THE RELATIONSHIP BETWEEN OCCUPATIONAL PERFORMANCE AND WELL-BEING OF STROKE SURVIVAL IN SELECTED REHABILITATION CENTRE OF BANGLADESH

By

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Statement of Authorship

Except where reference is made in the text of the thesis, this thesis contains no materials published elsewhere or extracted in whole or in part from a thesis presented by me for any other degree or diploma or seminar.

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The ethical issues of the study has been strictly considered and protected. In case of dissemination the findings of this project for future publication, research supervisor will highly concern and it will be duly acknowledged as undergraduate thesis.

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List of Abbreviations

ADL: Activities of Daily Living

BHPI: Bangladesh Health Profession Institute

COPM: Canadian Occupational Performance Measure

CRP: Centre for the Rehabilitation of the Paralysed

CVA: CerebrovascularAccident

ICF: International Classification of Functioning, Disability and Health

MOHO: Model of Human Occupation

OSA: Occupational Self-Assessment

PWI-A: Personal Wellbeing Index-Adult

QOL: Quality of Life

SPSS: Statistical Package for the Social Science

SWB: Subjective Well-Being

WHO: World Health Organization

ABSTRACT

Background: Stroke is a remarkable event that frequently imposes severe physical, cognitive and social limitations. Many stroke survivors experience lasting difficulties in managing the challenges of everyday life. Occupational Therapy is a patient centered health care profession which focuses on occupational performance and the well-being of an individual. In order to further the development of more efficient rehabilitation programs promoting performance on their occupational life after stroke, more knowledge on factors indicating the likelihood of occupational performance after stroke and on the relationships between occupational performance and personal well-being is needed.

Purpose: The purpose of the study is to identify the level of occupational performance and well being of stroke survivor and investigate the relationship between occupational performance and well-being. Investigator also gather the socio demographic information of stroke survival and find out their association with occupational performance and well being.

Methodology: The prospective cross sectional study was used to carry out the research aim and objectives. The investigator has been used purposive sampling procedure and select the sample n=120 patients to evaluate occupational performance and wellbeing. Occupational performance and well-being were investigated with Occupational Self-Assessment Version 2.2 and the Personal Well-being Index-Adult. Chi-squared test was used to determine the association of demographic factors with both occupational performance and well being. Spearman correlation analysis was used to identify the relationship between occupational performance and well-being.

Result: The result section had shown the general socio demographic characteristics of the study participants. 50-69 years adult group of people was mostly suffered from stroke. In this study mean age was 53.30 years and standard deviation 12.426. There were no marked differences to occurrence for stroke in rural and urban area, but study showed marked differences result in the family system between nuclear and extended. Participants experienced more ischemic rather than hemorrhagic stroke. There are no significant association between demographic and clinical factors with occupational

performance and well being. Overall occupational performance of the participants were just well. In case of Well being, the overall satisfaction of participants were average. In Occupational performance "Getting along with others" and "Relaxing and enjoying myself" was scored highest among the 21 myself items. Among the "My Environment" items, "People who support and encourage me" and "People who spend time and share interest with me" showed highest scores. Among the 8 items of the Personal Wellbeing Index-Adult, "Spirituality/ Religion" and "Personal relationships" showed highest satisfaction. A significant positive relationship was found in between Well-being and Occupational performance.

Conclusion: In this study, Occupational Performance and Well-being were measured in stroke patients through client-centered self-report questionnaires. A significant positive relationship between Occupational Performance and Well-being was indicated based on analysis of the questionnaires. After stroke communicating with others, time passing and relaxing doesn't bother too much. They reported that taking care of self, others, family is very important to them to lead a successful life. After experiencing stroke most people seem to be happy with their religion and their personal relationship. But they seem to be very unsatisfied with their health condition.

Keywords: Occupational performance, Occupational self-assessment, Well-being

1.1 Introduction

Stroke is a common neurological disease that often radically and permanently changes the lives of its survivor. A stroke significantly influences the patient's physical, social, and psychological functioning, including loss of motor and sensory function, communication disorders, cognitive and perceptual impairments and emotional changes.[1] These consequences can impact negatively on a person's life, disrupting their engagement in desired daily performance and the ability to lead a satisfactory life. In spite of these negative consequences, life doesn't stop after the stroke. Events unrelated to the problems of a stroke can affect life in different ways.[2]

Occupational therapy has an important role for the individual with stroke in addressing occupational performance areas. Stroke patients have need in occupational therapy for a valid and reliable outcome measure that assesses the total scope of occupational performance for the individual client within their environment. Occupational Therapists view an individual's Occupational Performance in three areas: Self-care or Activities of Daily Living (ADL), Productivity and Leisure. These three performance areas based on the interaction of the individual's physical, mental, sociocultural and spiritual performance components.[3]

Occupation is a word that describes *the interaction of the person with their self-directed functional tasks or activities. Persons engage over their lifespan with these functional tasks or activities.*[4]

Occupational performance is considered as a multidimensional dynamic phenomenon. It encompasses the interaction that occurs among the person, environment and occupation in which the person engages. Occupational performance requires the ability to balance occupation and includes views of self-environment that sometimes conflict, and to include changing priorities. Occupational therapy identifies the client's occupational strengths and the issues/problems in occupational performance.[5]

According to Baum (2011), Occupational performance is the 'doing of meaningful activities, tasks, and roles through complex interaction between the person and the environment'. Occupational therapists offer their unique role in those particular issues that people's ability to engage in meaningful activities, tasks, and roles and support both their participation in daily life and wellbeing.[4-5]

Quality of life (QOL) represents a person's well-being and life satisfaction, it includes mental and physical health. Individual, family, and work relationships, along with other activities such as recreation in the community also contribute to quality of life.[6] A lower quality of life and well-being has been seen within individual stroke patients. Occupational therapists attempt to discover what properties, symptoms or functional limitations are the most important for the individuals' well-being after stroke. QOL is obviously related to personally perceived satisfaction and happiness.[7]

To measure in this study, The Bangla version of Occupational Self-Assessment -version 2.1 (OSA) was used to collect data on participants perceived occupational competence. The concepts of occupational competence include "*participation in a range of occupations that provide a sense of ability, control, satisfaction, and fulfillment*". This study also used the occupational competence scale for the person and the environment. These contain skills, habituation, and volition to complete the domains of myself, physical and social for the environment. There are four response choices for each question; doing activity extremely well; doing activity well; doing activity with some difficulty; experiencing a lot of problems while engaging in an activity.[8] The Personal Wellbeing Index-Adult was also used to collect data on Participants' satisfaction of their life. This scale rates Zero to 10 where Zero means "No Satisfaction" and 10 means "Complete Satisfaction".

While the words "occupational satisfaction" for occupational therapists may clearly put forward positive experience of the person's occupation, it may have meaning in the context of the culture in occupational therapy. Godfrey (2000) and Carlisle et al (2009)stated that, wellbeing is a term widely used and valued in existing society. Occupational therapy has qualities to help many individuals with stroke improve their well-being and quality of life to capture what may be more important outcomes.[9]

Individual well-being represents a universal perception of life within a defined period for the individual's encouragement, psychological support, adjustment, and training after their stroke.[10] Post-stroke restrictions permit individuals to be realistic in their self-evaluation and chances of satisfying their responsibilities and enjoying life.[6-7]

Qualified occupational therapists could and should be working towards the improvement of QOL for all individuals who would benefit from improved participation in meaningful occupations. It can be maintained that engaging in daily occupations that promotes health and well-being in relation to QOL. According to Kielhofner& Forsyth (2001), the Model of Human Occupation (MOHO), identifies individuals' ability to sustain a pattern of occupational engagement that reflects their occupational identity, with regards to occupational competence. Competence starts by organizing an individual's life to meet the basic responsibilities and personal standards; to meet their roles/duties after which a satisfying and interesting life can be achieved.[11]

Individuals with stroke have the level of occupational performance, quality of life or life satisfaction assessed from a long-term perspective. A client-centered approach would improve perceived performance and satisfaction by using the Canadian Occupational Performance Measure (COPM).[12] In a client-centered method, a person with stroke and occupational therapists collaborate to express the nature of the occupational performance problem, the focus and need for intervention, and the ideal outcomes of therapy.[13]

After a stroke, most individual's life situations change rapidly. This involves a major shift in values for what is important and to ensure full participation. Their discovery of the possibility of a meaningful future life aids in mobilizing energy for their rehabilitation. This important ability depends on individual self-confidence and personal well-being.[12]

1.2 Background of the study

Stroke is a major event that affects patients' in many different ways, not only physically, but also through a range of emotional, psychological, cognitive and social consequences.[14] Many stroke survivors experience permanent difficulties in managing challenges of everyday life.[10]

Bangladesh is a small country in South Asia with a high density of population. In a recent study conducted in Bangladesh the prevalence rates of stroke found to be 2.0, 3.0, 2.0, 10.0, and 10.0 per 1000 within age groups of 40-49 years, 50-59 years, 60-69 years, 70-79 years and 80 years of the above age group respectively. Prevalence rates peaked with older age.[15] Another study observed that the prevalence of stroke in Bangladesh was 3 per 1000 for those older than 40 years old.[16]

Of those who survive a stroke, the degree of residual neurological deficits are determined by the location and size of the damaged brain tissue. The resulting deficits may include paralysis with decreased mobility, cognitive problems, impaired language and behavioral changes. Newsham (1998) reported that, Although mortality rates of stroke survivors decrease in those under the age of 85 (Newsham, 1998), there is an increase in the number of stroke survivors going through a rehabilitation process.

The stroke survivor going through the rehabilitation process is an occupationally driven being, and the ability to participate in daily occupations and social situations serves for the benefit of his or her Quality of Life (QOL). [17] Occupations are considered to meet the individual's intrinsic needs for self-maintenance, expression and fulfillment within the context of his/her personal roles and environment. Occupations include activities and tasks done to accomplish a purpose in the functional life skill. [5]

According to the Canadian Association of Occupational Therapists (2002, p. 37), *Dominant occupational therapy models present occupation comprising in into three specific categories: ADL, work, and play or self-care, productivity, and leisure, and it has been claimed that these three categories characterize the ''purposes'' of occupation.* Moreover, it remains unclear what evidence, if any, determined the division of

occupation into three specific categories of ''doing'' (self-care/ADL, productivity/work, and leisure/play). Further, it has been noted that the decision to prioritize and promote these three categories of occupation ''reflects a specific policy of individual that specifically excludes those activities motivated by love and concern for the Well-being of others".[18] Individuals with stroke are increasingly likely to live with their residual impairments and disabilities, which can develop into a significant problem for survivors' Well-being. Restrictions in mobility and physical functioning for people with stroke have repeatedly been found to reduce the QOL and create difficulties within family and social relationships in the context of environment.[19]

Baron stated that, OSA is designed to be used as a Client-Centered Assessment and it is based on the concept of MOHO whose particular values and sense of capacity guide collaborative treatment planning and document therapy outcomes.[20] The Occupational Therapy Guidelines for Client-Centered Practice classify environmental factors as cultural, economic, legal, political, physical and social. It has also been proposed that environmental characteristics are influential at various levels, starting with the person then stemming to the home, home, neighborhood, community and country.

In this view, informational processes such as perception, attention and planning have a significant influence on function in various collections of abilities, such as, cognition, general physical health, motor, sensory and perceptual skills, and their influence on an individual's level of performance.

The Occupational Therapy Guidelines for Client- Centered Practice Outline a Model of Occupational Performance, which represents a person's performance in self-care, productivity and leisure tasks and activities as influenced by an individual's personal characteristics and the environments, in which they live, work and play.[5]

Another useful assessment is the Canadian Occupational Performance Measure (COPM), a semi structured interview that enables the client to identify occupational performance concerns and then rate those concerns according to their importance. The COPM may also contribute to the client defining their functional goals for treatment.[21]

Finally, occupation is possibly best measured by skilled observation of the client engaging in occupational performance. Such observation is important for determining points of performance breakdown that the client can ultimately address with treatment through Occupational therapy service.[21]

According to Watson and Swartz (2004, p. 62), *"occupational therapists (OTR) could and should be working towards the improvement of QOL for all people who would benefit from improved participation in meaningful occupations"*.

New Economic Foundation (NEF) described well-being as: *the dynamic process that gives people a sense of how their lives are going, through the interaction between their circumstances, activities and psychological resources or "mental capital"*.[22] QOL can be used in an assessment and an outcome measure of health and well-being, and is not related to whether a person has a disease or not.[11]

The Personal Well-Being Index-Adult scale contains eight items of satisfaction, each one corresponding to a quality of life domain. These are: standard of living, health, achieving in life, relationships, safety, community connectedness, future security and spirituality.[23]

Engaging in daily occupation that promotes health and well-being is related to QOL. Within the MOHO, the ability to sustain a pattern of occupational engagement that reflects one's identity is referred to as the occupational competence. Competence begins with adapting one's life to meet basic responsibilities and personal standards and extends to meeting role obligations and finally achieving a satisfying and interesting life.[11]

Engagement in occupation is the way that people use their motor and memory skills to enhance their performance and maintain both cognitive and physiological fitness. The term occupational therapy practitioner's use of function is occupational performance or the point when the person, the environment, and the person's occupation intersect to support the tasks, activities, and roles that define that person as an individual.

By focusing on occupational performance, occupational therapy practitioners assist clients in becoming actively engaged in improving their capacity to perform life tasks. Occupational therapy practitioners must work collaboratively with people in the client's environment (e.g., family members, teachers, independent living specialists, employers, neighbors, friends) to assist the client in obtaining skills and to make modifications to remove barriers that create a social disadvantage.

An occupational therapist focuses on outcomes and improved well-being are increasingly report on personal and environmental assets and limitations that relate to the client's occupational performance and the services needed to facilitate healthy behaviors. Occupational therapy practitioners should be seen as experts in applying effective intervention strategies that contribute to optimal occupational function, including self-sufficiency, social integration, improved health status, and employment, in those with a chronic disease or disability.

Outcomes for individuals with a stroke are being defined as well-being and quality of life. Improved occupational performance of the individual is a critical concept in measuring quality of life, regardless of the measure used. There is increasing evidence that client-centered practice improves not only the process, but also the outcomes of care. This practice has led to increased client satisfaction in recommendations for therapy, increased client participation in the occupational therapy process, improved client self-efficacy, and improved functional outcome.[24]

However, there are many studies about occupational performance and well being of stroke patients. Furthermore, there are no studies in Bangladesh that have examined the relationship between occupational performance as assessed for oneself and one's environment and well-being. Thus the purpose of the study was to evaluate the occupational performance and well being of stroke patients and investigate the relationship between occupational performance and well-being.

1.3 Justification of the study

Stroke is one of the leading causes of disability around the world. In a developing country like Bangladesh, stroke is also one of the principle causes of disability, but unlike other countries the health service has not explored available holistic treatment options for rehabilitation. Occupational therapy is one of the health care professions within rehabilitation that provides treatment for individuals with impaired function caused by injury or illness. Occupational therapy is a patient centered health care profession which focuses on occupational performance and the well-being of an individual. Occupational therapy is unique because of its emphasis on occupation to promote and maintain a patient's health and well-being.

It is of uppermost importance for an occupational therapist to try to improve patient's quality of life and allow them to function optimally. As life is influenced by emotions, psychological motivations, depression, etc. after a stroke there is a significant change to the individuals emotional status, communication, physical function, performance, engagement and social participation which therefore affects their health, ability to work, and well-being. In this study, the aim is to address: the occupational performance and well-being of individuals who have had a stroke which can in turn be used as evidence in rehabilitation as it will identify the abilities gained by the individual after receiving Occupational Therapy.

