in a multiethnic population demonstrated higher rates in blacks than in whites (Truelsen et al., 2006).Most patients and many caregivers did not recognise the onset of stroke and their knowledge of risk factors was poor. Stroke knowledge was poorest among groups that had the highest risk of stroke (Shafee et al., 2006).

Several studies have identified risk factors for stroke after TIA, which may be useful in making initial management dicisions. Many factors can increase risk of a stroke. Lifestyle risk factors may include being overweight or obese, physical inactivity, heavy or binge drinking, use of illicit drugs such as cocaine and methamphetamines. Medical risk factors include high blood pressure, cigarette smoking or exposure to second hand smoke, high cholesterol, diabetes, obstructive sleep apnea, cardiovascular disease including heart failure, heart defects, heart infection or abnormal heart rhythm (Mayo Clinic, 2015). The number of patients from rural areas was 60% and 46% for haemorrhagic stroke patients and ischemic stroke patients, respectively. Hypertension was the most common risk factor for both types of stroke, followed by cigarette smoking, DM, oral conception use, and previous history of TIA. During admission, hospitalized patients presented with hemiparesis, dysarthria, motor and sensory dysphasias, impaired consciousness, headache, vomiting, and nystagmus.

According to the study, the most common area of brain is affected by stroke was the cortical region, followed by the basal ganglia, internal capsule, insula, thalamus,

cerebellum, and multifocal areas (Islam et al., 2013). Some risk factors of stroke are uncontrollable, such as age and race, other risk factors are in control and making small lifestyle changes can reduce stroke risk. For example, hypertension which is the leading risk factor, can be controlled by eating a healthy diet, regularly physical activity, not smoking and by taking prescribed medications.

The American Heart Association identifies seven factors to control for ideal health. Life Simple 7: be active, control cholesterol, eat a healthy diet, manage blood pressure, maintain a healthy weight, control blood sugar and don't smoke. Strokes occur at any age but are much more common in the elderly, with the death rate doubling every ten years between 55 and 85. Because of this and the age distribution of the population, approximately 3/4 of stroke deaths occur in individuals over 65 (Easton et al.,2009).It appears that the presence of known risk factors for atherosclerotic cardiovascular disease in particular diabetes, atrial fibrillation, ischemic heart disease, and previous stroke disfavour hemorrhagic stroke as opposed to ischemic stroke. Whether the presence of hypertension is in favor of either stroke subtype is unclear. Hypertension is a well-documented risk factor for both ischemic stroke and hemorrhagic stroke. Recent studies show, however, that the gradient of the relationship between hypertension and hemorrhagic stroke is steeper than that for ischemic stroke. High alcohol intake is a well-established risk factor for hemorrhagic stroke (Anderson et al., 2015).

Ischemic stroke is the most common type of stroke. An ischemic stroke happens when artery in the brain is blocked (National Stroke Association, 2013). Based on the new definitions of TIA, an ischemic stroke is defined as an infraction of central nervous system tissue. Similar to TIAs, this definition of ischemic stroke does not have an arbitrary requirement for duration (American Stroke Association). Small vessel disease plays a much greater part in ischemic stroke in South Asia than in other regions. The very high prevalence of small vessel disease is probably attributable to a similarly high prevalence of undiagnosed, untreated, and poorly treated hypertension (Wasay et al., 2014).

In this type of stroke the primary pathology is an area of bleeding causing direct damage to brain tissue. These constitute up to 10–15 % of all strokes and have a significantly higher morbidity and mortality than do ischemic strokes. There are primarily two different types of hemorrhagic strokes: subarachnoid haemorrhage and intracerebral haemorrhage. Strokes are generally more severe in patients with hemorrhagic stroke, and the ratio between hemorrhagic stroke and ischemic stroke is closely related to stroke severity.
Within the first 3 months after stroke, hemorrhagic stroke is associated with a considerable increase of mortality, which is specifically associated with the hemorrhagic nature of lesion (Andersen et al., 2015).

Physical therapy provided to patients with stroke in inpatient rehabilitation facilities reflected an integration of treatment approaches with inclusion of interventions to remediate impairments and compensate for functional limitations as well as to improve motor control (Jette et al., 2005).Lifestyle information delivered as an element of a secondary prevention intervention that can help people to instigate and maintain lifestyle change. Such changes may save lives and reduce the extension of disability, thus diminishing disruption to individuals and their families, and also the economic burden for public services. However, a recent survey found that almost 50% of stroke patients reported receiving no dietary advice, and one third reported receiving no information about physical activity (Lawrence et al., 2010).

Evidence suggesting that physical therapy may be useful in rehabilitation of patients with stroke and recommendations for broad classifications of interventions based on clinical guidelines, literature contains little information describing the precise nature of interventions provided by physical therapists (Jette et al., 2013). Stroke rehabilitation involves a process where the physical therapists, the rehabilitation team and the patient have to discuss goals and what future directions might be considered in view of the stroke event and its consequences. This process often means change, a change from the life one lead before the stroke incidence to a life with a reduced function; this reduction can be varying in degree. The rehabilitation process also involves an evaluation of the clinical condition, planning of a treatment and evaluating the result of treatment (Langhammer, 2009).

