QUALITY OF LIFE OF SCHIZOPHRENIC PATIENT IN BANGLADESH

By

Bushra Yeasmin

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Faculty in Medicine
University of Dhaka

Study completed by:
Bushra Yeasmin
4th year, B. Sc. in Occupational Therapy ----------
BHPI, CRP **Signature**

Study Supervisor's name, designation and signature:
Mir Hasan Shakil Mahmud
Lecturer, Department of Occupational Therapy ----------
BHPI, CRP **Signature**

Head of the Department's name, designation and signature:
Nazmun Nahar
Assistant Professor and Head of the department
Department of Occupational Therapy ----------
BHPI, CRP **Signature**

Statement of Authorship

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Signature: _____ Date: _____

Bushra Yeasmin
4th year, B. Sc. in Occupational Therapy

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Abstract

Background: Schizophrenia is one of the disabling mental disorders which affect individuals thinking ability, social interaction or attention. It affects person entire QOL. QOL is important for every person. This study was focused on to find out the QOL of schizophrenic patient in Bangladesh.

Objectives: The objectives were to determine the effect of schizophrenia regarding physical and psychological health, social relationship and environmental health among schizophrenic patient.

Methodology: Cross sectional survey design of quantitative method was used to conduct this study. The convenience sampling procedure was used throughout the process of participant's selection. The study was carried out at NIMH & H. Eighty three (83) participants were selected to complete the research. Data was collected by using face to face interview with a structured questionnaire and data was analysed by using the SPSS, version 17.

Result and Discussion: It was found that most of the participants lead poor to moderate QOL in four domains of the WHOQOL-Bref scale. Total mean scores were for physical health (mean 2.7; SD $\pm$0.106); psychological health (mean 2.108; SD $\pm$0.0787); social relationship (mean 2.226; SD $\pm$0.116) and environmental health (mean 2.47; SD $\pm$0.077). In this study, schizophrenic patient's QOL poor on psychological domain in Bangladesh. It was also found statistically significance with age and social relationship domain (p value 0.005< 0.05); marital status and physical health domain (p value 0.004< 0.05); educational level and physical health domain (p value 0.005< 0.05) and environmental health domain (p value 0.025< 0.05). There were no statistically significant difference between gender and other variables.

Conclusion: Schizophrenia affects all aspects of person's life such as physically, psychologically, socially and economically. Schizophrenic patient as well as their family member led very poor quality of life.

Key words: *Schizophrenia, Quality of Life, Bangladesh.*

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List of Abbreviations

QOL	**:** Quality of life
NIMH & H	**:** National Institute of Mental Health & Hospital
OT	**:** Occupational Therapy
HIV	**:** Human Immunodeficiency Virus
BHPI	**:** Bangladesh Health Professions institute
CRP	**:** Centre for the Rehabilitation of the Paralysed
WHOQOL-BREF	**:** The World Health Organization Quality of Life Questionnaire
WHO	**:** World Health Organization
ADLs	**:** Activities of Daily Living

CHAPTER 1
INTRODUCTION

Health is a generalised and universally concerned issue. The term of health refers to physical, mental and spiritual well-being of an individual. Mental health is one of the major components which play a vital role to ensure the quality of life (QOL) for all human. Mental health refers to the state by which an individual can understand about his/her own ability to do something effectively. Mentally healthy person can adapt easily with their different life stresses. They have the ability to work productively and fruitfully. As a result, they can contribute within his/her community (World Health Organization, 2014). Mentally healthy people have the ability to maintain QOL. On the other hand, mentally ill people face difficulty to maintain their daily living activities.

In general, mental illness is a health condition that affects individual functioning through interruption of person's mood, thinking, feeling, behavior and ability to relate to others (National Alliance on Mental Illness, 2014). Prince *et al.* (2007) stated that different neuropsychiatric disorders which occur due to chronic depression and other common mental disorders, psychoses, alcohol-use and substance-use disorders has been recognised as 14% of the global burden. This estimation suggested that it is necessary to introduce mental disorder in public health. In addition, individual with any age, race, religion or income can be affected by mental illness (National Alliance on Mental Illness, 2014). It was reported that every year 1 in 4 people are suffering from mental health problem around the world. Nowadays, 450 million people are suffering from different type of mental disorders (World Health Organization, 2014). The more common mental illnesses include anxiety disorder, mood disorder, psychotic disorders, eating disorders, impulse control and addiction disorders, personality disorders, obsessive compulsive disorder, substance abuse disorder and post-traumatic stress disorder. Schizophrenia is one kind of major psychotic disorder (Types of Mental Illness, 2015).

Schizophrenia is a serious mental illness which lasts a longer time that affects thinking ability, emotion, making decisions of an individual (Laurence, 2015). It was stated that above 21 million people have experienced schizophrenia around the world (World Health Organization, 2015). Schizophrenia is one of the major causes of

mental illness and functional disability. After considering all the issues, an affected person cannot maintain his/her life properly (Wilkinson *et al.*, 2000).

QOL is a holistic concept which includes in economic development, social vitality and environmental health. The other elements of this concept are physical and mental health, social and personal relationships, activities of daily life, productivity, leisure, psychological factors and standard medical treatment facilities (Loga-Zec and Loga, 2010). Schizophrenia prevents a person to maintain standard QOL by impairing individual's neurocognitive function such as- attention (the ability to process information), memory (the retention of information acquired through learning) and working memory (to retain information in an accessible state) (Goldberg and Green, 2002). According to Bowie and Harvey (2006) schizophrenia also affects functional status of a person. An individual faces difficulty in performing self-care activities and productive work, adapting with new changes, maintaining social and interpersonal relationship etc.

Begum (2012) suggests that large numbers of people are affected by different type of mental illness who lives in both rural and urban area of Bangladesh. Delirium, dementia, personality disorder, substance related disorder, childhood behavior disorder, mental depression, mental retardation and schizophrenia are more common in Bangladesh. Versola-Russo (2006) stated that schizophrenic patient cannot lead their meaningful life. They face difficulties in different functional activities such as- self-care, productive life, leisure activities, maintain relationship with community people, friends and family. One study was conducted on 53 chronic schizophrenic patients who took treatment with depot neuroleptics to assess their attitude towards treatment and its side-effects, mental state and QOL. This study stated that 60% patients showed positive attitude and 8% patients showed negative attitude on depot medication and 70% patients complained its side-effects, though 94% patients had the side effects (Larsen and Gerlach, 2007).

Another study was carried out among schizophrenic patients regarding on satisfaction on occupational health. This study showed that employment status was important for schizophrenic patient to control depressive symptom. On the other hand, they were more pleased on everyday occupational status. Daily life occupation was more important for them to lead meaningful QOL (Eklund, Hansson and Bejerholm, 2001).