This study will be helpful for health professionals to understand the patient's perspective about their own performance and also be provided treatment relating to their goals and plans. The investigator would like to develop knowledge in occupational performance and well-being of the individual stroke survivor in the context of Bangladesh after receiving occupational therapy services how much the individual occupational performance level improves and how satisfied they are about their life and also discover how the relationship whether Occupational performance and well-being affects each other.

1.4 Research Question

What is the relationship between Occupational Performance and Well-being of stroke survival?

1.5 Objective of the study

General objective: To identify the level of occupational performance and well being of stroke survivor and investigate the relationship between occupational performance and well-being.

Specific objectives

- To measure the level of occupational performance of stroke survivor by using OSA version -2.2
- To measure the level of well-being of stroke survivor by using the Personal Well-being Index (PWI-A).
- To investigate the relationship between occupational performance and well-being.
- To find out the sociodemographic factors of stroke survivors.
- To determine relationship between occupational performance and well being with potential associated demographic and clinical factors.

1.6 Operational definitions

Occupational Performance

The ability to perceive, desire, recall, plan and carry out roles, routines, tasks and sub-tasks for the purpose of self-maintenance, productivity, leisure and rest in response to the demands of the internal and external environment. [25]

Well-being

The World Health Organization (WHO) defined QOL as *"individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectation, standards and concerns".*[11]

Cerebrovascular-Accident or Stroke

Stroke is defined by the World Health Organization as *'a clinical syndrome consisting of rapidly developing clinical signs of focal (or global in case of coma) disturbance of cerebral function lasting more than 24 hours or leading to death with no apparent cause other than a vascular origin'.*[26]

This section provides an outline about Occupational performance and Well-being of stroke survival. A brief discussion also provided on key words of the study. The key forms of the study are stroke, occupation, Occupational Therapists, participation, occupational performance, COPM, quality of life, Well-being and satisfaction etc.

Stroke can result in survival with the permanent sequelae impairing in physical, psychological, and social functions.[27] After a stroke, the impairing those functions have a broad influence on stroke patient life.[28] The World Health Organization (WHO) estimates that each year, 15 million people suffer strokes worldwide. Stroke privileges the lives of 5·8 million individuals each year and another 5 million are left permanently disabled with a range of physical, cognitive, and behavioral deficits that limit their ability to recover premorbid functioning across a number of lifestyle domains. A recent study found that four health behaviors (not smoking, being physically active, moderate consumption of alcohol, and eating five portions of fruit and vegetables) noticeably lowered the risk of stroke among more than 20,000 men and women with no known history of stroke. The same lifestyle changes appear key to both primary and secondary stroke prevention.[29] The incidence of stroke is strongly connected to increasing age, but younger individuals can also experience stroke. According to the Standard Rules adopted by the United Nations General Assembly, rehabilitation should be regarded as a procedure with the objective of making it more likely for individuals with deficiencies to achieve more independence.[30]

Many stroke survivors faced problems with participation or re-engaging in occupations, regardless of disability level. According to Hemmingsson & Johnsson (2005), *Engagement in occupation relates to one's involvement in individual or group activities that are considered of worth and importance to the stroke survivor. Where engagement in occupation differs from the ICF concept of participation is that it clearly considers that the extent to which a particular activity is personally valued may differ from individual to individual.*[31]

Canadian Association of Occupational Therapists (2002), describes Occupation as *occupation is what people do to occupy themselves and involves activities and tasks of everyday life that are given value and meaning by the individuals concerned*. Occupational therapy can display an important role in meeting the needs of people, thus preserving their ability to remain active and participate in society. Occupational therapists should use a holistic perspective and focus on the patient's abilities. For each individual, his or her abilities, impairments, and environmental factors should be considered to facilitate participation in society particularly improve the quality of life.[32]

Although occupational therapists believe that participation in occupation enhances and improves health and wellbeing, there is little empirical evidence in the occupational therapy literature to support this belief within a person, factors such as age, sex, socioeconomic status, condition, self-efficacy and other performance components have an effect on occupational performance. As well, environmental factors, including social, physical, cultural and institutional characteristics, interact with personal factors to either facilitate or delay the performance of roles and a person's occupational performance. The tasks and activities that persons perform on a daily basis that also influence occupational performance and well being. This performance, in turn, is believed to influence well-being.[33]

Identifying occupational performance problems may lead to preventive interventions; one well-established tool is the Canadian Occupational Performance Measure (COPM). The COPM is considered useful for detecting problems in occupational performance, and its strength is the client-centered approach with focus on occupations that are meaningful for the individual.[32] Occupational therapy practice is based on concepts of client-centeredness is more likely to engage clients in the occupational therapy process and lead to increased adherence and satisfaction with therapy than a service focused only on what the therapist perceives as a problem.[23]

The Canadian Model of Occupational Performance (CMOP) classifies three main purposes of occupation: self-care, productivity, and leisure. Self-care encompasses activities for looking after the self such as personal care and functional mobility. Productivity in adults/seniors includes voluntary work, grand parenting, hobbies, housework, or employment. Leisure refers to occupations that provide enjoyment, such as socializing, outdoor activities, games, and sports. Environmental considerations and interventions also necessary to facilitate occupational performance.[32] Activities are goal-directed, meaningful pursuits that are broadly categorized into the areas of self-care, leisure, productivity, and rest. Individuals' daily activities are structured around their roles. Productive independent living is dependent on a person's ability to either engage satisfactorily in life roles or to voluntarily reassign a life role.

Quality of life, subjective well-being and life satisfaction are increasingly being used as outcome measures for rehabilitation.[30] Until a few years ago, stroke research was largely focused on survival. A need to improve the quality of the lives saved is now being increasingly acknowledged. Traditionally, much research and rehabilitation care has focused on the physical and functional impact of a stroke. Recently, the impact of stroke on concepts like QOL has received more attention in the stroke literature.[1] The concept of QOL has gained increasing popularity among researchers studying the consequences of stroke and other chronic diseases for the individual. The investigators often fail to specify on what aspect of life they focus and tend not to choose their instrument on the basis of such considerations. QOL was clearly related to subjectively perceived emotions, e.g., satisfaction and happiness. We focus on emotions such as satisfaction and happiness, and we consider the term "subjective well-being" (SWB) more appropriate for these aspects. Several authors have compared the SWB (or QOL) of stroke patients with that of non-stroke subjects. With few exceptions, they have found a considerably lower SWB among stroke patients.[34]

Similarly, literature says that, lower rates of satisfaction were found in elderly individuals with mild stroke one-year post onset, compared with normative controls. Since there may be a significant influence of culture and country of residence on satisfaction, these

findings support the claim that participation in personally relevant meaningful activities may be a significant contributor to life satisfaction that warrants the allocation of rehabilitation resources towards improving functioning in these domains.[35]

Dependence in activities of daily life living (ADL), alteration of emotional and psychological status, and deterioration in social communication can influence the QOL of patients with stroke. Various studies have shown a reduced QOL among patients with stroke compared with healthy individuals. About 75% of patients with stroke experience difficulties with ADL.[27] The literature review revealed that more than 90% of the subjects were completely independent in eating, toileting, and sphincter control, yet in all the other activity at least 25% of the sample required some assistance. The results pertaining to the activities of bathing, dressing and use of stairs were notable in the high percentages of subjects that required assistance. [35]

The literature review reveals high percentages of disability one year and more post stroke. Data concerning subjective well-being post stroke is sparse, indicating decreased satisfaction in patients with mild and severe stroke, six months and one year post onset.[19]

In a study of the effects of occupational sex-dominance, results indicated that in contrast to males, females reported lower expectations for themselves alone and lower expectations for themselves in comparison to another person for male-dominated occupations. However, unlike males, females reported higher expectations for themselves and for themselves in comparison to others for female-dominated fields.[36]

If stroke occurs after the age of 65 years, about 80% of individuals will experience chronic disability. The number of deaths caused by stroke has decreased due to advancements in medical science. However, as a result, the number of survivors with chronic stroke has increased. In addition to improving survival, the treatment of stroke is important for the patients' QOL. Most patients with stroke experience role changes due to impaired autonomy caused by difficulty with performing daily living activities, as well as problems with interpersonal relationships. They also face psychosocial maladjustment due to long-term stress and strain, which reduces their subjective evaluation ability of

their QOL. Much effort is required to integrate patients with chronic stroke into the local community through the improvement of functional independence and QOL.[27] While some of these changes were the result of loss of physical function, other reasons such as lack of transport to access social and leisure opportunities, loss of confidence in ability, and having family assume responsibility for activities and roles were also given. In addition to physical disability following stroke, emotional changes such as depression can have a negative impact on people's feelings of competence to undertake activities and roles.[2]

Literature suggests that spiritual practices can assist with coping during stroke recovery by altering the appraisals made about meaning and control. One component of spirituality evident in survivors of stroke is hope. Understanding the role of spirituality in stroke is important for promoting well-being and optimizing patient care.[21]

Polatajko (2007) stated that, *Occupational therapists using the Canadian Model of Occupational Performance and Engagement (CMOP-E) would address their clients' occupational well-being, in addition to their occupational performance and engagement. Similarly, occupational therapists utilizing the MOHO would support clients to choose and participate in occupations that enable them to construct a positive occupational identity and achieve occupational competence, while also ensuring that clients consistently and satisfactorily meet their occupational needs.* Efforts might then be made to enable clients to enhance their performance skills; clarify their values and interests; establish different standards against which they evaluate their own occupational lives; or even effect changes in their physical and social environments. Individuals' occupational choices and occupational performances are important, worthwhile, and valued, and thus, contribute to their self-worth.

 We recognize that several factors influence individuals' abilities to orchestrate their occupational lives to consistently meet their occupational needs. First, personal factors (e.g., expectations, competencies, mood, attitudes, and past experiences) and environmental factors will influence individuals' abilities to address their occupational

needs. Individuals' potential to experience occupational well-being are dependent, in part, by the available occupational opportunities. Limited occupational choices may threaten individuals' abilities to meet their occupational needs.[37]

Whyte & Mulsant (2002) reported that, Stroke can lead to many changes in a person's life, including loss of health, occupation, social role, and independence. Adjusting to change can be a difficult process for many people and is an important issue faced during stroke recovery.

Scientific literature demonstrates that occupational engagement is important for maintaining health and well-being as well as enhancing social support and personal identity.[22]

Outcomes in occupational therapy focus largely on increasing and enhancing the quality of clients' occupational performance, and thus, the importance of clients' subjective experiences of their occupations are often overshadowed. We contend that *occupational well-being is enhanced when individuals' occupational needs, including their needs for accomplishment, affirmation, agency, coherence, companionship, pleasure, and renewal are consistently met.* Occupational therapists can play a vital role in enabling clients to compose or re-orchestrate their occupational lives so they are able to meet their occupational needs more consistently.[38]

CHAPTER III: METHODOLOGY

This section outlines the method of the study designed by the investigator to meet the study aim and objectives. The method will be approved by the ethical committee of the Bangladesh Health Professions Institute. In this research, the investigator discusses the conceptual framework, study design, study population, study setting, and study period. Discussed also is the sampling technique, sample size, inclusion and exclusion criteria, and data collection tools. Finally the measuring instrument, data collection method, data management and analysis, quality control and quality assurance and ethical considerations will be considered.
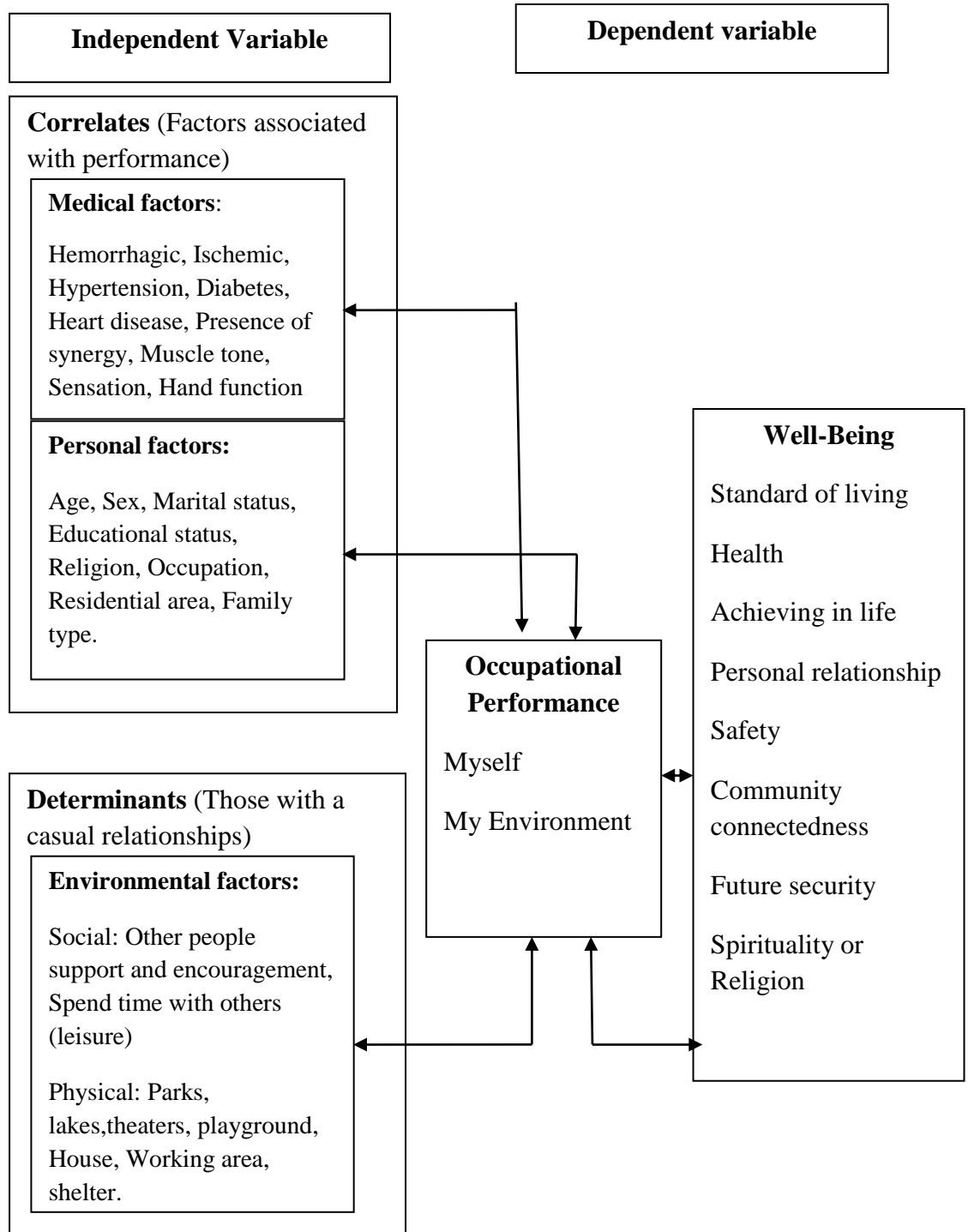
3.1 Conceptual framework

Independent Variable	Dependent variable

Correlates (Factors associated with performance)

Medical factors:

Hemorrhagic, Ischemic, Hypertension, Diabetes, Heart disease, Presence of synergy, Muscle tone, Sensation, Hand function

Personal factors:

Age, Sex, Marital status, Educational status, Religion, Occupation, Residential area, Family type.

Determinants (Those with a casual relationships)

Environmental factors:

Social: Other people support and encouragement, Spend time with others (leisure)

Physical: Parks, lakes,theaters, playground, House, Working area, shelter.

Occupational Performance

Myself

My Environment

Well-Being

Standard of living

Health

Achieving in life

Personal relationship

Safety

Community connectedness

Future security

Spirituality or Religion

Figure 1: Model of relations between Occupational performance and Well-being.