The rehabilitation program is designed to help the stroke victim to overcome the disability resulting from brain damage and to enable him or her at physical, psychological and social levels despite the disability that remains after all spontaneous recovery from brain damage is ceased (Nessa et al., 2009).

There are three major areas which should be covered: neuro rehabilitation general aspects, care settings and psychosocial reintegration (early discharge, rehabilitation institutions, social support).
Rehabilitation programme, a process time limited and goal oriented, which aims to treat disability is essential for maximum functional capacity in each case, facilitate independence and reintegration into the family, social and work. Multidisciplinary team is essential and should include: rehabilitation specialist physiotherapist, speech therapist, occupational therapy, neuropsychologist and social worker (Krupinski et al., 2014).In the early phase after stroke, the patient's prognosis is determined mainly by potential complications due to the disturbance of elementary brain functions. From the acute phase of the disease therapeutic rehabilitation is important for further life of the patient. Several facilitation methods are used for the affection of voluntary locomotion disorder, muscular imbalance, and pathological reflection changes (Knechet et al., 2011).

The idea of organising group sessions as part of the rehabilitation program was based on the positive results of such an approach in a study by Gauthier et al (1987) of patients with parkinson's disease. Practically, this can involve participants physically moving between work stations set up in specific locations within each group therapy class, or participants performing a set of core activities adapted to suit individual needs within a group setting, but without the need to physically move between work stations. Optimally, the intervention is targeted at multiple levels, such as strength and balance and walking practice and range of movement. Participants progress is continuously monitored and activities are adapted as required (English et al., 2007).

Group therapy is provided to more than 2 participants, involving a tailored intervention program with a focus on practice of functional tasks received within a group setting, provided to participants with similar or different degrees of functional

ability and involving a staff to patient ratio of no greater than 1:3 (English et al., 2007).

In a group the patients can get counselling and enhancing the therapy process, offering structured activities, presenting educational materials, fostering skill building in various areas, or facilitating a positive family or social network. An inpatient group intervention was developed for use with patients in the early to mid stages of recovery.
Its aims were to: normalise reactions and emotions experienced by stroke survivors; Support the rebirth of identity, as stroke survivors often report loss of their 'old self'; give patients the space and opportunity to regain control and realise the importance of exercising choice; encourage discussion in the group and the sharing of experiences; raise awareness of the role of mood on engagement in rehabilitation (Vohora & Ogi, 2008). The type of therapy provided is also important. Group class therapy may improve functional ability particularly walking ability by increasing time spent practicing this task as well as its subcomponents. The format in which group class therapy is delivered also provides for optimal motor learning.

In contrast to the provision of home exercise programs, exercise with a therapist present allows for the provision extrinsic feedback which is essential for optimal motor learning. Moreover practice in groups or pairs has been shown to facilitate motor learning by providing the opportunity to combine observation of others learning a new motor task with physical practice time (English & Hillier, 2011).Group therapy is emerging as an alternative method of physiotherapy service delivery for inpatient stroke rehabilitation, English et al., (2007) found that group therapy, as the sole method of physiotherapy service provision during inpatient rehabilitation after stroke, was an effective alternative to individual physiotherapy sessions (English & Hillier, 2010).

The open group therapy sessions has some disadvantages. Patients may feel unsafe when they enter an already existing group. Furthermore a continuous flow of patients is required to keep a balanced number of patients in the group (Visser et al., 2013).

Members of therapy groups often find hope as they discover commonalities and focus on solutions to current problems. Hope helps keep the client in treatment. Participants may believe that the situations are unique and they feel alone in their fears difficulties. Group therapy helps to ameliorate these feelings as clients learn that others are having similar experiences. The participants gain information about their illness and their recovery within the group settings.

Group therapy has been shown to be effective for improving the mobility of people greater than 6 months post stroke and for improving mobility and upper limb function for people receiving rehabilitation post stroke, when provided in addition to individual therapy sessions (English et al, 2007).Neurological rehabilitation is an active participatory process involving a dynamic interaction between the persons with neurological deficits and the health professional members of the rehabilitation team. Appreciating the amount of effort required to achieve agreed on functional goals and establishing a frame- work for the interaction among everyone participating is necessary to obtain an ideal balance concerning perceived effort (both the patient's and therapist's point of view), maintenance of attention and motivation, and expectation of the rewards and benefits of and satisfaction with rehabilitation (Pomeroy et al., 2011).

Rehabilitation in patients after stroke is aimed at achieving maximal functional independence. Rehabilitation treatments were based on the recommended medical treatments of stroke. In these patients the so called 24 hour therapy program proved to be suitable requiring cooperation of doctors, attending staff, physiotherapists, occupational therapists, speech therapists and family members.

Successful therapy consists not only in isolated muscle exercising; however it is important to practice meaningful, goal directed activities with the patient (Tarasova et al., 2008). After stroke, patients emotional and cognitive functioning may be affected. Common psychological difficulties include anxiety, depression, grief, frustration, reduced emotional control and anger (Stroke Association, 2008).Patients had said that it may be helpful to share their experiences of having a stroke and its challenges with others in a similar situation. It was felt this interaction could be facilitated in a small

group setting (Vohora & Ogi, 2008). Till now, the majority of studies investigating the effectiveness of group circuit class therapy have involved physiotherapists delivering or overseeing the implementation of the therapy sessions. However, there is no reason why other professionals with exercise or movement based training cannot also deliver group circuit class therapy.