Many schizophrenic patients seek proper health service for many years to get rid from prejudice and stigma (Schizophrenia: Disorganized Subtype, 2015). According to Canadian Association of Occupational Therapists (2015) an occupational therapist work closely with the clients about their activities of daily living (ADLs) and make them maximum independent as much as possible to ensure QOL. Pilling *et al.* (2002) suggested that social skills training and cognitive remediation are effective treatment to reduce negative symptoms of schizophrenia and their consequences. Occupational therapist can provide social skills training and also work for cognitive remediation. If they do not aware about the QOL of schizophrenic patient, they will face difficulty during working with the client. The study will be implemented to find out the relevant problems which coincidence with QOL in the context of Bangladeshi perspective.

1.1. Background

In 2012, a study was carried out at the National Institute of Mental Health and Hospital (NIMH & H) in Bangladesh which found that 25,508 people get treatment facilities as new outdoor patients; 2,030 as emergency patients and 1,953 as indoor patients. 14, 959 (58.7%) males, 8,939 (35.0%) females and 1,610 (6.3%) children can take treatment facilities from outdoor. In indoor settings 1,159 (59.3%) males, 667 (34.2%) females and 127 (6.5%) children can get treatment facilities. Total 78.3% admitted patients take treatment form NIMH & H in which bipolar mood disorder (40.2%) and schizophrenia (38.1%) (Health Bulletin 2013, 2014).

In Bangladesh, NIMH & H in Dhaka is the government institute where mentally ill people are treated. The hospital provides medical treatment and also nursing care for mentally ill people. Schizophrenic patients also take the treatment facilities from here. The researcher has completed 3rd year clinical placement from this institute. From the beginning, the researcher observed that schizophrenic patient couldn't maintain their QOL. They were showing less interest to attend in group therapy, less interested to communicate with others or perform any leisure activities as well as maintaining personal hygiene. A study showed that among adult population 7 per 1000 people are affected by schizophrenia. But most of the people do not receive proper treatment which causes some risk among patients (European Brain Council, 2011). Mental illness is concerning as a burning issue in mental health sector.

Schizophrenic patient have false beliefs, false perception, irrational thinking and behavior. For this reason they loss their connection with reality and become unable to maintain QOL (Alshowkan, Curtis and White, 2012). According to Makara-Studzinska (2011) it is very important for schizophrenic patient to maintain QOL to perform all activities as normal person.

In Bangladesh, people are affected by schizophrenia which is not an exception than other countries. According to Begum (2012) it is estimated that about 1.3 million people are affected by schizophrenia in Bangladesh. Bhugra (2005) stated that the proportion of acute onset of schizophrenia is higher in developing countries rather than developed countries. Bangladesh is also a developing country. The onset of schizophrenia in Bangladesh may higher. A study showed that in Bangladesh 6.52% people were suffered from different psychiatric illnesses in Dasherkandi village near Dhaka city. At the same time 37.4% people who suffered from schizophrenia and schizophrenia like psychotic disorders were admitted at NIMH & H (Fahmida, Wahab and Rahman, 2009).

It is a sensitive issue in our socio cultural aspect. Schizophrenic patients need proper guidance during rehabilitation time. Therapists need to concentrate on this issue in order to improve their QOL. For above 200 years, different studies have been conducted officially about schizophrenia in the world (Schizophrenia: Disorganized Subtype, 2015). On the other hand, worldwide several studies have been conducted about QOL of schizophrenic patient. In Bangladesh, there is no published research about QOL of patients with schizophrenia. Researcher feels interested to conduct this study.

1.2. Significance

Schizophrenic patients experience many challenges to maintain QOL. Their QOL is influenced by some factors such as- social support, unmet needs and side effects of medication (Galuppi *et al.*, 2010). This illness affects all areas of functioning such as- everyday functioning and social functioning i.e. social adjustment, social dysfunction, social adaptation, social competence etc. which impair basic living skills (Viertio, 2011). Around the world, schizophrenic patients are less interested to participate in community activities and have tendency to avoid contact with other people. For this reason they become isolated from the society and lead a non-active social life.

Besides, they become victim of prejudice and stigma because general people have misconception about mental illness (Corrigan and Watson, 2002). This study may help the general people to reduce prejudice by knowing the impact of this illness on patient in the context of Bangladeshi perspective.

Schizophrenic patient can take care of themselves if they know about their illness and its effects. Basic information about schizophrenia and its effects on QOL help them to lead meaningful life (National Institute of Mental Health, 2009). The schizophrenic patient of Bangladesh may become aware about the impact of illness on their everyday life through this study.

According to Canadian Association of Occupational Therapists (2015) Occupational Therapy (OT) has a great role in mental health sector. They help the patient in community involvement and facilitate them to perform meaningful activities. An occupational therapist closely works with schizophrenic patient. Occupational therapist helps the schizophrenic patient to improve their social abilities by reducing barriers (Cowen, 2009). The result of this study will help the occupational therapist to know their QOL which will help them to provide more skilled treatment to the client. Besides, mental health is a broad area for study. It is important for occupational therapists to increase participation in research initiative about mental health and QOL of mentally ill people (Canadian Association of Occupational Therapists, 2015). As an OT student, researcher takes interest to conduct this study to find out the QOL of schizophrenic patient in Bangladesh.

Family support is an important issue for treating schizophrenia. Family members can help the person most to recover their illness (National Alliance on Mental Illness, 2008). High percentages of family members are responsible for caring of individuals with schizophrenia (Chan, 2011). If care-givers do not have adequate knowledge and support, they might not be able to take up the responsibilities of taking care of the ill persons. This study will be helpful for the family members to know about schizophrenia and its impact upon a person's QOL.

Other health care professionals such as- psychiatrists, clinical psychologists, mental health nurses, mental health social workers, vocational specialists, peer support workers, counselors, associate mental health workers, psychological well-being

practitioners, approved mental health professionals also closely work with schizophrenic patient. It will be beneficial for them to provide treatment effectively if they know the QOL of schizophrenic patient. By this study they will be able to know the QOL of schizophrenic patient.

1.3. Aim

The aim of this study is to find out the QOL of schizophrenic patient in Bangladesh.

1.4. Objectives

- To determine the effect of schizophrenia regarding physical and psychological health among schizophrenic patients.
- To identify the effect of schizophrenia on social relationships.
- To identify the effect of schizophrenia on environmental health among schizophrenic patients.

CHAPTER 2
LITERATURE REVIEW

2.1. Schizophrenia

Smith and Segal (2014) stated that schizophrenia is a prolonged and challenging disease of brain. In 1911, Eugene Bleuler invented the term 'schizophrenia' which is originated from a Greek word. The meaning of schizophrenia is *skhizein*- "to split" and *phren*- "mind" which means "multiple personality" (Smith *et al.*, 2014). Research suggests that, around the world it is the top 10 disabling disorders for young adults (Velligan and Alphs, 2008). American Psychiatric Association (2013) reported that onset of schizophrenia is rare at early teen age. The most schizophrenic symptoms arise between the late adolescences and the age of 34 to 36. First psychotic period starts most in the age of 21 to 26 years for males. On the other hand, first psychotic episode begins in females at the age of 27 to 29 years. Though it equally affects both male and female but it tends to be more severe in men than in women.