3.2 Study Design

This study was conducted using a quantitative cross sectional methodology. According to Baily (1997), quantitative research design is predetermined and structured and not changes during the study.[40] In this study all data were quantifiable and statisticians. The investigator used cross-sectional descriptive study design that involves data collection from a population, or a representative subset, at one specific point in time. Cross sectional study design was used to evaluate a large number of participants at little cost or effort and ways that provide a still picture of outcome and also the characteristics associated with a specific period of time. According to the Depoy (1989), Cross sectional study is an analysis of the present situation and is carried out at one specific time, or over a short period.[41]

The investigator used this type of study design because data was collected on individual characteristics, including demographic characteristics, clinical characteristics, performance and satisfaction. According to Mann (2003), the cross sectional study provides a snapshot of the outcome and characteristics. The focus of the study was to investigate the relationship between occupational performance and well-being.

The study was conducted at the branches of CRP-Savar and Mirpur where the investigator, taken a snapshot of the characteristics and outcome of the stroke survivor who received treatment. Data was collected from those participants, who were interested to participate in this study. The cross sectional in this study was happening with at a specific point in time and data was collected from each individual in a selected rehabilitation centre. So the study was given a snapshot of level of performance and satisfaction of stroke survival and relationship between occupational performance and well-being. So this design was appropriate for this study.

3.3 Study Population:

The stroke survivors are the population of the study who are currently receiving or have received Occupational Therapy services from out-patient at the branches-Savar and Mirpur of CRP.

3.4 Study Setting

The study was conducted in two areas of Outpatient Occupational Therapy at the Centre for the Rehabilitation of the Paralysed (CRP) Savar and Mirpur which has been a selected rehabilitation centre. The investigator has chosen this area as almost all stroke patients from different regions of Bangladesh has come to receive occupational therapy service and it shows the current reflection on the represent situation of Bangladesh for the stroke survivor who get comprehensive Occupational Therapy Service.

3.5 Study Period

The study was conducted from October to April (2016-2017). During this time frame, data were collected from the 3rd December 2016 to 3rd February 2017 with the consent of the participants have been requested to collect and assess the data. Each questionnaire has taken to complete approximately 20-25 minutes.

3.6 Sample Size

According to Bowling (1997), This is an essential part of good research design of any sort, whether it is surveys or experimental approaches. For quantitative research, it is better to meet as many subjects as possible relative to the size of the ideal population. Sometimes sample size may big and sometimes it may small, depending the population and characteristics of the study. The purposive sampling in this study was used to meet the desired sample size, which is based on prior information by virtue of knowledge or experience. This method helps the investigator to save time, money and energy.[40] On the other hand, Hicks (2000) stated that, it would be better to choose the purposive sampling method rather than random sampling, in order to select the sample for conducting research when the population is small.[42] The study population was stroke survival. The investigator selected appropriate 120 stroke survivors using by the purposive sampling to reach the desired sample size to conduct this study. Here the investigator used the formulation of sample size determination: (n) = z^2. Pq/d^2. The investigator used 95% confidence interval and 5% sampling error for this study. Here, the confidence interval is (z) = 1.96 and the sampling error is (d) = 0.05. At the start of the survey the investigator

did not know the precise number of patients with stroke in Bangladesh. So, the investigator assumed that the Prevalence of stroke survivors was (p) = 0.05 and (q) means (1-p) = 0.05. According to this calculation the standard sample was 384.

Sample size calculation:

$$n = z^2 \times p\ (1-p)/\ d^2$$

When, n= sample size

p= Percentage of sample population (50%)

z= Level of confidence (95%)

d= Confidence error (5%)

So,

$$n = (1.96)^2 \times 0.5\ (1-0.5)/\ (0.05)^2$$
$$= 384$$

However, it was quite difficult as a student to collect this amount of data within 2 months, according to the sample size calculation; the investigator selected 120 participants based on inclusion and exclusion criteria in a selected rehabilitation centre.

3.7 Inclusion Criteria

- An individual who has had a stroke.
- An individual with stroke survivor who receive/received Occupational therapy.
- Participants willing to participate in the study and sign consent form.
- Both gender male and female with stroke survivor participants must be involved.

Exclusion Criteria

- An individual stroke survivor who obtained less 20 points on the Mini-Mental State Examination in cognitive skill.
- Participant with stroke survivor who are suffering from aphasia.

3.8 Sampling Techniques

Purposive sampling had used in this study for the appropriate 120 stroke survivors in the sampling size. In purposive sampling also referred to as judgmental sampling. It is a nonrandom technique that does not need underlying sampling calculation. According to Bernard and Sheppard (2006), the investigator decided what needs to be known and sets out to find people who can and are willing to provide the information by quality of knowledge or experience.[42] Participants who met all the inclusion criteria were selected from the population for using purposive sampling. Purposive Sampling means that a researcher does not simply study whoever is available, but uses decision to select a sample that they believe, based on the study information. The investigator actively selects the most useful sample to answer the research question.[43]

3.9 Data Collection Tools

During data collection following instrument was used to fulfill the aim and objectives of the study

- Information sheet and consent form
- Mini Mental State Examination (MMSE)
- Demographic questionnaire
- Occupational Self-Assessment questionnaire
- Personal Well-Being Index questionnaire
- Pen, Pencil& eraser
- Seal pad
- Hardboard

Here investigator has explained briefly regarding these data collection instruments or tools for this study are as follows:

Consent Form

The investigator had used an information sheet and consent form to take the participants consent. Investigator let the participants know the details of the study by the information sheet which include the aim, objectives, way of collecting data from the participants and ethical considerations of the study. The participant was asked to read the information sheet, but in case of the participant who was not educated, investigator read that out to them. There had also been used the consent form containing the consent of the participant that he is participating in the study and had taken permission from every participant with signature/thumb impression on a written consent form. (Please see Appendix C for the information sheet and consent form)

Mini Mental State Examination (MMSE)

The Mini Mental State Examination (MMSE) is a tool that can be used to systematically and thoroughly assess mental status. It is an 11-question measure that tests five areas of cognitive function: orientation, registration, attention and calculation, recall, and language. The maximum score is 30. The MMSE takes only 5-10 minutes to administer and is therefore practical to use repeatedly and routinely. The targeted stroke patients were selected who indicated in cognitive status by a score of at least 20 and above its points on the Mini-Mental State Examination.

Demographic Questionnaire

Demographic information of the respondents was collected by using self-demonstrated demographic questionnaires. Demographic information includes sex, age, occupation, educational status, marital status, family type, living area, home district and monthly income. (See Appendix EA for the questionnaire.)

Occupational Self-Assessment (OSA)

The Occupational Self-assessment (OSA) is an evaluation tool which is designed to capture clients' perception of their own occupational competence. It is designed to be used as a client-centered assessment to guide collaborative treatment planning and to document therapy outcomes. It is also based on the concepts of the model of human occupation (MOHO). MOHO is based on the principle that each client is a unique individual, whose particular values and sense of capacity should determine the nature of occupational therapy intervention.

The Occupational Self Assessment (OSA) is a paper and pencil instrument in which clients' self-reported their level of competence in and values about occupational performance and participation. The original OSA had two sections: a set of items representing 'Myself' and a second set of items representing 'My Environment'. The 'Myself' items include a series of 21 statements and "My Environment" items include 8 statements about occupational performance and participation. People rated each 'Myself' and 'My Environment' item in terms of Occupational Competence (that is, how well they do it) and Value (that is, how important it is to them), using four point rating scales. These concepts are based on the MOHO proposition that people achieve occupational adaptation when, over time, they feel able to fulfill personal and external expectations and responsibilities related to their occupational identity. [20]

Personal Well-Being Index-Adult (PWI-A)

Personal well-being will be assessed by measuring the subjective dimension of Quality of Life (QOL) -subjective well being.[22] It is generally agreed that SWB may be measured through questions about satisfaction focused to people's feelings about themselves. Personal Well-being Index-Adult (PWI-A) is one of the most famous questionnaires in this area.[44]

The PWI-A consists of 8 questions regarding the following issues: 1) Life standards and conditions; 2) Health; 3) Achievements in life; 4) Relationships with others; 5) Safety and peace in life; 6) Dependence and membership among others; 7) Future safety; 8) Spirituality or Religion. The participants' responses to each of the eight items with a

rating scale of zero to ten, with each member showing the following states: Zero: Completely dissatisfied and sad; Five: Average; Ten: Completely satisfied and happy. Between zero and five: Completely dissatisfied and sad to average; and between five and ten: Average to completely satisfy and happy.[45]

3.10 Data Collection Methods

The investigator requested ethical permission from the Institutional Review Committee of "Bangladesh Health Professions Institute" (BHPI) and had approved the study protocol. The author of Occupational Self-Assessment version 2.2 and Personal Wellbeing Index-Adult questionnaire gave permission for using this questionnaire in this study. The investigator had a fixed date and time for conducting the procedure of data collection. Time and place were confirmed with the eligible participants before collecting the data. The aim of the study, and study procedure was explained to participants before collecting data. Investigator shared with qualified therapist about the study to the selection procedure of the participation furthermore qualified therapist identified participant who has met the inclusion and exclusion criteria of the population and ensured the investigator regarding the participant who has a good cognitive level. The participant was given information sheets and consent forms and these were explained by the investigator. Participants had an opportunity to ask question regarding the study, and they signed the consent form after being if they were satisfied. Then the investigator assessed the participant cognitive test MMSE who obtained at least 20 or it's above and they were selected as a participant for this study. After that, selected participants gave information of their demographic and clinical information. The investigator helped the participant to fill answer in the study questionnaire. The investigator also completed the "OSA" and "PWI-A" questionnaire through a face to face interview in a silent place rather than the workplace. Through this face to face interview the investigator had a chance to understand the nonverbal cues given by the interviewee who may indicate confusion and lack of understanding. The data for the study of identifying the level of occupational performance and well being of stroke surviving was collected through asking structured questions to the patient with stroke. The almost all participants answered each item of the questionnaire in this study; only 3 participants didn't complete each item. The

questionnaire took an average 20-25 minutes given information by each participant. The investigator described any question specifically if participants had any doubt. The interviewer helped the interviewee to understand the questions by changing some words with the same meaning. The entire interview was conducted in the language of Bangla whereas questionnaire was translated into Bangla format with the following translation process according to WHO. The investigator was explained the question into local language that will be helpful to the participant. After finishing the interview, the investigator gave "thanks" to the participant. The investigator was neutral during the data collection to reduce any personal bias affecting the result of the study. All ethical issues were considered during data collection in this study.

3.11 Data Management and Analysis

Firstly the investigator entered numerical data uses in the Microsoft excel in this study. These data were analyzed through performed the Statistical Package of Social Science (SPSS) version 20.0 by using a descriptive statistic method which allows giving statements about the feature of the participant. All data were input within the variable of SPSS. SPSS reduces the impact of missing values and increases the reliability of the analysis. Demographic questionnaire, condition related questionnaire, OSA-Myself, OSA-My environment and PWI-A were analyzed and Descriptive statistics were used to calculate the means, standard deviation, percentage of demographic and clinical characteristics through performing by the SPSS. The represented data were organized by tables in Microsoft Office word.

Descriptive analysis was used to find out the percentage of different demographic data such as, age, sex, educational level, marital status, occupation, living area & type of family and of clinical characteristics data such as type of stroke, affected side, risk factor, length of stroke, previous history of stroke, duration of taking rehabilitation, synergy, muscle tone, hand function and sensation.

The investigator also used non-parametric test, the Chi-squared test to find out the association between demographic and clinical factors with well being and occupational performance.

The investigator was also calculated with descriptive analysis to find out the mean values & standard deviation (SD) of Occupational self-assessment and Personal well-being index. The investigator collected answer from the participant ordinal rating on each item of the OSA questionnaire that represent differing amounts of the measures, the raw data ordinal rating must be converted to interval level measures for the OSA myself scale the numbers are assigned to rating as follows: I do this extremely well =4, I do this well=3, I have some difficulty doing this=3 and I have lot of problem doing this=1 with this occupational performance category and For the importance/value scale, numbers are assigned to rating as follows: This is most important to me=4, This is more important to me=3, This is important to me=2, This is not so important to me=1 and also for the OSA my environment scale the number are assigned to rating as follows: This is extremely good=4, This is good=3,There is some problem =2 and there is a lot of problem=1.

In case of PWI-A scale, the participant rated their satisfaction through the already established numerical rating (0-10 which indicates '0' means no satisfaction and 10 means completely satisfied).

The investigator used the OSA key form in the study to find out the performance client measure which generates variable of the Occupational performance and also used the conversion of raw scores in the standard (0-100) scale format to find out the single score of PWI-A which generates as a variable of well-being.

After that, the investigator performed the software SPSS to investigate the variable's relationship between Occupational performance and Wellbeing using by the Spearman correlation analysis.

By Spearman correlation, the investigator determines the relationship between OSA-Myself, OSA-My environment with the PWI-A.

3.12 Quality Control & Quality Assurance

The Investigator required permission from the authority of the Occupational Self-Assessment (OSA) version 2.2 and Personal Wellbeing Index-Adult (PWI-A). Then investigator translated this questionnaire from English to Bangla by following the guidelines of the WHO process of translation. For Bangla translating Occupational Self-Assessment version 2.2 and Personal Wellbeing Index-Adult Questionnaire the investigator selected one translator which was a health professional and is knowledgeable of the English-speaking but his/her mother tongue is Bangla. The translator converted to Bangla language independently from English of the original Occupational Self-Assessment (OSA) version 2.2 and Personal Wellbeing Index-Adult (PWI-A) Questionnaire. After receiving this forward translation, the investigator selected a bilingual expert to see the actual meaning of those scales in both language translation and given names first Bangla version Occupational Self-Assessment version 2.2 and Personal Wellbeing Index-Adult Questionnaire.

After finalizing a Bengali version for both questionnaires, the investigator sent the questionnaire to another health professional who did not have any access to the original English version of both questionnaires to produce a backward translation into English. After backward translation, given names the second version of both questionnaires (Occupational Self-Assessment version 2.2 and Personal Wellbeing Index-Adult).

Pre-testing and cognitive interviewing of the Questionnaire was done in the study setting with 10 people to conduct a comprehensive test through a face to face interview and during this period the interviewer (investigator) investigated whether the subjects had any difficulty in understanding. These 10 people, who participated in the field test, are not included in the main study. The test was done in a quiet place. Pre-testing is very important for identifying the problems of questionnaire such as misunderstandings about the intended meaning of items and to assess the effectiveness of interviewing techniques and materials. Based on participant's interpretation the Bengali version of both questionnaires was developed. The third version of both questionnaires was considered as the final version.

3.13 Ethical Consideration

Ethical is a normal issue. It tells about the rights. Proper ethical consideration tells about transparency of any work which is mandatory to avoid conflicts. So to keep the accountability and transparency of the work, the investigator needs to maintain all the ethical consideration from the first phase of the study. First of all, the proposal has been reviewed and approved by an Institutional Review Board (IRB), Bangladesh Health Professions Institute (BHPI), CRP. The necessary information was approved by the ethical committee of CRP and permitted to conduct this research. The investigator took permission from the authority of OSA version 2.2 and PWI-A Questionnaire to use both questionnaires for this study. Then the investigator received permission from data collection from the Occupational therapy department of a selected rehabilitation centre-CRP. Investigator informed the participants about the purpose of the study and at first she got permission from the participants then started work. Investigator collected information when the participants given time and the time was being suitable for both of them. Clear explanation of the study provided by the investigator and the investigator answered all of the questions if the participants had any queries. At the end of the interview, participants have an opportunity to modify and remove their statement which they have already answered. Investigator assured them that their personal identity would be kept confidential and all documents were being kept in a safe place. If you feel uncomfortable to give answers of any questions then participants had full rights to withdraw themselves from the interview without any hesitation. On the other hand, participants may not have any direct benefit from participating in this research, but their valuable participation is likely to help our profession to find out about the existing situation of the stroke survival patient performance and satisfaction. The investigator also ensured that their participation would not cause any harm, but would benefit them in the future and the organization was not hampered by the study.