Health professionals who deliver exercise or movement based therapy include physiotherapists, occupational therapists, exercise physiologists, sports therapists and people trained as assistants or aides to these professions (English & Hillier, 2011).

CHAPTER:3 METHODOLOGY

3.1Study design

The purpose of this study was to find out the perspective of stroke patient about group therapy program. The study was concerned by using qualitative approach. Qualitative approach focus on specific individuals, rather than group or types of individuals.

The researcher used a qualitative study design to collect depth information about patient perception. The study was descriptive exploratory in nature which is suitable for exploring the patient phenomenology about physiotherapy service. Qualitative research is suitable for exploring a new area & understanding individual attitudes & behaviours. That's why the researcher selected the qualitative research approach, which helps to gain understanding & behaviour of patients with stroke.

This research design utilized semi- structured and face to face interviews because this suitable for collecting research description in this topic.

This methodology appropriate when there is only a small number of participants.

3.2 Study site

The study was conducted neurology unit of Centre for the Rehabilitation of the Paralyzed (CRP), Savar, Dhaka, 1343.

3.3 Study population

Stroke patient who participate in group therapy at Neurology unit of CRP.

3.4 Sample size

The sample size was only 7 patients with stroke who participate in group therapy both male and female.

3.5 Sampling technique

Data was collected through purposive sampling technique because this technique was more feasible and less time consuming to obtain relevant information. This sampling procedure allowed the researcher to choose a typical case for the study.

3.6Inclusion criteria

Participants were all stroke patient.

Both male and female participants were included

Patients who were mentally stable.

Patients who were agree to participate and easily accessible

Patients who were regularly attended in group therapy.

3.7Exclusion criteria

Patient who had cognitive problem.

Patient who were mentally unstable.

Patient who did not regularly attended in group therapy.

Patient and caregiver who were disagreed to participate in this study.

3.8Data collection tools

The tools that needed for the study were consent paper, questionnaire, paper, pen, pencil, file, voice recorder etc. This study was followed all rules of data collection including method of data collection, materials used for data collection, duration and procedure of data collection. Data collection is the strong point of any research which maintains the research validity and reliability.

3.8.1Procedure of data collection

The researcher was collected data through face to face interviews with open ended question. Face to face interviews help the researcher to determind participants understanding of the question by observe their facial expression. Questionnaires used both English and Bengali for easy understanding of the participants. Before starting the interview, some time spent to prepare a report with participants including a general conversation. Data was collected confidentially and carefully by maintaining all ethical consideration. Open ended interview questions were used in this study. The interview was recorded using a tape recorder by taking permission from the patients. With open ended questions, participants got much freedom to explain their feelings in their own words. Audiotape was used to record the all interviews to discover exact feeling, attitude and emotions of the participants during interviews. The interview was conducted in Bengali as though they can understand the questions easily. Face to face interview was conducted because this may provide higher response than other data collection methods. Every interview lasted for 15-20 minutes. Interview continued until saturation point was reached, that is no major new insights were being revealed and there was repetition of the same issues with different respondents.The interview was held at CRP in a quiet place where external variable could not interrupt the interview. For data collection a semi structured questionnaire were used to find out the perception of patients about group therapy. Which includes socio-demographic information in part-1 and open ended question in part-2.

3.8.2Data analysis procedure

In this study, data was analyzed by using content analysis. Content analysis is a methodology for determining the content of written, recorded, or published communications via a systemic, objective, & procedure. Thus, it is a set of procedure for collecting & organizing information in a standard format that follows analysts to draw inference about the characteristics & meaning of recorded material. Through this analysis the researcher can make numerical comparisons among & within document. Because, this analysis are important for tabulating the result of open ended survey question. In this study data analysis about the data organization with each interview questions. The participants answer was analyzed& the major categories from each interview question were found. The major categories were then found to be emerging themes. At the beginning of the data analysis listened to the recorded interview several times.

3.8.3Ethical consideration

The research proposal was submitted to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) and approval was taken from Bangladesh Medical & Research Council (BMRC) and World Health Organization (WHO) guidelines were followed.

All the participants and the authority as well were informed about the purpose of the study. Researcher ensures the confidentially of participants and share the information only with his or her supervisor.

All the information's were explained clearly about the study to the participants and informed them verbally. The interview notes and recordings was not be shared or discussed with others. The study would not harm or embarrasses her or him in order to participate in the study. The Participants also ensure that their participation was voluntarily and they can reject or withdraw from the study any time if they want.

3.9Rigor

Researchers always try to maintain honesty and truthfulness in his or her study. The study completed in a clear and systemic way to reducing the sources of bias and errors. When conducting the study the author take help from his supervisor and follows his direction appropriate**ly.** The entire information was handled with confidentially. In the result section researcher was not influenced about outcome by showing any personal interpretation. During conduct the study every section of the study is checked and rechecked by the research supervisor.

CHAPTER:4 RESULT

The aim of the study is to find out perception about group therapy among the stroke patients. Results and discussion are carried out at the same time and presented together. The participant in this study offered some important insight on the perspective about group therapy. Participants responds according to their perception. There were 7 patients from stroke rehabilitation unit from Stroke Rehabilitation Unit (SRU) of Neurology Department of Centre for the Rehabilitation of the Paralysed (CRP).