According to World Health Organization (2015) – *"Schizophrenia is a severe mental disorder, characterized by profound disruptions in thinking, affecting language, perception, and the sense of self. It often includes psychotic experiences, such as hearing voices or delusions. It can impair functioning through the loss of an acquired capability to earn a livelihood, or the disruption of studies".*

Schizophrenia has some severe effect on person's entire lifespan. Schizophrenic patients are at a high risk of facing poverty, homelessness, substance abuse, depression, suicidal tendency and having suicidal ideation. Ahmed and Azam (2014) stated that, in the United States, 5 percent schizophrenic patients become homeless, 5 percent stay in hospitals, 6 percent stay in jail or prison. According to American Psychiatric Association (2013) suicide is the reason of death of schizophrenic patient. Near about five to six percent schizophrenic patients die by suicide, 20 percent patients try to commit suicide and many of them having idea of suicide. Younger males with comorbid substance use have higher risk for suicide than other males and females. A study showed that, it is one of the top five causes of disability among adult people in developed nations which listed with another top most disabling disease which include heart disease, arthritis, drug use and Human Immunodeficiency Virus (HIV) (Ahmed and Azam, 2014).

In Bangladesh, one in every ten schizophrenic patients tried to commit suicide. Among them 27.3% patients took attempt of suicide for 3 times or more (Alam *et al.*, 2012).

2.2. Etiology of schizophrenia

The exact causes of schizophrenia are unknown yet. Different research suggests that schizophrenia may develop with the combination of physical, genetic, psychological and environmental factors (Schizophrenia-Causes, 2014).

- **Genetic and physiological causes:** National Alliance on Mental Illness (2014) reported that family history of psychosis is responsible for causing schizophrenia. It is estimated that 10% schizophrenic patients' parents or siblings are affected by schizophrenia or other psychotic disorder. In addition, between twins the unaffected twin has a great chance of developing this disorder if one twin has diagnosed with schizophrenia. The prevalence of developing this disorder between twins is 50%.
- **Pregnancy and birth complications:** According to American Psychiatric Association (2013) complications during and before birth such as low birth weight, premature labor, lack of oxygen (hypoxia) during birth, stress, infection, malnutrition and maternal diabetes etc. have a high risk for evolving this disorder. In addition, greater paternal age is also responsible for developing schizophrenia.
- **Environmental causes:** Environmental factors such as birth season especially late winter/early spring and summer in specific localities are the reason for developing this disorder. Furthermore, children who grow up in urban areas are more vulnerable for developing schizophrenia rather than rural children (American Psychiatric Association, 2013).
- **Brain Structure:** Changes in both brain chemistry and structure are also responsible for developing this disorder. According to acceptance of some scientist, when faulty contacts occur in neurotransmitters (the brain uses to communicate) throughout the progress of brain schizophrenia may develop this time (National Alliance on Mental Illness, 2014)
- Some triggers such as- stressful life events, drug abuse, physical illness, family conflict can progress this disorder (Schizophrenia-Causes, 2014).

2.3. Key features that define schizophrenia

According to American Psychiatric Association (2013) schizophrenia has some key features. These are given below:

- ***Delusions:*** Delusions means false and fixed beliefs that are not willing to change. Some themes of delusion may include-
    - ✓ *Persecutory delusions:* It is one of the most common delusions. Example- When an individual believes that one is going to be harmed, harassed by an individual, organization or other group.
    - ✓ *Referential delusions:* It is also a common delusion. Example- When a person believes that certain gestures, comments, environmental cues and so forth directed at oneself.
    - ✓ *Grandiose delusions:* Example- When an individual believes that he/she has exceptional abilities, wealth or fame.
    - ✓ *Erotomanic delusions:* Example- When a person believes falsely that another person is in love with him/her.
    - ✓ *Nihilistic delusions.*
    - ✓ *Somatic delusions*: It focuses on preoccupation regarding health and organ function (American Psychiatric Association, 2013)
- ***Hallucinations:*** Hallucinations are perceptions which are created by an individual's own mind that is not real. It can affect different senses of an individual. Among all senses auditory hallucinations are more common in schizophrenia where individual can hear different voices which are either familiar or unfamiliar to them (American Psychiatric Association, 2013).
- ***Disorganised thinking (speech):*** It is also called *thought disorder*. In disorganised thinking (speech) a person's thought process tends to be disorganised. For this reason, it can be difficult for the person to express his/her thoughts clearly to strangers. Individual may answer the question which is partially related to the topic or totally unrelated. And the individual may switch from one topic to another (American Psychiatric Association, 2013).

- ***Grossly disorganised or abnormal motor behavior (including catatonia):***
    - ✓ *Grossly Disorganised Behavior or abnormal motor behavior:* Schizophrenia can affect behavior. For this reason, behavior can sometimes be "disorganized" which means that some behaviors doesn't really fit with appropriate situation.
    - ✓ *Catatonic motor behaviors:* Disorganised behavior can also be catatonic. In catatonic behavior an individual becomes very withdrawn. It can seem that they are not responding or reacting to the environment. It is possible for someone to become still and rigid, resisting attempts to be moved or to maintain an unusual looks or very uncomfortable posture for a long time (American Psychiatric Association, 2013).

Negative symptoms: Negative symptoms represent a withdrawal or lack of function of an individual. Diminished emotional expression and avolition are more common negative symptoms (American Psychiatric Association, 2013).

- ***Diminished emotional expression:*** It includes decreased emotional expression of the face, eye contact, intonation of speech (prosody), and movements of the hand, head, and face that normally give an emotional emphasis to speech (American Psychiatric Association, 2013).
- ***Alogia:*** It is manifested by diminished speech output (American Psychiatric Association, 2013).
- ***Avolition:*** Avolition is a decrease in motivated self-initiated purposeful activities. The individual may sit for a long periods of time and show little interest in participating in work or social activities (American Psychiatric Association, 2013).
- ***Asociality:*** Individual has less interest in social interaction and participation (American Psychiatric Association, 2013).