The current study result section had shown demographic characteristics, clinical characteristics, association between demographic and clinical factors with occupational performance and well being, OSA-Myself, OSA-My Environment, PWI-Adult and relationships between Occupational Performance and Well-being. This section provides a systematic way to explain the interpretation and analyzed findings related to the Occupational Performance and Well-being.

4.1 Demographic Characteristics

4.1.1 Age and gender of the Participants

Among the 120 participants 3 participants were male and 2 participants were female in age group between 10-29 years, 25 were male and 12 were female in age group between 30-49 years, 45 were male and 22 were female in age group between 50-69 years and 7 were male and 4 were female in age group between 70-89 years. (Table 1)

There mean age was 53.30 years, standard deviation 12.426, minimum age was 25 years and maximum age was 82 years. In percentage, 4% (n=5) experienced stroke in between 10-29 years, 31% (n=37) experienced stroke in between 30-49 years, 56% (n=67) experienced stroke in between 50-69 years and 9% (n=11) experienced stroke in between 70-89 years. 80 participants were male and 40 participants were female who were suffered by stroke. The percentage of male and female who were affected by stroke is male 67% and female 33%. (Table 5)

Age group	Sex		Total
	Male	Female	
10-29	3	2	5
30-49	25	12	37
50-69	45	22	67
70-89	7	4	11
Total	80	40	120

Table 1: Cross tabulation between age and sex of the participants

4.1.2 Sex and Marital Status of the participants

Among the 120 participants 76 participants were male and 30 participants were female who were married, 3 were male and there were no female who were unmarried and 1 were male and 10 were female who were widow. (Table 2)

Most of the participants were married. Out of 100%, 88.3% (n=106) respondents were married, whereas 9.2% (n=11) were widowed and 2.5% (n=3) were single. (Table 5)

Sex	Marital status			Total
	Married	Unmarried	Widow	
Male	76	3	1	80
Female	30	0	10	40
Total	106	3	11	120

Table 2: Cross tabulation between sex and marital status of the participants

4.1.3 Type of stroke and affected side of the participants

Among the 120 participants 11 participants were right sided hemiplegic and 20 participants were left sided hemiplegic who were affected by hemorrhagic stroke, 38 participants were right sided hemiplegic and 51 participants were left sided hemiplegic who were affected by ischemic stroke. (Table 3)

In percentage 74.2% (n=89) were ischemic stroke and 25.8% (n=31) were hemorrhagic stroke. The study showed that ischemic stroke was more common than hemorrhagic stroke. The most common affected side of the stroke is left 59.2% (n=71) and right side stroke had 40.8% (n=49). (Table 6)

Stroke Type	Affected Side		Total
	Right	Left	
Hemorrhagic	11	20	31
Ischemic	38	51	89
Total	49	71	120

Table 3: Cross tabulation between type of stroke and affected side of the participants

4.1.4 Sex and stroke type of the participants

Among the 120 participants 22 participants were male and 9 participants were female who were experienced by hemorrhagic stroke, 58 were male and 31 were female who were experienced by ischemic stroke. (Table 4)

Sex	Stroke Type		Total
	Hemorrhagic	Ischemic	
Male	22	58	80
Female	9	31	40
Total	31	89	120

Table 4: Cross tabulation between sex and stroke type of the participants

4.2 Descriptive statistics of the participants

4.2.1 Demographic Information

The analysis is based on the sample of 120 subjects who had experienced stroke. The subjects consisted of 80 males (66.7%) and 40 females (33.3%), all of whom had experienced stroke.

The demographic characteristics of the study population are shown in Table 5. Most of the people 55.8% (n=67) experienced stroke between 50-69 years old. 88.3% (n=106) subjects were married, whereas 9.2% (n=11) were widowed and 2.5% (n=3) were single. However Educational status of the patient in this study, illiterate patient 12.5% (n=15) were most less and above masters level of educational status patient 9.2% (n=11) affected stroke quite similar to illiterate; most affected stroke patient were completed graduation 22.5% (n=27) primary, S.S.C, were quite to same as graduation status. Furthermore, 20.8% (n=25) were businessman, 36.7% (n=44) were service holder, 27.5% (n=33) were housewife, 10% (n=12) were teacher, 1.7% (n=2) subjects were students, 2.5% (n=3) subjects were farmer and 1 subject was garment worker prior to the onset of stroke. Peoples lived in Urban (47.5%) and Rural (52.5%) were almost similar number of stroke. In this study extended family 26.7%(n= 32) less and nuclear family 73.3%(n= 88) showed more have had experienced with stroke.

4.2.2 Clinical Information

In Table 6 Clinical characteristics shows that, most people experienced ischemic rather than hemorrhagic whereas 74.2% (n=89) subjects had ischemic stroke and 25.8% (n=31) were hemorrhagic. Of the 120 potential stroke patients, 15.8% (n=19) subjects have had previous experienced by stroke and 84.2% (n=101) subjects had experienced their first-ever stroke. The most common affected side of the stroke is left 59.2% (n=71) subjects and right side stroke had 40.8% (n=49) subjects. Subjects in this study are suffering from the stroke and survive to have experience with it about 40.8% (n=49) subjects for (0-3) months, 20% (n=24) subjects for (3-6) months, 21.7% (n=26) subjects for (6-12) months, 4.2% (n=5) subjects for (13-18) months 13.3% (n=16) subjects for 24 months more.

The 19.2% (n=23) subjects reported out of 120 respondents had a history of hypertension, which is most commonly identified single risk factor, among them 3.3% (n=4) subjects were smokers, 2.5% (n=3) subjects were tobacco users, 6.7% (n=8) subjects had been told that they had diabetes and 1.7% (n=2) had been told that they have heart disease. Associated with this single factor respondent had a multiple history of risk factor. Such as, hypertension, smoking, diabetics had 8.3% (n=10) subjects; hypertension, tobacco chewing, diabetics history had 5.8% (n=7) subjects; smoking, hypertension history had 10% (n=12) subjects; Hypertension, diabetics history had 17.5% (n=21) subjects; tobacco, hypertension, heart disease had 1.7% (n=2) subjects; heart disease, diabetics had 0.8%(n=1) subjects; smoking, diabetics had 1.7% (n=2) subjects; hypertension, heart disease and diabetics history had 10% (n=12) subject; tobacco chewing and hypertension had 5% (n=5) subjects and other history had 5.8% (n=7) subjects.

42.5% (n=51) subjects started to receive Occupational therapy service between 0-1 months after stroke, 34.2% (n=41) subjects received between 2-3 months, 10% (n=12) subjects between 4-6 months, 13.3% (n=16) subjects above 6 months. Or, 71.7% (n=86) subjects started to receive Rehabilitation services between 1-6 months, 15% (n=18) subjects received between 7-12 months, 5% (n=6) subjects between 13-24 months, 8.3% (n=10) subjects above 6 months.

Table 5: Demographical Characteristics of the study participants

Background Factors (N= 120)	Number of Participants (n)	Percentage of Participants (%)
Age		
10-29	5	4.2
30-49	37	30.8
50-69	67	55.8
70-89	11	9.2
Sex		
Male	80	66.7
Female	40	33.3
Marital Status		
Married	106	88.3
Unmarried	3	2.5
Widow	11	9.2
Religion Status		
Islam	103	85.8
Hinduism	13	10.8
Christianity	4	3.3
Educational Status		
Illiterate	15	12.5
Primary	24	20
SSC	17	14.2
HSC	26	21.7
Graduate	27	22.5
Masters & Above	11	9.2
Occupation		
Businessman	25	20.8

Service Holder	44	36.7
Student	2	1.7
Farmer	3	2.5
Garment Worker	1	0.8
Housewife	33	27.5
Teacher	12	10.0
Family's Monthly Income		
5000- 10000	27	22.5
11000- 20000	34	28.3
21000- 30000	17	14.2
31000- 40000	11	9.2
41000- 50000	15	12.5
Above 50000	16	13.3
Residential area		
Rural	57	47.5
Urban	63	52.5
Family Type		
Nuclear Family	88	73.3
Extended Family	32	26.7

Table 6: Clinical characteristics of the study participants

Condition Related Factors (N= 120)	Number of Participants (n)	Percentage of Participants (%)
Type of stroke		
Hemorrhagic	31	25.8
Ischemic	89	74.2
Affected side of the body		
Right	49	40.8
Left	71	59.2
Past Medical History		
Smoking	4	3.3
Tobacco chewing	3	2.5
Hypertension	23	19.2
Heart disease	2	1.7
Diabetics	8	6.7
Tobacco chewing, Hypertension, Diabetics	7	5.8
Smoking, Hypertension,	10	8.3
Diabetics	12	10.0
Smoking, Hypertension	21	17.5
Hypertension, Diabetics	2	1.7
Tobacco, Hypertension, Heart disease	1	0.8
Heart disease, Diabetics	2	1.7
Smoking, Diabetics	6	5.0
Tobacco chewing, Hypertension	12	10.0
Hypertension, Heart disease,	7	5.8

Diabetics		
Others		
Length of stroke		
0- 3 months	49	40.8
3-6 months	24	20.0
6-12 months	26	21.7
13- 18 months	5	4.2
Above 24 months	16	13.3
Previous History of Stroke		
Yes	19	15.8
No	101	84.2
Duration of receiving OT		
0-1 month	51	42.5
2- 3 months	41	34.2
4- 6 months	12	10.0
Above 6 months	16	13.3
Duration of taking rehabilitation		
1-6 months	86	71.7
7- 12 months	18	15.0
13- 24 months	6	5.0
Above 24 months	10	8.3
Synergy		
Not present	87	72.5
Flexor Synergy	33	27.5
Muscle tone		
Normal	32	26.7
Flaccid	31	25.8
Spastic	30	25.0
Mixed	27	22.5

Hand Function	52	43.3
Impossible	30	25.0
With much assistance	17	14.2
With little assistance	17	14.2
With minimum difficulties	4	3.3
Normal		
Sensation		
Impaired	23	19.2
Normal	97	80.8

In the study, the researcher collected these data from the secondary source assessment document of the 72.5% (n=87) out of 120 were not found any association synergistic movement, but the rest of the number founded only the flexor synergy and in the terms of various muscle tone were very similar or close number in Normal 26.7% (n=32), Flaccid 25.8% (n=31), Spastic 25% (n=30) and mixed 22.5% (n=27).

The investigator, founded normal hand function were 4 in the study among 120 subjects, whereas 43.3% (n=52) were impossible able to perform in hand function, 25% (n=30) were able to perform with much assistance and similar 14.2% (n=17) subjects were with little assistance and difficulties to perform hand function and in the term of sensation 19.2% (n=23) subjects had impaired and 80.8% (n=97) subjects had normal sensation.

4.3 Association between Demographic factor (age, sex, marital status, family monthly income, family type) and occupational performance, well being

4.3.1 Association between demographic factor Age and occupational performance, well-being:

There is no strong association between age and well being, OSA- Myself and OSA-My environment. Such as well being was (n= 120, $\chi2$= 112.280, p<0.923), OSA-Myself was (n=120, $\chi2$= 74.925, p<0.669), OSA-My environment was (n=120, $\chi2$= 36.397, p<0.816). (Table 7)

Component	Age				Total	$\chi2$	P -
	10-29	30-49	50-69	70-89	N= 120	value	value
Well-being	4.2% (5)	30.8% (37)	55.8% (67)	9.2% (11)	100% (120)	112.280	.923
OSA- Myself	4.2% (5)	30.8% (37)	55.8% (67)	9.2% (11)	100% (120)	74.925	.669
OSA- My Environment	4.2% (5)	30.8% (37)	55.8% (67)	9.2% (11)	100% (120)	36.397	.816

Table 7: Association between age and occupational performance, well-being

4.3.2 Association between demographic factor sex and occupational performance, well-being:

Table showed that there was no strong association between sex and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, $\chi2$= 48.493, p<0.334), OSA-Myself was (n=120, $\chi2$= 31.938, p<0.234), OSA-My environment was (n=120, $\chi2$=11.970, p<0.681). (Table 8)

Component	Sex		Total	χ2	
	Male	Female	N= 120	value	P -value
Well-being	66.7% (80)	33.3% (40)	100% (120)	48.493	.334
OSA- Myself	66.7% (80)	33.3% (40)	100% (120)	31.938	.234
OSA- My Environment	66.7% (80)	33.3% (40)	100% (120)	11.970	.681

Table 8: Association between sex and occupational performance, well-being

4.3.3 The association between demographic factor marital status and occupational performance and well being:

There was no strong association between marital status and well being, OSA-My environment. Such as well being was (n=120, $\chi2$=63.027, p<0.986), OSA-My environment was (n=120, $\chi2$=27.669, p<0.588). But in case of OSA-Myself (n=120, $\chi2$=75.780, p<0.027) that indicate there was a strong significant association between marital status and OSA-Myself. (Table 9)

Component	Marital Status			Total	χ2	P -
	Married	Unmarried	Widow	N= 120	value	value
Well-being	88.3% (106)	2.5% (3)	9.2% (11)	100% (120)	63.027	.986
OSA- Myself	88.3% (106)	2.5% (3)	9.2% (11)	100% (120)	75.780	.027
OSA- My Environment	88.3% (106)	2.5% (3)	9.2% (11)	100% (120)	27.669	.588

Table 9: Association between marital status and occupational performance, well-being

4.3.4 The association between demographic factor family monthly income and occupational performance, well-being:

Table showed that there was no strong association between family monthly income and well being, OSA-Myself. Here the well being was (n=120, χ2= 239.005, p<0.248), OSA-Myself was (n=120, χ2= 142.178, p<0.319). In case of OSA-My environment (n=120, χ2=117.519, p<0.001) that indicate there was a strong association between family monthly income and OSA-My environment. (Table 10)

Component	Family Monthly Income						Total N= 120	χ2 value	P - value
	5000-10000	11000-20000	21000-30000	31000-40000	41000-50000	Above 50000			
Well-being	22.5% (27)	28.3% (34)	14.2% (17)	9.2% (11)	12.5% (15)	13.3% (16)	100% (120)	239.055	.248
OSA- Myself	22.5% (27)	28.3% (34)	14.2% (17)	9.2% (11)	12.5% (15)	13.3% (16)	100% (120)	142.178	.319
OSA- My Environment	22.5% (27)	28.3% (34)	14.2% (17)	9.2% (11)	12.5% (15)	13.3% (16)	100% (120)	117.519	.001

Table 10: Association between family monthly income and occupational performance, well-being

4.3.5 The association between demographic factor family type and occupational performance, well-being:

Table showed that there was no strong association between family type and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, χ2= 39.442, p<0.706), OSA-Myself was (n=120, χ2= 32.372, p<0.219), OSA-My environment was (n=120, χ2=4.537, p<0.995). (Table 11)

Component	Family Type		Total	χ2	
	Nuclear Family	Extended Family	N= 120	value	P -value
Well-being	73.3% (88)	26.7% (32)	100% (120)	39.442	.706
OSA- Myself	73.3% (88)	26.7% (32)	100% (120)	32.372	.219
OSA- My Environment	73.3% (88)	26.7% (32)	100% (120)	4.537	.995

Table 11: Association between family type and occupational performance, well-being

4.4 Associations between condition related factor (stroke type, affected side, length of stroke, Duration of occupational therapy received and duration of taking rehabilitation) and occupational performance, well being