Socio-demographic information at a glance

Among seven patients most of them were (45-50) years old and the rest of them were (55-60) years old, from them 5 patients were male and the other 2 patient were female. All of them were Muslim, majority of them were lived in rural area and some of them were lived in semirural area and the other lived in urban area. Most of them were from nuclear family and a little number of participants were from extended family, majority of them had associated diseases and some of them had no associated disease. The educational level of them were upto class five in two participants, upto class eight in one participant, two of them were SSC passed and the other two participants were HSC passed. All of them were married, two of them were housewife and the other were businessman, one of them were teacher and three participants were from other profession (Table- 1).

Sociodemographic information	Number
Age	
45-50	5
55-60	2
Sex	
Male	5
Female	2
Religion	
Muslim	7
Living area	
Urban	1
Rural	4
Semirural	2
Family type	
Nuclear family	6
Extended family	1
Associated diseases	
Present	4
Absent	3
Educational level	
Upto class 5	2
Upto class 8	1
SSC	1
HSC	2
Honours	1
Marrital status	
Married	7
Occupation	
Housewife	2
Buisnessman	1
Teacher	1
Others	3

Table 1: sociodemographic information of the patients

In the result section, it has been possible to understand the patient's opinions by content analysis, where some categories have been found. Under the different categories, patient's different opinions are expressed by different codes. Five major categories were found these are: stroke patient's knowledge about the activities of a group therapy, patients learning from the group therapy classes, effects of group therapy in stroke patient's physical or mental condition, problems in a group therapy class and suggestions for upgrading group therapy. Under these categories five themes emerged which are as follows:

Findings at a glance:

Theme 1: Patients with stroke knows about all the activities of a group therapy
Theme 2: Patients learned different functional activities from group therapy
Theme 3: Group therapy effects on stroke patient's physical or mental condition
Theme 4: Patient have mixed opinion about effectiveness of group therapy and individual therapy
Theme 5: Patient suggested that group therapy would be more effective if time duration may extended and organise it in a fixed room.

Categories and codes of the study:

Category 1: Patients knowledge about activities of a group therapy class

Code	P1	P2	P3	P4	P5	P6	P7	Response (Total)
Very clearly	✓	✓			✓			3
Clearly			✓	✓				2
Satisfactorily						✓	✓	2
Not satisfactorily								
Don't know anything								

Table 2: knowledge about group therapy activities

Most of the patients said that, they know about the activities of group therapy very clearly and the rest of them are said that they understand the activities satisfactorily and clearly.

Category 2: stroke patients learning from group therapy

Patients learned many new information's about their disease

Proper sit to stand and stand to sitting technique by their self help

How to maintain proper balance

How to improve their walking skills

Patients get mental support which makes them confident

Patient learn social communication

Category 3: Effects of group therapy on patient's physical or mental condition

Code	P1	P2	P3	P4	P5	P6	P7	Response (Total)
Very Effective	✓	✓			✓			3
Effective			✓			✓	✓	3
Satisfactorily				✓				1
Not really								

Table 3: Effects of group therapy on patients physical or mental condition

Most of the patients said that, group therapy is very effective for their physical and mental condition and and a little number of patient are satisfied.

Category 4: Comparison of effectiveness between group therapy and individual therapy

Code	P1	P2	P3	P4	P5	P6	P7	Response (Total)
Group therapy	✓	✓	✓			✓		4
Individual therapy				✓				1
Both					✓		✓	2

Table 4: Comparison of effectiveness between group therapy and individual therapy

Majority of the patients said that, they found group therapy is beneficial for them than individual therapy. Minority patient state that, both of the therapy is beneficial and a little number of patient found individual therapy is effective.

Category 5: Give opinion to improve group therapy

Code	P1	P2	P3	P4	P5	P6	P7	Response (Total)
Adding more functional activities	✓							1
Organise in a fixed room		✓						1
Increase duration of classes			✓	✓	✓			3
Organise 2 days in a week			✓	✓			✓	3
No Opinion						✓		1

Table 5: opinion to improve group therapy class

Most of the patient recommended to increase the duration of classes and organise the class 2 times in a week. Some of them sugessted for adding more functional activities and organise the therapy program in a fixed room and some have no opinion.

CHAPTER: 5 DISCUSSION

Below there is the description of the theme according to its category and coding

Theme 1: Patients with stroke knows about all the activities in a group therapy.

By getting appropriate knowledge and information about stroke, patient and family members have a supportive environment for stroke support group. It's essential for a patient to getting clear perception about group therapy activities and their clinical reasoning.

Appendix of table-2 is representing that the participants has a strong knowledge about the group therapy activities. Most of the participants have a good perception or knowledge about the activities. In this study, it shows that they know what activities they have done in group therapy and why they did so. Four participants out of seven said that the functional activities they did in a group therapy was helped them in ADL (Activities of Daily Living).

Physiotherapist use of different technique and also demonstrate practical for educating participants. Literature suggested that different people understand information in different ways. Some people understand information when it is writing down; others understand better when it is explained verbally or demonstrated practically.

All the participants said that, *"Here we met with other stroke patient and by doing various sports related activities we were doing therapy, which will help us for our improvement*".