2.4. DSM 5 diagnostic criteria of schizophrenia

According to American Psychiatric Association (2013)-

A. Two (or more) of the following, each present for a significant portion of time during a 1- month period (or less if successfully treated). At least one of these

must be (1), (2), or (3):

1. *Delusions.*
2. *Hallucinations*
3. *Disorganised speech (e.g., frequent derailment or incoherence)*
4. *Grossly disorganised or catatonic behavior.*
5. *Negative symptoms (i.e., diminished emotional expression or avolition)*

B. *For a significant portion of the time since the onset of the disturbance, level of functioning in or more major areas, such as work, interpersonal relations, or self-care, is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic, or occupational functioning).*

C. *Continuous signs of the disturbance persist for at least 6months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet criterion A (i.e., active phase of syndromes) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or by two or more symptoms listed in criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).*

D. *Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out because either 1) no major depressive or manic episodes have occurred concurrently with the active-phase symptoms, or 2) if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active or residual periods of the illness.*

E. *The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.*

F. *If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated).*

2.5. Prognosis of schizophrenia

Prognosis is difficult to determine. Luckily, there are some active treatment to decrease sign and symptoms of schizophrenia, to decrease the possibility of occurring incidents of psychosis, to reduce the length of psychotic episodes. Appropriate medications and supportive counseling help the schizophrenic patient to lead further productive and satisfactory functional lives. After 10 years of early diagnosis, nearly 50% schizophrenic patients either fully improved or they became functionally independent. In addition, 25% got recovered but they need extra care and support. Among them 15% patients have no change and are typically hospitalised. Unluckily, 10% patients have no expectation about their life and may commit suicide. Another study which conducted after 30 years of diagnosis shows the similar result. Women have a great chance for better prognosis than men (Nemade and Dombeck, 2009).

American Psychiatric Association (2013) stated some factors which are responsible for poor prognosis such as- earlier age of onset, being a male, cognitive impairment, presenting more negative symptoms, childhood onset and cognitive deficits. On the other hand, Lane (2015) stated some factors that directs to a good prognosis which includes diagnosis of paranoid schizophrenia, being a female having fewer negative symptoms, no family history of schizophrenia, high level of functioning prior to onset, acute onset, older age of onset, a good support system, shorter period of active symptoms.

Prognosis of schizophrenia is better in low and middle income countries. A study was conducted to know the short-term treatment outcome among schizophrenic patient in Bangladesh. They found the estimation of partial remission of schizophrenic patient is 86.85%, 7.89% did not respond and 5.26% had relapse after providing short term treatment (Shahidullah *et al.*, 2012).

2.6. Quality of life (QOL)

QOL is a necessary health issue for an individual. It is a concept of social science which included some factors such as material wellbeing, health, political stability and security, family life, community life, climate and geography, job security, political freedom, gender equality. Skevington, Lotfy and O'Connell (2004) stated that the WHO defines QOL as- *"an 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, expectations, standards and concerns".

Another study defined QOL as- Subjective experience of own life and it is a multi-dimensional idea which includes physical, psychological and social aspects. And it can change frequently by individual (Alshowkan, Curtis and White, 2012).

Katching (2000) categorise QOL in a three aspects such as- subjective well-being/ satisfaction, functioning in daily life, including self-care and social roles and external resources- material ones (standard of living) and social support.

Fontinelle (2015) pointed out some factors which may use for evaluating QOL. These are:

- Freedom from slavery, sufferings and distress
- Freedom from discrimination
- Equal protection of the law
- Free will of movement
- Freedom of habitation within one's home country
- Belief of guiltlessness unless proved guilty
- Marriage right
- Right to have a family
- Right to be treated equally without regard to gender, race, language, religion, political beliefs, nationality, socioeconomic status and more
- Right to maintain confidentiality
- Independence of thinking
- Freedom of choosing any religion
- Free choice of employment
- Right to reasonable salary
- Equivalent salary for equal work
- Right to vote
- Right to rest and leisure
- Right to education
- Right to human dignity etc.

2.7. Schizophrenia and QOL

A study showed that schizophrenic patients' QOL are worse than common people and other physically ill people. In addition, if this illness persists for long time the, QOL of schizophrenic patient becomes worse (Bobes *et al.,* 2007). According to Velligan and Alphs (2008) negative symptoms are more serious than positive symptoms. Negative symptoms more worsen person's QOL and it has poor functional outcomes. High levels of burden are reported by the caregivers of patients with negative symptoms.

According to Raj (2013) schizophrenia affects different parts of a person's life. It affects a person's interest on daily life activities, responsibilities to own-self and others and taking medication regularly. One study showed that, physical health can be affected by schizophrenia. Schizophrenic patients face many difficulties in their physical health and it leads to high rates of physical morbidity and mortality (Mas-Exposito *et al.,* 2012). There is evidence of high estimation of cardiovascular problems and obstetric complications (in women). Diabetes, hyperlipidemia, dental problems, impaired lung function, osteoporosis, altered pain sensitivity, sexual dysfunction, weight gain and polydipsia are more common health problems in schizophrenia. Some infectious diseases such as- HIV, hepatitis and tuberculosis may also affect them. Heavy smoking tendency may also increase among them (World Health Organization, 2014).

Walther *et al.* (2015) stated that schizophrenic patients have poor ability to perform daily activities due to having some motor signs like catatonia, neurological soft signs, psychomotor slowing, and extrapyramidal symptoms, i.e., abnormal involuntary movements, akathisia and parkinsonism etc. According to Mas-Exposito *et al.* (2012) a study reported that at least one physical health problem is present among 70% schizophrenic patients. However, three or more problems are present among 33% of them. Premature death is 5 times higher in schizophrenic patient than common people which occur due to physical morbidity.

Families of schizophrenic patient face many bad experiences because of their long period of illness. More than 75% schizophrenic patients maintain communication with their families and one third of individuals with schizophrenia stay with family members (Hackman and Dixon, 2008). A study reported that, 86.7% families are

suffering from psychological disturbance due to having schizophrenic patient in their family. And it directly hampered their QOL (Kadri *et al.,* 2004). Another study showed that, caregivers feel burden for caring mentally ill family member. They also feel anxiety and become ashamed with symptoms and behaviors of the ill member. They hesitate to bring anyone in their home (Brady and McCain, 2005).

Schizophrenia is an essential issue in social aid and welfare costs, health care costs, employment inefficiency, impaired learning ability, alcoholism, broken homes and suicide. According to International Schizophrenia Foundation, it also affects the society because it is a societal obstacle that costs higher than other illness. Moreover, the average cost for this disease will be estimated to 1 to 2 million dollars throughout their lifetime. On the other hand, a study was carried out on the basis on society people's attitude on schizophrenic patient. Society people show negative approaches towards the ill person and their family. Ill persons and their family become stigmatised. Schizophrenic patients are deprived of all rights, facilities and independence which normal people get (Leiderman *et al.,* 2010). In the response of Marsh (2014), schizophrenia also weakens the capability to function in interpersonal relations.

In Bangladesh, schizophrenic patients also lead a poor QOL. They are also victim of prejudice and stigmatisation. They also face difficulty in their personal, social life and also job sector. Bangladeshi women lead a poor QOL rather than men (Bashar *et al.,* 2008). A study found that, many families of schizophrenic patients are withdrawal from society. They face many difficulties to cope with the community. They are suffering more in household activity (Ahmed *et al.,* 2012).

