

**LEVEL OF PARTICIPATION OF STROKE SURVIVORS IN
THEIR COMMUNITY AFTER RECEIVING OCCUPATIONAL
THERAPY SERVICE**



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May, 2017

*This thesis is submitted in total fulfillment of the requirements for the subject
RESEARCH 2 & 3 and partial fulfillment of the requirements for degree:*

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Statement of Authorship

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Dedicated to

My Beloved parents.....

Acknowledgement

The researcher would like to thank each and every person who played a role in the completion of this thesis. First of all I gratitude to Almighty and merciful God who has given the power and ability to perform the study in a perfect manner and way.

My deepest great-fullness goes to my honorable supervisors SK. Moniruzzaman, Assistant Professor and Head of the Occupational Therapy Department and Mir Hasan Shakil Mahamud, Lecturer in Occupational Therapy, Department of Occupational Therapy, CRP, Savar, Dhaka, for their keen supervision. Specially thank Mir Hasan Shakil Mahamud for his patience, continuous guidance and excellent knowledge.

I would also like to express my gratitude to my all respected teachers Md. Julker Nayan, junior consultant and Head Occupational Therapy Department, Shamima Akter, Lecturer in Occupational Therapy, Nayan Kumer Chanda, Lecturer in Occupational Therapy, Yeasir Arafat Alve Ex Lecturer in Occupational Therapy Department, Mizanur Rahman, Lecturer in Sebelumnya di of CRP, Rakib Hossain, In-charge of Occupational Therapy Department CRP-Mirpur, for their excellent and rigorous support without its quiet difficult for me to complete this thesis smoothly.

Thanks to my parents, for their constant love and support and special thanks for my beloved sisters Arifa Jahan Ema and Mithun Banerjee for their tireless effort.

I would also like to special thanks to my senior Asmaul Husna Ehita and beloved junior Sumaiya Akter, Umme Salma, Oliza Akter and BHPI librarian Mrs. Mohosina for their positive help during the thesis study.

Finally I have been very blessed to get some good friends and of these I would specifically like to thank Farhana Haque, Umme Halima, Rasel Ahmed ,Saddam Hossain, Sabina Yeasmin, Sultana Jahan and all well-wisher who always beside with me without any expectation.

Above all I would like to give thanks to the stroke patients who made an effort to participate in the study.

ABSTRACT

Background: Many stroke survivors do not perform their daily living activity in community after stroke. Because stroke affects the person's ability to perform those. It restricts their activity participation and also has a great impact on their quality of life.

Objective: The study identified participation level in the community settings in the perspective of occupational area of stroke survivors, association between demographic factor and different occupational area and the participation barrier in the aspect of different functional area.

Methodology: The study was conducted through cross-sectional design in quantitative study among 83 stroke survivors who were selected from Dhaka district. Participants were selected by using purposive sampling process. Data were collected by conducting face to face interview and used the "Impact on Participation and Autonomy Questionnaire" (IPAQ).

Result: Participation level in the community settings in the perspective of occupational area of stroke survivors were fair according to (IPAQ) questionnaire. Perceived restrictions in participation were most prevalent in the domain of activity in and around the house (10.10 ± 4.283), paid or voluntary work (9.03 ± 4.294), social life and relationships (7.40 ± 3.670), (7.00 ± 3.071) and self-care (6.60 ± 2.991). There was significant association between participation domain and stroke duration like as self-care ($p < .043$) and looking after your own money ($p < .018$). On the other hand there is seen significant association between participation domain and rehabilitation month and it was looking after own money ($p < .039$).

Conclusion: The result of the study will be helpful to know about activity participation among all stroke survivors in different circumstances. It is very essential to address their participation restriction and activity experiences during rehabilitation period. It hampers their level of participation in community if the restrictions are not addressed properly.

Key words: Stroke, Participation level in community, Occupational therapy.

TABLE OF CONTENTS

<i>Approval page</i>	<i>I</i>
<i>Statement of authorship</i>	<i>ii</i>
<i>Acknowledgement</i>	<i>iv</i>
<i>Abstract</i>	<i>v</i>
<i>Table of Contents</i>	<i>vi</i>
<i>Lists of Tables</i>	<i>ix-x</i>
<i>Lists of Figure</i>	<i>xi</i>
<i>Lists of Appendixes</i>	<i>xii</i>
<i>Lists of Acronyms</i>	<i>xiii</i>

CHAPTER 01

INTRODUCTION	01-05
1.1 Introduction	01- 02
1.2 Background	02- 03
1.3 Rational of the study	03 -04
1.4 Aim of the study	05
1.5 Objective of the study	05

CHAPTER 02

LITERATURE REVIEW	06-14
2.1 Stroke	06
2.2 Types of stroke	06-07
2.3 Consequences of stroke	08
2.4 Participation	08-09
2.5 Activity limitation after post stroke	09
2.6 Relation between stroke, activity limitation and participation	09-10
2.7 Community base participation	10
2.8 Importance of community base participation	10-11
2.9 Influencing factors of participation after stroke	11-12
2.10 Occupational therapy role in post stroke participation	13-14

CHAPTER 03

METHODOLOGY 15-22

3.1 Study design	15
3.2 Sample selection	15-16
3.3 Inclusion criteria	16-17
3.4 Variable identification	17
3.5 Field test	18
3.6 Ethical consideration	18-19
3.7 Data collection instruments	19-20
3.8 Data collection	20-22
3.9 Rigor	22

CHAPTER 04: RESULTS OF THE STUDY 23-43

CHAPTER 05: DISCUSSION 44-48

CHAPTER 06: LIMITATIONS OF THE STUDY 49

CHAPTER 07: RECOMMENDATIONS OF THE STUDY 50

CHAPTER 08: CONCLUSION 51

List of References 52-59

Appendixes i-xxxvii

LISTS OF TABLE

SL NO	Table	Topics	Page No
1.	Table-01	Relation between stroke, activity limitation and participation	09-10
2.	Table-02	Score and participation level of stroke survivors according to IPAQ	31
3.	Table-3.1	The source of perceived restriction in participation and autonomy of the respondents of the functional area of mobility	32
4.	Table-3.2	The source of perceived restriction in participation and autonomy of the respondents of the functional area of self-care	32
5.	Table-3.3	The source of perceived restriction in participation and autonomy of the respondents of the functional area of activity in and around the house	33-34
6.	Table-3.4	The source of perceived restriction in participation and autonomy of the respondents of the functional area of looking after your own money	34
7.	Table-3.5	The source of perceived restriction in participation and autonomy of the respondents of the functional area of leisure	34
8.	Table-3.6	The source of perceived restriction in participation and autonomy of the respondents of the functional area of social life and relationships	35

9.	Table-3.7	The source of perceived restriction in participation and autonomy of the respondents of the functional area of helping and supporting other people	35
10.	Table-3.8	The source of perceived restriction in participation and autonomy of the respondents of the functional area of paid or voluntary work	36
11.	Table-3.9	The source of perceived restriction in participation and autonomy of the respondents of the functional area of education and training	37
12.	Table-04	The association between age and occupational area	39
13.	Table-05	The association between stroke duration and occupational area	40
14.	Table-06	The association between rehabilitation months and occupational area	42

LISTS OF FIGURE

SL NO	Figure	Topics	Page No
1.	Figure-01	Influencing factors of participation after stroke	11
2.	Figure-02	Conceptual framework	17
3.	Figure-03	Age of the respondents	23
4.	Figure-04	Gender of the respondents	24
5.	Figure-05	Educational level of the respondents	25
6.	Figure-06	Occupation of the respondents	26
7.	Figure-07	Marital status of the respondents	27
8.	Figure-08	Family types of the respondents	28
9.	Figure-09	Stroke types of the respondents	29
10.	Figure-10	Affected body part of the respondents	30
11.	Figure-11	Standardised mean score in perceived restriction in participation and autonomy	38
12.	Figure-12	Stroke duration of the respondents	41
13.	Figure-13	Occupational therapy rehabilitation months of the respondents	43

LISTS OF APPENDIX

SL NO	Appendix	Topics	Page No.
1.	{APPENDIX- I(a)}	Permission letter for conducting study	i
2.	{APPENDIX- I(b)}	Permission letter for data collection	ii
3.	{APPENDIX- II(a)}	Information sheet in English	iii
4.	{APPENDIX- II(b)}	Information sheet in Bangla	iv
5.	{APPENDIX- III(a)}	Consent form in English	v
6.	{APPENDIX- III(b)}	Consent form in Bangla	vi
7.	{APPENDIX- (IV)}	Questionnaire in English	vii-xx
8.	{APPENDIX- (V)}	Questionnaire in Bangla	xxi -xxxvi
9.	{APPENDIX- (VI)}	Permission letter from author for using IPAQ questioner	xxxvii

LISTS OF ACRONYMS

BD:	Bangladesh
CBR:	Community Base Rehabilitation
CRP:	Center for Rehabilitation of the Pralysed
GDP:	Gross Domestic Product
HRQoL:	Health Related Quality of Life
ICF:	International Classification of Functioning, Disability and Health
IPAQ:	Impact on Participation and Autonomy Questionnaire
NCDs:	Non-communicable Diseases
OT:	Occupational Therapy
OTs:	Occupational Therapists
WHO:	World Health Organization

1.1 Introduction

Bangladesh (BD) is a developing country situated in South Asia.¹ Bangladesh has a population of 164.3 million people, 35.6% of them live in urban areas and the majority (65.4%) live in rural areas.² This population spans an area of 147,570 km², resulting in a population density of 1108 people per km². The ratio of male and female in Bangladesh is 1.026:1.3. The Gross Domestic Product (GDP) per capita in Bangladesh was last recorded at 972.88 US dollars in 2015.³ 3.5% of the GDP is spent on health care system,⁴ which resulted in marked improvement of public health in BD over the past decades. Life expectancy of birth is approximately 70 years, which is just above the world health organization's world average age. Following the statistics of WHO the world average age is now 69 years. Now a day in BD non-communicable diseases like as cardiovascular diseases, chronic diseases, cancer, diabetes and chronic respiratory diseases are increasing day by day⁵. Stroke is one of the first leading causes of death and disability among the NCDs.⁶ For this reason stroke is a very major concern and important issue in BD at present.

Stroke is a neurological condition which affects the normal well-being of a person. Significant changes are seen after having the stroke. The physical, cognitive and psychological impairments resulting from stroke can lead to a large range of activity limitations and participation restrictions.⁷ As a result stroke patients cannot perform their daily living activities like as bathing, eating, dressing, toileting, and bladder and bowel control, mobility, transfers and the ability to climb stairs.⁸ Besides they need assistance in other activities like as washing clothes, shopping and house work.^{8,9} As well as travelling by public transport.⁸ In a population-based study conducted in New Zealand, found that one third of the stroke population required assistance with at least one activity of daily living with a gender differential.¹⁰ Walker¹¹ reported that in Tanzania the number of people needing assistance with at least one activity of daily living was 60%. In a South African study, 66% of stroke survivors needed assistance. Without assistance patient with stroke faces different types of difficulties in their daily life. They become more anxious to complete their daily living activity. Due to poor

mental and emotional control they remain so much depressed. Ultimately the patient can't fulfill their role. It hampers their participation as well their occupation. As like Bangladesh there is no study about level of participation of stroke patient in community therefore the better treatment of rehabilitation service we need to find out this statistic about level of participation of stroke patient in community.

1.2 Background

Center for the Rehabilitation of the Paralyzed (CRP) is a unique and specialised rehabilitation center in Bangladesh for people with stroke.¹² The researcher completed clinical placement in the Neurological Unit at CRP, and also completed Community Based Rehabilitation (CBR) placement in Sylhet. Researcher observed that stroke patients continues to struggle a lot in their life for integration in own community. Every year the number of patients with stroke is increasing in the world. Bangladesh is no exception than other countries. According to The World Health Organization (2011) estimates those 85% deaths of developing countries cause due to stroke. Stroke death rates per 100000 people are in Nigeria 122, Tanzania 118, India 100, China 96, Pakistan 84 and Brazil 82.¹³ The WHO ranks Bangladesh's mortality rate due to stroke as number 84 in the world.¹⁴ The prevalence of stroke has been estimated from a community study involving 15627 participants aged 40 years and older. Stroke prevalence were reported as 0.20%, 0.30%, 0.20%, 1.00%, and 1.00% for the age groups 40–49 years, 50–59 years, 60–69 years, 70–79 years, and 80 years and above, respectively.¹⁵ The overall prevalence for stroke was 0.30%, and the ratio of male and female patients were 3.44:2.41.¹⁶ Stroke may affect the person's ability to perform their daily living activity. It restricts their activity participation and also has a great impact on their quality of life.¹⁷ Return to previous activities and well-being of living often seen as a goal of rehabilitation.⁷ The proper rehabilitation helps the affected people to achieve their fullest independence in functioning, mobility and psychosocial adjustment. In order to ensure the proper rehabilitation and community reintegration of the affected individual, CRP is working with both the Multi-Disciplinary Team (MDT) and Inter-Disciplinary Team (IDT) approach to promote the most possible independence to their community after getting discharge from the hospital setting.¹⁸ The concept of full

participation and employment in society is becoming important issue for stroke survivors after completing rehabilitation service.¹⁹ Having a job presents visible evidence to society that a person has value.^{20,21} Productive work include social contact and status and structure in one's life so returning to work provides a boost in confidence and self-esteem for stroke survivors,²² that's why it is very important issue for stroke survivors to engage and participate in their daily living activity.

Participation is very sensitive issue in our socio-cultural aspect. Person with a stroke needs proper guidance about their activity participation during rehabilitation time. Therapists concentrate on this issue in order to improve quality of life. Large numbers of international studies have been done about participation after stroke but in Bangladesh there is no related studies and resources available about participation in a Bangladeshi context at all. So it is very important issue to conduct the study about the level of participation after stroke. That's why researcher was interested to find out the actual participation level of stroke survivors in community when they complete their total rehabilitation process in Bangladesh.

1.3 Rationale of the study

Participate in everyday occupations is an important issue of individual stroke survivor.²³ Participation is a concept in the International Classification of Functioning, Disability and Health (ICF), defined as “involvement in a life situation”.²⁴

As stroke survivors participation in community is restricted after stroke, so to increase their participation in community Occupational Therapy is an important part of stroke rehabilitation program. Recently a study was completed that stroke patients who had received occupational therapy service after stroke they were more independent to perform their personal activities of daily living. The Occupational Therapist's role is to help stroke patients to have maximum independence in their life as much as possible.²⁵ An occupational therapist assist the stroke patients by facilitating symmetric motor function, improving functional use of the affected side, and restoring the patient to his or her maximal level of independence as much as possible. The goals of occupational therapy for stroke patient are to improve the deformities, achievement of maximal physical and facilitation of maximal independence in self-maintenance.²⁶ Therapists

educate patient with stroke about how to regain lost performance and compensatory technique. The main focus of occupational therapy treatment is to train of self-care, productivity and leisure activities. Occupational therapist also educates and shares information about patient's condition to family and caregivers.²⁷ The result of study will be helpful for occupational therapist to prepare appropriate treatment plan and provide better intervention. Therapist will be provided information and education to client and caregiver about the importance of participation.

Caregiver is very important for a patient with stroke. Many patients depend on their caregiver to perform activity. Caregiver takes part in caring of stroke survivors. The caregiver is primarily involved in helping the stroke survivors to live independently at home.²⁰ Bangladeshi caregivers are not well known about post stroke participation. They also not have clear idea about the importance of participation. This study will be beneficial for client and caregiver. This study will help to create more awareness among patients and caregivers about the importance of active participation.

This study is very important for others health professionals like as Physiotherapists and Speech and Language Therapists. The focus is on improving activity participation in community for people with stroke in their everyday life. It may assist in the development of other professionals such as social worker and counselor knowledge on this topic.

Researcher feels very much interested in this area as a student of occupational therapy. It is hoped that further resource will be developed in this area after completing this study. Patient with stroke, health professionals and also occupational therapist may have more knowledge about the importance of participation after stroke.

Finally, from this study patients may benefit following holistic rehabilitation from a practitioner who has gained knowledge from the study.

1.4 Aim of the study

To find out the level of participation of stroke survivors in community of Bangladesh after receiving occupational therapy service.

1.5 Objectives of the study

- i. To find out participation level in the community setting in the perspective of occupational area of stroke survivors.
- ii. To find out association between demographic factor and different occupational area.
- iii. To identify the participation barrier in the aspect of different functional area.

2.1 Stroke

People can affect by stroke in any age. Stroke may occur as a result of loss of blood circulation in brain. Stroke has a major contribution to increase disabilities in the world. Stroke occurs in every half second to a person in world. Every year approximately 5 million people achieve disability by stroke in the world.²⁸ Bangladesh is no exception of them.

WHO (2014) defines stroke as- *“A stroke or Cerebral vascular accident (CVA) is caused by the interruption of the blood supply to the brain usually because a blood vessel bursts or is blocked by a clot. This cuts off the supply of oxygen and nutrients causing damage to the brain tissue. The most common symptom of a stroke is sudden weakness or numbness of the face, arm or leg, most often on side of the body. Other symptoms include: confusion, difficulty speaking or understanding speech, difficulty seeing with one or both eyes, difficulty walking, dizziness, loss of balance or coordination, severe headache with no known cause, fainting or unconsciousness”*.

Stroke causes damage to the brain. The total body function including motor function is maintained by brain. Body functions and motor function become impair due to stroke. Patient’s ability to perform ADLs becomes impaired after stroke. Their activity participation is also restricted after stroke due to depression and low cognitive function.⁽²⁹⁻³²⁾ After stroke the rehabilitation outcome and activity participation are depend on the type of stroke.

2.2 Types of stroke

There are mainly 2 types of stroke. Those are: Hemorrhagic and Ischemic stroke

2.2.1 Hemorrhagic stroke

*Hemorrhagic stroke can be defined as the sudden onset of a neurologic deficit associated with brain.*³³

Atchison et al. described that hemorrhagic strokes occur by breaking or rupturing blood vessel and bleeding into or nearby brain tissue. The rate of hemorrhagic stroke is nearby

20% of total stroke. There are two types of hemorrhagic strokes. Those are: intra cerebral hemorrhage and subarachnoid hemorrhage. The directly bleeding in brain is intra cerebral hemorrhage. A subarachnoid hemorrhage happens when blood pressure increase in artery and bleeding occurs at soft membrane of brain. Fatality rate of hemorrhagic stroke is severe than ischemic stroke but the recovery rate is better than ischemic stroke. Young people faces hemorrhagic stroke more than the other type. The survivors of hemorrhagic stroke have a greater chance for recovering function than those who suffer ischemic stroke.³⁴

2.2.2 Ischemic stroke

*An ischemic stroke is death of brain tissue due to interruption of blood flow to a region of the brain caused by occlusion of a cerebral or cervical artery or, less likely, a cerebral vein.*³⁵

Atchison et al. mentioned that, ischemic stroke is most common types of stroke. Approximately 80% of strokes are ischemic stroke. Three types of ischemic stroke are thrombotic, lacunar and embolic stroke. Cerebral thrombosis happens at one blood vessel of brain and blood flow gets hampered. Lacunar stroke occur when a small branch of great cerebral arteries is blocked. Prognosis is not so good in lacunar stroke. Patients with lacunar stroke have experienced abnormality in movement or sensation. Cerebral embolism refers to a clot has formed in a location of brain artery. The clot circulates through artery and blocks the artery. The prognosis is not so good in ischemic stroke. Patient also experiences weakness in body part, abnormalities in movement.

In a case-control study, hemorrhagic stroke patients showed functional gains somewhat faster than ischemic patients,³⁶ where as others found that those with ischemic strokes exhibited greater functional impairment and improvement more slowly than hemorrhagic stroke.^{37, 38}

All types of stroke may have some impact in survivor's body and some changes occur among patient's body as a consequence of stroke.