They thought that group therapy makes them confident and physically active. By compete with one another they get a challenge to be more active in their activities. As they participate in a group therapy it encouraged them to do their functional activities more perfect than others.

One of the participant said that, "*we always compete to each other to do better performance in group therapy."*

Two of the participants know about the activities of a group therapy but it seems that they don't understand about the reasoning of the therapy by observing their facial expression.

Several different outcome measures were used to determine participants' abilities to perform activities of daily living. However, no published studies reported significant between group differences on any of the measures (English et al., 2012). However from this category result indicates that majority of participants have clear knowledge about group therapy. After having group therapy they had the knowledge about how they will be self depended by doing functional activities and they have the reason why they are participating group therapy. All the participants perceive the exact knowledge about group therapy, which helped them to make a concept about stroke condition and treatment procedure.

Theme 2: Patients learned different functional activities from group therapy

Physiotherapists work with stroke patient's family members to support the needs and goals of the patients during therapy. From group therapy class, patients can learn so many easy ways or techniques of improving their functional skills that are beneficial for them when they will return to their family. Most of the participants have learned much new information about their ability to perform according to their level best. They have learned different things from the group therapy, they mentioned that they have learned how to walk by their own ability, how to maintain proper balance, how to prevent falls, proper technique of sit to stand and stand to sit. One participant said:

"*I have learned many things through group therapy that will help me to do them independently at home".*

According to Visser et al., (2013) an open group design has several benefits like for the patients are that they do not have to wait until they can start with the intervention, they can share their experiences with other experienced stroke patients and there is room for interaction with other patients. In a group therapy they performed a set of core activities that addressed their key impairments and functional limitation. These core activities were: sit to stand practice; strengthening lower limb extensor muscles in weight bearing positions; postural control in standing; walking practice including

negotiating obstacles, steps, ramps and outdoor surfaces. Fine manipulation of everybody household items in both unilateral and bilateral tasks. During the starting of the start of the program, physiotherapists were discussing about different types of activities which are helpful for their improvement.

All participants reported that they have learned proper techniques about sitting and standing position. One participant said:

"*I have learned how to sit to stand and stand to sit and maintain proper balance*."

During observation of the group therapy researcher found that, the therapist's emphasis on the activities of daily living a great significance. Walking is one of them, because independent walking ability makes a stroke patient more confident and helps him to do his self activities independently. One participant said:

"*Therapist's teach us to walk in a ladder and warn us to don't touch the ladder by our leg, it helps us to walk in a proper way".*

As a consequence found that it will improve the balance and coordination as well. After completing group therapy class, patients become knowledgeable about their activities of daily living.

Theme 3: Group therapy effects on stroke patients physical or mental condition.

Most of participants said group therapy effects on their physical and mental improvement. From this program, patient learns many techniques that they can apply at their home. If they could not attend this class, they could not learn the technique. One participant said:

"*Yes, these learning's are very important for me."*

During group therapy the therapists try to make the class pleasant for the stroke patients, because most of the patients are mentally depressed for their so called disability. In a group therapy they introduce with one another stroke patient. They all are go through the same condition, it affects on their mind that they are not alone and it is possible for them to recover from this condition.

One of the participant said: *"After attending group therapy i am introduced with other stroke patients and i found it very pleasant to do therapy together*."

Another participant said, *"The therapists arrange some competitive activities, it will encourage us to do better than other".*

At the end of the therapy the researcher observe that the therapists include a mini cultural program that are performed by the patients. This part of group therapy makes the patients pleasant and happy. They feel that even they have the ability to do something. This cultural program includes songs, poems, citation from the holly Quran and other things that patients were able to do according to their ability.

Two of the participant said, *"There was a cultural part at the end of the therapy and we get more pleasant and happiness from it.*"

Effective group therapy can help patients enhance self responsibility, increase readiness for change, build support for recovery and change, acknowledge destructive behaviours, and cope with personal discomfort (Bryan, 2004). The researcher found that the patient who have some cognitive problem, even he was trying to do something by seeing others performance. So it will help him to improve his cognitive function. Literature says that most of the stroke patients lost their confidence and mentally depressed after having stroke. But after attending group therapy they found that they are able to be self independent and they get their confidence level back.

Theme 4: Patient has mixed opinion regarding group therapy and individual therapy.

Literature showed that, task oriented group therapy in patients with mild to moderate disability after stroke is as safe and as effective as an individual physiotherapy sessions. In this study the researcher tries to find out the patients opinions about group therapy and individual therapy. The patients have several opinions about both of the therapy. Most of them found group therapy is more effective for them than an individual therapy session. They said that:

"We like group therapy than individual therapy".

Two of them said that, they thought both of the therapy was effective for them and the rest of them found individual therapy is more effective than group therapy. By asking why he thought individual therapy is effective for him, he answered that,

"I have more functional problem and i want to improve my physical condition rapidly and that's why i prefer individual physiotherapy".

Individual therapy sessions occured under the direct or constant supervision of a physiotherapist or PT assistant on a 1 therapist to 1 subject ratio. It is useful for the patient to discuss his core problems to the therapist and the therapist makes his treatment plans and treatment goals according to the patient's requirements. On the other hand group therapy is an important term for the stroke patients. It encourages the patients to participate willingly in the treatment sessions and dramatically outcome can be observed.