2.8. Bangladesh

The official name of Bangladesh is the People's Republic of Bangladesh. Bangladesh is a developing country situated in South Asia. In terms of land mass, Bangladesh has a surface area of 147,570 square kilometers (Health Bulletin 2013, 2014). World population review 2014 (2014) reported that around the world it is merely the 94th largest country. According to latest official census 2011, about 148 million people lives in this country. Among them nearly 26% of the population exists in the inner-city area (Health Bulletin 2013, 2014). According to World Health Organization (2007) it is reported that 74% people lives in rural area. Health Bulletin 2013 (2014)

reported that 1,021 people living per square km. in Bangladesh. Approximately 83 percent of the population is Muslim, 16 percent is Hindu, and 1 percent is Buddhist, Christian, or other. 98% Bangladeshi people are ethnic Bengalis and remaining 2% made up from tribal groups and non-Bengali Muslims. According to the World Bank 2004 criteria it is a lower middle income group country (World Health Organization, 2007).

2.9. Mental health situation in Bangladesh

Mental illnesses create a big public health problem in Bangladesh. In Bangladesh many people are suffering from different types of mental disorder. However, it is neglected by Bangladeshi people. Around 8.4 million people are mentally ill in Bangladesh (Begum, 2012). A study showed that, 28% mentally ill people live in urban area (Islam *et al.,* 2003). Another study found that, in a rural area nearly 15 per thousand individuals are affected by serious mental illnesses and many kinds of psychoneurotic and psychosomatic disorders are found among 50 per thousand people. According to Fahmida, Wahab and Rahman (2009) in Bangladesh, among all mental disorders schizophrenia and psychotic disorders were more common which requiring admission (39.4%) in the hospital.

One study showed that in Bangladesh, 29% patients are affected by functional disorder and 6% from both functional and organic disorders. Same study reported that 47% of patients were affected by neurotic disorder, 37% by psychosomatic disorder, 10% by affective disorder, 1.44% from by schizophrenia, 2.88% by substance use disorder and 2% by organic psychiatric syndrome. Another study was conducted in Outpatient Department of NIMH & H in Dhaka, Bangladesh which showed that 37.4% of patients were affected by schizophrenia and schizophrenia like psychotic disorders, 16.14% by anxiety disorders, 11.19% by major depressive disorder, and 8.95% by bipolar mood disorder. Where 70.4% patient comes from urban area and 29.6% patient comes from rural area to take treatment in the Dhaka city (Ahmed and Azam, 2014). Bangladeshi schizophrenic patients are highest in lower socioeconomic group which estimates 63.8% (Bashar *et al.,* 2008).

2.10. Occupational therapy (OT) role in schizophrenia

OT is a holistic health care profession which enables people in daily activities through meaningful tasks. The ultimate goal of OT is to make people independent in

their activities of daily living like self-care, productivity and leisure. OT has a unique role in mental health. Schizophrenia is one of the areas where occupational therapist can play a great role. An Occupational therapist can help a schizophrenic patient for reducing negative symptoms. Social functioning is an important part of OT treatment (Cowen, 2009).

An occupational therapist initiates the treatment from assessing several aspect like ADLs (e.g., bathing, dressing, eating), instrumental ADLs (e.g., driving, money management, shopping), education, work (paid and volunteer), play, leisure, social participation, motor processing skills, mental and cognitive processing skills, communication and interaction skills, habits, roles and routines, performance contexts (e.g., cultural, physical, spiritual), activity demands, client factors (e.g., difficulties due to body structures or functions), occupational self-assessment. Occupational therapists perform assessment for goal setting as well as treatment activities. Various types of treatment activities are recommended by an occupational therapist. Common interventions for mental illness including schizophrenia are life skills training, cognitive rehabilitation, supported employment, supported education, social and interpersonal skills training, life balance intervention and modalities such as biofeedback and mindfulness-enhanced therapy (Jackman, 2014).

Occupational therapists provide treatment to a schizophrenic patient in the following ways:

- **Gross motor activities:** Occupational therapist provide treatment to the schizophrenic patient to improve gross motor skills by involving different gross motor tasks, such as basketball, bowling, swimming, or throwing and catching a ball and also engage in different balance activities like dancing or walking on designated outlined areas (Cain, 2014).
- **Life skills activities:** An occupational therapist provides treatment to the patient to improve life skill activities in different way such as established work capacity, restore capability of work, environmental modification or adaptation (Fricke, 2015).
- **Leisure skills activities:** Leisure participation is created by leisure skill group and it fulfills the specific necessity of community people. Occupational therapists engage the patient in various purposeful leisure activities which are

meaningful for them or according to patient's interest. And provide opportunities to follow leisure and recreational activities (Cain, 2014).

- **Social skills activities:** An occupational therapist involves the patient in oral conversation with a peer group member. And teach them about the needs of maintaining appropriate physical and personal space during conversation. In such way they help the patient to interact with the community people, family member and peer-groups (Cain, 2014).
- **Coping skills activities:** The Occupational Therapists help the patient to improve coping skills. An occupational therapist run a coping skills group where individual get opportunities to express their emotion. It helps the patient controlling their emotions such as frustration, anger, aggression, hurt, disappointment and stress (Cain, 2014).
- **Task activities:** The occupational therapists arrange task group to enhance patient's abilities to perform any activity (Cain, 2014).
- **Stress management activities:** Therapists practice different techniques such as relaxation technique or stress management technique through involving the patients in coping skill group. Occupational therapists run this specific type of coping skills group to educate participants on the effects of stress and its impact on both physical and mental health (Cain, 2014).

A study was conducted in geropsychiactric unit at Mercy Hospital in Western Hills among 5 patients. The aim of this study was to measure the outcome of therapeutic activity after providing OT service. Among them 3 participants expressed significant change in occupational performance who actively participated in therapeutic activity and four of them noted massive change in their satisfaction of occupational performance (Cain, 2014).

An occupational therapist can also work with client's family. An occupational therapist educates the client's family about the condition and can provide training about social skills and planning for preventing the condition (Moghimi, 2007).

CHAPTER 3
METHODOLOGY

This section outlines the method of the study designed by the researcher to meet the study aim and objectives. The aim was to find out the QOL of schizophrenic patient in Bangladesh.

3.1. Study design

In this study, the researcher was used quantitative research design to carry out the research aim and objectives. As quantitative research can shows the explanation of changing situation for other variables (Creswell, 2012). The researcher was used quantitative research design for this study. The research required to gather information from a large number of schizophrenic patients. By quantitative method data can be collected numerically from large number of people within short time (Creswell, 2012). For this reason researcher was used quantitative research design.