4.4.1 The association between condition related factor stroke type and occupational performance, well-being:

Table showed that there was no strong association between stroke type and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, χ2= 43.668, p<0.528), OSA-Myself was (n=120, χ2= 28.298, p<0.396), OSA-My environment was (n=120, χ2=15.719, p<0.401). (Table 12)

Component	Stroke Type		Total	χ2	
	Hemorrhagic	Ischemic	N= 120	value	P -value
Well-being	25.8%(31)	74.2%(89)	100% (120)	43.668	.528
OSA- Myself	25.8%(31)	74.2%(89)	100% (120)	28.298	.396
OSA- My Environment	25.8%(31)	74.2%(89)	100% (120)	15.719	.401

Table 12: Association between stroke type and occupational performance, well-being

4.4.2 The association between demographic factor affected side and occupational performance, well-being:

There was no strong association between affected side and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, χ2= 50.059, p<0.280), OSA-

Myself was (n=120, χ2= 26.783, p<0.476), OSA-My environment was (n=120, χ2=21.029, p<0.136). (Table 13)

Component	Affected Side		Total	χ2	
	Right	Left	N= 120	value	P -value
Well-being	40.8%(49)	59.2%(71)	100% (120)	50.059	.280
OSA- Myself	40.8%(49)	59.2%(71)	100% (120)	26.783	.476
OSA- My Environment	40.8%(49)	59.2%(71)	100% (120)	21.029	.136

Table 13: Association between affected side and occupational performance, well-being

4.4.3 The association between demographic factor length of stroke and occupational performance, well-being:

Table showed that there was no strong association between length of stroke and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, χ2= 168.147, p<0.727), OSA-Myself was (n=120, χ2= 89.534, p<0.901), OSA-My environment was (n=120, χ2=57.570, p<0.565). (Table 14)

Component	Length of Stroke					Total	χ2	P -
	0-3 months	3-6 months	6-12 months	13-18 months	Above 24 months	N= 120	value	value
Well-being	40.8% (49)	20% (24)	21.7% (26)	4.2% (5)	13.3% (16)	100% (120)	168.147	.727
OSA- Myself	40.8% (49)	20% (24)	21.7% (26)	4.2% (5)	13.3% (16)	100% (120)	89.534	.901
OSA- My Environment	40.8% (49)	20% (24)	21.7% (26)	4.2% (5)	13.3% (16)	100% (120)	57.570	.565

Table 14: Association between length of stroke and occupational performance, well-being

4.4.4 The association between demographic factor duration of receiving occupational therapy and occupational performance, well-being:

Table showed that there was no strong association between duration of receiving occupational therapy and well being, OSA-Myself and OSA-My environment. Here the well being was (n=120, $\chi2$= 132.411, p<0.547), OSA-Myself was (n=120, $\chi2$= 75.493, p<0.652), OSA-My environment was (n=120, $\chi2$=132.411, p<0.547). (Table 15)

Component	Occupational Therapy received				Total	$\chi2$	P -
	0-1 month	1-3 months	3-6 months	Above 6 months	N= 120	value	value
Well-being	42.5% (51)	34.2% (41)	10% (12)	13.3% (16)	100% (120)	132.411	.547
OSA- Myself	42.5% (51)	34.2% (41)	10% (12)	13.3% (16)	100% (120)	75.493	.652
OSA- My Environment	42.5% (51)	34.2% (41)	10% (12)	13.3% (16)	100% (120)	132.411	.547

Table 15: Association between duration of receiving occupational therapy and occupational performance, well-being

4.4.5 The association between conditions related factor duration of taking rehabilitation and occupational performance and well being:

There was no strong association between duration of taking rehabilitation and well being, OSA-Myself. Such as well being was (n=120, $\chi2$=119.396, p<0.828), OSA-Myself was (n=120, $\chi2$=83.949, p<0.389). But in case of OSA-My environment (n=120, $\chi2$=88.651, p<0.000) that indicate there was a significant association between duration of taking rehabilitation and OSA-My environment. (Table 16)

Component	Taking Rehabilitation				Total	χ2	P -
	1-6 months	7-12 months	19-24 months	Above 24 months	N= 120	value	value
Well-being	71.7% (86)	15% (18)	5% (6)	8.3% (10)	100% (120)	119.396	.828
OSA- Myself	71.7% (86)	15% (18)	5% (6)	8.3% (10)	100% (120)	83.949	.389
OSA- My Environment	71.7% (86)	15% (18)	5% (6)	8.3% (10)	100% (120)	88.651	.000

Table 16: Association between duration of taking rehabilitation and occupational performance, well-being

4.5 Level of occupational performance and well being among stroke survival

According to OSA Version-2.2, table 17 mentions that here Occupational performance competence were "I have a lot of problems doing this" (1-3480), "I have some difficulty doing this" (3481-6960), "I do this well" (6961-10,440) and "I do this extremely well" (10,441-13,920) score of the 120 stroke survivors. In this study, after calculate the total score by using SPSS 20 software investigator got 7043 scores that was under the scores (6961,-10,440) of the occupational performance- competence were "I do this well".

This table 17 also mentions that the importance were "This is not so important to me (1-3480), This is important to me (3481-6960), This is more important to me (6961-10,440) and This is most important to me (10,441-13,920) of the 120 patients with stroke. After calculate the total score of occupational performance- importance; investigator got 100,56 scores which under the (6961-10,440) range. So, the stroke survivors 120 participants provide an understanding of value/importance about their performance and the importance of their performance were "This is more important to me".

In table 17 shows in the Well being of the study participants were given score with "No satisfaction" (0-3600), "Average" (3601-8400) and "complete satisfaction" (8401-12000)

range. After calculating the total score investigator got 6857 scores which is under the (3601-8400) range. It indicates participants satisfactions were average.

Score	Occupational performance- competence
1-3480	I have a lot of problems doing this
3481-6960	I have some difficulty doing this
6961-10,440	I do this well
10,441-13,920	I do this extremely well
Score	Occupational performance-importance
1-3480	This is not so important to me
3481-6960	This is important to me
6961-10,440	This is more important to me
10,441-13,920	This is most important to me
Score	Well being
0-3600	No satisfaction
3601-8400	Average
8401-12000	Completely satisfied

Table 17: Level of occupational performance and well being among the patients with stroke

4.6 Occupational Self- Assessment (OSA)

4.6.1 Occupational Self- Assessment- "Myself"

On Table 18, "Getting along with others" (2.71 ± 0.715) was scored highest among the 21 myself items for occupational performance and "Relaxing and enjoying myself" (2.64 ± 0.619) was scored second highest. "Physically doing what I need to do" (1.58 ± 0.602)" was lowest scored among the "Myself" items for occupational performance and "Managing my basic needs" (1.60 ± 0.703) was second lowest scored.

In the 21 items scale of myself for the important ratings, "Taking care of myself" (3.48 ± 0.686) showed highest scored and the second highest scored "Taking care of others

whom I am responsible" (3.26 ± 0.912). The least important item was "Working towards my goal" (2.47 ± 0.987) and the second least score was "Relaxing and enjoying myself" (2.50 ± 0.850).

Table 18: Occupational Self- Assessment—"Myself" (Unit: scores)

Characteristics	Performance	Importance
	M ± SD	M ± SD
Concentrating on my tasks	2.46 ± 0.77	2.94 ± 0.96
Physically doing what I need to do	1.58 ± 0.602	3.11 ± 0.731
Taking care of the places where I live	1.77 ± 0.827	2.73 ± 0.914
Taking care of myself	1.96 ± 0.771	3.48 ± 0.686
Taking care of others whom I am responsible	1.77 ± 0.742	3.26 ± 0.912
Getting where I need to go	1.77 ± 0.719	3.09 ± 0.778
Managing my finances	2.43 ± 0.775	2.67 ± 1.064
Managing my basic needs	1.60 ± 0.703	2.57 ± 1.214
Expressing myself to others	2.58 ± 0.773	2.80 ± 0.975
Getting along with others	2.71 ± 0.715	2.91 ± 0.961
Identifying and solving problems	2.26 ± 0.692	2.73 ± 0.840
Relaxing and enjoying myself	2.64 ± 0.619	2.50 ± 0.850
Getting done what I need to do	1.87 ± 0.634	3.05 ± 0.776
Having a satisfying routine	1.97 ± 0.721	2.73 ± 0.907
Handling my responsibilities	1.81 ± 0.598	3.12 ± 0.881

Being involved as a student, worker, volunteer, and family member	1.88 ± 0.629	3.04 ± 0.883
Doing activities I like	2.01 ± 0.692	2.69 ± 0.887
Working towards my goal	1.61 ± 0.639	2.47 ± 0.987
Making decisions based on what I think is important	2.26 ± 0.815	3.00 ± 0.979
Accomplishing what I set out to do	2.16 ± 0.622	2.89 ± 2.786
Effectively using my ability	1.89 ± 0.858	3.23 ± 0.855

4.6.2 Occupational Self- Assessment- "My Environment"

Among the "My Environment" items for occupational performance, on Table 19 shows that "People who support and encourage me" (2.73 ± 0.608) and "People who spend time and share interest with me" (2.70 ± 0.588) showed the highest scores sequentially. The basic things I need to live and take care of myself" (1.61 ± 0.598) and "The things I need to be productive" (1.56 ± 0.619) "were showed gradually lowest scored in the "My Environment" items.

In term of importance ratings of my environment section, "A place to live and take care of myself" (3.32 ± 0.778) was scored highest and "People who support and encourage me" (3.29 ± 0.920) was scored second highest. "Opportunities to do things I value and like" (2.08 ± 0.762) was scored the lowest and "The things I need to be productive" (2.34 ± 0.912) was scored second lowest.

Table 19: Occupational Self- Assessment—"My Environment"

Characteristics	Performance	Importance
	M ± SD	M ± SD
A place to live and take care of myself	1.88 ± 0.747	3.32 ± 0.778
A place where I can be productive	1.62 ± 0.663	2.64 ± 0.977
The basic things I need to live and take care of myself	1.61 ± 0.598	2.84 ± 0.907
The things I need to be productive	1.56 ± 0.619	2.34 ± 0.912
People who support and encourage me	2.73 ± 0.608	3.29 ± 0.920
People who spend time and share interest with me	2.70 ± 0.588	3.25 ± 0.872
Opportunities to do things I value and like	1.93 ± 0.645	2.08 ± 0.762
Places where I can go and enjoy myself	1.70 ± 0.717	3.04 ± 1.032

4.7 Personal Well-being Index- Adult

On Table 20 among the 8 items of the Personal Wellbeing Index-Adult, "Spirituality/ Religion" (9.53 ± 1.402) showed highest satisfaction and "Personal relationships" (8.03 ± 2.468) showed second highest satisfaction. "Personal Health" (4.73 ± 3.444) showed the lowest satisfaction and "Standard of living" (5.64 ± 3.509) showed the second lowest satisfaction among the stroke patients.

Table 20: Personal Well-being Index— Adult

Characteristics	M ± SD
Standard of living	5.64 ± 3.509
Personal health	4.73 ± 3.444
Achieving in life	7.23 ± 2.992
Personal relationships	8.03 ± 2.468
Personal safety	7.53 ± 3.051
Community connectedness	7.28 ± 3.117
Future security	7.18 ± 3.083
Spirituality/ Religion	9.53 ± 1.402

4.8 Relationship between Occupational Performance and Well Being

Table 21: Relationship between Occupational Performance and Well-being

	Occupational Performance (Myself)	Occupational Performance (My Environment)
Well-being	0.340[*]	0.303[*]

[*] $p < 0.05$

The Table 21 indicates that the Spearman correlation coefficient value of Occupational Performance-Myself = 0.340 confirms that there is a weak positive relationship between the Occupational Performance and Well-being variables. Occupational Performance- My Environment = 0.303 also shows a weak positive relationship between the Occupational Performance and Well-being.

SPSS reports the p-value for this test as being .000 and 0.001 which indicate that there is a significant correlation between the Occupational Performance and Well-being. (p<0.05)
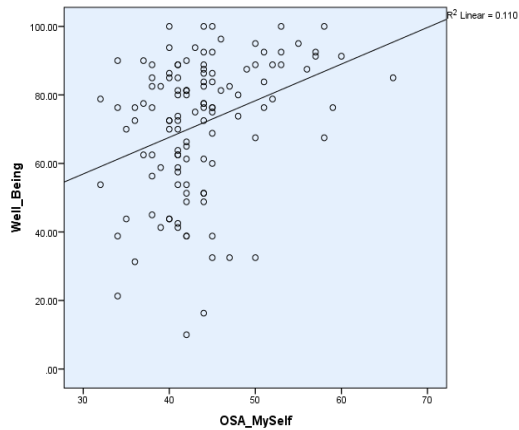
Figure 2: Relation between Well-being & OSA-Myself   Figure 3: Relation between Well-being & OSA-My environment
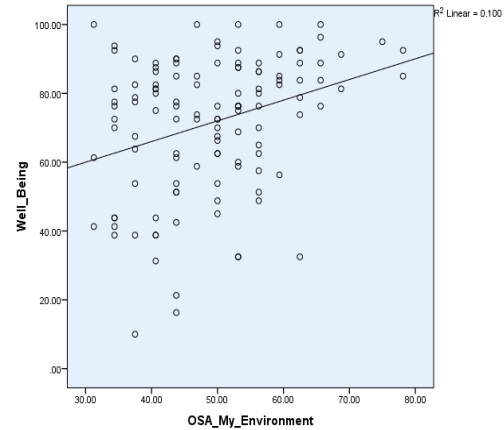
Figure: (2 and 3) shows the scattered plot of the data indicating a linear association between the variables (Independent variables = Myself, My environment and Dependent variable=wellbeing)

Well-being is considered to be the dependent variables, so are plotted on the vertical axis. Myself and my environment are also considered to be independent variables, so are plotted on the horizontal axis.

In conclusion, analysis of the relationship between occupational performance as assessed by the "Myself" and "My Environment" sections of the OSA and well-being exposed significant linear weak positive correlation. (p<0.05)

5.1 Discussion

The purpose of this study was to observe the level of occupational performance and well being following stroke and also find out the relationship between occupational performance and well being. The results of this study provide a window to explore performance standards after the experiences of stroke survivors. It is clear from the results that there is a significant positive linear relationship between Occupational performance and Well-being.

In this study, demographic data shows that those aged 50-69 were most likely to have a stroke. Here the mean age was 53.30 years with standard deviation 12.43, minimum age was 25 years and maximum age was 82 years; other study in UK mean age was 71.5 years with SD 12.2, in New Zealand mean age was 67.4 with SD 12.5, France mean age was 53.3 with SD 13.7 and Canada mean age was 58 with 11.8 SD. Looking at the ratio of males to females, males are more likely to be affected than females. In one study conducted in Bangladesh, It emerged that people within the age range of 70-79 years were 4.988 times more likely to have a stroke than those aged 40-49 years. Further to this, those aged >80 were 4.798 times more likely to have a stroke than those aged 40-49. The prevalence rate was higher among men compared with women 3.44 and 2.41 per 1000 respectively.[15]

Observation of educational status led us to understand that illiterate patients 12.5% and above masters level 9.2% were less likely to have a stroke. The group most affected by a stroke were those who had only completed a primary graduation 22.5%. Primary, S.S.C, were quite to the same as graduation status. In this study examining Occupation based results, showed that service holders (36.7%) are the primary group at risk of stroke with housewife (27.5%) showing secondary significance and business men (20.8%) third. However the less priority to risk for Stroke were teachers (10%), Farmars (2.5%),

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Garment workers (0.8%) and Students (1.7%). The data suggested that there are no marked differences in the occurrence of stroke within rural (47.5%) and urban areas (52.5%). However the study showed marked differences in results between family systems, nuclear (73.3%) and extended (32%).