Physiotherapy should start at once whether the patient is in intensive care, in a word or at home and they attended in a group therapy program on their rehabilitation stage.

They found some numerous differences between the two therapy, as like in a individual therapy they treated by one therapist and he treated him only to improve his patients physical condition. But there is an intensive cooperation between physiotherapists and patients in a group therapy. Not only the therapists but also the patient helps each other to learn about the demanding tasks such as ADL's.

Patient and therapist satisfaction with group circuit class therapy is another under researched area. English et al., (2007) found there were no significant differences in satisfaction with therapy from people receiving group therapy only compared to people receiving individual therapy sessions, although people in the circuit class arm were significantly more satisfied with the amount of therapy they received.

On the basis of above discussion it will be concluded that both of the therapy are effective for the patients, because individual therapy is essential for their initial immediate recovery but group therapy helps them to cope with the further environment after having stroke.

Theme 5: Patient suggested that group therapy would be more effective if time duration may extended and organise it in a fixed room.

After taking opinions from the patients regarding to upgrade the group therapy class, the researcher found that most of the patients are satisfied for group therapy but they have some significant opinion to improve the therapy. Three participant out of seven suggested that the time duration of the therapy may be extended. They told that,

"*If it is possible to increase the duration of the therapy time, it will be more effective and we have more chance to get well very soon*".

The introduction of self- directed, independent exercises is a potential way to improve time use of patients between therapy sessions, without the presence of a therapist. The feasibility of increasing the time on autonomous exercising in patients with stroke has been questioned. But in this discussion patients feel that the time duration of the therapy is not sufficient for them. They suggested to extent the duration.

Another participant said that, *"If the group therapy is organised two times in a week, we will practice the core activities more and more*".

During interview the participants reported that their group therapy was held in a place where other patients were gathered and it was hampering their learning. They suggest that if the therapy was held in a fixed room, it will help them to concentrate in their therapy. One of the participant suggest that adding more higher functional activities help them to improve quickly. Such as Ball throwing, walking stairs with or without minimal support, balance practice etc should be added in a higher quality.

Additionally, the structure of group therapy was such that it encouraged greater participant autonomy, thereby encouraging problem solving and independence.Thus,it is possible that not only the increased amount of walking practice, but also the environment in which this practice occurred, had an impact on the increased level of walking independence.

5.1Limitation

The research area was relatively new. That is why researcher did not get a lot of literature addressing this area. The researcher was a 4th year B.Sc. in physiotherapy student and this was her first research project. She had limited experience with techniques and strategies in terms of the practical aspects of research. As it was the first research of the researcher so might be there were some mistakes by her.

CHAPTER:6 CONCLUSION& RECOMMENDATION

Conclusion

Stroke is the major cause of disability, and there is need to identify the effective physiotherapy intervention that will increase the functional activities of patients. Some physiotherapy clinic and hospital provide physiotherapy for the treatment of stroke patients. Stroke cases in Bangladesh have significantly increased in number over the past decades; adverse outcomes from these cases are also rising due to the low number of neurologists and specialized hospitals in the country. Some private clinic and hospitals are now trying to provide latest medical services, but nothing to be mentioned is about physiotherapy treatment. People in our country think that physiotherapy treatment is some form of exercise. But it plays great rules in medical sector and many people become disable due to lack of awareness of physiotherapy. Here is an important term that is group therapy.

Usual practice for stroke rehabilitation around the world for the past several decades has been the provision of therapy in individual, one-to-one therapy sessions. However, group circuit class therapy is an alternate method of therapy service delivery. By conducting the study the researcher found patients perception about their participation in a group therapy at CRP's neurology unit. But it is not always possible to gain complete achievement from every work. Same things happened in the study, what the researcher wanted to gain from the study not achieved fully. So, some further steps that might be taken for better accomplishment for further research.

Recommendations

The aim of the study was to explore the patient perception regarding their participation in a group therapy. However, the study had some limitations it some further steps were identified that might be taken for the better accomplishment of further study. The main recommendations would be as follow:

The duration of the study was short, so in future wider time would be taken for conducting the study.

Investigator uses only 7 participants as the sample of this study, in future the sample size would be more.

In this study, the investigator took the sample from Savar area, it was small area to take available sample. So for further study investigator strongly recommended to include the Physiotherapist from all over the Bangladesh to ensure the generalizability of this study**.**

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মৌখিক অনুমতি পত্র/সম্মতি পত্র

(অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

আসসালামু আলাইকুম,

আমার নাম ইলোরা আফরিন, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ্ প্রফেশনস ইনষ্টিটিউট (বিএইচপিআই)-এ পরিচালনা করছি যা আমার ৪র্থ বর্ষ বি এসসি ইন ফিজিওথেরাপী কোর্সের অধিভুক্ত। আমার গবেষণার শিরোনাম হল-**"গ্রুপ থেরাপীতে অংশগ্রহণকারী স্ট্রোক রোগীদের ধারনার অনুসন্ধান"** ।আমি এক্ষেত্রে আপনাকে কিছু ব্যক্তিগত এবং আনুষঙ্গিক প্রশ্ন করতে চাচ্ছি। এতে আনুমানিক ২০ মিনিট সময় নিবো।