Under the quantitative method, the researcher was used cross sectional design for this study. Levin (2006) stated that- *"Cross-sectional studies are carried out at one time point or over a short period. They are usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for the purposes of public health planning. Data can also be collected on individual characteristics, including exposure to risk factors, alongside information about the outcome. In this way cross-sectional studies provide a snapshot of the outcome and the characteristics associated with it, at a specific point in time".*

3.2. Sample selection

3.2.1. Study population

A study population refers to the entire group of people or items that meet the criteria set by the researcher. According to Creswell (2012) population is defined as- *"A population is a group of individuals who have the same characteristics".* The study population was Bangladeshi schizophrenic patient who took treatment facilities from inpatient and outpatient department of NIMH & H, Dhaka, Bangladesh. Eighty three (83) participants were selected for conducting this study. Participants were both male and female Bangladeshi schizophrenic patient aged between 18 to 45 years.

3.2.2. Sampling procedure

Participants who met the inclusion criteria were taken as a sample in this study. According to Hicks (1999) *"Findings the appropriate number and type of people take part in your study is called sampling"*. The convenient sampling procedure was used throughout the process of participant's selection for this study. According to Creswell (2012) convenience sampling is defined as- *"Convenient sampling is a quantitative sampling procedure in which the researcher select participants because they are willing and available to be studied".* It is used to meet the desire sample size until they are not reachable (Depoy and Gitlin, 1998). On the other hand, sample could be finding easily by using this method and it is very cost effective (Salkind, 2013). Sample size may big or sometimes may small. It depends on the population or characteristics of the study. The researcher was selected 83 participants that are convenient to the researcher form NIMH & H, Dhaka, Bangladesh.

3.2.3. Inclusion criteria

- Schizophrenic patient aged between 18-45 years were included in this study. In Bangladesh most of the people are affected by schizophrenia at the age between 18-45 years (Ahammad *et al.,* 2009).
- Both male and female patient were chosen for this study. Both male and female are equally affected by schizophrenia (Versola-Russo, 2006).

3.2.4. Exclusion criteria

- Schizophrenic patient with substance dependence were excluded from this study. Sometime patient may become violent who is substance abuser (National Institute of Mental Health, 2009).
- Schizophrenic patient with aggressive or destructive behavior were excluded from this study. They have the tendency to attack other who care for them or may injure themselves (Hodgins, 2008).

3.2.5. Sample size determination

From Hicks (2000), the principle of sample size determination was used for calculating sample size. The study participants were schizophrenic patient. Eighty three (83) participants were selected for this study.

The formula of sample size determination was $z^2 \times p \times q / r^2$, where z= constant value depends on CI (Confidence Interval), p= prevalence, q= (1-p) and r= sampling errors. As there was no published research of QOL of schizophrenic patient in Bangladesh, the researcher used p=50% prevalence. If 95% confidence interval z=1.96 (Confidence Intervals), q= (1-0.5) = 0.5, and r= 5%,

According to standard formula, sample size will be-

$z^2 \times p \times q / r^2 = [(1.96)^2 \times 0.5 \times 0.5] \div (0.5)^2 = 384.16$

If researcher will use this standard measurement to find out the sample size, it would be 384. Though it is an academic research and researcher will get 10 month to complete the research and data collection period is 2 months. Within two months 384 participant's data collection is not practically possible. For this reason, researcher collected data from 83 participants.

3.3. Variable identification

3.3.1. Dependent variable

QOL of schizophrenic patient is measured by World Health Organization Quality of Life Questionnaire (WHOQOL-BREF). It assesses patients under four domains which are physical health, psychological health, social relationship and environmental health. These categories will act as dependent variables.

3.3.2. Independent variable

In this study, researcher used four variables. These are: age, gender, marital status, educational level etc. These categories will act as independent variables.

3.4. Study settings

This study was conducted at NIMH & H in Dhaka, Bangladesh. It is established in 1981. It is located in the central point of Dhaka. It is the only specialised institute for mental health in Bangladesh. It provides government facilities and quality treatment in a free (or low of cost) to the mentally ill people of the whole country. In this hospital 150 beds are provided for patient with mental illness in inpatient department (Uddin *et al.*, 2011). This hospital provides both inpatient and outpatient services to the people with mental illness. Schizophrenic patient are available in this hospital. The researcher collected data from both inpatient and outpatient department.

3.5. Informed consent

Informed consent is a written document outlining the risks of the experiment and the possible benefits. The two part of informed consent including information sheet {Appendix- 4A (Bengali), 4B (English)} and consent form {Appendix- 5A (Bengali), 5B (English)}. In this study, the researcher used both information sheet and consent forms. During interview researcher took permission from every single participant with signature/thumb impression on a written consent form according to their educational level. Researcher explained in consent form the role of the participants in the study. Ensured them it would not cause any harm or directly benefit to them in future from this study. Researcher explained to the participants how interview data would be used in the study and make sure that their identity would be kept confidential in this study. Their given data would not be shared with others except researcher's supervisor who is helping to conduct this study. The researcher had to ensure that all participants are informed about their rights and reserves and about the aim and objectives of the study. The participant has the rights to leave the study when he/she wants. The researcher would be eligible to do the study after knowing the academic and clinical rules of doing the study about what should be done and what should not be. All rights of the participant would be reserved and researcher is accountable to the participant to answer any type of study related question. Researcher ensured that all participants need to participate willingly after knowing about the study. They were also informed that researcher do not provide any money for participating in this study.

3.6. Ethical consideration

Ethical considerations were implemented to avoid ethical problem. The researcher took permission from research supervisor and head of the department of Occupational Therapy of BHPI, an academic institute of CRP to conduct the study. The permission letter {Appendix-2A and 2B} also took from the BHPI and NIMH & H before data collection. A written consent was signed by each participant who was interested to participate in the study. The researcher was assured them that confidentiality of personal information would be strictly maintain.

3.7. Data collection

3.7.1. Data collection instrument

To collect the data, the researcher will be used some data collection instruments

including:

- **The World Health Organization Quality of Life Questionnaire (WHOQOL-BREF):** Researcher was used the WHOQOL-BREF questionnaire {Appendix- 7A (English), 7B (Bengali)} to find out how schizophrenic patient feel about their QOL, health, or other areas of their life. Researcher took permission from author for using this questionnaire both Bengali and English {Appendix- 3A (English), 3B (Bengali)}. It was initiated in 1991. It is a structured self-report interview. It was developed by World Health Organization (WHO) division of mental health. This scale is using rapidly in health sector. It consists of 26 items. Its purpose is to assess QOL of person. It assesses patients under four domains which are physical, psychological, social, and environmental. The WHOQOL-BREF is a shorter version of the original instrument. Its psychometric properties have been found to be comparable to that of full version WHOQOL-100. WHOQOL-100 is a rating scale where survivors ensured the quality from 0 to 100. Better score defined better QOL.
- **Information checklist:** Information checklist {Appendix- 6A (English), 6B (Bengali)} was developed with the inclusion and exclusion criteria which were set to meet the study purpose. It was used at the beginning of sample selection. By this checklist the researcher was collected the general demographic information about the participant from patients or caregiver to find out the suitable participants for this study.
- Pen and paper are used for recording necessary information of the patient.
- Ink pad was used to take consent from illiterate patient who was unable to give signature in the consent form.