In this study, ischemic strokes were more common than hemorrhagic (Ischemic=74.2% and Hemorrhagic=25.8%), incidence of just having an initial stroke (rather than numerous) was 84.2% and a stroke affecting the right hemisphere of the brain (and resulting in left hemiplegia) is most common. A study reported a relatively higher incidence of hemorrhagic stroke in children below 10 years and 10-19 years, irrespective of the sexes. Thus confirming from observation of previous studies that ischemia more common than hemorrhagic events in adulthood stroke only. [16]

The most common risk factor among stroke patient is Hypertension and it's also leading causes of the Stroke. Diabetes is also as a common risk factor for the stroke. Most of the participants have minimum single symptom and moreover, in the combination of multiple symptom. These risk factors are smoking, tobacco chewing, and heart disease. In a recent study in Bangladesh also identified that oral contraceptive pills, pregnancy, connective tissue disease with facilities, hematological variables, drug abuse, congenital heart disease, family history of stroke, and some genetic diseases also discrete risk factor.[15]

Usually, stroke patients are started their rehabilitation treatment within 1-6 months. Early treatment is necessary for patients with stroke. Some studies report that stroke recovery occurs faster in the early months.[39]

In this study, 26.7% subject's shows the normal muscle tone and rest of the subjects have been experienced with abnormal muscle tone likely 25.8% flaccid tone, 30% spastic tone and 27% mixed tone present. Patient who is an early stage after the onset of stroke suffered with impaired sensation later on it's showing into the normal sensation. In this study, we found 23 subjects had impaired and 97 subjects had normal sensation. Hand function problem seemed to be impossible to perform 43.3% people with stroke, 25%

need much assistance, 14.2% need little or minimal assistance and 3.3% people can perform normal hand function.

The findings of association between Socio demographic and clinical factors with occupational performance and well being were not significant for age, sex, marital status, family monthly income, family type, stroke type, affected side, length of stroke, duration of receiving Occupational Therapy and duration of taking rehabilitation which is (p>0.05). But in case of OSA-Myself and Marital status, OSA-My environment and Family monthly income, OSA-My environment and taking rehabilitation found to be a significant relation between two groups (p<0.05).

According to the analysis of the study, most participants in the total sample were mentioned "I do this well" of the occupational performance- competence that the total calculating score was 7043 which indicates participants can perform the function just well. Moreover, the importance of their occupational performance was "This is more important to me" that the total calculating score was 10,056 which under the (6961-10,440) range. In case of Well being, the overall satisfaction of participants was "average" that neither unsatisfied or completely satisfied.

Stroke patients are most well performed "Getting along with others" in occupational performance. That means after experiencing stroke, they haven't any problem to cope with and develop a relationship with others. They are able to engage, relate, respect and collaborate with others. Stroke patients also performed well "Relaxing and enjoying myself" item on occupational performance. Which means stroke patients didn't face any problem to enjoy their interest, relaxation, time to unwind with others and alone.

But the poor performed by them are the item "Physically doing what I need to do" of occupational performance. That means, they have a poor motor skills for moving of self and objects to execute daily life tasks. Another lowest performance among 21 items of OSA scale is "Managing my basic needs". This implies that the stroke patients found it

difficult to manage their food and medicine. They have difficulty with seating a proper diet, taking necessary medicine, otherwise attending to health and well-being.

In case of importance on myself items the stroke patients identified "taking care of myself" as the most important factor. They get more priority in doing one's personal care and health maintenance, such as personal hygiene, dressing and grooming. The patient also found "Taking care of others for whom I am responsible" as the most important factor. They also want to take care of their family, such as children or elderly relatives.

The most least important factors are "Working towards my goal" and "Relaxing and enjoying myself" which was identified by the patients. They didn't like to give attention in sustaining an effort towards something that they wants and plans to accomplish and having relax and enjoying own interest is not very important for them.

Among the "My Environment" items for occupational performances, "People who support and encourage me" and "People who spend time and shared interest to me" were scored higher, which suggested that the stroke patients need support from individual or group who guide, comfort, urge, reassure, inspire for occupational participation and also spend time and shared interests with them. This support can be provided by family, friends, co-workers, religious group and health care professionals.

In case of importance on my environment items, the stroke patients identified "A place to live and take care of myself" as the most important factor. It is important that having a physical space that the client considers to be home. The patient also found "People who support and encourage me" as the most important factor.

The most least important factors are "Opportunities to do things I value and like" and "The things I need to be productive" which was identified by the patients. That means patients are less interested to attend any occasion such as meetings, concerts, sports event, informal gatherings, etc... They didn't like to give attention in sustaining an effort

towards something that they wants and plans to accomplish and having relax and enjoying own interest is not very important for them.

Stroke people needed help from family and other people and were relatively well supported. This support, however, could deteriorate depending on their ability to perform activities of daily living after stroke and is an important factor that may prevent the resumption of work and return to pre-stroke life.[15]

The PWI-A showed that the person are most satisfied in their "Spirituality and Religion". Then, secondly they are most satisfied on their "Personal relationships". On the other hand, person are least satisfied on their "Personal Health" and second least satisfaction of their "standard of living".

Spearman correlation analysis shows that, the strength of association between the variables Myself and Wellbeing is positive (r=0.340), that the correlation coefficient is very significantly different from zero (P<0.001) also, we can say that 11% $(0.340)^2$ of the variation in wellbeing is explained by myself items of OSA.

On the relationship table 6, the strength of association between the variables My environment and Well-being is positive (r=0.303), that the correlation coefficient is very significantly different from zero (P<0.005) also, we can say that 9% $(0.303)^2$ of the variation in wellbeing is explained by my environment items of OSA.

So the relationship between occupational performance and well being is a significant linear positive correlation. (p<0.05)

5.2 Limitation

There were some limitations and barriers during conducting the study. The study was done within a short period of time in a selected rehabilitation centre like CRP. According to the sampling calculation procedure this study have to conduct up to 384 of participants but due to time limitation, investigator only conducted 120 participants who were selected in the study.

It was a small number of participants to conduct a survey to find out the relationship between occupational performance and well-being. The sample was selected as a purposive way rather than randomly. The investigator did not get any financial support to conduct the study so it was not possible to move and gather more participants from different hospitals around Bangladesh. The performance level ratio of male and female were not shown separately as the number of participants in this study.

Although the data collection system was conducted with the client centered approach, client wish to have given performance level number was not to figure out appropriately in the research. Bangladeshi people don't know to mention accurately express their feelings and performance level. When local people of the stroke survivor are being older, they depend on their care giver for their daily performance. Consequently, their performance has been poor, but they showed satisfaction very highly.

5.3 Conclusion

Stroke is considered a personal disaster, which hits the patient suddenly and leaves him or her with distressing and disabling sequelae. In this study, occupational performance and well-being were measured in the patients with stroke through client-centered, Self-assessment and self-report questionnaires. This study demonstrates a significant positive linear correlation between occupational performance and well-being was indicated based on analysis of the questionnaires.

The current research reflects, person who are ranges of age 50-69 years have a tendency to be most vulnerable risk for stroke. The most vulnerable risk factors for stroke are firstly hypertension and secondly diabetes. The most common problem after stroke that creates a person can't any longer participate in activities like communicating with others, time passing and relaxing doesn't bother too much. They reported that taking care of self, others, family is very important to them to lead a successful life. After stroke most people seem to be happy with their religion and their personal relationship. But they seem to be very unsatisfied with their health condition.

There are many studies showing satisfaction, well-being and quality of life of patients with stroke. But there were no studies about relationships of occupational performance and well being of stroke survival in Bangladesh. This study is not only representing the relationship status of Occupational performance and well being for stroke survival, but also it will helpful for the guideline (in the Bangla version questionnaire form of OSA and PWI-A) for any other health professional or same health professionals who will conduct in the future.

5.4 Recommendation

The aim of this study was to find out the level of occupational performance and well-being of the individual with stroke and investigate the relationship between occupational performance and well-being and the result which found from the study has fulfilled the aim of this research. The investigator has drawn some recommendation for the further based on the findings of this study and the following recommendations are-

1. More samples should collect from different hospital, clinic, institute and organization in different district of Bangladesh to generalize the result more valid and reliable.
2. Exploring the quality of life on the basis of age and gender differentiated for the patients with stroke.
3. Exploring the occupational performance level on the basis of age and gender differentiated for the patients with stroke.
4. Impact of early intervention of occupational performance after stroke.
5. Demographic factors associated with occupational performance and quality of life of the patients with stroke.
6. Effectiveness of occupational performance and satisfaction of the stroke survivor with cognitive difficulties or Aphasia.
7. Effectiveness of occupational performance and satisfaction after early treatment and rehabilitation of Stroke Survivor.

REFERENCES

1. Mierlo ML, Heugten CM, Post MW, Lindeman E, Kort PL, Visser-Meily J. A longitudinal cohort study on quality of life in stroke patients and their partners: Restore4Stroke Cohort. International journal of stroke. 2014 Jan 1;9(1):148-54.

2. 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. Australian Occupational Therapy Journal. 2009 Jun 1;56(3):177-88.

3. Pollock N, Baptiste S, Law M, McColl MA, Opzoomer A, Polatajko H. Occupational performance measures: a review based on the guidelines for the client-centred practice of occupational therapy. Canadian Journal of Occupational Therapy. 1990 Apr 1;57(2):77-81.

4. Baum C, Cox D. Special issue: occupational performance measures for health and wellbeing--research and practice. British Journal of Occupational Therapy. 2014 Feb 1;77(2):43-4.

5. Law M, Cooper B, Strong S, Stewart D, Rigby P, Letts L. The person-environment-occupation model: A transactive approach to occupational performance. Canadian journal of occupational therapy. 1996 Apr;63(1):9-23.

6. Niemi ML, Laaksonen R, Kotila M, Waltimo O. Quality of life 4 years after stroke. Stroke. 1988 Sep 1;19(9):1101-7.

7. Wyller TB, Sveen U, Sødring KM, Pettersen AM, Bautz-Holter E. Subjective well-being one year after stroke. Clinical rehabilitation. 1997 May 1;11(2):139-45.

8. Baron K, Kielhofner G, Iyenger A, et al.: The Occupational Self Assessment (version 2.2) Model of Human Occupation Clearing house, Department of Occupational Therapy, College of Applied Health Sciences, Chicago: University of Illinois at Chicago, 2006

9. Hayward C, Taylor J. Eudaimonic well-being: its importance and relevance to occupational therapy for humanity. Occupational therapy international. 2011 Sep 1;18(3):133-41.

10. Sveen U, Thommessen B, Bautz-Holter E, Wyller TB, Laake K. Well-being and instrumental activities of daily living after stroke. Clinical rehabilitation. 2004 May;18(3):267-74.

11. Ishibashi Y, Yamada T, Kobayashi N, Hashimoto M, Forsyth K. The relationship between homebound status and occupational competence, and its effects on health-related quality of life. Hong Kong Journal of Occupational Therapy. 2013 Jun 30;23(1):4-13.

12. Stark S. Removing environmental barriers in the homes of older adults with disabilities improves occupational performance. OTJR: Occupation, Participation and Health. 2004 Jan;24(1):32-40.

13. Löfgren B, Gustafson Y, Nyberg L. Psychological well-being 3 years after severe stroke. Stroke. 1999 Mar 1;30(3):567-72.

14. de Weerd L, Rutgers WA, Groenier KH, van der Meer K. Perceived wellbeing of patients one year post stroke in general practice-recommendations for quality aftercare. BMC neurology. 2011 Mar 31;11(1):42.

15. Miah MN, Azhar MA, Rahman A, Halder D, Akteruzzaman M, Kundu NC. Risk Factors of Stroke in Young and Old age Group-A Comparative Study. Journal of Medicine. 2012 Nov 25;13(2):138-42.

16. Hossain MM, Sardar MH, Hasan AH, Bari MA, Hossain SZ, Nabi G. Medical Conditions Related to Ischemic And Haemorrhagic Stroke: A Hospital Based Study. Journal of Dhaka Medical College. 2015 Oct 23;23(2):167-74.

17. Beckley MN. The influence of the quality and quantity of social support in the promotion of community participation following stroke. Australian Occupational Therapy Journal. 2007 Sep 1;54(3):215-20.

18. Hammell KR. Belonging, occupation, and human well-being: An exploration: Appartenance, occupation et bien-être humain: Une étude exploratoire. Canadian Journal of occupational therapy. 2014 Feb;81(1):39-50.

19. Clarke P, Marshall V, Black SE, Colantonio A. Well-being after stroke in Canadian seniors. Stroke. 2002 Apr 1;33(4):1016-21.

20. Kielhofner G, Forsyth K, Kramer J, Iyenger A. Developing the Occupational Self Assessment: the use of Rasch analysis to assure internal validity, sensitivity and reliability. British Journal of Occupational Therapy. 2009 Mar;72(3):94-104.

21. Henshaw E. Enabling Participation in Older Adults with Stroke: An Occupational Performance Model.

22. Lopez-Espuela F, Zamorano JD, Ramírez-Moreno JM, Jiménez-Caballero PE, Portilla-Cuenca JC, Lavado-García JM, Casado-Naranjo I. Determinants of quality of life in stroke survivors after 6 months, from a comprehensive stroke unit: a longitudinal study. Biological research for nursing. 2015 Oct;17(5):461-8.

23. Lau AL, Cummins RA. Test-retest Reliability of the Personal Wellbeing Index Adult. The Deakin University. 2005.

24. Centre on Quality of Life, Deakin University Baum CM, Law M. Occupational therapy practice: Focusing on occupational performance. American Journal of Occupational Therapy. 1997 Apr 1;51(4):277-88.

25. Crabtree JL. On occupational performance. Occupational therapy in health care. 2003 Jan 1;17(2):1-8.

26. Stroke: National Clinical Guideline for Diagnosis and Initial Management of Acute Stroke and Transient Ischemic Attack (TIA)

27. Kim K, Kim YM, Kim EK. Correlation between the activities of daily living of stroke patients in a community setting and their quality of life. Journal of physical therapy science. 2014;26(3):417-9.

28. Forsberg-Wärleby G, Möller A, Blomstrand C. Psychological well-being of spouses of stroke patients during the first year after stroke. Clinical Rehabilitation. 2004 Jun 1;18(4):430-7.

29. Ellis C, Grubaugh AL, Egede LE. The association between major depression, health behaviors, and quality of life in adults with stroke. International journal of stroke. 2012 Oct 1;7(7):536-43.

30. Vestling M, Tufvesson B, Iwarsson S. Indicators for return to work after stroke and the importance of work for subjective well-being and life satisfaction. Journal of rehabilitation medicine. 2003 Jan 1;35(3):127-31.

31. Kessler D, Egan M, Dubouloz CJ, McEwen S, Graham FP. Occupational Performance Coaching for Stroke Survivors: A Pilot Randomized Controlled Trial. American Journal of Occupational Therapy. 2017 May 1;71(3):7103190020p1-7.

32. Källdalen A, Marcusson J, Nägga K, Wressle E. Occupational performance problems in 85-year-old women and men in Sweden. OTJR: Occupation, Participation and Health. 2012 Mar;32(2):30-8.

33. Law M, Steinwender S, Leclair L. Occupation, health and well-being. Canadian Journal of Occupational Therapy. 1998 Apr 1;65(2):81-91.

34. Wyller TB, Holmen J, Laake P, Laake K. Correlates of subjective well-being in stroke patients. Stroke. 1998 Feb 1;29(2):363-7.

35. Hartman-Maeir A, Soroker N, Ring H, Avni N, Katz N. Activities, participation and satisfaction one-year post stroke. Disability and rehabilitation. 2007 Jan 1;29(7):559-66.