2.3 Consequences of stroke

Stroke affects the person's whole life. The changes depend on location of obstruction and extend of brain tissue affected. Sensory, motor, perceptual, and cognitive deficit can occur on patient body. Sensory disorders include tactile, position sense or proprioception, object identification or stereognosis and auditory. Perceptual disorders include inability to define right position of body or body scheme disorders, tactile perception, deficit in motor plan or apraxia, unilateral neglect, inability to attend visually element in environment or problem in visual attention, inability to recognize the relationship between one form and self in spatial area or problem in spatial relationships, figure ground perception, vertical visual perception and inability to recognize familiar object from environment or agnosia. Patient also has cognitive dysfunction. Cognitive dysfunctions include problem in memory, judgment, abstract thinking, maintaining sequence and problem solving. A patient with stroke faces different physical complications such as weakness of body part, numbness, change in muscle strength and tone.³⁹

After the discharge from the hospital to their home, stroke patients face challenge to engage different type of participation in community and also experience various activity limitations due to depression and cognitive impairment or emotional change.⁴⁰

2.4 Participation

The International Classification of Functioning, Disability and Health (ICF), defines participation as “involvement in a life situation”.⁴¹ Assessing someone's level of participation is seen as essential to understand the social impact of a disability on a person's life.⁴² The definition of participation and participation restriction found in the ICF has been described as “intuitively satisfying” but “difficult to measure”. People viewed participation is an expression of their values. Several themes related to core participation values and these are: (i) *active and meaningful engagement/being a part of*, (ii) *choice and control*, (iii) *access and opportunity* (iv) *personal and societal responsibilities*, (v) *having an impact and supporting others*, and (vi) *social connection*.⁴³ As patient activity participation is restricted after post stroke, so they

cannot express their values and activity limitation which are mainly responsible for participation restriction.

2.5 Activity limitation post stroke

Activity limitations are defined in different ways. One common definition is whether a person is not able to perform physical tasks (e.g., walking up ten steps, standing for two hours, carrying a ten pound object), or engaging in social activities and recreation (e.g., going shopping, visiting friends, sewing, reading) without the assistance of another person or using special equipment is called activity limitation.⁴⁴ According to WHO, 2001 activity limitation is a difficulty encountered by an individual in executing a task or action.⁴⁵

2.6 Relation between stroke, activity limitation and participation⁴⁰

Condition	Activity limitation	Participation	Compensatory technique
Stroke	Limitations in walking	Mobility limitations	Patients are using wheelchair or a stick to move around their homes or walk within the community
	Limitation in bathing, eating, going to toilet, and dressing	Dependency in self-care activities	They need care giver support and assistance to carry out the self-care activities
	Limitation in cooking, washing clothes and cleaning the house.	Dependency in domestic life activities	They need care giver support and assistance to complete domestic life activities

	They visit nobody. They cannot reach where others are. They become separated from the family and neighbors	Decreased social interactions	They just sit in the house till somebody comes to see them
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Table -01: Relationships between stroke, activity limitation and participation

2.7 Community based participation

2.7.1 Community

A group of members who live in a certain locality and interact with one another while sharing common interests or goals is called community.⁴⁶

2.7.2 Community based participation

The term community-based participation refers to “the extent of participation in religious, social, recreational, vocational, political and other organisational community groups and activities”.⁴⁷ Community participation is essential to gain some insight after stroke. This will help to provide an indication of the effectiveness of post stroke interventions in the community and identify areas which need community strengthening.⁴⁸ Community participation develops the managerial and organisational capacity to increase control over the decision of one individual life so it is very important for post stroke survivor after rehabilitation.⁴⁹

2.8 Importance of community based participation

- Community based participation facilitate the patient to be actively involved in all daily living activity and increase active participation.⁵⁰
- Community participation teaches the patient how to resolve conflict.⁵⁰
- Learning is promoted and patient will be able to help themselves by community participation.⁵¹

- Community based participation increase capacities of individuals to mobilise and help themselves to minimise dependency on the state and leads to a bottom-up approach.⁵¹
- Community base participation helps the patient be able to assess their own situation, organize themselves as a powerful group and work creatively towards changing society and building up a new world.⁵¹

However some factor which is responsible for creating barrier to community participation after stroke.

2.9 Influencing factors of participation after stroke

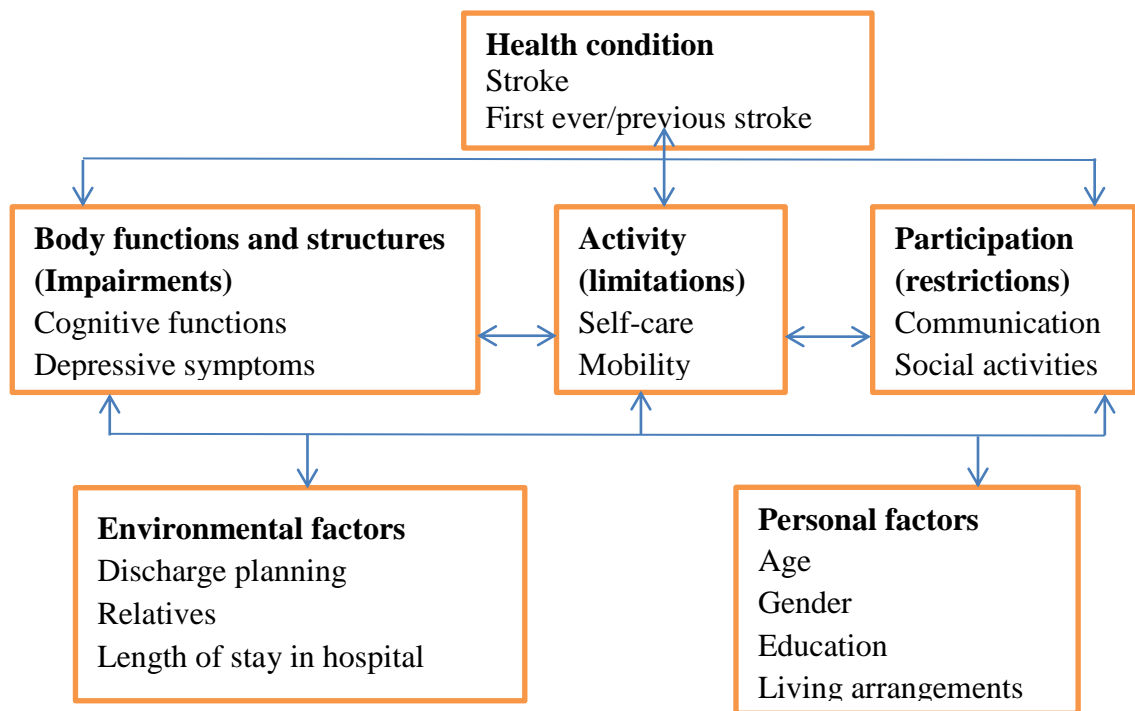


Figure-01: Influencing factors of participation after stroke⁵²

2.9.1 Body functions

Body functions are the physiological functions of body systems (including psychological functions). Both visible and invisible symptoms such as paralysis, paresis, behavioral changes, fatigue, depression, cognitive impairment or emotional changes affect the body function due to the stroke.⁵³ Earlier research among patients with stroke found that functional impairment affect the ability to perform activities that are associated with low health related quality of life (HRQoL).⁵⁴

2.9.2 Depression or depressive symptoms

Depressive symptoms occur frequently after a stroke. In a review of different studies, it was concluded that one third of all patients suffering from stroke experience depressive illness or depressive symptoms sometime after the incident. Chemerinski et al. showed that reduction of post stroke depression, both minor and major, was related to greater recovery in ADL functions over the first few months after stroke.⁵²

2.9.3 Activity and participation

Stroke impacts on the patient's activities and participation in the community and may also influence their relative's life situation.⁵³ The patient's goals are the recovery of the previous roles and habits as before stroke⁵⁵ and the most important aspect of recovery is the return to meaningful activities.⁵⁶

2.9.4 Personal factors

The patient's personal factors, such as age, gender and education were also associated with HRQoL. This may be due to the fact that stroke occurs suddenly and unexpectedly. Middle-aged patients do not learn coping strategies for their new life situation and daily activities so soon after discharge. Older patients are more likely to have had previous illnesses, which might have required the development of coping strategies. There have also gender differences in the HRQoL, as the females had lower HRQoL than males.⁵⁷ Educational level is a better socioeconomic variable which facilitate income and occupation for stroke patient.⁵⁸

2.9.5 Environmental factors

Environmental factors make up the physical, social and attitudinal environment in which people live and conduct their lives. Environmental factors such as stroke unit, the professionals employed in health care and community care, professional's attitudes, laws, regulations, guidelines and routines could be seen as barriers or facilitators for stroke patient.⁵⁹

The sake of reducing this factor occupational therapy plays a vital role for increase post stroke participation in community.

2.10 Occupational therapy role in post stroke participation

Solet⁶⁰ discusses that Occupational Therapy (OT) is a holistic health care profession that evaluates and treats the patient in regards to their activities of daily living. They will use purposeful activity to promote the restoration of function and to maximize participation in meaningful activities, i.e. occupations of self-care, domestic, social and work roles.

Role of Occupational therapy in post stroke participation includes:

Reduce post-stroke depression and anxiety

- Provides patient education, counseling, social support to reduces post stroke depression and anxiety. Because these hamper the post stroke participation in community and rehabilitation outcome.⁶¹

Daily living activity practice

- Engaging patient to perform self-care, productivity and leisure activity in treatment session to increase their participation in all activity and decrease the dependency in community.⁶²

Cognitive therapy:

- The participation restriction is minimised among patient with stroke who has cognitive deficit by engaging cognitive therapy.⁶³

Reduce Sensory Impairments

- Sensory impairments are directly linked to activity limitations and participation restrictions after stroke. OT applies inhibition and facilitation technique to reduce sensory impairment.⁶¹

Reduce spasticity

- Spasticity is correlated with activity limitations associated with hygiene, dressing, and pain. OT acts a great role to reduce spasticity and facilitate activity participation.⁶¹

Balance practice:

- Impaired balance makes it difficult to safely complete activities of daily living, move around the home and community, and live independently. OT provides postural training, task-oriented therapy, assistive device or orthosis to improve balance.⁶¹

Assistive device:

- Occupational therapists prescribe different types of assistive device for stroke patient to reduce participation restriction.⁶⁴

Exercise:

- Therapist engage patient to different types of exercise which helps to improve body status and minimise participation restriction among people with stroke.⁶⁴

Social skills training:

- Occupational therapists work with patient with stroke who have problem in social skills.⁶⁴

Education:

- Therapists provide different types of education which helps the patient with stroke to perform and complete activity easily and safely.⁶³

3.1 Study design

The researcher had chosen the design as the way of using large numbers of sample and then collecting data accurately. Cross sectional study is known as a universal and conversant study design to conclude great populations at an exact point of time.⁶⁶ Cross-sectional studies are present a situation over a short period of time. This types study usually conducts to find out the prevalence of a case from sample. It is an easy way to collect information among the large number of population in a short time. For this reason, researcher used this method for this study.

In this study, researcher used quantitative research design. A quantitative method is an appropriate method to know the subject well-known, comparatively simple and clear.⁶⁵ Quantitative method is an easy way to collect information among large participant. The study was conducted by non-experimental cross-sectional survey research design. Researcher used this method to fulfill the aim and objectives of the study. The aim of this study is to identify the level of participation of stroke survivors in community of Bangladesh after receiving occupational therapy service.

3.2 Sampling selection**3.2.1 Study area**

The study conducted in occupational therapy outpatient unit and stroke rehabilitation unit of CRP-Savar and CRP-Mirpur which is situated under the Dhaka district. CRP is a non-government organisation (NGO) and work for rehabilitation in Bangladesh. Patient with stroke gets proper treatment and rehabilitation service from CRP. In CRP-Savar and CRP-Mirpur there has an Occupational Therapy outpatient unit and stroke rehabilitation unit which deliver treatment for stroke survivors.¹²

3.2.2 Sampling

Sampling is important part of a survey research and it is an approach more systematically in relation to the specific aims, purposes or hypothesis of the research. Sampling is a process or procedure that helps a researcher to select sample.⁶⁷ The

researcher selected 89 stroke survivors as sample of study by using purposive sampling. Purposive sampling is a non-random sampling technique. The purposive sampling can use on survey based research. By purposive sampling, sample knows about the purpose of study and provides information about question from their knowledge. Researcher used purposive sampling to get more accurate data from participant. Researcher collected data from patient with stroke on the base of inclusion and exclusion criteria.⁶⁸ For this reason purposive sampling was selected in this study.

3.2.3 Sample size selection

Sample size estimated according to following criteria: 50% prevalence of patient with stroke because researcher had no accurate data about the prevalence of stroke in Bangladesh. The confidence interval was 95% and 5% error level.⁶⁹ The formulation of sample size determination:

$$(n) = \frac{z^2 \times p \times q}{r^2}$$

Here,

$z = 1.96$ (confidence interval 95%)

$r = 0.05$ (error level 5%)

$p = 0.5$ (50% prevalence)

$q = (1 - 0.5) = 0.5$ (1-p)

The total sample required 384 to conduct study. However researcher selected 89 people to conduct the study due to limited time for this study. The samples were selected based on inclusion and exclusion criteria.

3.3 Inclusion criteria

- Medical diagnosis of patient with stroke was only included in this study and others neurological condition were excluded from the study.¹⁷
- Male and female both stroke survivors were included in this study.
- Stroke survivors age were between 18 and 75 years old with a first-ever stroke experienced with in 6 or more months because stroke survivors reached full independence physically by 6 months post stroke.⁷⁰

- Stroke survivors who were living in their own community were included in this study
- Care giver were participated in this study and provided information when the patient had speech difficulty and cognitive deficit.⁷¹

3.4 Variable identification

Conceptual framework

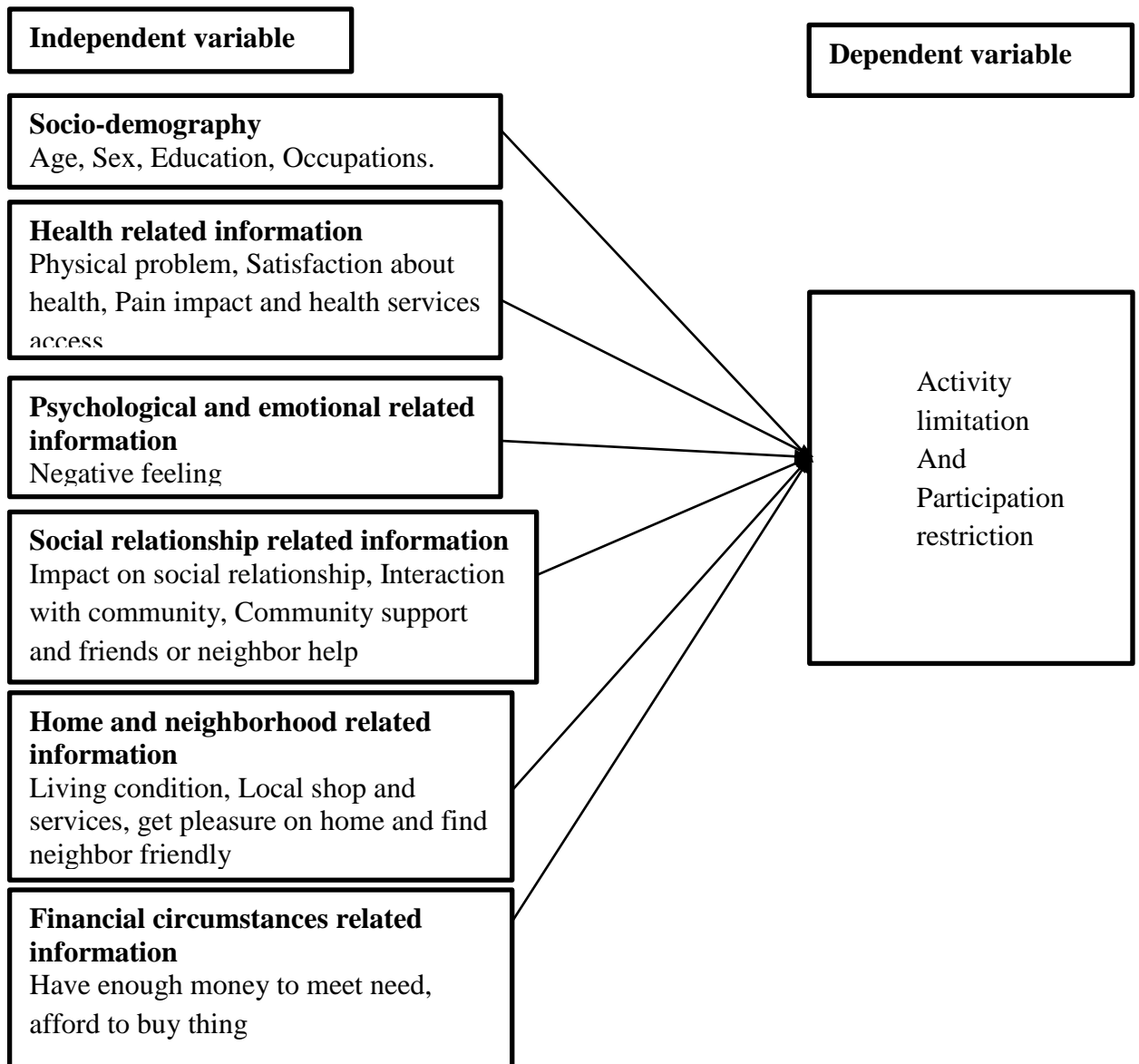


Figure-02: Conceptual framework

3.5 Field test

A field test was conducted with five stroke participants. Before beginning the final data collection, it was necessary to carry out a field test to help the researcher refine the data collection plan and cultural validation. During the interview, researcher informed the participants about the aim and objectives of the study. From the field test the researcher became aware about which parts the participants found difficult to understand. It helped to make a plan that how the data collection procedure can be carried out, sorting out the difficulties during questioning, making a basic plan of questioning and if there is needed any modification of the questionnaire. The questionnaires for the field test firstly transcribed from the English to Bengali. Then the transcription copy was translated again Bengali to English. And finally the transcription copy was corrected by the expertise person. The field test helped the researcher to make the plan on how the ways can be for collecting data, how a question can be asked on different ways and what could be the probing question to find out the participant's actual response on the event. Finally the questionnaire was developed both in Bangla {APPENDIX-(V)} and in English {APPENDIX-(IV)}.

3.6 Ethical consideration

Ethical considerations implemented to avoid ethical problem. The researcher granted permission from research supervisor and head of the department {APPENDIX-I (a)} from the department of Occupational Therapy of Bangladesh Health Professions Institute (BHPI), an academic institute of CRP to conduct the study. Researcher got permission from head of Occupational Therapy department in both CRP-Savar and CRP-Mirpur for data collection. Information sheet and consent form were provided to each participants. Aim and objectives were clearly described in information sheet and consent form. Researcher informed verbally about the topic and purpose of the study to participant. The researcher assured them that confidentiality of personal information will be strictly maintained in future. The researcher ensured that the service of patient will not be hampered from their participation in this study. Participant had full right to withdraw their participation from this study at any time. The researcher also committed not to share the information given with others except the research supervisor. As the

participants were informed by the information sheet about the study, so they provided their consent by the consent form. The information gathered from the participants anonymously. The researcher was available to answer any study related questions or inquiries from the participants. All sources cited and acknowledged appropriately. The field notes and answer sheet not shared or discussed with others.

3.7 Data collection instrument

To fulfill the aim and objective of the study researcher use the following tools during data collection period:

- Information sheet and consent form.
- Impact on Participation and Autonomy Questionnaire (IPAQ)
- Paper, pen, pencil and eraser.

3.7.1 Information sheet

Information sheet is an important for the participants that make sure the participant to participate the research.⁷² An information sheet is necessary to inform the participant about identity of researcher, institute affiliation, research related information such as title, aim, period, duties and privileges of participants. To provide information about researcher and subjects, researcher developed an information sheet in Bangla {APPENDIX- II (b)} and English {APPENDIX- II (a)}. Researcher was make sure about maintain confidentiality about their identity in this study by the information sheet. Data not shared to other person except research supervisor who was coordinating this study. The information sheet included that the participation was voluntary and this study was not any harm for the participant.

3.7.2 Consent form

Consent form is an essential part where the person consents to do something.⁷³ A consent form is necessary for a study and it is a standard way to get clearance or agreement of participation legally which is important before initial the collect data of any kind of research. To take consent from subjects, researcher developed a consent form in Bangla {APPENDIX- III (b)} and English {APPENDIX- III (a)}. Researcher was set printed consent form for participants to confirm the level of accepting of the information sheet, awareness about the potential benefits and risks as participant of the

study. Researcher was taken permission from every single participant with signature on a written consent form. Volunteer participation of participants was permitted by signing.