আমি আপনাকে অনুগত করছি যে, এট আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহৃত হবেনা। গবেষক সরাসরি এই অধ্যয়নের সাথে অন্তর্ভূক্ত নয়। তাই এই গবেষনায় আপনার অংশগ্রহণ বর্তমান ও ভবিষ্যৎ চিকিৎসায় কোন প্রকার প্রভাব ফেলবে না। আপনি যে সব তথ্য প্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনা প্রবাহে এটা নিশ্চিত করা হবে যে এই তথ্যের উৎস অপ্রকাশিত থাকবে।

এই অধ্যয়নে আপনার অংশগ্রহণ স্বেচ্ছা প্রণোদীত এবং আপনি যে কোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন। এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকার ও আপনার আছে।

এই অধ্যয়নে অংশগ্রহণকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তাহলে আপনি আমাকে অথবা/এবং **ফিরোজ আহম্মেদ মমিন** সহকারী অধ্যাপক, ফিজিওথেরাপি বিভাগ, সিআরপি,সাভার,ঢাকা-১৩৪৩-তে যোগাযোগ করতে পারেন।

সাক্ষাৎকার শুরু করার আগে আপনার কি কোন প্রশ্ন আছে?
আমি আপনার অনুমতি নিয়ে এই সাক্ষাৎকার শুরু করতে যাচ্ছি।

হ্যাঁ ☐
না ☐

১। অংশগ্রহনকারীর স্বাক্ষর এবং তারিখ .....

২। সাক্ষাৎগ্রহনকারীর স্বাক্ষর এবং তারিখ.....

৩। প্রতক্ষ্যদর্শীর স্বাক্ষর এবং তারিখ .....

CONCENT FORM (English)

Verbal Consent Statement

(Please read out to the participant)

Assalamualaikum/Namasker,

My name isEloraAfrin, I am conducting this study as a part of my academic work of B. Sc. in Physiotherapy under Bangladesh Health Professions Institute (BHPI), which is affiliated to University of Dhaka. My study title is "**An exploration of stroke patient perception of their participation in a group therapy"**. I would like to know about some personal and other related information regarding group therapy. You will need to answer some questions which are mentioned in this form. It will take approximately 20-25 minutes.

I would like to inform you that this is a purely academic study and will not be used for any other purpose. All information provided by you will keep in a locker as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous and also all information will be destroyed after completion of the study.

Your participation in this study is voluntary and you may withdraw yourself at any time during this study without any negative consequences. You also have the right not to answer a particular question that you don't like or do not want to answer during interview.

If you have any query about the study or your right as a participant, you may contact with me and/or **Feroz Ahmed Mamin**, Assistant Professor of Physiotherapy, Bangladesh Health Professions Institute (BHPI), Savar, Dhaka.

Do you have any questions before I start? Yes / No

So, may I have your consent to proceed with the interview or work?

Yes ☐

No ☐

Signature of the Participant _____

Signature of the Interviewer _____

Signature of the witness _____

বিষয়ঃগ্রুপ থেরাপীতেঅংশগ্রহনকারী ষ্ট্রোক রোগীদের ধারণারঅনুসন্ধান।

প্রশ্নপত্র (বাংলা)

পর্ব-১ঃ বিষয়ভিত্তিক তথ্যাবলী

কোডনং ঃ তারিখঃ

রোগীরনাম ঃ

ঠিকানা ঃ

রোগেরধরণ ঃ

১। রোগীরসামাজিকজনতাত্ত্বিক তথ্যাবলীঃ

১.১। বয়সঃ .....বছর।

১.২। লিঙ্গঃ

ক) পুরুষ

খ) মহিলা

১.৩। ধর্মঃ

ক) ইসলাম

খ) হিন্দু

গ) বৌদ্ধ

ঘ) খ্রিষ্টান

১.৪। আবাসিকএলাকাঃ

ক) শহর

খ) গ্রাম

গ) মফস্বল

১.৫। পরিবারেরধরণঃ

ক) একক পরিবার

খ) যৌথ পরিবার

১.৬। সংশ্লিষ্ট রোগঃ

ক) হ্যা।

খ) না।

১.৭। শিক্ষাগত যোগ্যতাঃ

ক) নিরক্ষর

খ) নিম্নপ্রাথমিক

গ) প্রাথমিক

ঘ) নিম্নমাধ্যমিক

ঙ) মাধ্যমিক

চ) উচ্চমাধ্যমিক

ছ) স্নাতক

জ) স্নাতকোত্তর

ঝ) অন্যান্য।

১.৮। বৈবাহিকঅবস্থাঃ

ক) অবিবাহিত

খ) বিবাহিত

গ) তালাকপ্রাপ্ত

ঘ) বিধবা

১.৯। পেশাঃ

ক) গৃহিনী

খ) শিক্ষার্থী

গ) কৃষক

ঘ) পোশাকশ্রমিক

ঙ) শিক্ষক

চ) ব্যবসায়ী

ছ) দিন-মজুর

জ) বেকার

ঝ) অন্যান্য

২.০। উপার্জনকারী ব্যক্তিঃ

ক) নিজ

খ) স্বামী/স্ত্রী

গ) পিতা/মাতা

ঘ) অন্যান্য

২.১। গড় মাসিকআয়ঃ .....টাকা।

পর্ব-২ঃ প্রশ্নাবলীঃ

১। আপনারকতকদিনআগে ষ্ট্রোকহয়েছিল?