3.7.2. Data collection procedure

After getting final approval of proposal researcher took permission from director of NIMH & H for data collection. The data was collected by the researcher with face to face interview by using WHOQOL-BREF scale. It is a structured questionnaire. By using this questionnaire researcher got information about schizophrenic patient's physical, social, environmental health and their social and personal relationship. Before the data collection session, researcher was used an information checklist to select participants from inpatient and outpatient department according to the inclusion

and exclusion criteria. Researcher took information from patients and caregiver. The researcher fixed time with the participant who took treatment facilities from inpatient and outpatient department of NIMH & H, Dhaka, Bangladesh. At first, participants were informed about the aim of the study and the researcher were took consent from the respected study participants with signature or thumb impression on a written consent form of the participants who are interested to take part in the study. Researcher asked questions in Bengali to the participants for easily understand. Time range of data collection was 15-20 minutes for each patient.

3.8. Data analysis

Data entry and analysis was performed by using the Statistical Package for Social Science (SPSS), Inc. version 17. The presentation was performed in SPSS and in Microsoft office word 2010. Microsoft word Excel was also used to present data using column and pie chart. Every questionnaire was rechecked for missing information or unclear information. The total analysis process was carried out by using the SPSS computer package due to reduce the impact of missing value and increase the reliability of the analysis. Firstly the researcher was selected the variable and then input the data into SPSS. Every questionnaire had a code number to input data into the SPSS software. Descriptive statistics was used to consider the study variables. Data was presented by describing, organizing and summarizing the data by using percentages, central tendencies (mean), standard deviation.

3.9. Reliability and validity

The WHOQOL-BREF is a reliable and valid questionnaire. It has good to excellent psychometric properties of reliability and validity (Skevington, Lotfy and O'Connell, 2004). On the other hand, WHOQOL-BREF questionnaire was not translated manually, the authority has shared readymade translated Bangla version.

3.10. Rigor

The researcher was conducted study in a rigorous manner or trustworthiness. All of the steps in the research process supervised by an experienced supervisor. During the interview and analysis of data, researcher was not try to influence the process by her biases, values or own perspectives. During the interview the researcher didn't interrupted the participants during answering questions. The researcher will accept answers of the participants whether they will deliver. Data were collected carefully

and researcher accepted the answers of the participant whether negative or positive without giving them any impression. The researcher checked all data for missing information. Notes were handled with confidentiality. In the result section, the researcher did not influence the outcome by showing any personal interpretation.

CHAPTER 4
RESULTS

This section provides statistical analysis in a systematic way and interpretation of analysed findings with the aim and objectives of the study. The aim of the study was to find out QOL of schizophrenic patient in Bangladesh. The objectives of the study were to determine the effect of schizophrenia regarding physical health, psychological health, social relationship and environmental health among schizophrenic patient. Eighty three (83) populations were selected for this study. Findings of the study are presented by table and pie chart.

4.1. Socio-demographic characteristics of the schizophrenic patients

4.1.1. Distribution of the respondents by age (n=83)

The age of the respondents ranged between 18 to 45 years. Among 83 participants about 10.8% (n=9) were 18 to 22 age group, 24.1% (n=20) respondents were 23 to 27 age group, 31.3% (n=26) were between 28-32 years, 20.5% (n=17) respondents were 33 to 37 age group, 8.4% respondents were between 38 to 42 age group and 4.8% respondents were between 43 to 45 age group (Figure 1).

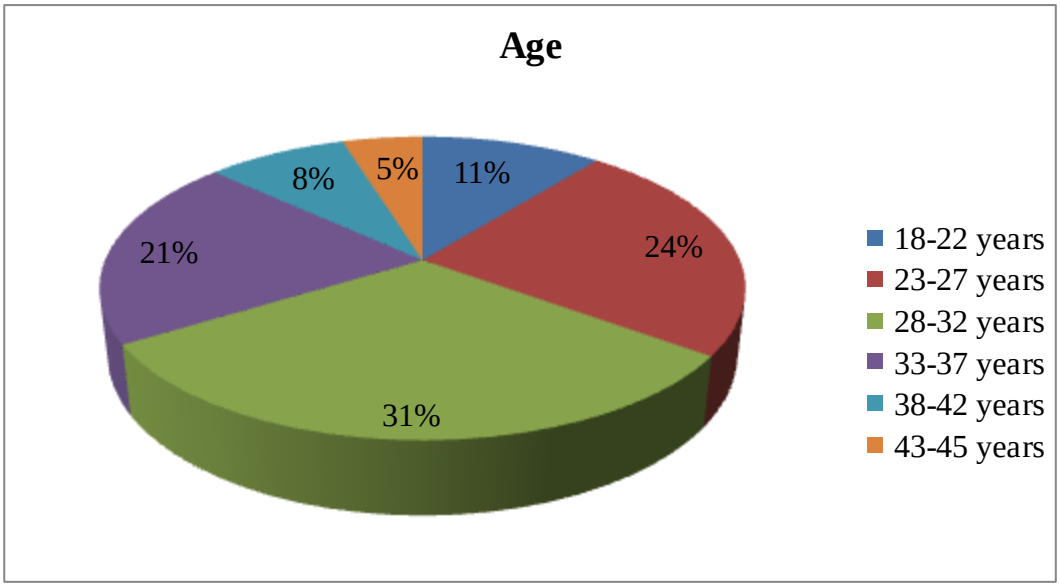

Figure 1: Age range of schizophrenic patient

4.1.2. Distribution of the respondents by sex

Among 83 respondents maximum respondents were male 56.6% (n=47) and 43.4% (n=36) respondents were female (Figure 2).