3.7.3 Impact on Participation and Autonomy (IPA)

“Impact on Participation and Autonomy (IPA)” scale is using word wide to quantify limitation in participation and autonomy. IPA was acceptable validity and reliability that was analyzed in different studies. This scale had 7 items of autonomy indoor, 7 items of family role, 5 items of autonomy outdoors, 7 items of social life and relationships & 6 items of work and education. Each of these 32 items has identical response options, ranging from zero to four with higher scores representing poorer participation and autonomy. Response options (scoring) 0=very good, 1=good, 2=fair, 3=poor, 4=very poor.⁷⁴

The IPA also examines the extent to which these limitations are experienced as problematic. This is evaluated with nine questions, which cover nine different aspects of participation and autonomy. Each of these 9 items has identical response options, ranging from zero to two with higher scores representing greater problem experience. Response options (scoring) 0=no problem, 1=minor problem, 2=major problem.⁷⁴

As a part of questionnaire validation researcher took permission from the author (appendix-VI) for use this scale. Researcher translated this questionnaire into Bengali because this is easier for the participant to better understand and fill-up questionnaire.

3.8 Data collection

3.8.1 Data collection technique

The researcher fixed a date and time with the participant, according to his/her available time. At first, the researcher informed the participants about the contents of the consent form. Researcher used IPA questionnaire to collect data. Researcher collected data through face to face interview process in this study. In a face to face interview, participant can give information accurately and get clarification about any unclear question¹³. By using the questionnaire researcher got information about the level of

participation among stroke patient, the details about actual situation of participation level and the ultimate result of participation restriction.

3.8.2 Data collection procedure

At first the researcher took permission from the head of the Occupational Therapy Department in CRP-Savar and CRP-Mirpur to collect data from outpatient unit and Stroke Rehabilitation Unit {APPENDIX- I (b)}. Researcher reviewed the schedule with patients with stroke from unit in-charge and then makes a daily potential participant list to check the inclusion criteria. Before collecting data, researcher provided information sheets and consent forms to participant. Then, researcher spent some time to build rapport with the participant. The interviewer explained the title and aim of the study to gain the trust of the participants. During an interview, trust is a very important element because if the participants feel uneasy to discuss sensitive issues then they may hide the truth. The questionnaire was based on to find out the participation of patient with stroke. Interview was conducted in Bangla, so that participants could easily understand. Then the researcher collected the data from the participants by a face to face conversation and others trained volunteer who helped researcher to collect data also followed this procedure. Through this process researcher and others volunteer asked question and filled up questionnaire or participant completed questionnaire. The participant usually took 20 minutes to fill up the questionnaire. The interviewer helped the interviewee by changing some word of same meaning to understand the questionnaire and when participant confused in some answer.⁷⁵

3.8.3 Data analysis procedure

There are many statistical methods that might be useful but the researcher used descriptive statistics. Descriptive statistics are those that describe, organise and summarise the data and include think as frequencies, percentages, and description of central tendency and descriptive of relative relation.⁷³ Data was analysed through data entry, and analysis was performed using the Statistical Package for Social Science (SPSS) version 20, by using descriptive statistic method and Microsoft excels spreadsheet. The presentation of data was organised in SPSS and in Microsoft Office Word. All data input were given within the variable of SPSS. Specific findings were

described in bar, graph, pie chart and in different tables which were easily understandable for reader.

3.9 Rigor

The researcher conducted the study in a rigor manner. All of the steps of research process supervised by an experienced supervisor. During the interview and analysis of data, researcher did not try to influence the process by his biases, value or own perspectives. During the interview the researcher did not interrupt the participants during answering questions. Similarly during data analysis, researcher did not submit according to own perspectives. Data were collected carefully and researcher accepted the answers of participant whether negative or positive without giving them any impression. The researcher checked all data for avoiding mistake any information. Notes were handled with confidentiality. In the result section, the researcher did not influence the outcome by showing any personal interpretation.

This section provides statistical analysis in a systematic way and interpretation of analysed findings following the objectives of the study. The aim of this study was to find out the participation level in community of patient with stroke in Bangladesh after receiving occupational therapy service. The objectives of the study were also to find out participation level in the community settings in the perspective of occupational area of patient with stroke, association between demographic factor and different occupational area like as (i.e., mobility, self-care, activity in and around the house, looking after your own money, leisure, social life and relationships, helping and supporting others, paid or voluntary others ,education and training), to identify the participation barrier in the aspect of different functional area. Eighty nine (89) populations were selected for this study. The findings of the study have been analysed and represented by using bar graph and pie charts in a systematic way.

Socio-demographic characteristics of the respondents

4.1 Age group

The study showed that major numbers of person with stroke are older. The bar 01 shows, out of 89 respondents a significant number of stroke patients 49.40% (n=44) years old and 23.60 % (n=21) respondents were 33-47 years old, 21.30% (n=19) were 63-77 years old and finally 5.60% (n=5) were 18 -32 years old.

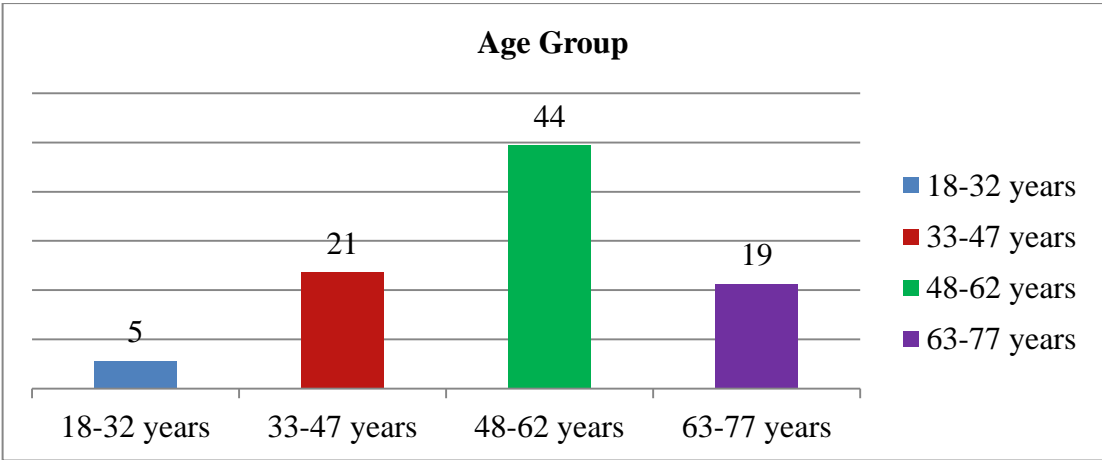


Figure-03: Age of the respondents

4.2 Gender of the respondents

The study had counted both males and females according to subject matter of study. The figure 02 represents that out of 89 respondents 65.2% (n=58) were males and 34.8% (n=31) were females. The numbers of male respondents were higher than females.

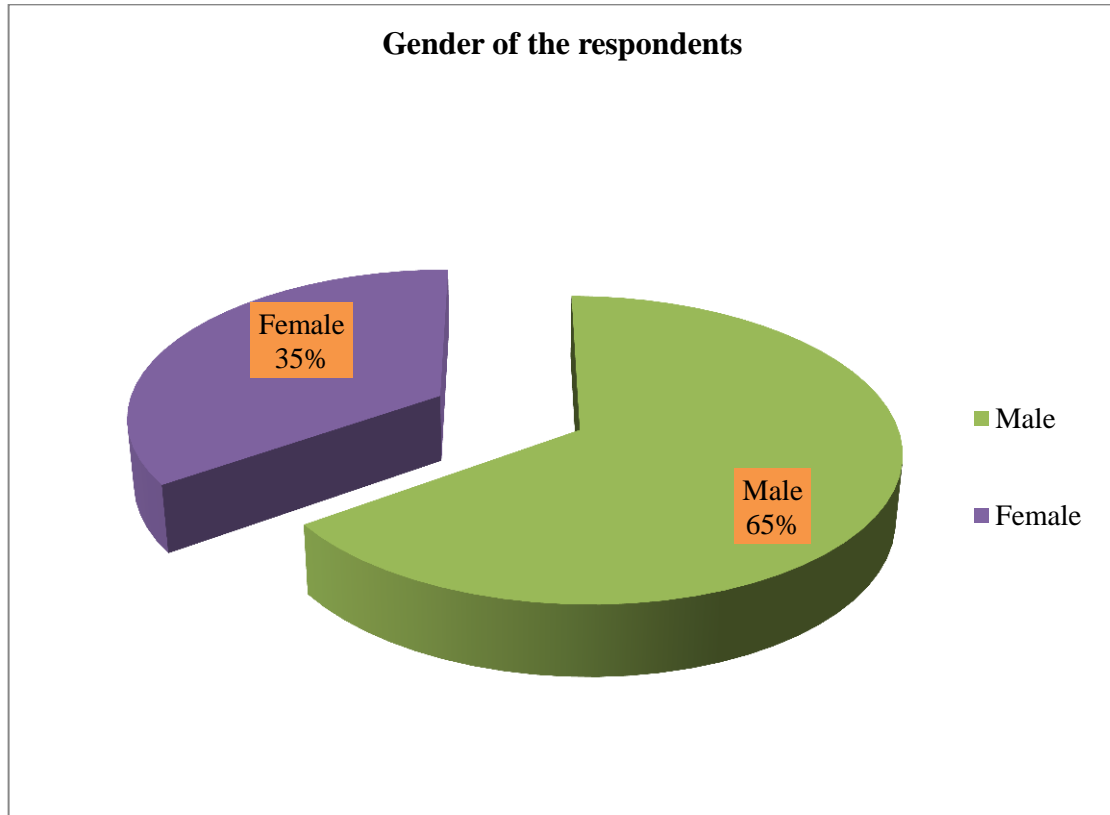


Figure-04: Gender of the respondents

4.3 Level of education of the respondents

Education is an important component for improving the respondent's quality of life standard. Education may have impacted on all aspect of human life. The figure 03 found out that higher rate of person with stroke 28.80% (n=29) were Graduate, more than 21.30% (n=21) were SSC pass, 12.70% (n=13) respondents were HSC pass, 11.40% (n=11) were high school level, 9.20% (n=9) were illiterate and small number 5.60% (n=6) respondents had primary education.

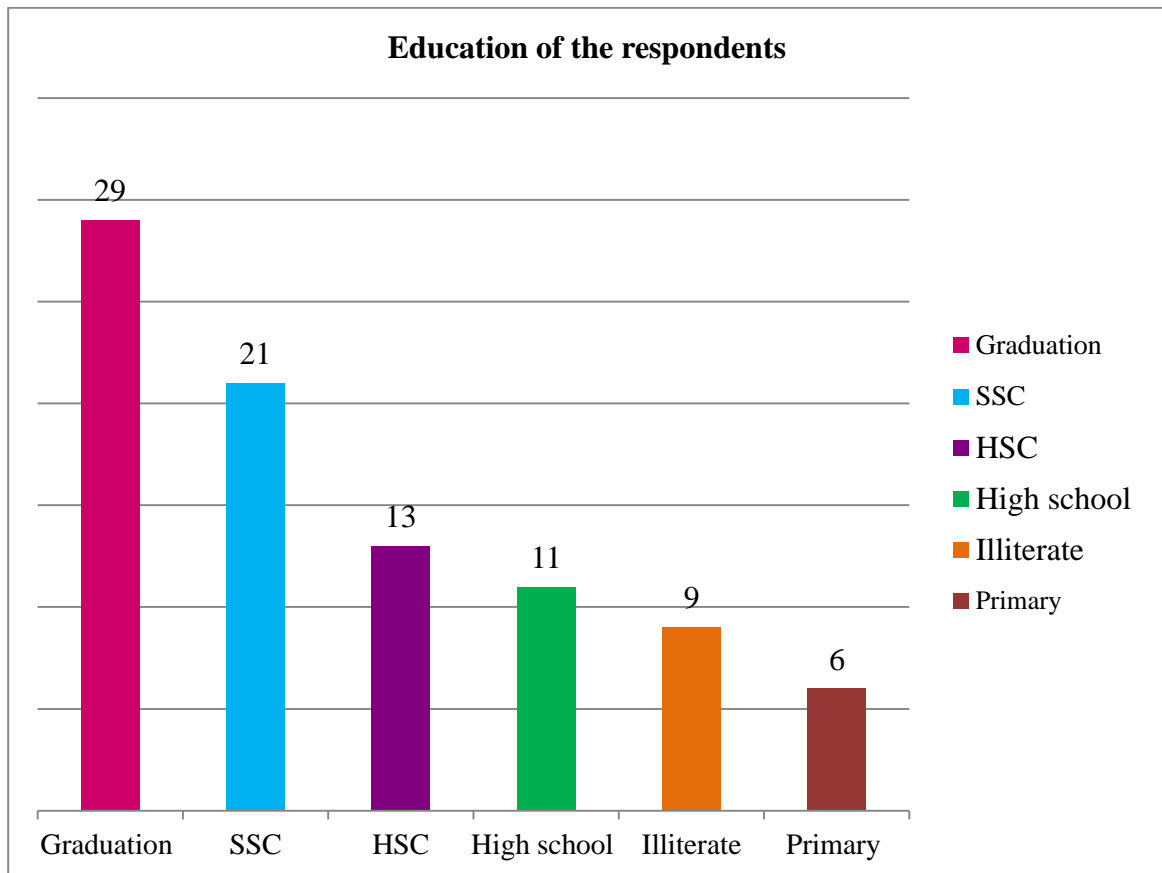


Figure-05: Educational level of the respondents

4.4 Occupation of the respondents

The study exposed that significant number of respondents 47.1% (n=42) were service holder, nearly 25.80% (n=23) were housewife, 15.70% (n=14) respondent were businessmen. Employment depends on the physical capabilities and level of education. The rest of respondents 5.60% (n=5) were daily labor, while nearly 3.40% (n=3) were involved in agriculture and 2.20% (n=2) were students. Patient with stroke are deprived from employment opportunity due to their physical capabilities, stigma, prejudice and discrimination.

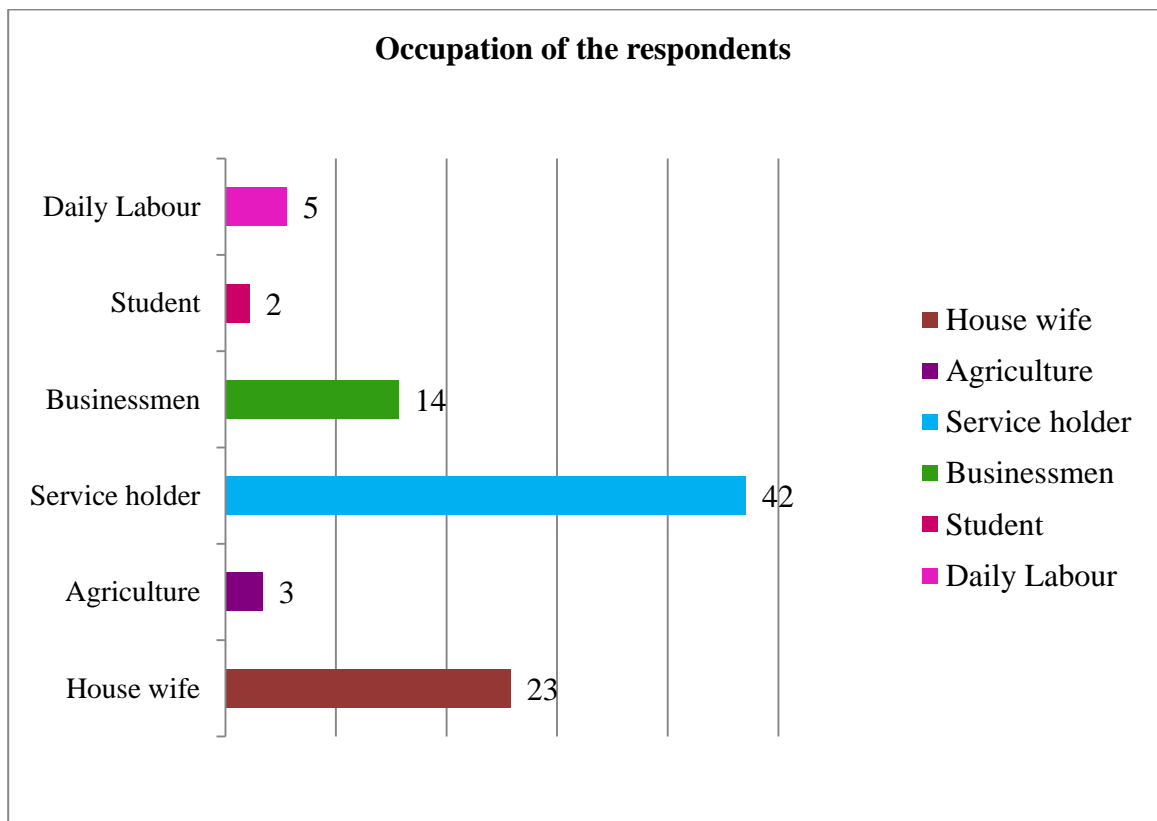


Figure-06: Occupation of the respondents

4.5 Marital status of the respondents

This study displayed that out of 89 respondents 97.8% (n=87) were married and 2.2% (n=2) were unmarried in this study.

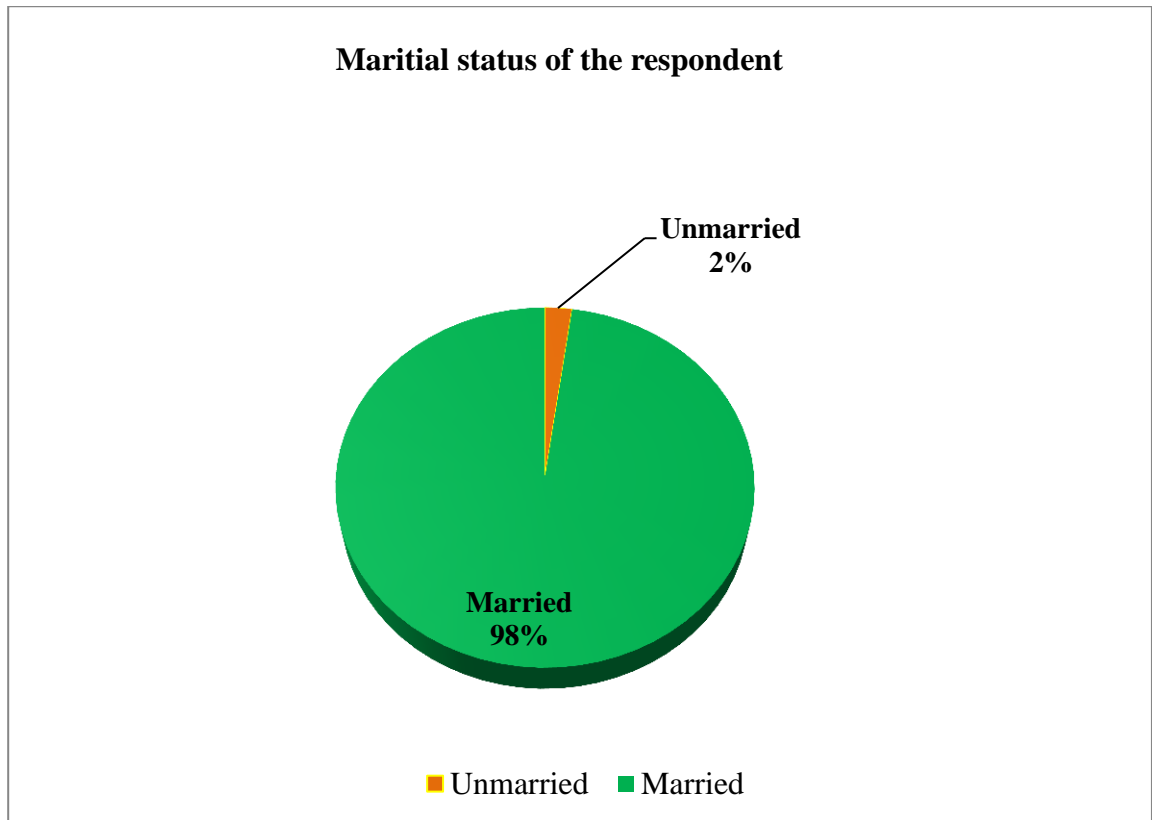


Figure-07: Marital status of the respondents

4.6 Family type of the respondents

The study explained that significant number of respondents 66.30% (n=59) were living with nuclear family, nearly 32.60% (n=29) were living with extended family and small number 1.10% (n=1) was staying alone.