২। ষ্ট্রোকহওয়ারকতদিন পর থেকে আপনিসিআরপি তে ফিজিওথেরাপীচিকিৎসানিচ্ছেন?

৩। সিআরপিএরনিউরোলজীইউনিট এ ষ্ট্রোক রোগীদের জন্য অনুষ্ঠিতগ্রুপ থেরাপীক্লাসসম্পর্কে আপনারধরণাকি? দয়াকরেব্যাখ্যাকরুন।

৪। আপনিকিমনেকরেনগ্রুপ থেরাপীক্লাসেঅংশগ্রহণকরার পর আপনারশারীরিকবামানসিকঅবস্থার কোনপরিবর্তনহয়েছে? যদি হয়তবেতাকিএবং কেন? দয়াকরেব্যাখ্যাকরুন।

৫। গ্রুপ থেরাপীএবং একক ফিজিওথেরাপীরমধ্যে কোনটিআপনারনিকট বেশিকার্যকরীমনেহয়েছে? দয়াকরেব্যাখ্যাকরুন।

৬। গ্রুপ থেরাপীক্লাসেঅংশগ্রহণকরেআপনিকি কোনসমস্যার সম্মুখীনহয়েছেন?যদি হ্যাহয়তবেতাকি? দয়াকরেব্যাখ্যাকরুন।

৭। গ্রুপ থেরাপীক্লাসেরউন্নয়নেরজন্য আপনারমতামত থাকলে দয়া করেব্যাখ্যাকরুন।

Title: An exploration of stroke patient perception of their participation in a group therapy.

Questionnaire (English)

SECTION-1: Subjective Information

Code no: Date:

Patient's Name:

Address:

Diagnosis:

1. Socio-demographic information:

1.1 **Age**:……years

1.2 **Gender**:

a) Male
b) Female

1.3 **Religion**:

a) Muslim
b) Hindu
c) Buddha
d) Christian

1.4 **Living area**.

a) Urban
b) Rural
c) Semirural

1.5 **Family type**:

a) Nuclear family
b) Extended family

1.6 Associated diseases:

a) Yes
b) No

1.7 **Educational level:**

a) Illiterate

b) Up to class 5

c)Primary School Certificate(PSC)

d) Up to class 8

e) Junior School Certificate (JSC)

f) Secondary School Certificate (SSC)

g) Higher Secondary Certificate (HSC)

h) Bachelor

i) Masters

j) Others

1.8 **Marital status**:

a) Single

b) Married

c) Divorced

d) Separated

e) Widow

1.9 **Occupation**:

a) Housewife

b) Student

c) Farmer

d) Garments worker

e) Teacher

f) Businessman

g) Day laborer

h) Unemployed

i) Other

2.0 **Earning member**:

a) Himself/ herself

b) Husband/ wife

c) Father/ mother

d) Other

2.1 **Average monthly income**: ……TK

Section-2: Questionnaire

1. How long ago did you have stroke?
2. After stroke, how many days ago did you start to get physiotherapy at CRP?
3. What do you know about group therapy class for stroke patient at the neurology unit of CRP? Please explain.
4. Do you think you have any change in your physical or mental condition after participating in group therapy class? If yes, please explain.
5. In between group therapy and individual therapy which one you find more effective? Please explain.
6. Did you face any problem in group therapy class? If yes, please explain.
7. Do you have any suggestion for upgrading group therapy class? If yes, please explain?

Permission letter

August 27, 2015

Head

Department of Physiotherapy

Centre for the Rehabilitation of the Paralysed (CRP)

Chapain,Savar , Dhaka-1343.

Through: Head, Department of Physiotherapy, BHPI.

Subject: Seeking permission of data collection to conduct my research project.

Dear Sir,

With due respect and humble submission to state that I am Elora Afrin, student of 4th Professional B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). The ethical committee has approved my research project entitled on**" An exploration of stroke patients perception of their participation in a group therapy "**under the supervision of Feroz Ahmed Mamin, Assistant Professor, Department of Physiotherapy,CRP. Conducting this research project is partial fulfillment of the requirement for the degree of B.Sc. in Physiotherapy. I want to collect data for my research project from the patients of CRP. So, I need permission for data collection from the Neurology unit of Physiotherapy department of CRP-Savar. I would like to assure that anything of my study will not be harmful for the participants.

I, therefore, pray & hope that you would be kind enough to grant my application & give me permission for data collection and obligue thereby.

Sincerely Yours

Elora Afrin

4th Professional B.Sc. in Physiotherapy

Roll-17, Session: 2010-2011

Bangladesh Health Professions Institute (BHPI)

(An academic Institute of CRP)

CRP, Chapain, Savar, Dhaka-1343.

Approved
contact with Feroze Ahmed Mamin
as a counterpart of the data
collection process.
09/09/15

She may be allowed for
data collection.
06/09/15

Md. Obaidul Haque
Associate Professor & Head of the Department
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

Firoz Ahmed Mamin
BSPT (DU), MSc in Clinical Neuroscience (London)
Assistant Professor
Department of Physiotherapy
BHPI,CRP,Savar, Dhaka