36. Bridges JS. Sex differences in occupational performance expectations. Psychology of Women Quarterly. 1988 Mar;12(1):75-90.

37. Hammell KR, Iwama MK. Well-being and occupational rights: An imperative for critical occupational therapy. Scandinavian journal of occupational therapy. 2012 Sep 1;19(5):385-94.

38. Doble SE, Santha JC. Occupational well-being: Rethinking occupational therapy outcomes. Canadian Journal of Occupational Therapy. 2008 Jun;75(3):184-90.

39. Nessa J, Khaleque MA, Begum S, Ahmed AH, Islam S, Afsan M. Rehabilitation of Stroke Patients-Effects of Early Intervention of Physical Therapy on Functional Outcome. Bangladesh Journal of Anatomy. 2009;7(1):62-7.

40. Bailey DM. Research for Health Professional: A Practical guide. 3rd edn. Philadelphia: F.A. Davis Company (DH); 1997.

41. Depoy E., Gitlin LN. Introduction to research understanding and applying multiple strategies. 2nd edn. New York: Mosby; 1998.

42. Hicks CM. Research Methods for Clinical Therapists. 3rded. UK: Churchill Livingstone; 2000.

43. Sandelowski M. Sample size in qualitative research. Research in nursing & health. 1995 Apr 1;18(2):179-83.

44. Yousefi AA, Alipour A, Sharif N. Reliability and Validity of the "Personal Well-Being Index–Adult" in Mothers of Mentally Retarded Students in North of Tehran-Iran. Iranian journal of psychiatry and behavioral sciences. 2011;5(2):106

45. Yousefi AA, Mozaffari K, Sharif N, Sepasi M. Reliability and Validity of the ''Personal Well-Being Index-Cognitive Disability'' on Mentally Retarded Students. Iranian journal of psychiatry. 2013 Jun;8(2):68

বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)
(The Academic Institute of CRP)

Ref.

CRP-BHPI/IRB/01/17/23

Date: 03/01/2017

Payel Paul
4th year B. Sc in Occupational Therapy
Session: 2012-2013, DU Reg. 5221
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal – "The relationship between Occupational Performance and Well-being of stroke survival in Bangladesh" by IRB of BHPI.

Dear Payel Paul,

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:

SL#	Name of the Documents
1	Thesis Proposal
2	Questionnaire
3	Information sheet & consent form.

Since the study involves answering a questionnaire that takes 20-25 minutes, have no likelihood of any harm to the participants rather possibility of benefit by knowing the level of occupational performance and well being of stroke patient and investigate the relationship between occupational performance and well-being 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.

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.

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.

সিআরপি-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

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Appendix-B

Permission Letter from BHPI

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 Payel Paul, 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 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, "The relationship between Occupational Performance and Well-being of stroke survival in Bangladesh."

The aim of the study is "To identify the level of occupational performance and well being of stroke patient and investigate the relationship between occupational performance and well-being."

I, therefore, pray & hope that you would be kind enough to grant my application & give me permission of collecting the data and will help me to complete a successful study as a part of my course.

Sincerely yours

Payel Paul

Payel Paul
Roll:20, Session: 2012-2013
4thyear, B.Sc. in Occupational Therapy,
Bangladesh Health Professions Institute (BHPI).
CRP-Chapain, Savar, Dhaka-1343

Approved by	Signature and Recommendation
Head of the Department Md.Julker Nayan Assistant professor Dept. Of occupational therapy CRP-Chapain, Savar, Dhaka-1343	She may allowed to collect data from OT Department. 22.12.16
Research supervisor Shamima Akter Lecturer in Occupational Therapy, Department of Occupational therapy BHPI,CRP-Chapain ,Savar,Dhaka-1343	Great initiative, methodologically sound. wishing best of luck 22/12/16

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Appendix-C

Participant's Information Sheet & Consent Form

Part 1: Information Sheet

Assalamualaikum,

I am Payel Paul, a student of the Bangladesh Health Professions Institute (BHPI) is the academic institute of the Centre for the Rehabilitation of the Paralysed (CRP), Savar, Dhaka. I am studying B.Sc. In Occupational Therapy, (4 year course) under the Occupational Therapy Department of BHPI. In regards to the fulfillment of B.Sc. Degree, conduct a research in 4th year of study. I would like to invite you to take part in my research study and the title is "The relationship between Occupational Performance and Well-Being of stroke survival in Bangladesh" The aim of the study is to identify the level of Occupational Performance and Well-Being of stroke survival and investigate the relationship between Occupational Performance and Well-Being.

Your answer will be recorded in this questionnaire named "Occupational Self-Assessment'' and "Personal Well-Being Index-Adult" which will take approximately 20-25 minutes and will be kept highly confidential and private. This will not hamper access to services and will not affect the treatment of you. There is no incentive for participation in the study. May be there is no direct benefit for you at present.

It is up to you whether or not you want to participate in this study. If you do not wish to take part then there is an opportunity to withdraw your participation at any time. Confidentiality of all records will be highly maintained and all details will be kept in a confidential database that is only accessible to me and my supervisor. The identity of you not to be disclosed in, any presentation or publication without your agreement. If you have any queries regarding this study, please feel free to ask. I am accountable to answer all questions regarding this study.

Payel Paul
B.Sc. In Occupational Therapy
4th Year, Session: 2012-2013
Occupational Therapy Department
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka-1343

Participant's signature:	Date:
Investigator's signature:	Date:

Part 2: Consent Form

A) For the participants

Please read the following statements and put right marks on yes or no. Following information will state your opinion about participation in the study.

1. Have you read the information sheet? --Yes / No

2. Have you had an opportunity to discuss this study and ask any question?-Yes/ No

3. Have the researcher explain the study to you? -------------------------------Yes / No

4. Do you understand that you are free to withdraw from the study at any time, without having to give a reason? ---Yes / No

5. Information from interview and question, those will be collected by the investigator might be examined by other research supervisor. However, all personal details will be treated as highly confidential. Do you give your permission for the research supervisor to have access to your records? --Yes / No

6. Do you have sufficient time to come to your decision about participation--Yes / No

7. Do you agree to take part in this study? ---------------------------------------Yes / No

Participant's signature _____Date_____

B) Investigator

I have explained the study to the above participant precisely and he/she has indicated his/her willingness to take part in the study.

Investigator's signature _____Date _____

Appendix-D

অংশগ্রহণকারীর তথ্য ও সম্মতিপত্র

পর্ব ১: তথ্য বিবরণী

আসসালামুআলাইকুম

আমি পায়েল পাল, বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট(বিএইচপিআই)এর ছাত্রী যা পক্ষাঘাত গ্রস্থদের পুনর্বাসন কেন্দ্র (সি.আর.পি) এর একটি শিক্ষা প্রতিষ্ঠান। আমি বি.এস.সি ইন অকুপেশনাল থেরাপি বিভাগের ৪র্থ বর্ষে অধ্যায়ণরত আছি। এই কোর্সের অংশ হিসাবে চূড়ান্ত বর্ষে একটি গবেষণাকর্ম সম্পন্ন করব। আমি আপনাকে গবেষণায় অংশগ্রহনের জন্য আমন্ত্রন জানাচ্ছি। গবেষণার বিষয় হচ্ছে "বাংলাদেশের প্রেক্ষাপটে স্ট্রোক রোগীর পেশাগত কর্মক্ষমতা এবং সুস্থতা মধ্যে পারস্পরিক সম্পর্ক।" এই গবেষণার লক্ষ্য হচ্ছে স্ট্রোক রোগীর কর্মক্ষমতা ও সুস্থতা সম্পর্কে জানা এবং এদের মধ্যে সম্পর্ক বের করা।

অকুপেশনাল/পেশাগত নিজ মূল্যায়ন এবং সামগ্রিক জীবনের সন্তুষ্টি নামক দুইটি স্কেল দিয়ে আপনার উত্তর নেওয়া হবে যেটা ২০-২৫ মিনিট সময় নিবে। আপনার উত্তর সম্পূর্ণ গোপন ও ব্যাক্তিগতভাবে রাখা হবে। ইহা আপনার চিকিৎসা সেবায় কোনরূপ ব্যাঘাত ঘটাবে না। গবেষণায় অংশগ্রহণের জন্য কোন উপহারের ব্যবস্থা নেই। আপনি এই গবেষণা থেকে সরাসরি উপকৃত নাও হতে পারেন।

এই গবেষণায় অংশগ্রহন সম্পূর্ণ আপনার ইচ্ছাকৃত। আপনি যেকোনো সময় আপনার অংশগ্রহন প্রত্যাহার করতে পারবেন। আপনার কাছ থেকে প্রাপ্ত তথ্য গোপনীয়তার সাথে রাখা হবে। শুধুমাত্র গবেষক এবং তার তত্ত্বাবধায়ক তথ্যগুলো ব্যবহার করতে পারবেন। আপনার পরিচয় গবেষণার কোথাও প্রকাশ করা হবে না। গবেষণা সংক্রান্ত আপনার যদি কোনরূপ প্রশ্ন থাকে তাহলে আমাকে দ্বিধাহীনভাবে জিজ্ঞাসা করতে পারেন। গবেষণা বিষয়ক সকল প্রশ্নের উত্তর দেবার জন্য আমি সচেষ্ট থাকবো।

পায়েল পাল

বি.এস.সি ইন অকুপেশনাল থেরাপি

৪র্থ বর্ষ, সেশনঃ ২০১২-২০১৩

অকুপেশনাল থেরাপি বিভাগ

বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট(বিএইচপিআই)

সি.আর.পি-চাপাইন,সাভার,ঢাকা-১৩৪৩

অংশগ্রহণকারীর স্বাক্ষর/টিপসইঃ	তারিখঃ
গবেষকের স্বাক্ষরঃ	তারিখঃ

পর্ব ২: সম্মতিপত্র

ক) অংশগ্রহণকারীর জন্য

নিচের তথ্যগুলো পড়ে হ্যাঁ অথবা না এর উপরে টিক চিহ্ন দিন। নিম্নলিখিত তথ্যগুলো গবেষণায় আপনার অংশগ্রহণের মতামত প্রকাশ করবে।

১। আপনি কি তথ্য পত্রটি পড়েছেন?... হ্যাঁ / না

২। আপনার কি এই গবেষণা নিয়ে আলোচনা বা প্রশ্ন করার সুযোগ আছে?...........................হ্যাঁ / না

৩। গবেষক কি আপনার কাছে গবেষণাটি ব্যাখ্যা করেছেন?.....................................হ্যাঁ / না

৪। আপনি গবেষণা থেকে যে কোন সময় অংশগ্রহণ প্রত্যাহার করতে পারেন এবং এজন্য কারোর কাছে জবাবদিহি করতে হবে না। এই সম্পর্কে আপনি কি বুঝতে পেরেছেন?......................................হ্যাঁ / না

৫। প্রশ্নমালা এবং সাক্ষাৎকার থেকে সংগৃহীত তথ্য গবেষণাকারী তত্ত্বাবধায়ক দ্বারা নিরীক্ষণ করা হবে। সমস্ত ব্যাক্তিগত তথ্য অত্যধিক গোপনীয় থাকবে। আপনি কি গবেষণাকারী তত্ত্বাবধায়ককে আপনার তথ্য জানার অনুমতি প্রদান করেছেন?... হ্যাঁ / না

৬। আপনি কি অংশগ্রহণের ব্যাপারে সিদ্ধান্ত নেয়ার জন্য পর্যাপ্ত সময় পেয়েছেন? .... হ্যাঁ / না

৭। আপনি কি এই গবেষণায় অংশগ্রহনে সম্মত আছেন?...হ্যাঁ / না

অংশগ্রহণকারীর স্বাক্ষর_____ তারিখঃ_____

খ) গবেষক

আমি গবেষণা সম্পর্কে উপরোক্ত অংশগ্রহণকারীর কাছে যথাযথভাবে ব্যাখ্যা করেছি এবং তিনি এই গবেষণায় স্বেচ্ছায় অংশগ্রহনের সম্মতি প্রকাশ করেছেন।

গবেষকের স্বাক্ষর_____ তারিখ_____

Appendix- EA

<u>**Demographic Questionnaire**</u>

(Title: The relationship between Occupational Performance and Well-being of stroke survival in Bangladesh.)

Part I : Patient's Identification	
(To be provided by patient or attendant)	
Identification number:	Contact Number:
Date of interview:	Date of incidence of stroke:
Participant's Name:	
Address:	

Part II : Patient's Socio-demographic Information		
(To be collected from record/patient/care provider)		
Sl no	Questions	Responses
2.1	Age:	……… years
2.2	Sex:	1=Male 2= Female
2.3	Marital Status:	1= Married 2=Unmarried 3=Divorced 4=Separated 5=Widow
2.4	Religion:	1= Islam 2= Hinduism 3= Christianity 4= Buddhist
2.5	Educational Status:	1= Illiterate 2= Primary 3= S.S.C 4= H.S.C 5= Graduate 6= Masters and above 7=Others (Specify)
2.6	Occupations:	

2.6	Average monthly family income:	……………... Taka
2.8	Earning Member:	1=Himself 2=Others (Specify)………..
2.9	Residential Area:	1=Rural 2=Urban
3.0	Family Type:	1=Nuclear family 2=Extended family

<div align="center">

Part-III: Occupational Therapy related Information
(To be collected from patient/ Care provider/Clinical examination)

</div>

3.1	Types of Stroke	1= Hemorrhagic 2= Ischemic
3.2	Affected side:	1=Right 2=Left
3.3	Past Medical History:	1= Smoking 2= Tobacco chewing 3= Alcohol consumption 4= Hypertension 5= Heart disease 6= Diabetics 7=Stressful lifestyle 8=Others (Specify)……
3.4	Length of incident of stroke	(specify) ……….month/year
3.5	History of previous stroke	1=Yes 2=No
3.6	How long you have received Occupational Therapy treatment?	DD / MM / YY
3.7	Rehabilitation (months)	1=1-6 (months) 2=7-12 (months) 3=13-18 (months) 4=19-24 (months) 5=Above 24
3.8	Presence of Synergy:	1=Not present 2=Flexor synergy 3=Extensor Synergy
3.9	Hand Function:	1=Impossible 2=With much assistance 3=With little assistance 4=With Minimul difficulties 5=Normal

3.10	Muscle Tone:	1=Normal 2=Flaccid 3=Spastic 4=Mixed
3.11	Sensation: (Touch)	1=Absent 2=Impaired 3=Normal

Appendix- EB

Occupational Self-Assessment—"Myself"

	I have a lot of problem doing this	I have some difficulty doing this	I do this well	I do this extremely well	This is not so important to me	This is important to me	This is more important to me	This is most important to me	I would like to change
Step 1: Below are statements about things you do in everyday life. For each statement, circle how well you do it. If an item does not apply to you, cross it out and move on to the next item.					Step 2: Next, for each statement, circle how important this is to you.				Step 3: Choose up to 4 things about yourself that you would like to change (You can also write comments in this space)
Concentrating on my tasks	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Physically doing what I need to do	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Taking care of the place where I live	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Taking care of myself	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Taking care of others for whom I am responsible	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Getting where I need to go	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Managing my finances	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Managing my basic needs (food, medicine)	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Expressing myself to	lot of	some	Well	extremely	not so	Important	more	most	

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others	problem	difficulty		well	important		important	important	
Getting along with others	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Identifying and solving problems	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Relaxing and enjoying myself	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Getting done what I need to do	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Having a satisfying routine	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Handling my responsibilities	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Being involved as a student, worker, volunteer, and/or family member	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Doing activities I like	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Working towards my goals	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Making decisions based on what I think is important	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Accomplishing what I set out to do	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	
Effectively using my abilities	lot of problem	some difficulty	Well	extremely well	not so important	Important	more important	most important	

Appendix- EC

<u>Occupational Self-Assessment—"My Environment"</u>

	Step 1: Below are statements about things about your environment (where you live, work, go to school, etc.) For each statement, circle how this is for you. If an item does not apply to you, cross it out and move on to the next item.				Step 2: Next, for each statement, circle how important this aspect of your environment is to you.				Step 3: Choose up to 2 things about your environment that you would like to change (You can also write comments in this space)
	There is a lot of problem	There is some problem	This is good	This is extremely good	This is not so important to me	This is important to me	This is more important to me	This is most important to me	I would like to change
A place to live and take care of myself (e.g.: House, apartment or room)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
A place where I can be productive (work, study, volunteer)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
The basic things I need to live and take care of myself (e.g.: income, food, shelter, medical care, assistive equipment)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
The things I need to be productive	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
People who support and encourage me (e.g.: family, friends, co-workers, religious group, health care professional)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	

People who spend time and share interest with me (e.g.: friends, family members or others)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
Opportunities to do things I value and like (e.g.: dances, meetings, concerts, sports event)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	
Places where I can go and enjoy myself (e.g.: Parks, lakes, gyms and theatres)	lot of problem	some problem	Good	extremely good	not so important	important	more important	most important	

Personal Well-Being Index–Adult

The following questions ask how satisfied you feel, on a scale from zero to 10. Zero means you feel no satisfaction at all and 10 means you feel completely satisfied.