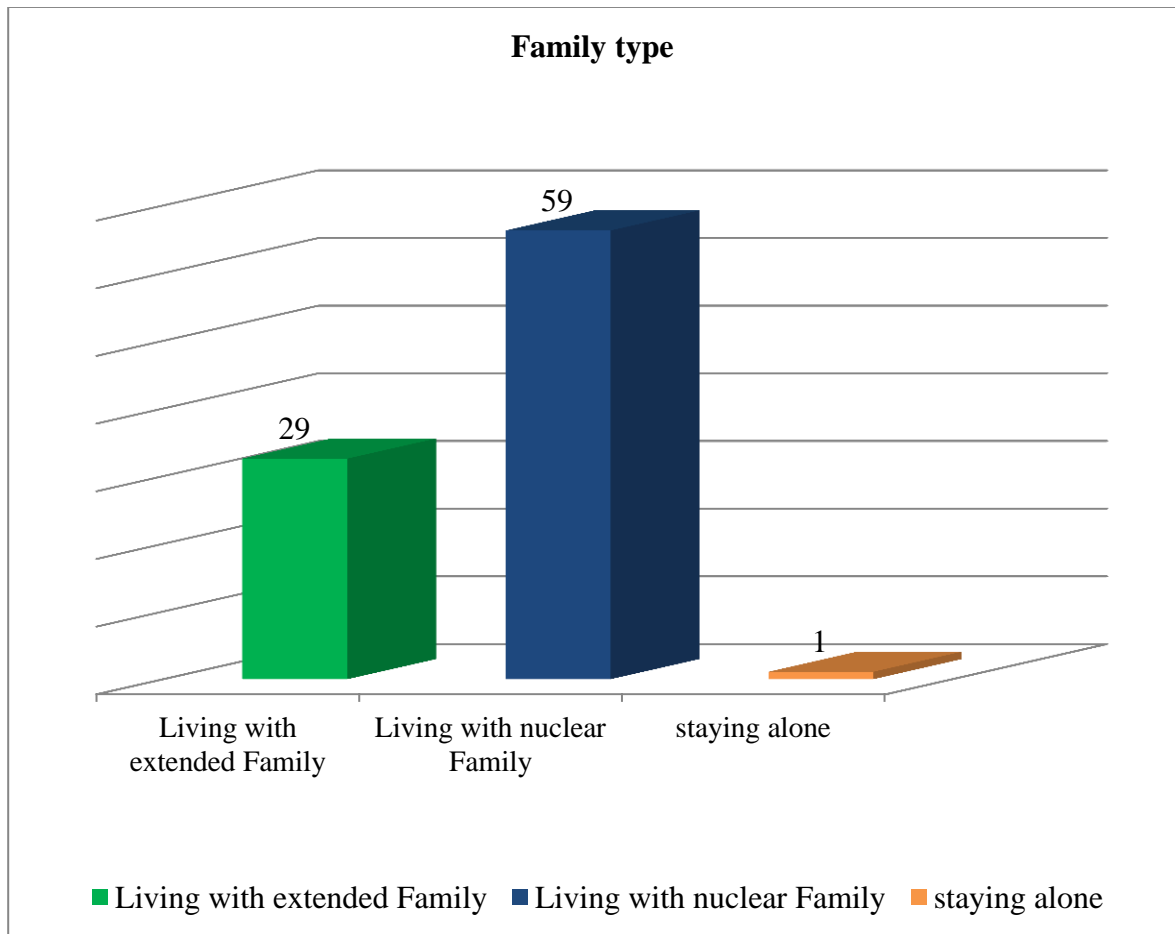


Figure-08: Family types of the respondents

4.7 Stroke type of the respondents

The study showed that significant number of respondents 66.3% (n=59) had Ischemic stroke, while nearly 33.7% (n=30) had Hemorrhagic stroke.

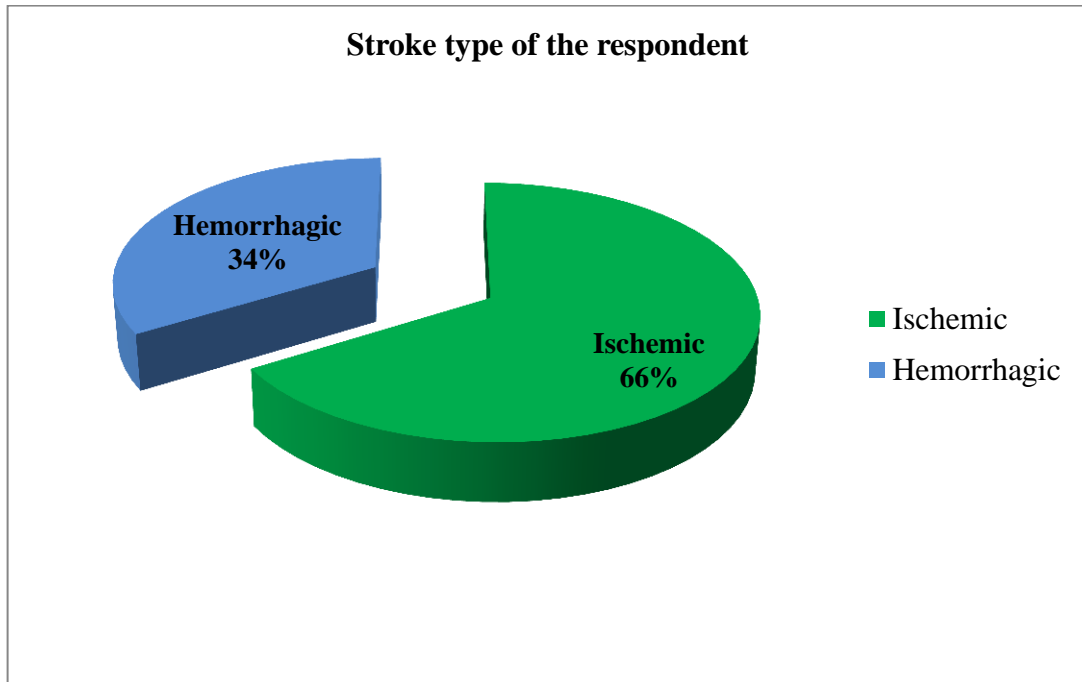


Figure-09: Stroke types of the respondents

4.8 Affected body part of the respondents

The study represented that significant number of respondents 51.7% (n=46) were left side affected and nearly 48.3% (n=43) were right side affected.

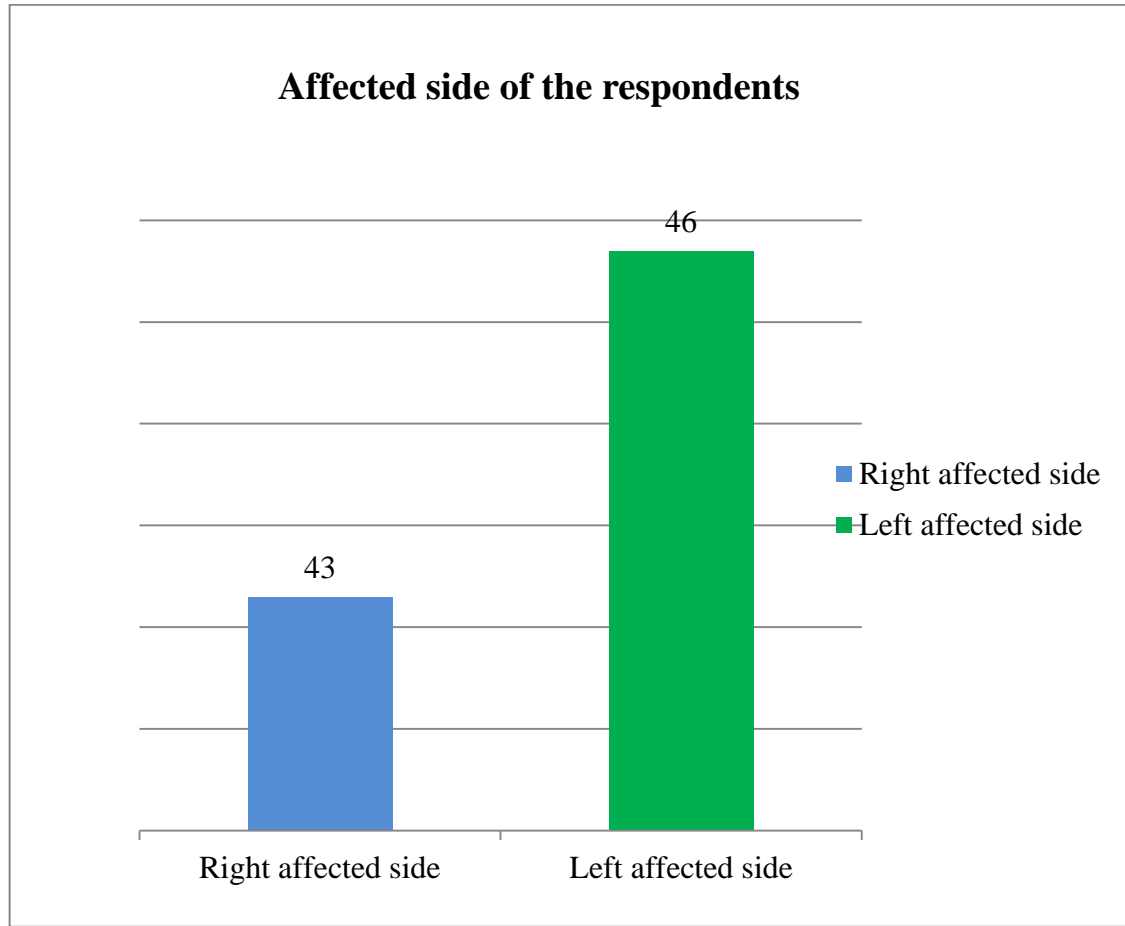


Figure-10: Affected body part of the respondents

4.9 level of Participation in community after stroke

According to IPA questionnaire, table 01 mentioned that here typical very good level score range was (0), good level score range was (1-2759), fair level score range was between (2760-5518), poor level score range was (5519-8277) and finally very poor level score range was (8278-11036) for 89 stroke survivors. In this study, after calculating total score by using SPSS 20 software researcher had got 4140 score from 89 stroke survivors which were under the (2760-5518) range and mentioned that their participation level was fair in community after stroke.

Score	Participation level
0	Very good
1-2759	Good
2760-5518	Fair
5519-8277	Poor
8278-11036	Very poor

Table-02: Score and participation level of 89 stroke survivors according to IPA questionnaire

4.10 The source of perceived restriction in participation and autonomy of the respondents of the different functional areas

The following tables showed that the source of perceived restriction in participation and autonomy after receiving occupational therapy service by using the questionnaire of IPA. The scale has 29 items. These 29 items are categorized by 9 factors.

4.10.1 The source of perceived restriction in participation and autonomy of the respondents of the functional area of mobility

The study explained that source of participation restriction for Mobility was 6.60 ± 2.991 which included 4 items that were $1.49 \pm .854$ respondents had my chances of getting around in my house where I want to are, $1.56 \pm .852$ had my chances of getting around in my house when I want to are, $1.80 \pm .932$ had my chances of visiting relatives and

friends when I want to are, 1.75±.945 had my chances of going on the sort of trips and holidays I want to are.

Functional area	Mean ± SD
Mobility	6.60±2.991
1a. My chances of getting around in my house where I want to are	1.49±.854
1b. My chances of getting around in my house when I want to are	1.56±.852
1c. My chances of visiting relatives and friends when I want to are	1.80±.932
1d. My chances of going on the sort of trips and holidays I want to are	1.75±.945

Table-3.1: The source of perceived restriction in participation and autonomy of the respondents of the functional area of mobility

4.10.2 The source of perceived restriction in participation and autonomy of the respondents of the functional area of self-care

The study represented that source of participation restriction for Self-care was 7.00±3.071 which include 5 items that were 1.53±.867 had my chances of getting washed and dressed the way I wish are, 1.53±.854 had my chances of getting washed and dressed when I want to are, 1.25±.679 had my chances of getting up and going to bed when I want to are, 1.47±.841 had my chances of going to the toilet when I wish and need to are and 1.21±.630 had my chances of eating and drinking when I want to are.

Functional area	Mean ± SD
Self-care	7.00±3.071
2a. My chances of getting washed and dressed the way I wish are	1.53±.867
2b. My chances of getting washed and dressed when I want to are	1.53±.854
2c. My chances of getting up and going to bed when I want to are	1.25±.679
2d. My chances of going to the toilet when I wish and need to are	1.47±.841
2e. My chances of eating and drinking when I want to are	1.21±.630

Table-3.2: The source of perceived restriction in participation and autonomy of the respondents of the functional area of self-care

4.10.3 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Activities in and around the house.

The study mentioned that the source of participation restriction for activity in and around the house was 10.10 ± 4.283 which include 1.97 ± 1.038 respondents had my chances of contributing to looking after my home the way I want to are, $1.47 \pm .906$ my chances of getting light tasks done around the house (e.g. making tea or coffee), either by myself or by others, the way I want them done are, $1.70 \pm .993$ had my chances of getting heavy tasks done around the house (e.g. cleaning), either by myself or by others, the way I want them done are, $1.55 \pm .905$ had my chances of getting housework done, either by myself or by others, when I want them done are, $1.56 \pm .878$ had my chances of getting minor repairs and maintenance work done in my house and garden, either by myself or by others, the way I want them done are and $1.85 \pm .924$ had my chances of fulfilling my role at home as I would like are.

Functional area	Mean \pm SD
Activities in and around the house	10.10\pm4.283
3a. My chances of contributing to looking after my home the way I want to are	1.97 \pm 1.038
3b. My chances of getting light tasks done around the house (e.g. making tea or coffee), either by myself or by others, the way I want them done are	1.47 \pm .906
3c. My chances of getting heavy tasks done around the house (e.g. cleaning), either by myself or by others, the way I want them done are	1.70 \pm .993
3d. My chances of getting housework done, either by myself or by others, when I want them done are	1.55 \pm .905
3e. My chances of getting minor repairs and maintenance work done in my house and garden, either by myself or by others, the way I want them done are	1.56 \pm .878
3f. My chances of fulfilling my role at home as I would like are	1.85 \pm .924

Table-3.3: The source of perceived restriction in participation and autonomy of the respondents of the functional area of Activities in and around the house.

4.10.4 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Looking after your money

The finding explained that the source of participation restriction for looking after own money was 1.54 ± 1.129

Functional area	Mean \pm SD
Looking after your money	1.54\pm1.129
4a. My chances of choosing how I spend my own money are	1.54 \pm 1.129

Table-3.4: The source of perceived restriction in participation and Autonomy of the respondents of the functional area of Looking after your money

4.10.5 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Leisure

The table 3.5 found that the source of participation restriction for leisure was $1.52 \pm .918$.

Functional area	Mean \pm SD
Leisure	1.52\pm.918
5a. My chances of using leisure time the way I want to are	1.52 \pm .918

Table-3.5: The source of perceived restriction in participation and Autonomy of the respondents of the functional area of Leisure

4.10.6 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Social life and relationships

The study table 3.6 explained the source of participation restriction for social life and relationships was 7.40 ± 3.670 which include $1.18 \pm .873$ had my chances of talking to people close to me on equal terms are, $.89 \pm .714$ had the quality of my relationships

with people who are close to me, $.83 \pm .727$ had the respect I receive from people who are close to me is score: for office use only, $.83 \pm .644$ had my relationships with acquaintances are, $.79 \pm .730$ had the respect I receive from acquaintances is, $1.48 \pm .918$ had my chances of having an intimate relationship are and 1.57 ± 1.010 had my chances of seeing people as often as I want are.

Functional area	Mean \pm SD
Social life and relationships	7.40\pm3.670
6a. My chances of talking to people close to me on equal terms are	1.18 \pm .873
6b. The quality of my relationships with people who are close to me	.89 \pm .714
6c. The respect I receive from people who are close to me is Score: for office use only	.83 \pm .727
6d. My relationships with acquaintances are	.83 \pm .644
6e. The respect I receive from acquaintances is	.79 \pm .730
6f. My chances of having an intimate relationship are	1.48 \pm .918
6g. My chances of seeing people as often as I want are	1.57 \pm 1.010

Table-3.6: The source of perceived restriction in participation and Autonomy of the respondents of the functional area of Social life and relationships

4.10.7 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Helping and supporting other people

The study result mentioned that the source of participation restriction for Helping and supporting others was 1.84 ± 1.117 .

Functional area	Mean \pm SD
Helping and supporting other people	1.84\pm1.117
7a. My chances of helping or supporting people in any way are	1.84 \pm 1.117

Table-3.7: The source of perceived restriction in participation and autonomy of the respondents of the functional area of Helping and supporting other people

4.10.8 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Paid or voluntary work

The study represented that Paid or voluntary work was 9.03 ± 4.294 which includes 5 items that are 2.00 ± 1.028 had my chances of getting or keeping a paid or voluntary job that I would like to do are, $2.13 \pm .945$ had my chances of doing my paid or voluntary work the way I want to are, $1.49 \pm .894$ had my contacts with other people at my paid or voluntary work are, $2.22 \pm .892$ had my chances of achieving or keeping the position that I want, in my paid or voluntary work are and $2.21 \pm .858$ had my chances of getting different paid or voluntary work are.

Functional area	Mean \pm SD
Paid or voluntary work	9.03 \pm 4.294
8a. My chances of getting or keeping a paid or voluntary job that I would like to do are	2.00 ± 1.028
8b. My chances of doing my paid or voluntary work the way I want to are	$2.13 \pm .945$
8c. My contacts with other people at my paid or voluntary work are	$1.49 \pm .894$
8d. My chances of achieving or keeping the position that I want, in my paid or voluntary work are	$2.22 \pm .892$
8e. My chances of getting different paid or voluntary work are	$2.21 \pm .858$

Table-3.8: The source of perceived restriction in participation and autonomy of the respondents of the functional area of Paid or voluntary work

4.10.9 The source of perceived restriction in participation and autonomy of the respondents of the functional area of Education and training

The study showed that the source of participation restriction for Education and training was $1.75 \pm .945$.

Functional area	Mean \pm SD
Education and training	1.75\pm.945
9a. My chances of getting the education or training I want are	1.75 \pm .945

Table-3.9: The source of perceived restriction in participation and autonomy of the respondents of the functional area of Education and training

4.10.10 Standardised mean score in perceived restriction in participation and autonomy

The study figure 11 explained that out of all participation domains the activity in and around the house domain was the higher source of participation restriction than the than the paid or voluntary work, social life and relationship, self-care, mobility, leisure, helping and supporting others and education and training and looking after own money domain after receiving occupational therapy service.

This figure 11 mentioned that the domain of participation restriction activity in and around the house was 10.10 ± 4.283 , paid or voluntary work was 9.03 ± 4.294 , social life and relationships was 7.40 ± 3.670 , self-care was 7.00 ± 3.071 , mobility was 6.60 ± 2.991 , helping and supporting others was 1.84 ± 1.117 , education and training was $1.75 \pm .945$, looking after own money was 1.54 ± 1.129 and leisure was $1.52 \pm .918$.

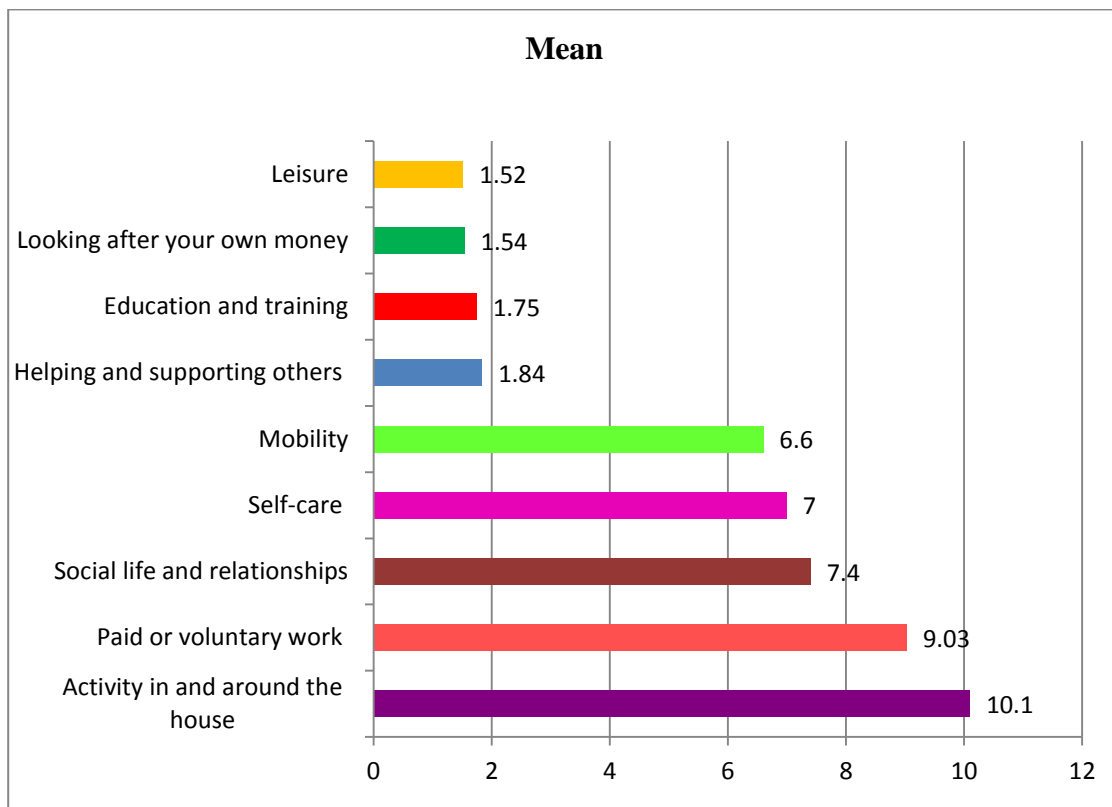


Figure-11: Standardised mean score in perceived restriction in participation and autonomy

4.11 The association between demographic factor (age, stroke duration & rehabilitation months) and occupational area

The study found that the association between demographic factor (age, stroke duration and rehabilitation months) and occupational area. A patient's Chi-square test was performed to show association between these variables.

4.11.1 The association between age and occupational area

Occupational area	Age				Total n =89	χ^2 value	P-value
	18-32 (years)	33-47 (years)	48-62 (years)	63-77 (years)			
Mobility	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	48.147	.150
Self-care	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	40.460	.664
Activity in and around the house	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	34.282	.878
looking after your own money	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	5.108	.954
leisure	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	6.903	.864
Social life and relationships	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	46.487	.411
Helping and supporting others	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	9.436	.665
Paid or voluntary work	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	61.850	.086
Education and training	5.6% (5)	23.6% (21)	49.4% (44)	21.3% (19)	100% (89)	19.351	.080

Table-04: The association between age and occupational area

Table 04 showed that there was no strong association between age and participation component like as paid or voluntary work was (n= 89, $\chi^2=61.850$, $p<.086$), education and training was (n=89, $\chi^2=19.351$, $p<.080$), mobility was (n=89, $\chi^2=48.147$, $p<.150$),

self-care was (n=89, $\chi^2=40.460$, $p<.664$), activity in and around the house was (n=89, $\chi^2=34.282$, $p<.878$), looking after your own money was (n=89, $\chi^2=18.033$, $p<.453$), leisure was (n=89, $\chi^2=9.415$, $p<.949$), social life and relationships was (n=89, $\chi^2=46.487$, $p<.411$) and helping and supporting others was (n=89, $\chi^2=9.436$, $p<.086$).

4.11.2 The association between stroke duration and occupational area

Occupational area	Stroke duration				Total n = 89	χ^2 value	P-value
	6-12 (months)	13-18 (months)	19-24 (months)	Above 24 (months)			
Mobility	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	35.759	.619
Self-care	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	62.545	.043
Activity in and around the house	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	46.075	.428
looking after your own money	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	24.463	.018
leisure	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	8.691	.729
Social life and relationships	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	58.555	.085
Helping and supporting others	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	10.864	.541
Paid or voluntary work	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	35.016	.919
Education and training	68.5% (61)	10.1% (9)	9.0% (8)	12.4% (11)	100% (89)	13.315	.347

Table -05: The association between stroke duration and occupational area

The study represented that there was some strong association between stroke duration and occupational component like as self-care and looking after your own money. (n=

89, $\chi^2=62.545$, $p<.043$) for self-care and (n=89, $\chi^2 =24.463$, $p<.0.18$) for looking after your own money and rest occupational components had no strong association between stroke duration like as mobility (n=89, $\chi^2=35.759$, $p<.619$), activity in and around the house (n=89, $\chi^2=46.075$, $p<.428$), leisure (n=89, $\chi^2=8.691$, $p<.729$), social life and relationships (n=89, $\chi^2=58.555$, $p<.085$), helping and supporting others (n=89, $\chi^2 =10.864$, $p<.541$), paid or voluntary work (n=89, $\chi^2=35.016$, $p<.919$) and education and training (n=89, $\chi^2=13.315$, $p <.347$).

Here figure 12 showed that 68.50% (n=61) were 6-12 months, 12.40% (n=11) were above 24(months), 10.10% (n=9) were 13-18 months and 9.00% (n=8) were 19-24 months.

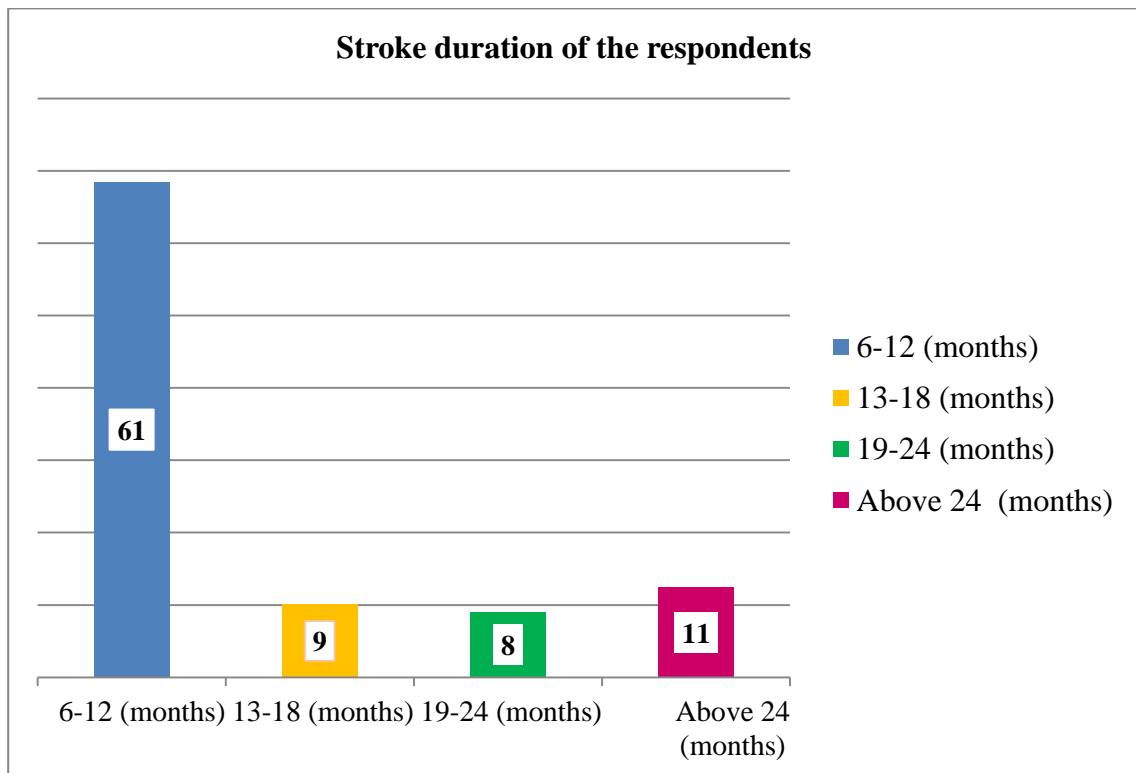


Figure-12: Stroke duration of the respondent.

4.11.3 The association between rehabilitation months and occupational area.

Occupational area	Occupational therapy Rehabilitation months				Total n = 89	χ^2 value	P – value
	1-6 (months)	7-12 (months)	13-18 (months)	Above 24 (months)			
Mobility	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	29.53 2	.864
Self-care	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	48.95 8	.317
Activity in and around the house	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	33.56 5	.895
looking after your own money	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	29.84 1	.039
leisure	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	24.25 5	.147
Social life and relationships	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	34.22 7	.879
Helping and supporting others	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	10.07 9	.609
Paid or voluntary work	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	48.79 1	.441
Education and training	79.8% (71)	15.7% (14)	1.1% (1)	3.4% (3)	100% (89)	4.574	.971

Table-06: The association between rehabilitation months and occupational area.

The study result mentioned that there was one strong association between rehabilitation months and occupational area. It was looking after your own money (n= 89, $\chi^2=29.841$, $p<.039$) and rest occupational areas there had no strong association between rehabilitation months like as mobility (n=89, $\chi^2=29.532$, $p<.864$), self-care and (n=89, χ^2

=48.958, $p < .0317$), activity in and around the house ($n=89$, $\chi^2=33.565$, $p < .895$), leisure ($n=89$, $\chi^2=24.255$, $p < .147$), social life and relationships ($n=89$, $\chi^2=34.277$, $p < .879$), helping and supporting others ($n=89$, $\chi^2=10.079$, $p < .609$), paid or voluntary work ($n=89$, $\chi^2=48.791$, $p < .441$) and education and training ($n=89$, $\chi^2=4.574$, $p < .971$).

Here figure 11 explained that 79.80% ($n=71$) were 1-6months, 15.70% ($n=14$) were 7-12 months. 3.40% ($n=3$) were above 24(months) and 1.10% ($n=1$) were 13-18 months.

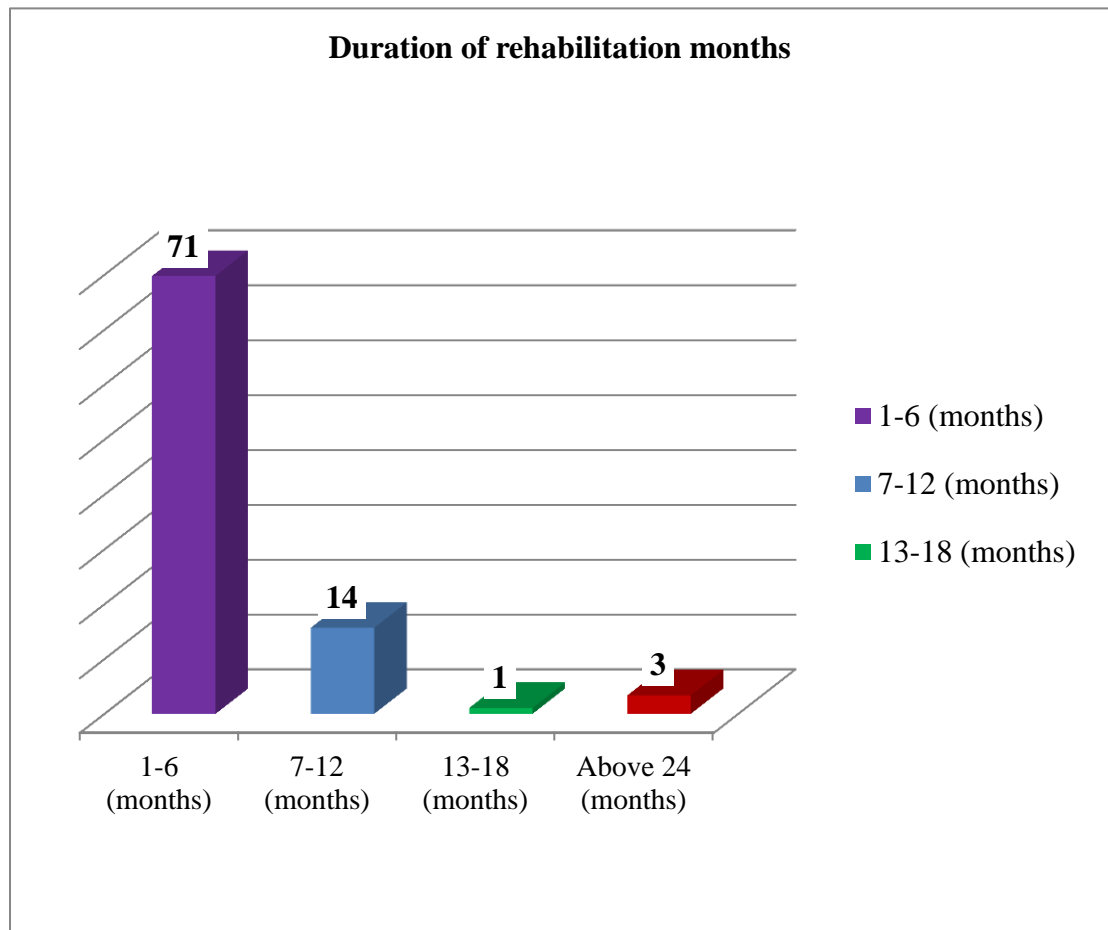


Figure-13: Duration of rehabilitation months of the respondents

5.1 Socio-demographic characteristics of stroke survivors

The study found that among 89 patients with stroke, maximum participant (49.4%) were 48-62 years old and minimum participant (5.6%) were 18-32 years old. Amosum et al. identified that 44.5 % of stroke occur among the patient with 49-58 years old in Ghana,¹⁷ Ugur et al. also disclosed a study where the maximum patient with stroke were between 55-69 years old. The age is an important factor for stroke. Older age people are more vulnerable to be affected by stroke.⁷⁶

The study consisted of both male 65% and female 35%. In our society, there is strong imbalance in male in female to get opportunity including health opportunity. Amosum et al. disclosed a study on stroke survivors where 52.5% were male patient with stroke and 47.5% were female,¹⁷ Belgen et al. also reported that 62% participants were male and 38% were female.⁷⁷

In total study population, highest number of participants 47.10% were service holder, 25.8% were housewife, 15.7% were businessman, 5.6% were daily labor, 3.4% were agriculture and 2.2% were student. Hossain et al. dig up a study where among total stroke survivor, 28% were service holder, 17% were businessman, 16% were housewife, 9% were farmer, 21% were retired person, and 9% were from others profession.⁷⁸

Marital status is an important component of demographic factor. The result showed that among total participant, 98% were married and 2% were unmarried. Amosum et al. investigated a study on stroke survivor where 68.5% were married.¹⁷ In cultural perspective, marriage is common among Bangladeshi people rather than European and American country. In Bangladeshi culture, early marriage is common in rural area. In this report Hoq⁷⁹ noted that in different division in Bangladesh most of the women got married under 15 years old. Among them, maximum were Muslim.

This study exposed that most number of participants (28.80%) were Graduate and small number (5.60%) respondents had primary education. Amosum et al identified that in

Ghana maximum number of participants (28.5%) were graduate and minimum (20.5%) had primary education in Ghana.¹⁷

Among the total participant of study, 66.3% were living with nuclear family, 32.6% were living with extended family and 1.1% was staying alone. Amosum et al investigated a study 54.0% were live with nuclear family, 44.0% were living with extended family and 2% were staying alone.¹⁷ In Bangladeshi culture, maximum people live with family. A study found that Bangladeshi families are mainly nuclear and joint. Family consists of father, mother, son, daughter, husband, wife, brother, and sister.⁸⁰

From total participant, 66.3% were ischemic stroke and 33.7% were hemorrhagic stroke. Hossain et al guided a study where 61% of participants were ischemic stroke and 39% were hemorrhagic stroke.⁷⁸ In south Asian country, ischemic stroke occur among patient with stroke due to hypertension, diabetic, and embolism. Patient with ischemic stroke gets poor improvement in 23%, good improvement in 50%, and excellent improvement in 27% time.⁸¹ Ultimately ischemic patient with stroke gains less improvement among Bangladeshi patient. There are different results in some study like as a study reported that where 82% of participants were diagnosed with ischemic stroke and 13% were diagnosed by hemorrhagic stroke.⁸²

The result of this study exposed that left side affected patient were 51.7% and right side affected patient were 48.3%. Belgen et al. revealed that right side hemiplegic patient were 36% and left side hemiplegic patient were 64% among total participant.⁷⁷

Long term stroke duration gives the potentially negative impact in physical, social, and emotional aspects of stroke patients. These factors are associated with some bad outcomes like as death, recurrence and moderate-to-severe disability.⁸³ According to this report in this study highest number of participant's (68.5%) stroke duration was 6-12 months, 10.1% were 13-18 months, 9% were 19-24 months and 12.4% were above 24 months. Amosum et al. uncovered a study where 32.5% were 3-6 months, 28% were 7-12 months, 10% were 13-18 months, 11.5% were 19-24 months and 18% were above 24 months.¹⁷

Among the total participants of the study, 79.8% were taking rehabilitation service 1-6 months, 15.7% were taking rehabilitation service 7-12 months, 1.1% were taking rehabilitation service 13-18 months and 3.4% were taking rehabilitation service above 24 months. Amosum et al. conducted a study on stroke survivor where 39.5% were taking rehabilitation service 1-6 months, 27.5% were taking rehabilitation service 7-12 months, 10% were taking rehabilitation service 13-18 months, 11% were taking rehabilitation service 19-24 months and 12% were taking rehabilitation service above 24 months.¹⁷ Rehabilitation acts a vital role for stroke survivors after stroke. It helps stroke survivors become as independent as possible and to attain the best possible quality of life. It also facilitated stroke survivors relearn their skills which are lost when part of the brain is damaged.⁸⁴

5.2 The source of perceived restriction in participation and autonomy of the respondents of the different functional areas

Participation restriction relates to the social impact of disability in terms of an individual's levels of participation in different activity domains. The study found that the survivors perceived they would encounter restrictions in participation and autonomy in each of all domains, with the highest proportion of survivors faced restriction in activity in and around the house (10.10 ± 4.283) domain, then (9.03 ± 4.294) was in Paid or voluntary work, (7.40 ± 3.670) was in Social life and relationships domain, (7.00 ± 3.071) was in Self-care domain, (6.60 ± 2.991) was in Mobility domain, (1.84 ± 1.117) was in Helping and supporting others domain, ($1.75 \pm .945$) was in Education & training domain, (1.54 ± 1.129) was in looking after own money domain and ($1.52 \pm .918$) was in leisure domain. A study on stroke survivor propounded 2013 by Amosum et al. conducted a study where the most participation restriction was ($3.46 \pm .79$) in education and training domain, ($2.68 \pm .89$) in paid or voluntary work domain, ($2.20 \pm .82$) in helping and supporting others domain, ($2.12 \pm .79$) in mobility domain, ($1.72 \pm .65$) in activity in and around the house domain, ($1.67 \pm .79$) in looking after own money domain, ($1.39 \pm .56$) in social life and relationships domain and ($1.27 \pm .52$) in self-care domain.¹⁷

5.3 Participation level of the respondents after stroke in community according to IPAQ

The study found that participation level of patients with stroke in community after receiving occupational therapy service was fair. A study on stroke survivor which is conducted by Amosum et al. where the participation level was relatively good among those who had received rehabilitation service after stroke.¹⁷

5.4.1 The association between age and occupational area

In this study there was no strong association between age and occupational area like as paid or voluntary work was ($\chi^2=61.850, p<.086$), education and training was ($\chi^2=19.351, p<.080$), mobility was ($\chi^2=48.147, p<.150$), self-care was ($\chi^2=40.460, p<.664$), activity in and around the house was ($\chi^2=34.282, p<.878$), looking after your own money was ($\chi^2=18.033, p<.453$), leisure was ($\chi^2=9.415, p<.949$), social life and relationships was ($\chi^2=46.487, p<.411$) and helping and supporting others was ($\chi^2=9.436, p<.086$). A study on stroke survivor conducted by Johanne et al. founded that there was a strong association between age and social role where including interpersonal relationships was more significant with age ($p=0.01$).⁸⁵

5.4.2 The association between stroke duration and occupational area

In this study there was some strong association between stroke duration and occupational component like as self-care and looking after your own money. ($\chi^2=62.545, p<.043$) for self-care and ($\chi^2=24.463, p<.0.18$) for looking after your own money and rest occupational components had no strong association between stroke duration like as mobility ($\chi^2=35.759, p < .619$), activity in and around the house ($\chi^2=46.075, p<.428$), leisure ($\chi^2=8.691, p<.729$), social life and relationships ($\chi^2=58.555, p<.085$), helping and supporting others ($\chi^2=10.864, p<.541$), paid or voluntary work ($\chi^2=35.016, p<.919$) and education and training ($\chi^2=13.315, p <.347$). Yi Ti et al. reported that there was strong association between stroke duration and leisure activity ($p=0.008$).⁸⁶

5.4.3 The association between rehabilitation month and occupational area

In this study there was one strong association between rehabilitation months and occupational area. It was looking after your own money ($\chi^2=29.841$, $p<.039$) and rest occupational areas there had no strong association between rehabilitation months like as mobility ($\chi^2=29.532$, $p<.864$), self-care and ($\chi^2=48.958$, $p<.0317$), activity in and around the house ($\chi^2=33.565$, $p<.895$), leisure ($\chi^2=24.255$, $p<.147$), social life and relationships ($\chi^2=34.277$, $p<.879$), helping and supporting others ($\chi^2=10.079$, $p<.609$), paid or voluntary work ($\chi^2=48.791$, $p<.441$) and education and training ($\chi^2=4.574$, $p<.971$). Amosun et al. exposed that there was a strong association between rehabilitation month and two occupational domain like as mobility where ($p<0.02$) and helping and supporting others ($p<0.01$).¹⁷

- The researcher chose just 89 samples due to time limitation which is very small to generalize the result in all over the Bangladesh.
- There are few literatures found about activity participation of stroke patients in the world.
- There is no related study found activity participation of Bangladesh. Thus it is difficult to compare the study with the other research.
- In this study only Savar and Mirpur CRP were the study area to generalise for wider population.
- The questionnaire was developed only through searching sufficient literature but considering the context of the demography of the population a pilot study would be substantial before developing questionnaire.