1. "How satisfied are you with your standard of living?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. "How satisfied are you with your health?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. "How satisfied are you with what you are achieving in life?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

4. "How satisfied are you with your personal relationships?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

5. "How satisfied are you with how safe you feel?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

6. "How satisfied are you with feeling part of your community?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

7. "How satisfied are you with your future security?"

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

8. "How satisfied are you with your spirituality or religion?

No satisfaction at all										Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Appendix- FA

<u>জনসংখ্যা বিষয়ক প্রশ্নপত্র</u>

(বিষয়ঃ বাংলাদেশের প্রেক্ষাপটে স্ট্রোক রোগীর পেশাগত কর্মক্ষমতা ও মঙ্গলের মধ্যে পারস্পরিক সম্পর্ক)

<table>
<tr>
<td colspan="2" align="center">পর্ব ১ রোগী সনাক্তকারী
(সাক্ষাতকারটি রোগী বা পরিচারকের কাছে থেকে নেওয়া হবে)</td>
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<tr>
<td>পরিচিতি নম্বরঃ</td>
<td>যোগাযোগ নম্বরঃ</td>
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<tr>
<td>সাক্ষাতের তারিখঃ</td>
<td>স্ট্রোকে আক্রান্ত হওয়ার তারিখঃ</td>
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<tr>
<td colspan="2">অংশগ্রহণকারীর নামঃ</td>
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<tr>
<td colspan="2">ঠিকানাঃ</td>
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<tr>
<td colspan="2" align="center">পর্ব ২ রোগীর আর্থ-সামাজিক তথ্য
(রেকর্ড/রোগী/যন্ত্র প্রদানকারী থেকে তথ্য সংগ্রহ করতে হবে)</td>
</tr>
</table>

সিরিয়াল নম্বরঃ	প্রশ্নসমূহ	উত্তর
২.১	বয়সঃ	………. বছর
২.২	লিঙ্গঃ	১=পুরুষ 2= মহিলা
২.৩	বৈবাহিক অবস্থাঃ	১=বিবাহিত ২=অবিবাহিত ৩=বিবাহবিচ্ছেদ ৪=আলাদা ৫=বিধবা
২.৪	ধর্মঃ	১=ইসলাম ২=হিন্দু ৩=খ্রিস্টান ৪=বৌদ্ধ

২.৫	শিক্ষাগত যোগ্যতাঃ	১=অশিক্ষিত ২=প্রাথমিক ৩=এস এস সি ৪=এইচ এস সি ৫=স্নাতক ৬=স্নাতকোত্তর এবং এর বেশি ৭=অন্যান্য
২.৬	পেশাঃ	
২.৭	পরিবারের মাসিক আয়ঃ	.... টাকা
২.৮	উপার্জনক্ষম সদস্যঃ	১=নিজে ২=অন্যান্যরা (উল্লেখ করুন).........
২.৯	আবাসস্থল/আবাসিক এলাকা	১=গ্রাম ২=শহর
৩.০	পরিবারের ধরনঃ	১=একক পরিবার ২=যৌথ পরিবার

পর্ব ৩ অকুপেশনাল থেরাপি সম্পর্কিত তথ্য
(রোগী / যন্ত্র প্রদানকারী / ক্লিনিক্যাল পরীক্ষায় মাধ্যমে তথ্য সংগ্রহ করতে হবে)

৩.১	আপনি কোন ধরনের স্ট্রোকে আক্রান্ত?	১=হেমোরেজিক ২=ইসকেমিক
৩.২	আপনার শরীরের কোন পাশ আক্রান্ত হয়েছে?	১=ডান ২=বাম
৩.৩	স্ট্রোকের পূর্ব-বিবরণী	১=ধূমপান ২=তামাক চিবানো ৩=মদ্যপান ৪=উচ্চ রক্তচাপ ৫=হৃদরোগ ৬=ডায়াবেটিক ৭=অশান্ড় জীবনধারা ৮=অন্যান্য (উল্লেখ করুন) ....
৩.৪	স্ট্রোকে আক্রান্ত হওয়ার তারিখঃ	(উল্লেখ করুন)...........মাস/বছর

৩.৫	আগে কখনো স্ট্রোকে আক্রান্ত হয়েছিলেন?	১=হ্যাঁ ২=না
৩.৬	আপনি কতদিন ধরে অকুপেশনাল থেরাপি চিকিৎসা নিচ্ছেন?	দিন...... /......মাস/......বছর
৩.৭	কত মাস ধরে আপনি পুনর্বাসন সেবা নিচ্ছেন?	১=১-৬(মাস) ২=৭-১২(মাস) ৩=১৩-১৮(মাস) 4=১৯-২৪(মাস) ৫=২৪ এর উপরে
৩.৮	সিনারজি উপস্থিতিঃ	১=উপস্থিত নেই ২=ফ্লেক্সর সিনারজি ৩=এক্সটেনসর সিনারজি
৩.৯	আপনি হাতের কাজগুলো কতটুকু করতে পারেন?	১=অসম্ভব ২=অনেক সহযোগিতা লাগে ৩=অল্প সহযোগিতা লাগে 4=অল্প অসুবিধা হয় ৫=স্বাভাবিকভাবে করতে পারি
৩.১০	মাংসপেশীর টানঃ	১=স্বাভাবিক ২=তুলতুলে/ঢলঢলে ৩=মাংসপেশীর অনৈচ্ছিক আক্ষেপজনিত/শক্ত ভাব 4=মিশ্রিত
৩.১১	সংবেদনশীলতা (স্পর্শ) :	১=অনুপস্থিত ২=অবনতি/বিকলতা ৩=স্বাভাবিক

অকুপেশনাল/ পেশাগত স্ব-মূল্যায়ন (আমি নিজে)

ধাপ ১ দৈনন্দিন জীবনে আপনি যা কিছু করেন তা সম্পর্কে কিছু বিবৃতি নিচে দেওয়া হল। প্রতিটি বিবৃতি আপনি কতটা ভালভাবে করতে পারেন সে অনুযায়ী গোলাকার চিহ্ন দিন।যদি কোন বিবৃতি আপনার জন্য প্রযোজ্য না হয় তাহলে ক্রস দিন এবং পরবর্তী অনুচ্ছেদে চলে যান।					ধাপ ২ পরবর্তীতে প্রতিটি বিবৃতি আপনার কাছে কতটুকু গুরুত্বপূর্ণ সে অনুযায়ী গোলাকার চিহ্ন দিন।				ধাপ ৩: নিজের সম্পর্কে ৪ টি জিনিস পছন্দ করুন যা আপনি পরিবর্তন করতে চান। (আপনি মন্তব্যও লিখতে পারেন)
	এইটি করতে আমার অনেক সমস্যা হয়	এইটি করতে আমার কিছু সমস্যা হয়	এইটি আমি ভালভাবে করতে পারি	এইটি আমি অনেক ভালভাবে করতে পারি	এইটি আমার কাছে বেশি গুরুত্বপূর্ণ নয়	এইটি আমার কাছে গুরুত্বপূর্ণ	এইটি আমার কাছে অনেক গুরুত্বপূর্ণ	এইটি আমার কাছে অনেক বেশি গুরুত্বপূর্ণ	আমি পরিবর্তন করতে চাই
১। কাজের প্রতি আমার মনোযোগ	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
২। শারিরিকভাবে আমার যা করা দরকার তা করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৩। আমি যেখানে থাকি সে জায়গার দেখাশুনা করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৪। নিজের দেখাশুনা করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৫। অন্যদের দেখাশুনা করা যাদের	অনেক	কিছু	ভাল	খুব ভাল	বেশি	গুরুত্বপূর্ণ	অনেক	অনেক	

দেখাশুনা করা আমার দায়িত্ব	সমস্যা	সমস্যা			গুরুত্বপূর্ণ নয়		গুরুত্বপূর্ণ	বেশি গুরুত্বপূর্ণ	
৬। যেখানে যাওয়া দরকার সেখানে যেতে পারা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৭। আমার অর্থ-ব্যবস্থাপনা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৮। আমার মৌলিক চাহিদা ব্যবস্থাপনা (খাদ্য, ঔষধ)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৯। অন্যদের কাছে নিজেকে প্রকাশ	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১০। অন্যদের সাথে চলতে পারা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১১। সমস্যা নির্ধারণ এবং সমাধান করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১২। আরাম এবং নিজেকে উপভোগ করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৩। যা করা প্রয়োজন তা করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৪। সন্তোষজনক রুটিন পালন করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	

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১৫। আমার নিজের দায়িত্ব পালন করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৬। একজন ছাত্র, কর্মী এবং স্বেচ্ছাসেবক অথবা পরিবারের সদস্য হিসেবে জড়িত থাকা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৭। আমার পছন্দ অনুযায়ী কাজ করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৮। আমার লক্ষ্যের জন্য কাজ করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
১৯। আমার প্রয়োজনীয়তা ভিত্তিতে সিধান্ত নেওয়া	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
২০। সাজানো কাজ সম্পাদন করা	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
২১। কার্যকরীভাবে আমার সামর্থ্য প্রয়োগ	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	

<u>অকুপেশনাল/পেশাগত স্বমূল্যায়ন (আমার পরিবেশ)</u>

ধাপ ১: আপনার পরিবেশ সম্পর্কে কিছু বিবৃতি নিচে দেওয়া হল (যেখানে আপনি থাকেন, কাজ করেন, স্কুলে যান ইত্যাদি) প্রতিটি বিবৃতি আপনার কাছে কেমন সে অনুযায়ী গোলাকার চিহ্ন দিন। যদি কোন বিবৃতি আপনার জন্য প্রযোজ্য না হয় তাহলে ক্রস দিন এবং পরবর্তী অনুচ্ছেদে চলে যান।					ধাপ ২: প্রতিটি বিবৃতিতে আপনার পরিবেশ আপনার কাছে কতটুকু গুরুত্বপূর্ণ সে অনুযায়ী গোলাকার চিহ্ন দিন।				ধাপ ৩: আপনার পরিবেশ সম্পর্কে ২ টি জিনিস পছন্দ করুন যা আপনি পরিবর্তন করতে চান। (আপনি মন্তব্যও লিখতে পারেন)
	অনেক সমস্যা হয়	কিছু সমস্যা হয়	এইটি ভাল	এইটি খুব ভাল	এইটি আমার কাছে বেশি গুরুত্বপূর্ণ নয়	এইটি আমার কাছে গুরুত্বপূর্ণ	এইটি আমার কাছে অনেক গুরুত্বপূর্ণ	এইটি আমার কাছে অনেক বেশি গুরুত্বপূর্ণ	আমি পরিবর্তন করতে চাই
১। বাসস্থান এবং নিজের প্রতি যত্ন (যেমনঃ ঘর, বাড়ি, কক্ষ)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
২। আমি যেখানে কার্যক্ষম হতে পারি (কর্ম, শিক্ষা, স্বেচ্ছাসেবী)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৩। বসবাসের জন্য প্রয়োজনীয় মৌলিক জিনিসপত্র এবং নিজের প্রতি যত্ন নিতে (যেমনঃ আয়, খাদ্য, বাসস্থান, স্বাস্থ্যসেবা, সহকারী উপকরন)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৪। কোন জিনিসে আমাকে কার্যক্ষম/দক্ষতাপূর্ণ হতে	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	

৫। মানুষ যারা আমাকে সমর্থন এবং উৎসাহিত করে (যেমনঃ পরিবার, বন্ধু, সহকর্মী, ধর্মীয় দল, স্বাস্থ্যসেবাকর্মী)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৬। যারা আমার সাথে সময় অতিবাহিত এবং একইসাথে আগ্রহ প্রকাশ করে (যেমনঃ বন্ধু, পরিবারের সদস্য বা অনন্যরা)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৭। এমন কিছু করার সুযোগ যা আমি মূল্যায়ন এবং পছন্দ করি (যেমনঃ নাচ, সভা, সঙ্গীতানুষ্ঠান, খেলাধুলা)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	
৮। আমি যেসব জায়গায় যেতে পারি এবং নিজেকে উপভোগ করতে পারি। (যেমনঃ পার্ক, লেক, থিয়েটার, শারীরিকক্রিয়াঙ্গন ইত্যাদি)	অনেক সমস্যা	কিছু সমস্যা	ভাল	খুব ভাল	বেশি গুরুত্বপূর্ণ নয়	গুরুত্বপূর্ণ	অনেক গুরুত্বপূর্ণ	অনেক বেশি গুরুত্বপূর্ণ	

Appendix- FD

ব্যক্তিগত জীবনের সন্তুষ্টি– প্রাপ্তবয়স্ক

নিম্নলিখিত প্রশ্নগুলো দ্বারা আপনি কতটুকু সন্তুষ্ট তা একটি স্কেলের ০-১০ মাত্রার মাধ্যমে জানাবেন। (০) মানে আপনি একদমই সন্তুষ্ট না, (১০) মানে আপনি পুরোপুরি সন্তুষ্ট।

১। আপনি আপনার জীবনযাত্রার মান নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না									পুরোপুরি সন্তুষ্ট	
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

২।আপনি আপনার স্বাস্থ্য নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না									পুরোপুরি সন্তুষ্ট	
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৩। আপনি আপনার জীবনে যা কিছু অর্জন করেছেন তা নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না									পুরোপুরি সন্তুষ্ট	
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৪।আপনি আপনার ব্যাক্তিগত সম্পর্ক নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না									পুরোপুরি সন্তুষ্ট	
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৫। আপনি আপনার নিরাপত্তা নিয়ে কতটুকু সন্তুষ্ট অনুভব করেন?

একদমই সন্তুষ্ট না										পুরোপুরি সন্তুষ্ট
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৬। আপনি আপনাকে সমাজের অংশ হিসেবে কতটুকু সন্তুষ্ট অনুভব করেন?

একদমই সন্তুষ্ট না										পুরোপুরি সন্তুষ্ট
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৭। আপনি আপনার ভবিষ্যৎ নিরাপত্তা নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না										পুরোপুরি সন্তুষ্ট
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০

৮। আপনি আপনার ধর্ম/আধ্যাত্মিকতা নিয়ে কতটুকু সন্তুষ্ট?

একদমই সন্তুষ্ট না										পুরোপুরি সন্তুষ্ট
০	১	২	৩	৪	৫	৬	৭	৮	৯	১০