There are some limitations that should be kept in mind during conducting the study. The researcher always tried to consider these limitations. The following limitations have been identified during conducting the study.

- In this study purposive sampling was used to select the respondents. A small sample size is preferred when in-depth information is required. The findings of this study cannot be generalised to all person with stroke. Because the sample size was small.
- Interview was conducted in Bangla. However the study is presented in English. Researcher had to translate interview information from Bengali to English. Sometimes it may be difficult to discover actual meaning of some information from the data translation. But researcher tried heart and soul to give the actual information of the data in the study.
- There were limited resources and information available about participation because it is a new study within a Bangladeshi context.

Recommendations for Occupational Therapists in Bangladesh

- Occupational Therapists (OTs) should adopt a broader role and holistic treatment techniques on the fact of participation for people with stroke.
- OTs need to update their knowledge in this area.
- OTs should motivate patients and their family to engage in activity participation in their own community after stroke and also provide counseling about importance of activity participation. OTs needs to concentrate more on this issue during the rehabilitation period.

Recommendations for further research

The researcher's recommendation is that OTs needs to study this topic in depth. This may involve:

- A survey to discover a person with a stroke satisfaction about their active participation after stroke.
- Experiences of men with stroke to adjust to their previous participation in their own community after stroke.
- Find out the value of qualified Occupational Therapists and Occupational Therapy students' practicing purposeful activity during rehabilitation period
- Researcher also recommends that OTs need to study on activity participation in different areas like as SCI and head injury. To discover the current status of activity participation in SCI patients.
- Further research should be conducted with a large numbers of participants on this study design. If researcher conducts the study with large samples then it will be easy to generalise the result.

Stroke is a leading cause of disability in older adults.⁸⁷ It is a long term health condition with ongoing needs for the individual and implications for health care resources. The onset of disability after stroke can severely affect participation in meaningful occupations and life satisfaction.^(88, 89) It is a challenge for an individual to adapt their previous occupational area in their own community after stroke. They face lots of problems to participate in community due to inaccessible community environment. So their participation level does not remain good when they come back community after stroke. The findings of the study indicated that the participation level of the respondents after stroke in their community is fair. If every place will be enhanced accessible for stroke patients like as toilet setting, around in and out their living area, well transportation system and community and family member receive them positively and help them then their participation rate will be increased in community after stroke.

Participation level of stroke patients in community also depends on their stroke duration and how much time they have taken rehabilitation after stroke. We know that long term stroke duration gives the potentially negative impact in physical, social, and emotional aspects of stroke patients which are responsible for reduce their participation in community.⁸³ On the other hand proper rehabilitation is very necessary for stroke survivors after stroke. It helps stroke survivors become as independent as possible and to attain the best possible quality of life and increase their participation in community.⁸⁴ The findings of the study identified that there is a significant association between participation and stroke duration and rehabilitation. However it should be considered that it is necessary to provide more information during the rehabilitation period. It is recommended that occupational therapist involved in the rehabilitation of stroke survivors in Bangladesh should pay greater attention to the perceive and experienced restrictions in participation and be skilled to assist stroke survivors and their family members to identify and overcome these participation restrictions. If we increase awareness among the community people to enhance accessibility and well transportation system for the respondents which helps them to increase participation level in community and then this study will be helpful for the person with stroke.

References List

1. Asadullah M, Savoia A, Mahmud W. Paths to Development: Is there a Bangladesh Surprise?. *World Development*. 2014;62:138-154
2. Bangladesh Population (2017) - Worldometers [Internet]. Worldometers.info. 2017 [cited 18 February 2017]. Available from: <http://www.worldometers.info/world-population/bangladesh-population/>
3. [Internet]. 2017 [cited 18 February 2017]. Available from: [http://PRIMARY CARE SYSTEMS PROFILES & PERFORMANCE \(PRIMASYS\)](http://PRIMARY CARE SYSTEMS PROFILES & PERFORMANCE (PRIMASYS))
4. [Internet]. 2017 [cited 18 February 2017]. Available from: <http://Bangladesh GDP per capita 1960-2017 | Data | Chart | Calendar | Forecast>
5. WHO Countries Database. Bangladesh: urban health profile .Available at <http://www.who.or.jp/uhcprofiles/Bangladesh.pdf> (accessed 3 February 2012).
6. [Internet]. 2017 [cited 6 February 2017];. Available from: <http://www.prothomalo.com/bangladesh/article/1001675/>
7. Singam A, Ytterberg C, Tham K, von Koch L. Participation in Complex and Social Everyday Activities Six Years after Stroke: Predictors for Return to Pre-Stroke Level. *PLOS ONE*. 2015;10(12):e0144344.
8. Mayo N, Wood-Dauphinee S, Cote R, Gayton D, Carlton J, Buttery J et al. There's No Place Like Home : An Evaluation of Early Supported Discharge for Stroke. *Stroke*. 2000;31(5):1016-1023
9. Hartman-Maeir A, Soroker N, Ring H, Avni N, Katz N. Activities, participation and satisfaction one-year post stroke. *Disability and Rehabilitation*. 2007;29(7):559-566.
10. Bonita R, Broad J, Beaglehole R. Ethnic Differences in Stroke Incidence and Case Fatality in Auckland, New Zealand. *Stroke*. 1997;28(4):758-761
11. Walker R. Age specific prevalence of impairment and disability relating to hemiplegic stroke in the Hai District of northern Tanzania. *Journal of Neurology, Neurosurgery & Psychiatry*. 2000;68(6):744-749.
12. [Internet]. 2017 [cited 9 March 2017]. Available from: CRP-BANGLADESH (2010). Occupational Therapy. Available at: [http:// www.crp-](http://www.crp-)

bangladesh.org/index.php?option=com_content&view=article&id=80&Itemid=96
[Accessed 8 August 2014].

13. Gupta R, Joshi P, Mohan V, Reddy K, Yusuf S. Epidemiology and causation of coronary heart disease and stroke in India. *Heart*. 2008;94(1):16-26.
14. Islam M, Moniruzzaman M, Khalil M, Basri R, Alam M, Loo K et al. Burden of Stroke in Bangladesh. *International Journal of Stroke*. 2013;8(3):211-213
15. Mohammad QD, Habib M, Hoque a et al. Prevalence of stroke above forty years. *Mymensingh Med J* 2011; 20:640–4.
16. WHO Countries Database. Bangladesh: urban health profile .Available at <http://www.who.or.jp/uhcprofiles/Bangladesh.pdf> (accessed 3 February 2012).
17. Amosun S, Nyante G, Wiredu E. Perceived and experienced restrictions in participation and autonomy among adult survivors of stroke in Ghana. *African Health Sciences*. 2013;13(1).
18. [Internet]. 2017 [cited 9 March 2017]. Available from: [http://Hoque, M. F., C. Grangeon, and K. Reed \(1999\) 'Spinal cord lesions in Bangladesh: an epidemiological study 1994 -1995', Spinal Cord 37: 858-861.](http://Hoque, M. F., C. Grangeon, and K. Reed (1999) 'Spinal cord lesions in Bangladesh: an epidemiological study 1994 -1995', Spinal Cord 37: 858-861.)
19. Hammel J, Magasi S, Heinemann A, Whiteneck G, Bogner J, Rodriguez E. What does participation mean? An insider perspective from people with disabilities. *Disability and Rehabilitation*. 2008;30(19):1445-1460.
20. Medin J, Barajas J, Ekberg K. Stroke patients' experiences of return to work. *Disability and Rehabilitation*. 2006;28(17):1051-1060.
21. Treger I, Shames J, Giaquinto S, Ring H. Return to work in stroke patients. *Disability and Rehabilitation*. 2007;29(17):1397-1403
22. Corr SWilmer S. Returning to Work after a Stroke: An Important but Neglected Area. *The British Journal of Occupational Therapy*. 2003;66(5):186-192.
23. Law M. Participation in the occupations of everyday life. *Am J Occup Ther* 2002; 56: 640–649.
24. World Health Organization. *International Classification of Functioning, Disability and Health (ICF)*. Geneva: WHO; 2001.
25. Nouri F. Book Review: *Occupational Therapy for Stroke Rehabilitation*. *The British Journal of Occupational Therapy*. 1990; 53(4):162-162.

26. John M. L. W. PEDRETTI "Occupational therapy: practice skills for physical dysfunction". *British Journal of Sports Medicine*. 1982; 16(3):189-189.
27. Landi F. Occupational Therapy for Stroke Patients: When, Where, and How?. *Stroke*. 2003.
28. [Internet]. 2017 [cited 5 March 2017]. Available from: Rosamond, W, Flegal, K, Furie, K, Go, A, Greenlund, K, Haase, N, & Hong, Y. (2008) „Heart disease and stroke statistics-2008 update: A report from American Heart Association Statistics Committee and Stroke Statistics Subcommittee“, *Circulation*, 117, pp. 25-146. Available at: <http://circ.ahajournals.org/content/119/3/e21.full.pdf+html> [Accessed 18 September 2014]. Schmid, A.A., Klar, H,
29. Gall S, Dewey H, Sturm J, Macdonell R, Thrift A. Handicap 5 years after stroke in the North East Melbourne Stroke Study. *Cerebrovasc Dis*. 2009; 27: 123–130. doi: 10.1159/000177919 PMID: 19039216
30. Feigin V, Barker-Collo S, Parag V, Senior H, Lawes CM, Ratnasabapathy Y, et al. Auckland Stroke Outcomes Study part 1: gender, stroke types, ethnicity, and functional outcomes 5 years poststroke. *Neurology*. 2010; 75: 1597–1607. doi: 10.1212/WNL.0b013e3181fb44b3 PMID: 21041783Liman T, Heuschmann P, Endres M, Flöel A, Schwab S, Kolominsky-Rabas P. Impact of low mini-mental
31. Liman T, Heuschmann P, Endres M, Flöel A, Schwab S, Kolominsky-Rabas P. Impact of low mini-mental status on health outcome up to 5 years after stroke: the Erlangen Stroke Project. *J Neurol*. 2012; 259: 1125–1130. doi: 10.1007/s00415-011-6312-6 PMID: 22109634
32. Patel M, Coshall C, Rudd A, Wolfe C. Cognitive impairment after stroke: clinical determinants and its association with long-terms stroke outcomes. *JAGS*. 2002; 50: 700–706.
33. Wachter R, Goldman L, Hollander H. *Hospital medicine*. 1st ed. Philadelphia: Lippincott Williams & Wilkins; 2005.
34. Health Information - Causes, Symptoms, Diagnosis, Treatment - NY Times Health [Internet]. *Nytimes.com*. 2017 [cited 28 February 2017]. Available from: <http://www.nytimes.com/health/guides/index.html>

35. Uchino K, Pary J, Grotta J. *Acute Stroke Care*. 2nd ed. United states of america,newyork: Cambridge university press; 2017.
36. S. Paolucci, G. Antonucci, M. G. Grasso et al., “Functional outcome of ischemic and hemorrhagic stroke patients after inpatient rehabilitation: a matched comparison,” *Stroke*, vol. 34, no. 12, pp. 2861–2865, 2003
37. J. E. Ween, M. P. Alexander, M. D’Esposito, and M. Roberts, “Factors predictive of stroke outcome in a rehabilitation setting,” *Neurology*, vol. 47, no. 2, pp. 388–392, 1996.
38. P. J. Kelly, K. L. Furie, S. Shafqat, N. Rallis, Y. Chang, and J. Stein, “Functional recovery following rehabilitation after hemorrhagic and ischemic stroke,” *Archives of Physical Medicine and Rehabilitation*, vol. 84, no. 7, pp. 968–972, 2003
39. McKenna K. *Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice* (5th ed). *Australian Occupational Therapy Journal*. 2004; 51(4):219-219.
40. Urimubenshi G. Activity limitations and participation restrictions experienced by people with stroke in Musanze district in Rwanda. *African Health Sciences*. 2015;15(3):917.
41. Powell J. *The World Health Organization* . 1st ed. New York: Franklin Watts; 2001.)
42. Cardol M, de Jong B, van den Bos G, Beelen A, de Groot I, de Haan R. Beyond disability: perceived participation in people with a chronic disabling condition. *Clinical Rehabilitation*. 2002;16(1):27-35
43. Brown K, McGahan L, Alkhaledi M, Seah D, Howe T, Worrall L. Environmental factors that influence the community participation of adults with aphasia: The perspective of service industry workers. *Aphasiology*. 2006;20(7):595-615.).
44. Rhoda A. Health-related quality of life of patients six months poststroke living in the Western Cape, South Africa. *African Journal of Disability*. 2014;3.
45. Disabilities [Internet]. World Health Organization. 2017 [cited 4 March 2017]. Available from: <http://www.who.int/topics/disabilities/en>
46. What is Community Development? [Internet]. Scdc.org.uk. 2017 [cited 6 March 2017]. Available from: <http://www.scdc.org.uk/who/what-is-community-development/>

47. Anderson C, Krajci K, Vogel L. Community integration among adults with spinal cord injuries sustained as children or adolescents. *Developmental Medicine & Child Neurology*. 2007;45(2):129-134.
48. Mudzi W, Stewart A, Musenge E. Community participation of patients 12 months post-stroke in Johannesburg, South Africa. *African Journal of Primary Health Care & Family Medicine*. 2013;5
49. [Internet]. 2017 [cited 4 March 2017]. Available from: [http://Community-Based Participation and Initiatives. \(MDS-3: Managing Access to Medicines and Health Technologies, Chapter 31\) \(2012; 17 pages](http://Community-Based Participation and Initiatives. (MDS-3: Managing Access to Medicines and Health Technologies, Chapter 31) (2012; 17 pages)
50. Gathiram N. Participation, Civil Society And Social Work Practice. *Social Work/Maatskaplike Werk*. 2014;39.
51. [Internet]. 2017 [cited 6 March 2017]. Available from: <http://Effect of Community Participation on Sustainability of Community Based Devt. Projects in Kenya>
52. Hackett M, Yapa C, Parag V, Anderson C. Frequency of Depression After Stroke: A Systematic Review of Observational Studies. *Stroke*. 2005;36(6):1330-1340.
53. Kulling P. NBC Programme of the Swedish National Board of Health and Welfare. *Prehospital and Disaster Medicine*. 2001;16(S1):S40.
54. Functioning and subjective health among stroke survivors after discharge from hospital
55. Bendz M. The first year of rehabilitation after a stroke - from two perspectives. *Scandinavian Journal of Caring Sciences*. 2003;17(3):215-222.
56. Burton C. Living with stroke: a phenomenological study. *Journal of Advanced Nursing*. 2000;32(2):301-309.
57. Bugge C, Hagen S, Alexander H. Measuring stroke patients' health status in the early post-stroke phase using the SF36. *International Journal of Nursing Studies*. 2001;38(3):319-327.
58. Duncan G, Daly M, McDonough P, Williams D. Optimal Indicators of Socioeconomic Status for Health Research. *American Journal of Public Health*. 2002;92(7):1151-1157.
59. Lantz K, Marcusson J, Wressle E. Perceived Participation and Health-Related Quality of Life in 85 Year Olds in Sweden. *OTJR: Occupation, Participation and Health*. 2012;32(4):117-125

60. Prvu Bettger JA, Kaltenbach L, Reeves MJ, Smith EE, Fonarow GC, Schwamm LH, Peterson ED. Assessing stroke patients for rehabilitation during the acute hospitalization: findings from the Get With The Guidelines-Stroke program. *Arch Phys Med Rehabil.* 2013;94:38–45.doi: 10.1016/j.apmr.2012.06.029
61. Correction to: Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke.* 2017;48(2):e78-e78.
62. Lee SKim H. Exercise Interventions for Preventing Falls Among Older People in Care Facilities: A Meta-Analysis. *Worldviews on Evidence-Based Nursing.* 2016;14(1):74-80.
63. Govender PKalra L. Benefits of occupational therapy in stroke rehabilitation. *Expert Review of Neurotherapeutics.* 2007;7(8):1013-1019
64. Gillespie L, Gillespie W, Robertson M, Lamb S, Cumming R, Rowe B. Interventions for preventing falls in elderly people. *Physiotherapy.* 2003;89(12):692-693.
65. Bowling, A. (1997). *Research Methods In Health: Investigating Health and Health Services.* Open University Press.
66. Olsen, C., & George, D. M. (2004). *Cross-Sectional Study Design and Data Analysis.* Retrieved from http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_05.pdf.
67. Mann C. Observational research methods. *Research design II: cohort, cross sectional, and case-control studies.* *Emergency Medicine Journal.* 2003;20(1):54-60.
68. What is Sampling in Research? - Definition, Methods & Importance. 2017.
69. Hicks C.M, *Research Methods for Clinical Therapists.* 3rd ed: UK: Churchill Livingstone; 2000
70. Wolfenden B, Grace M. Returning to work after stroke: a review. *International Journal of rehabilitation research.* 2009 Jun 1;32(2):93-7.
71. Stroke association (n.d.) common problem after stroke. Available at: <http://www.stroke.org.uk/about/common-problems> [Accessed 18 July 2014].
Stroke association.common problem after stroke. London: Stroke Association is a Company Limited;(n.d.) [accessed 17 November 2016]. Available from: <https://www.stroke.org.uk/what-stroke/common-problems-after-stroke/communication>.

72. King's College London - Preparing an information sheet for participants [Internet]. Kcl.ac.uk. 2017 [cited 8 April 2017]. Available from: <http://www.kcl.ac.uk/innovation/research/support/ethics/training/infosheet.aspx>
73. <http://study.com/academy/lesson/what-is-a-consent-form-examples-quiz.html>. 2017
74. [Internet]. 2017 [cited 8 April 2017]. Available from: https://www.researchgate.net/publication/240638194_'Impact_on_Participation_and_Autonomy'_IPA_Manual_to_the_English_version_IPA
75. Shaughnessy J, Zechmeister E, Zechmeister J. Research methods in psychology. 1st ed. Dubuque: McGraw-Hill Education; 2015.
76. Ugur C, Gücüyener D, Uzuner N, Özkan S, Özdemir G. Characteristics of falling in patients with stroke. *Journal of Neurology, Neurosurgery & Psychiatry*. 2000 Nov 1;69(5):649-51.
77. Belgen B, Beninato M, Sullivan PE, Narielwalla K. The association of balance capacity and falls self-efficacy with history of falling in community-dwelling people with chronic stroke. *Archives of physical medicine and rehabilitation*. 2006 Apr 30;87(4):554-61.
78. Hossain AM, Ahmed NU, Rahman M, Islam MR, Sadhya G, Fatema K. Analysis of sociodemographic and clinical factors associated with hospitalized stroke patients of Bangladesh. *Faridpur Medical College Journal*. 2011;6(1):19-23.
79. Hoq MN. Regional Differentials of Age at First Marriage among Women in Bangladesh. *Asian Journal Of Applied Science And Engineering*. 2013 Dec 19;2(3):175-82.
80. Uddin ME. Family structure between Muslim and Santal communities in rural Bangladesh. *International Journal of Human and Social Sciences*. 2009 Jul 26;5(6):438-47.
81. Razzaq AA, Khan BA, Baig SM. Ischemic stroke in young adults of South Asia. *JPMMA. The Journal of the Pakistan Medical Association*. 2002 Sep;52(9):417-22.
82. Czernuszenko A, Czlonkowska A. Risk factors for falls in stroke patients during inpatient rehabilitation. *Clinical Rehabilitation*. 2009 Feb;23(2):176-88.
83. Shah S, Vanclay F, Cooper B. Efficiency, effectiveness, and duration of stroke rehabilitation. *Stroke*. 1990 Feb 1;21(2):241-6.

84. US Department of Health and Human Services. Post-stroke rehabilitation. US Department of Human Services; 1995.
85. Johanne Desrosiers OT, Daniel Bourbonnais OT. Participation after stroke compared to normal aging. *J Rehabil Med.* 2005;37:353-7.
86. Yi TI, Han JS, Lee KE, Ha SA. Participation in leisure activity and exercise of chronic stroke survivors using community-based rehabilitation services in seongnam city. *Annals of rehabilitation medicine.* 2015 Apr 1;39(2):234-42.
87. Australian Institute of Health and Welfare. ICF Australian user guide. Version 1.0. Disability series. AIHW Cat. No. DIS 33. Canberra: AIHW; 2003.
88. McKenna K, Liddle J, Brown A, Lee K, Gustafsson L. Comparison of time use, role participation and life satisfaction of older people after stroke with a sample without stroke. *Aust Occup Ther J* 2009; 56:177-88.
89. Edwards DF, Hahn M, Baum CM, Dromerick AW. The impact of mild stroke on meaningful activity and life satisfaction. *J Stroke Cerebrovasc Dis* 2006;15:151-7.

{APPENDIX-I (a)}
Approval Letter for conducting study
Approval letter

22nd December, 2016

The Head of the Department
 Department of Occupational Therapy
 CRP, Chapain, Savar, Dhaka-1343

Subject: An application for seeking permission for collecting the data to conduct the research.

Dear Sir,

With due respect and humble submission to state that I am Tonuj Dhor, student of 4th year B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI); the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking permission for collecting the data from the outpatient unit and stroke rehabilitation unit of CRP-Savar and CRP-Mirpur to conduct my research as the part of fulfillment of the requirements of degree of B.Sc. in Occupational Therapy. The title of my research is, "Level of participation of stroke patient in community after receiving occupational therapy service."

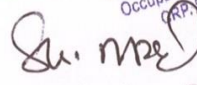
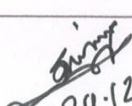
The aim of the study is "To find out the actual participation level of stroke patient in community after receiving occupational therapy service."

I, therefore, pray & hope that you would be kind enough to grant my application & give me permission of collecting the data from the outpatient unit and stroke rehabilitation unit of CRP-Savar and CRP-Mirpur and will help me to complete a successful study as a part of my course.


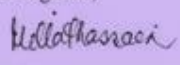
Sincerely yours

Tonuj Dhor
 Roll: 22, Session: 2012-2013
 4th year, B.Sc. in Occupational Therapy,
 Bangladesh Health Professions Institute (BHPI).
 CRP-Chapain, Savar, Dhaka-1343

Recommendation from the thesis supervisor:

Approved by	Signature and Comments
SK. Moniruzzaman Assistant professor and Head of the department Department of Occupational Therapy Bangladesh Health Professions Institute (BHPI), CRP- Chapain, Savar	 24.12.2016 Md. Julker Nay Assistant Professor & Head of Occupational Therapy Department CRP, Savar, Dhaka-1343
Mir Hasan Shakil Mahmud Lecturer, Department of Occupational Therapy BHPI CRP-Chapain, Savar	 24.12.16

{APPENDIX- I (b)}
Permission letter for data collection

 BANGLADESH HEALTH PROFESSIONS INSTITUTE	বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) Bangladesh Health Professions Institute (BHPI) (The Academic Institute of CRP)								
Ref. CRP-BHPI/IRB/01/17/25	Date: 03/01/2017								
<p>Tonuj Dhor 4th year B. Sc in Occupational Therapy Session: 2012-2013, DU Reg. 5223 BHPI, CRP, Savar, Dhaka-1343, Bangladesh</p> <p>Subject: Approval of the thesis proposal – “level of participation of Stroke patient in community after receiving Occupational Therapy Service” by IRB of BHPI.</p> <p>Dear Tonuj Dhor, Congratulation! The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application on December 1, 2016 to conduct the above mentioned thesis, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:</p> <table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th>SL#</th><th>Name of the Documents</th></tr></thead><tbody><tr><td>1</td><td>Thesis Proposal</td></tr><tr><td>2</td><td>Questionnaire</td></tr><tr><td>3</td><td>Information sheet & consent form.</td></tr></tbody></table> <p>Since the study involves answering a questionnaire that takes 20 minutes, have no likelihood of any harm to the participants rather possibility of benefit by knowing the actual participation level of Stroke patient in community after receiving Occupational Therapy Service from the information of Questionnaire, IRB has approved the study to be conducted in the presented form at the meeting held at 08:30 AM on December 17, 2016 at BHPI.</p> <p>IRB expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. IRB of BHPI is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.</p> <p>Best regards,  Muhammad Millat Hossain Senior Lecturer, Dept. of M.Sc. in Rehabilitation Science Member Secretary, Institutional Review Board (IRB) BHPI, CRP, Savar, Dhaka-1343, Bangladesh.</p>		SL#	Name of the Documents	1	Thesis Proposal	2	Questionnaire	3	Information sheet & consent form.
SL#	Name of the Documents								
1	Thesis Proposal								
2	Questionnaire								
3	Information sheet & consent form.								
<small>দিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোন : ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪ ফ্যাক্স : ৭৭৪৫০৬৯ CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404, Fax : 7745069, E-mail : contact@crp-bangladesh.org, www.crp-bangladesh.org</small>									

{APPENDIX- II (a)}

Information sheet (English)

The name of the researcher is Tonuj Dhor. He is a student of 4th year, Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI). As a part of his academic issues he has to conduct a dissertation in this academic year. So researcher would like to invite you to participate in this study. The title of the study is “Level of participation of patient with stroke in community after receiving Occupational Therapy service in Bangladesh”.

Your participation is voluntary in the study. You can withdraw your participation in anytime. There is not the facility to get any pay by this participation. The study will never be any harm to you but it will help the service user to know your experience, which is very important for the service provider to plan for the future activities.

Confidentiality of all records will be highly maintained. The gathered information from you will not be disclose anywhere except this study and supervisor. The study will certainly never reveal the name of participant

If you have any query regarding the study, please feel free to ask to the contact information stated below:

Tonuj Dhor

Student of 4th year

B. Sc. in Occupational Therapy

Department of Occupational Therapy

Bangladesh Health Professions Institute

Centre for the Rehabilitation of the Paralysed (CRP)

Chapain, Savar, Dhaka-1343

{APPENDIX- II (b)}

তথ্যপত্র

গবেষকের নাম তনুজ ধর। তিনি বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউটের বি. এস. সি. ইন অকুপেশনাল থেরাপি চতুর্থ বর্ষের ছাত্র। প্রাতিষ্ঠানিক কাজের অংশ হিসেবে চলতি শিক্ষাবর্ষে তাকে একটি গবেষনামূলক কাজ করতে হবে। তাই গবেষক আপনাকে এই গবেষণায় অংশগ্রহণ করার জন্য আমন্ত্রণ জানাচ্ছে। গবেষনার বিষয়

“অকুপেশনাল থেরাপি সেবা গ্রহণের পর সমাজে বসবাসকারী স্ট্রোক রোগীদের অংশ গ্রহণের অবস্থা”। এই গবেষণায় আপনার অংশগ্রহণ সম্পূর্ণরূপে স্বেচ্ছায়। আপনি এই গবেষণা থেকে যে কোনো সময় আপনার অংশগ্রহণ প্রত্যাহার করতে পারবেন। এই গবেষণায় অংশ গ্রহণের মাধ্যমে আপনি আর্থিক ভাবে লাভবান হবেন না। এই অংশগ্রহণ কখনোই আপনার জন্য ক্ষতির কারণ হয়ে দাঁড়াবে না কিন্তু এই গবেষণার মাধ্যমে সেবা প্রদানকারী সদস্যগণ, আপনার অভিজ্ঞতার কথা জানতে পারবে এবং প্রাপ্ত তথ্য সমূহ সেবার মান বাড়াতে সাহায্য করবে।

আপনার থেকে প্রাপ্ত তথ্য সমূহের সর্বোচ্চ গোপনীয়তা রক্ষা করা হবে। গবেষণা ও গবেষণার তত্ত্বাবধায়ক ব্যতীত এই তথ্যগুলো অন্য কোথাও প্রকাশিত হবেনা এবং গবেষণার কোথাও অংশগ্রহণ কারীর নাম প্রকাশ করা হবে না।

গবেষণা সম্পর্কিত যে কোনো ধরনের প্রশ্নের জন্য নিম্নলিখিত ব্যক্তির সাথে যোগাযোগ করার জন্য অনুরোধ করা যাচ্ছে:

তনুজ ধর

৪র্থ বর্ষ

বি. এস. সি. ইন অকুপেশনাল থেরাপি

বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউট

পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্র

চাপাইন, সাভার, ঢাকা-১৩৪৩।

{APPENDIX- III (a)}

Consent form (English)

This research is the part of Occupational Therapy course and name of the researcher is Tonuj Dhor. He is a student of Bangladesh Health Professions Institute in B. Sc. in occupational therapy in 4th year. The study is entitled as “level of participation of patient with stroke in community after receiving Occupational Therapy service in Bangladesh”.

In this study I am a participant and I have been clearly informed about the purpose of the study. I have the right to refuse participation any time and any stage of the study. I will not be bound to answer to anybody. I understand that at present or future there will be no impact of treatment receiving for participate the study

I am also informed that all the information collects from me that is used in this study would be kept safe and maintain confidentiality. The researcher and the supervisor will be eligible to access in the information for his publication of the research result. My name and address will not published anywhere in this study.

I am also informed that all the information collects from me which is used in this study would be kept safe and maintain confidentiality. The researcher and the supervisor will be eligible to access in the information for his publication of the research result. My name and address will not published anywhere in this study.

Signature/Finger print of the Participant:	Date:
Signature of the Researcher:	Date:
Signature/Finger print of the witness:	Date:

{APPENDIX- III (b)}

সম্মতিপত্র

এই গবেষণা অকুপেশনাল থেরাপি বিভাগে অধ্যয়নের একটি অংশ এবং গবেষকের নাম তনুজ ধর। তিনি বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউটের বি. এস. সি. ইন অকুপেশনাল থেরাপি চতুর্থ বর্ষের ছাত্র এবং তার গবেষণার বিষয় “ অকুপেশনাল থেরাপি সেবা গ্রহণের পর সমাজে বসবাসকারী স্ট্রোক রোগীদের অংশ গ্রহণের অবস্থা”।

এই গবেষণার আমি..... একজন অংশগ্রহণকারী এবং আমি এই গবেষণার উদ্দেশ্য পরিষ্কারভাবে জানতে পেরেছি। আমি যে কোনো সময় এবং গবেষণার যে কোনো পর্যায়ে আমার অংশগ্রহণ প্রত্যাহার করতে পারব। এ জন্য আমি কারো কাছে জবাব দিতে বাধ্য থাকব না। আমি অবগত হয়েছি যে, এই গবেষণায় অংশগ্রহণ করার ফলে বর্তমানে কিংবা ভবিষ্যতে আমার চিকিৎসা গ্রহণের উপর কোন প্রভাব পড়বে না।

এই গবেষণার জন্য আমার দেয়া তথ্যসমূহ সম্পূর্ণভাবে গোপন ও নিরাপদ থাকবে। শুধুমাত্র গবেষক এই তথ্য গুলো গবেষণার ফলাফল প্রকাশের কাজে ব্যবহার করতে পারবে। এই গবেষণায় আমার নাম ও ঠিকানা প্রকাশ করা হবে না।

আমি এই গবেষণার পদ্ধতি কিংবা গবেষণা সম্পর্কিত যে কোন প্রশ্নের উত্তর গবেষক ও গবেষণার তত্ত্বাবধায়কের কাছে থেকে জানতে পারব। আমি উপরোক্ত সকল তথ্য সম্পর্কে জানি এবং আমি এই গবেষণায় অংশগ্রহণে সম্মতিজ্ঞাপন করছি।

অংশগ্রহণকারীর স্বাক্ষর/টিপসইঃ	তারিখঃ
গবেষকের স্বাক্ষর/টিপসইঃ	তারিখঃ
স্বাক্ষরী স্বাক্ষর/টিপসইঃ	তারিখঃ

{APPENDIX- (IV)}

Questionnaire

Complete items before starting each interview			
Interviwee identity number			
Interviwer identy number			
Interview date	Day	Month	Year
Interviwee mobile number			

Socio-economic & Demographic

SI No	Questions	Coding Categories	Code
1.	How old are you? Years	
2.	Sex	Male = 1 Female = 2	<input type="text"/>
3.	What is your educational status?	Illetarate = 1 Primary pass = 2 High school pass = 3 SSC = 4 HSC = 5 Graduate = 6	<input type="text"/>
4.	What is your occupation?	House wife = 1 Agriculture = 2 Service = 3 Buissiness = 4 Student = 5 Daily Labour = 6	<input type="text"/>

5.	Marital status	Unmarried = 1 Married = 2 Seperated = 3 Divorced = 4 Widowed/Widowerd = 5 Reluctant to answer = 6	<input type="text"/>
6.	Household	Living with extended Family = 1 Living with nuclear Family = 2 Staying alone = 3	<input type="text"/>
7.	What type of stroke occurred?	Ischemic = 1 Hemorrhagic = 2	<input type="text"/>
8.	Which side of your body had been affected?	Right = 1 Left = 2 Both = 3	<input type="text"/>
9.	Duration of stroke (months)	6-12 (months) = 1 13-18 (months) = 2 19-24 (months) = 3 Above 24 (months) = 4	<input type="text"/>
10.	Rehabilitation (months)	1-6 (months) = 1 7-12 (months) = 2 13-18 (months) = 3 Above 18 (months) = 4	<input type="text"/>

THE IPA: Impact on participation and autonomy

A questionnaire on choice and participation of daily living

Introduction: this questionnaire has some questions about your daily living activities which we are wanting to know your health condition or disability whether effect on your ability of your daily living activities. We also want to know, what types of choice you have is, how you take part in work and how much it is important to you which give us perception /idea about your participation.

When you answer this question, then you think about your own opinion and perception. Here is no correct or incorrect answer.

It is very important to give answer with keeping balance of your condition or situation

At first please read the information they give right sign on boxes. As example if you can go to the prioritized place of your home you would answer it

My possibility of getting around my house where I want to are

- Very good
- Good
- Fair
- poor
- Very poor

If you try to answer all these questions it will be very benefitted. Although any questions can be seen difficult, irrelevant or unimportant to you yet please which you think best applicable to you, sign in that box.

At the end of each question if you have further comments you can tell that.

In case of your all answers there will be maintained a strong/enough confidentiality

You will be given 20 minutes to fill the form

For giving your valuable time and help you are cordially thanked.

Impact on participation and Autonomy (IPA)

Mobility: where and when you want to (with or without aids or assistance)

At first we will ask you some questions about your mobility: your chance of getting around where and when you want to go. We are interested whether you can decide yourself where and when you went to go.

1a. My possibility of getting in and around of my house where I want to go:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

1b. My possibility of getting in and around of my house when I want to go:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

1c. My possibility of going in my relatives and friends house when I want to go:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

1d. My possibility of going a short of trips and holy days where I want to go:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

1e.if your health or disability effect on you, where and when you want to go, and then what to extent can cause problems?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments on your control of your life. Space for if you have further comments about mobility:

Self-care: (with or without aids or assistance)

Next questions are related about your personal care. When you will answer these questions ,then you will decide about thinking yourself that when and how you want to do these activities, even you get help of others.

2a.My chances of getting washed and dressed myself as my wish are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

2b.My chances of getting washed and dressed when I want to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

2c.My chances of getting up and down from bed when I want to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

2d. My chances of going to toilet and according to my need to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

2e. My chances of eating and drinking water when I want to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

2f. If your health or your disability effect on yourself care, then you face what types of problems:

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about yourself care:

Activities in and around of your house (with or without aids or assistance)

Next questions are in house what types of activities and responsibilities you have and these impact of your health or disability. We would like to know whether you can decide when and how you will do, even if do not perform these activities yourself.

3a. My chances of contribution and looking after my family when I want to:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3b. my chances of doing light work around my house (for example: making tea or coffee) how I want to do myself or others.

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3c My chances of doing heaving work (e.g. Cleaning) how I want to do myself or others:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3d. My chances of doing household activities when I want to do myself and others:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3e. My chances of doing minimal repair and maintenance when I want to do myself or others:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3f. My chances of completing my work in house how I want to:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

3g. If your health or your disability effect on your activities in and around of your house. Then what to extent can cause problems:

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about in around of your house activities

Looking after of your money(with or without aids or assistance)

Next questions about depend on the result of your health or disability whether you have control of spending more money.

4a.My chances of choosing how I spending my money as my wish

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

4b. If your health or your disability effect on spending of your own money, Then what to extent can cause problems?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about controlling of more financial status:

Leisure (with or without aids or assistance)

Next questions are about whether you can decide how you will spend your leisure time.

5a. My chances of spending my leisure time how I want to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

5b. If your health or your disability effect on how you spend your leisure time, the what types of problem you face?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about spending of your leisure time

Social life and relationship: Next questions are about the quality and frequency of your social life and relationship. We would like to know about whether is any effect of your health problem or disability?

6a. My chances of talking to people and close equally:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6b.the skills of maintaining relationship with close people:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6c.The respect I get from the closest people is:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6d.My relationships with known person are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6e.The respects I get from my known person are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6f.My chances of making close relationship are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6g. my chances of often meeting with people whom I want are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

6h. If your health or your disability effect on your social life and relationship, then what types of problem you face?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about your social life and relationship:

Help and support to other people (with or without aids or assistance)
Next questions are about on you have any opportunity to help and support people such as family,neighbours,friend or any club member

7a. My chances of helping or supporting people in any way are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

7b. if your health or your disability effect In case of helping other people, then what types of problems you face?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about helping or supporting other people:

Exchange or volunteer work(with or without aids or assistance)

Next questions are about exchange or volunteer work; we would like to know whether you have opportunity to find out exchange or volunteer work, even if it can be not suitable with your present situation.

8a.My chances of finding out or holding exchange or volunteer work as I choose:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

Please only answer questions from 8b – 8f if you have any exchange or volunteer work, even if you due to illness you do not any work at the moment, please answer 9 no question

8b.My chances of doing exchange or volunteer as I wish:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

8c.My connections of other people with my exchange or volunteer work are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

8d.my skill of achieving designation of exchange or volunteer work as I wish:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

8e.My chances of performing different exchange or volunteer work as I wish:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

8f. if your health or your disability affects on your exchange or volunteer work, then what types of problems you face?

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments about exchange or volunteer work

Education and training (with or without aids or assistance)

Next questions are about your health condition or disability effect yours education or training what you want. If in future you do not have wish to study or any other course suitable then sign mark in this box not applicable.

9a.My chances of getting education or training as I wish /want:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

9b. if your health problem or disability effect on your education or training then what to extent can cause problem:

- No problem 0
- Minor problem 1
- Major problem 2

Space for if you have further comments related to education or training

IPA questionnaire of last part

In this questionnaire you have answered that questions those are related with the result of your health or disability (personal and social life) consider all this things, in general can you tell whether you have enough control on your life?

10. My chances of leading life as my wish I want to are:

- Very good 0
- Good 1
- Fair 2
- Poor 3
- Very poor 4

Thank you for giving yours valuable time and answer all these questions.

{APPENDIX- (V)}
Questionnaire (Bangla)

ধারা-১

প্রতিটি সাক্ষাৎকার শুরু করার আগে নিচের প্রদত্ত অংশগুলো পূরণ করে নিন			
উত্তরদাতার সনাক্তকরণ নম্বরঃ			
সাক্ষাৎকার গ্রহণকারীর সনাক্তকরণ নম্বরঃ			
সাক্ষাৎকার গ্রহণের তারিখঃ	— দিন	— মাস	— বছর
উত্তরদাতার মোবাইল নম্বরঃ			

ধারা- ২ জনসংখ্যা সম্বলিত এবং পূর্বের তথ্য

সিরিয়াল নাম্বার	প্রশ্নসমূহ	কোডিং বিভাগ	কোড
১	আপনার বয়স কত?	বছর	<input style="width: 40px; height: 20px;" type="text"/>
২	লিঙ্গ	পুরুষ = ১ মহিলা = ২	<input style="width: 40px; height: 20px;" type="text"/>
৩	আপনার শিক্ষাগত যোগ্যতা কী?	অশিক্ষিত = ১ প্রাথমিক শিক্ষা = ২ হাই স্কুল = ৩ এসএসসি = ৪ এইচএসসি = ৫ স্নাতক = ৬	<input style="width: 40px; height: 20px;" type="text"/>
৪	আপনার পেশা কী?	গৃহিনী = ১ কৃষি কাজ = ২ চাকুরিজীবী = ৩ ব্যবসায়ী = ৪ ছাত্র = ৫ গার্মেন্টস শ্রমিক = ৬ দিনমজুর = ৭	<input style="width: 40px; height: 20px;" type="text"/>

৫	বৈবাহিক অবস্থা	অবিবাহিত = ১ বিবাহিত = ২ আলাদা থাকেন = ৩ তালাকপ্রাপ্ত = ৪ বিধবা = ৫ উত্তর দিতে অনিচ্ছুক = ৬	<input type="checkbox"/>
৬	পরিজনবর্গ	যৌথ পরিবারের সঙ্গে বাস করেন = ১ একক পরিবারের সঙ্গে বাস করেন = ২ একা থাকেন = ৩	<input type="checkbox"/>
৭	আপনি কোন ধরণের স্ট্রোকে আক্রান্ত?	ইস্কেমিক = ১ হেমোরাজিক = ২	<input type="checkbox"/>
৮	আপনার শরীরের কোন পাস আক্রান্ত হয়েছে?	ডান পাস = ১ বাম পাস = ২ উভয় পাস = ৩	<input type="checkbox"/>
৯	কতদি ধরে স্ট্রোক হয়েছে?	৬-১২ মাস = ১ ১৩-১৮ মাস = ২ ১৯-২৪ মাস = ৩ ২৪ মাসের উপরে = ৪	<input type="checkbox"/>
১০	কত মাস ধরে আপনি পুনর্বাসন সেবা নিচ্ছেন?	১-৬ মাস = ১ ৭-১২ মাস = ২ ১৩-১৮ মাস = ৩ ১৮ মাসের উপরে = ৪	<input type="checkbox"/>

দি আইপিএ: অংশগ্রহণ এবং ব্যক্তিস্বাধীনতার উপর প্রভাব
দৈনন্দিন জীবনের পছন্দ এবং অংশ গ্রহণের উপর একটি প্রশ্নপত্র

ভূমিকা: এই প্রশ্নপত্রে কিছু প্রশ্ন আছে যা আপনার দৈনন্দিন কাজ সম্পর্কে আমরা জানতে চাই যে, আপনার স্বাস্থ্যগত অবস্থা বা প্রতিবন্ধকতা আপনার স্বাধীন জীবন যাপন করার ক্ষমতার উপর কোন প্রভাব সৃষ্টি করেছে কিনা- “স্বাধীন জীবন যাপনের ধারণা”। আমরা আরো জানতে চাই যে, আপনার জন্য গুরুত্বপূর্ণ কাজে আপনি যেভাবে চান সেভাবে অংশগ্রহণের সুযোগ কতটুকু আপনার আছে।

যখন প্রশ্নগুলো উত্তর দিবেন, তখন আপনার নিজস্ব মতামত ও ধারণা সম্পর্কে চিন্তা করবেন। এখানে কোন সঠিক বা ভুল উত্তর নেই। আপনার অবস্থা বা পরিস্থিতির সাথে সামঞ্জস্য রেখে উত্তর দেওয়া খুব জরুরী।

অনুগ্রহপূর্বক তথ্যগুলো পড়ুন এবং তারপর বাস্কে টিক চিহ্ন দেওয়ার মাধ্যমে উত্তর করুন। যেমন আপনি আপনার ঘরের পছন্দনমত জায়গায় যেতে পারলে আপনি প্রথম উত্তর দিবেন এইভাবে

আমার ঘরে আমি যেখানে যেতে চাই সেখানে যাওয়ার সম্ভাবনা

- খুব ভাল
- ভাল
- সম্ভাব্য
- মন্দ
- খুব মন্দ

আপনি যদি সবগুলো প্রশ্নের উত্তর দেওয়ার চেষ্টা করেন এটা খুবই উপকার হবে। যদিও কোন প্রশ্নের উত্তর দিতে কঠিন, অপ্রসঙ্গিক অথবা অপ্রয়োজনীয় মনে হতে পারে তবুও অনুগ্রহপূর্বক যেটিকে আপনার সবচেয়ে প্রয়োজ্য মনে হবে সেই বাস্কে টিক দিবেন।

প্রতিটি অংশ শেষ হওয়ার পরে আপনার অধিকতর মন্তব্য থাকলে আপনি তা করতে পারবেন। আপনার সব উত্তর যথেষ্ট গোপন রাখা হবে।

প্রশ্নমালা পূরণ করার জন্য ২০ মিনিট সময় লাগবে।

আমাদেরকে সহযোগিতা এবং আপনার মূল্যবান সময় দেওয়ার জন্য আপনাকে ধন্যবাদ।

অংশগ্রহণ এবং ব্যক্তিস্বাধীনতার উপর প্রভাব (আইপিএ)

চলাচল: আপনি যখন এবং যেখানে যেতে চান (কোন উপকরণ অথবা সাহায্য নিয়ে বা ছাড়া)। প্রথমে আমরা আপনার গতিশীলতা সম্পর্কে আপনাকে কিছু প্রশ্ন করব: আপনার আশে পাশে যাওয়ার সুযোগ যেখানে এবং যখন আনি যেতে চান। আমরা এটা জানতে আগ্রহী যে আপনি নিজে সিদ্ধান্ত নিতে পারেন কিনা কোথায় এবং কখন আপনি যেতে চান।

১। ক. আমার বাড়ির চারপাশে যেখানে আমি যেতে চাই সেখানে আমার যাওয়ার সম্ভাবনা:

- খুব ভাল ০
- ভাল ১
- সম্ভাব্য ২
- মন্দ ৩
- খুব মন্দ ৪

খ. আমার বাড়ির চারপাশে যখন আমি যেতে চাই তখন আমার যাওয়ার সম্ভাবনা:

- খুব ভাল ০
- ভাল ১
- সম্ভাব্য ২
- মন্দ ৩
- খুব মন্দ ৪

গ. আমার আত্মীয় স্বজন এবং বন্ধুবান্ধবের বাড়িতে যখন আমি যেতে চাই তখন আমার যাওয়ার সম্ভাবনা:

- খুব ভাল ০
- ভাল ১
- সম্ভাব্য ২
- মন্দ ৩
- খুব মন্দ ৪

ঘ. ছোট খাট ভ্রমণ এবং ছুটির দিনে ঘুরতে যাওয়ার ক্ষেত্রে আমার সম্ভাবনা:

- খুব ভাল ০
- ভাল ১
- সম্ভাব্য ২

মন্দ ৩

খুব মন্দ ৪

ঙ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনাকে যখন এবং যেখানে যেতে চান সেটাকে প্রভাবিত বা ব্যাঘাত করে তখন আপনার কি ধরনের সমস্যা হয়:

কোন সমস্যা নেই ০

অল্প সমস্যা ১

খুব সমস্যা ২

এছাড়াও চলাচল সম্পর্কে আপনার অধিকতর মতামত থাকলে:

নিজের যত্ন: (কোন উপকরণ অথবা সাহায্য নিয়ে বা ছাড়া)। পরবর্তী প্রশ্নগুলো আপনার ব্যক্তিগত যত্ন সম্পর্কিত। যখন আপনি এই প্রশ্নগুলোর উত্তর দিবেন তখন আপনি চিন্তা করবেন যে, কাজগুলো কখন এবং কিভাবে করতে চান সে সিদ্ধান্ত নিজে নিতে পারছেন কিনা এমন কি অন্য কারও সাহায্য নিয়ে করতে হলেও।

২। ক. আমি যেভাবে নিজেকে পরিষ্কার এবং পোষাক পরিধান করতে চাই সেভাবে করার সম্ভাবনা:

খুব ভাল ০

ভাল ১

সম্ভাব্য ২

মন্দ ৩

খুব মন্দ ৪

খ. যখন আমি চাই তখন নিজেকে পরিষ্কার এবং পোষাক পরিধান করার সম্ভাবনা:

খুব ভাল ০

ভাল ১

সম্ভাব্য ২

মন্দ ৩

খুব মন্দ ৪

গ. আমার ইচ্ছামত সময়ে ঘুম থেকে ওঠা ও ঘুমাতে যাওয়ার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঘ. আমার ইচ্ছা এবং প্রয়োজনমত সময়ে পায়খানায় যাওয়ার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঙ. আমার যখন ইচ্ছা তখন খেতে ও পান করার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

চ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনার নিজের যত্নের ব্যাঘাত ঘটায় তখন আপনি কি রকম/ধরনের সমস্যার সম্মুখীন হন:

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

এছাড়াও আপনার নিজের যত্নের সম্পর্কে আপনার অধিকতর মতামত থাকবে।

.....

বাড়ির ভিতরে এবং বাড়ির চারপাশের কর্মকাণ্ড (কোন উপকরণ অথবা সাহায্য নিয়ে যা ছাড়া)। পরবর্তী প্রশ্নগুলো হল বাড়িতে আপনার যে সমস্ত কাজ এবং দায়িত্ব আছে সেগুলো এবং এগুলো আপনার স্বাস্থ্য অথবা প্রতিবন্ধকতা দ্বারা কি ভাবে প্রভাবিত হয় সে সম্পর্কিত। আমরা জানতে চাই এ কাজগুলো কখন এবং কিভাবে হবে তার সিদ্ধান্ত আপনি নিতে পারবেন কিনা, এমনকি যদি আপনি নিজে এগুলো নাও করেন।

৩। ক. আমার পরিবারে দেখাশুনার জন্য আমি যে ভাবে অবদান রাখতে চাই তার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. বাড়ির চারপাশের হালকা কাজ করার সম্ভাবনা (যেমন: চা অথবা কফি বানানো) আমি যেভাবে করতে চাই নিজের বা অন্যের দ্বারা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

গ. বাড়ির চারপাশের ভারী কাজগুলো করার সম্ভাবনা। (যেমন: পরিষ্কার পরিচ্ছন্নতা) আমি যেভাবে করতে চাই নিজের বা অন্যের দ্বারা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঘ. গৃহস্থলী কাজকর্ম করার সম্ভাবনা, যখন আমি করতে চাই, নিজে বা অন্যের দ্বারা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঙ. আমার বাড়ির এবং বাগানের ক্ষুদ্রতর মেরামত এবং ব্যবস্থাপনা করার সম্ভাবনা নিজে বা অন্যের দ্বারা যেভাবে আমি চাই:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

চ. আমি যেভাবে চাই সেভাবে বাড়িতে আমার ভূমিকা সম্পূর্ণ করার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ছ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনার বাড়ির ভিতরের এবং চারপাশের কাজ কর্মকে প্রভাবিত করে এতে আপনার কি ধরনের সমস্যা হয়।

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

এছাড়াও আপনার বাড়ির ভেতরের এবং চারপাশের কার্যকর্মের উপর অধিকতর মতামত থাকলে।

.....

আপনার টাকা পয়সা দেখাশুনা করা (কোন উপকরণ বা সাহায্যসহ বা ছাড়া) পরবর্তী প্রশ্নগুলো কিভাবে আপনার স্বাস্থ্য বা প্রতিবন্ধকতা আপনার নিজের অর্থ খরচের ক্ষেত্রে প্রভাবিত করে সে সম্পর্কিত।

৪। ক. আমি আমার টাকা নিজের পছন্দমত কিভাবে খরচ করব তা বেছে নেওয়ার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনার নিজের টাকা খরচ করার প্রতি প্রভাব ফেলে, তাহলে কি ধরনের সমস্যা হয়:

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

আপনার অধিকতর অর্থনৈতিক অবস্থা নিয়ন্ত্রণের উপর অধিকতর মন্তব্য থাকলে:

.....

অবসর (কোন উপকরণ বা সাহায্য নিয়ে অথবা ছাড়া)

পরবর্তী প্রশ্নগুলো হল আপনার অবসর সময় কিভাবে কাটাবেন সে বিষয়ে আপনি সিদ্ধান্ত নিতে পারেন কিনা সে সম্পর্কিত।

৫। ক. আমি যেভাবে চাই সেভাবে আমার অবসর কাটানোর সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনি কিভাবে অবসর কাটাবেন তাতে প্রভাব ফেলে এতে আপনার কি ধরনের সমস্যা হয়।

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

আপনার অবসর সময়ের উপর আরও অধিকতর মন্তব্য থাকলে:

সামাজিক জীবন এবং সম্পর্ক: পরবর্তী প্রশ্নগুলোর আপনার সামাজিক সম্পর্কের গুণগত মান এবং দক্ষতা সম্পর্কে। আমরা জানতে চাই যে আপনার স্বাস্থ্যগত সমস্যা অথবা প্রতিবন্ধকতা আপনার সম্পর্কের উপর প্রভাব ফেলেছে কিনা?

৬। ক. কাছের মানুষের সাথে আমার কথা বলার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. কাছের মানুষের সাথে আমার সম্পর্ক:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

গ. ঘনিষ্ঠদের কাছ থেকে আমি যে সম্মান পাই:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |

ঘ. পরিচিতদের সাথে আমার সম্পর্ক:

<input type="checkbox"/> খুব মন্দ	৪
<input type="checkbox"/> খুব ভাল	০
<input type="checkbox"/> ভাল	১
<input type="checkbox"/> সম্ভাব্য	২
<input type="checkbox"/> মন্দ	৩
<input type="checkbox"/> খুব মন্দ	৪

ঙ. পরিচিতদের কাছ থেকে আমি যে সম্মান পাই:

<input type="checkbox"/> খুব ভাল	০
<input type="checkbox"/> ভাল	১
<input type="checkbox"/> সম্ভাব্য	২
<input type="checkbox"/> মন্দ	৩
<input type="checkbox"/> খুব মন্দ	৪

চ. ঘনিষ্ঠ সম্পর্ক করার সুযোগ:

<input type="checkbox"/> খুব ভাল	০
<input type="checkbox"/> ভাল	১
<input type="checkbox"/> সম্ভাব্য	২
<input type="checkbox"/> মন্দ	৩
<input type="checkbox"/> খুব মন্দ	৪

ছ. আমি যত ঘন ঘন মানুষের সাথে দেখা করতে চাই তার সুযোগ:

<input type="checkbox"/> খুব ভাল	০
<input type="checkbox"/> ভাল	১
<input type="checkbox"/> সম্ভাব্য	২
<input type="checkbox"/> মন্দ	৩
<input type="checkbox"/> খুব মন্দ	৪

জ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনার সামাজিক জীবন এবং সম্পর্কের উপর প্রভাব ফেলে এতে আপনার কি ধরনের সমস্যা হয়?

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

আপনার সামাজিক জীবন এবং সম্পর্কের উপর অধিকতর মন্তব্য করেন:

অন্যান্য মানুষকে সাহায্য এবং সহায়তা করার (কোন উপকরণ বা সাহায্য দিয়ে অথবা ছাড়া)।
পরবর্তী প্রশ্নগুলো হল আপনার কোন সুযোগ আছে কিনা অন্য মানুষদের কে যেমন পরিবার, প্রতিবেশী, বন্ধু অথবা কোন সংগঠনের সদস্যদেরকে সাহায্য এবং সহায়তা করার সম্পর্কে।

৭। ক. যেভাবেই হোক মানুষকে সাহায্য বা সহায়তা করার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. যদি আপনার স্বাস্থ্যগত সমস্যা অথবা প্রতিবন্ধকতা অন্য মানুষকে সাহায্য করার ক্ষেত্রে প্রভাব ফেলে এতে আপনার কি ধরনের সমস্যা হয়:

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

অন্যান্য মানুষদেরকে সাহায্য ও সহায়তা করার সম্পর্কে অধিকতর মন্তব্য থাকলে:

বিনিময়ে অথবা স্বেচ্ছাকৃত কাজ (কোন উপকরণ বা সাহায্য দিয়ে অথবা ছাড়া)

পরবর্তী প্রশ্নগুলো কোন কিছুর বিনিময়ে অথবা স্বেচ্ছাকৃত কাজ সম্পর্কে। আমরা জানতে চাচ্ছিলাম যে আপনার কোন সুযোগ আছে কিনা বিনিময় অথবা স্বেচ্ছাকৃত কাজ পাওয়া এবং সেটা করার এমনকি একটা যদি আপনার বর্তমান পরিস্থিতির সাথে সঙ্গতিপূর্ণ নাও হয়

৮। ক. আপনার পছন্দমত কোন বিনিময় বা স্বেচ্ছাসেবক মূলক কাজ খুজে পাওয়া বা ধরে রাখার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

অনুগ্রহ করে ৮ খ থেকে ৮ চ প্রশ্নগুলোর উত্তর দিবেন যদি আপনার কোন চাকুরী বা স্বেচ্ছামূল কাজ থাকে এমন কি বর্তমানে অসুস্থতার কারণে আপনি কাজটি নাও করে থাকেন। অন্যথায় অনুগ্রহ করে ৯নং প্রশ্নের উত্তর দিন।

খ. যেভাবে চাই সেভাবে বিনিময় বা (স্বেচ্ছাসেবকমূলক কাজ করার সুযোগ):

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

গ. আমার বিনিময় অথবা স্বেচ্ছাকৃত কাজের সাথে অন্যান্য মানুষের সংযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঘ. আমার ইচ্ছানুযায়ী কোন বিনিময় বা স্বেচ্ছাসেবক মূলক কাজ এর পর্দা অর্জন করার সম্ভাবনা:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

ঙ. আমার ভিন্ন ভিন্ন বিনিময় অথবা স্বেচ্ছাসেবক মূলক কাজ করার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

চ. যদি আপনার স্বাস্থ্য অথবা আপনার প্রতিবন্ধকতা আপনার বিনিময় অথবা স্বেচ্ছাকৃত কাজের উপর প্রভাব ফেলে এতে আপনি কি ধরনের সমস্যা সম্মুখীন হন:

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

বিনিময় অথবা স্বেচ্ছাকৃত কাজের উপর আরও অধিকতর মন্তব্য থাকলে:

.....

শিক্ষা এবং প্রশিক্ষণ (কোন উপকরণ বা সাহায্য নিয়ে অথবা ছাড়া)।
পরবর্তী প্রশ্নগুলো হল আপনার স্বাস্থ্যগত অবস্থা অথবা প্রতিবন্ধকতা আপনার কাজিত শিক্ষিত অথবা প্রশিক্ষণকে কিভাবে প্রভাবিত করেছে সেই সম্বন্ধে। যদি ভবিষ্যতে আপনার পড়াশুনা করার ইচ্ছা না থাকে বা অন্য কোন কোর্স করার সুযোগ না থাকে তবে প্রযোজ্য নয়। তাহলে এই বাক্সে টিক চিহ্ন দিতে পারেন।

৯। ক. আমি যে সমস্ত শিক্ষা বা প্রশিক্ষণ পেতে চাই সেগুলো পাওয়ার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |
| <input type="checkbox"/> মন্দ | ৩ |
| <input type="checkbox"/> খুব মন্দ | ৪ |

খ. যদি আপনার স্বাস্থ্যগত সমস্যা অথবা প্রতিবন্ধকতা আপনার শিক্ষা বা প্রশিক্ষণের উপর প্রভাব ফেলে এতে আপনার কি ধরনের সমস্যা হয়:

- | | |
|---|---|
| <input type="checkbox"/> কোন সমস্যা নেই | ০ |
| <input type="checkbox"/> অল্প সমস্যা | ১ |
| <input type="checkbox"/> খুব সমস্যা | ২ |

শিক্ষা বা প্রশিক্ষণ সংক্রান্ত আরও কোন ব্যাখ্যা থাকলে:

শেষভাগের আই পিএ প্রশ্নমালা:

এই প্রশ্নমালায় আপনি যে প্রশ্নগুলোর উত্তর দিয়েছেন সেগুলো আপনার ব্যক্তিগত এবং সামাজিক জীবনের স্বাস্থ্য অথবা প্রতিবন্ধকতার ফলাফলের সাথে সম্পর্কিত। সবকিছু বিবেচনা করে সাধারণভাবে আপনি কি বলতে পারবেন আপনার জীবনের উপর আপনার পর্যাপ্ত পরিমাণে নিয়ন্ত্রণ আছে কি না?

১০। আমি যেভাবে চাই সেভাবে জীবন যাপন করার সুযোগ:

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> খুব ভাল | ০ |
| <input type="checkbox"/> ভাল | ১ |
| <input type="checkbox"/> সম্ভাব্য | ২ |

মন্দ ৩

খুব মন্দ ৪

আপনার জীবনের উপর আপনার নিয়ন্ত্রণ সম্পর্কে অতিরিক্ত মতামতের জায়গা:

.....

ধন্যবাদ। আপনার মূল্যবান সময় দিয়ে এই প্রশ্নসমূহের উত্তর দেওয়ার জন্য।

Appendix VI

Author permission for IPAQ scale