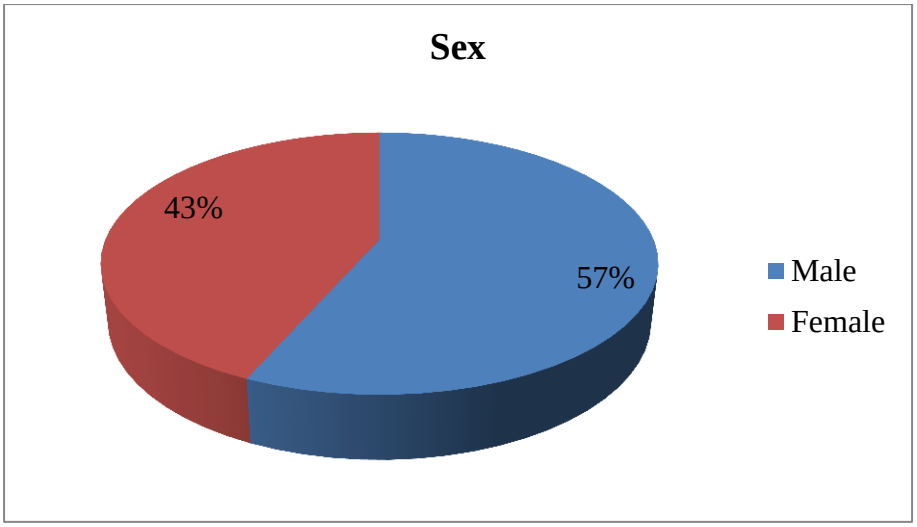

Figure 2: Sex of schizophrenic patient

4.1.3. Distribution of the respondents by marital status

Maximum of the respondents were married 81.9% (n= 68) and 15.7% (n= 13) of the respondents were unmarried while few of the respondents were divorced 2.4% (n= 2) (Figure 3).

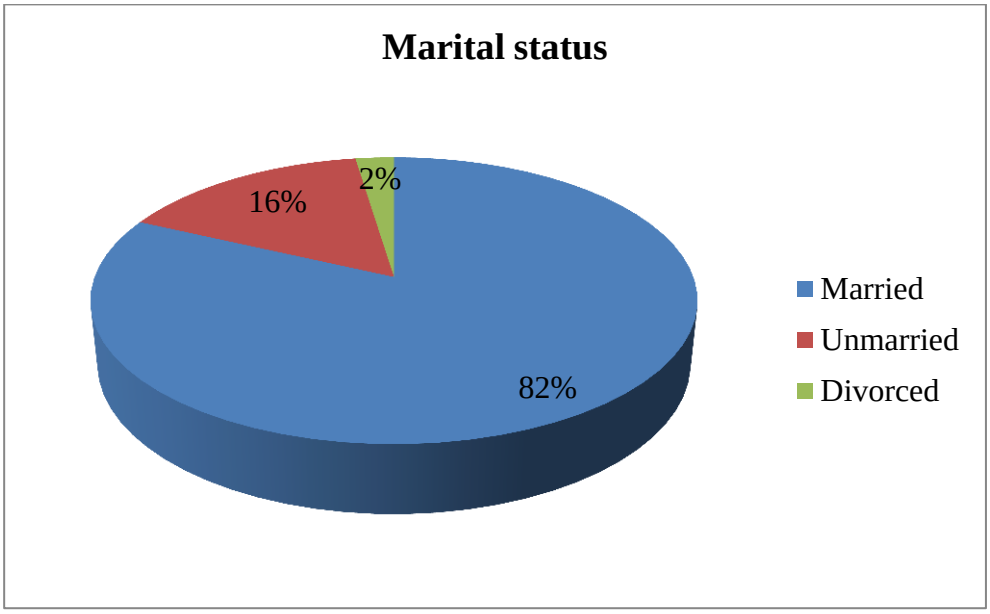

Figure 3: Marital status of schizophrenic patient

4.1.4. Distribution of the respondents by educational level

Among 83 respondents most of the respondents education level was less than primary level 28.9% (n=24) and primary completed 24.1% (n= 20). While only 18.1% (n=15) of the respondent's education level was illiterate. Few of the respondents education level was secondary school 12.0% (n= 10), SSC completed 7.2% (n= 6), HSC

completed 6.0% (n= 5) and graduated 3.6% (n= 3) (Table 1).

Table 1: Distribution of the respondents by educational level

Education	**Number**	**Percentage**
Illiterate	15	18.1
Signature/ Less than primary	24	28.9
Primary completed	20	24.1
Secondary schooling	10	12.0
SSC completed	6	7.2
HSC completed	5	6.0
Graduated	3	3.6
Total	**83**	**100.0**

Table 2: Mean and Standard Deviation (SD) of item scores: World Health Organization Quality of Life Questionnaire (WHOQOL-BREF)

QOL Domains	**Items**	**Mean**	**SD**	**Range**
Overall	Overall quality of life	1.83	0.778	1-4
	Overall health	2.63	1.044	1-4
1. Physical health	Activities of daily living	2.58	0.813	1-4
	Dependence on medicinal substances and medical aids	1.83	0.778	1-4
	Energy and fatigue	2.52	0.942	1-4
	Mobility	2.57	0.952	1-4
	Pain and discomfort	4.47	0.902	1-5
	Sleep and rest	2.41	1.013	1-4
	Work capacity	2.52	0.802	1-4
	Total average	**2.7**	**0.106**	**2.76- 3.52**
2. Psychological	Bodily image and appearance	2.95	0.810	1-4
	Negative feelings	1.94	0.817	1-4
	Self-esteem	2.42	0.813	1-4

	Meaningfulness of life	1.58	0.607	1-3
	Life enjoyment	1.76	0.709	1-4
	Concentration and thinking	2.00	0.812	1-4
	Total average	**2.108**	**0.0787**	**2.43-3.24**
3. Social relationship	Personal relationship	2.63	1.044	1-4
	Social support	2.31	0.764	1-4
	Sexual activity	1.74	0.863	1-4
	Total average	**2.226**	**0.116**	**1- 4**
4. Environmental	Financial resource	1.90	0.759	1-3
	Safety and security	2.75	0.824	1-4
	Health and social care	2.90	0.790	1-4
	Home environment	3.13	0.823	1-4
	Opportunities for acquiring new information and skills	1.46	0.591	1-3
	Participation in and opportunities for recreation and leisure activities	1.73	0.734	1-4
	Physical environment	2.76	0.820	1-4
	Transport	3.00	0.841	1-4
	Total average	**2.47**	**0.077**	**2.29- 3.21**

On Table 1 means scores were organised the items into facets representing the 4 domains covered by the WHOQOL-BREF questionnaire (physical health, psychological health, social relationship and environmental health) and the 2 items- Overall QOL and General health.

Table 1 shows that the mean scores for the 2 items were mean 1.83; SD $\pm$ 0.778 for overall QOL of the participants which indicates poor QOL and mean 2.63; SD $\pm$ 1.044 for their general health which indicates participants were moderately satisfied with their general health.

For the domains, total mean score was 2.7; SD $\pm$ 0.106 for the physical domain, total mean score were mean 2.108; SD $\pm$ 0.0787 for psychological domain, total mean 2.226; SD $\pm$ 0.116 for social domain and total mean 2.47; SD $\pm$ 0.077 for environmental domain.

In physical domain, mean score of satisfaction on their activities of daily living was 2.58; SD ± 0.813, they were badly needed of medical treatment and the mean scores were 1.83; SD ± 0.778, the mean scores of satisfaction on energy for everyday life activities was 2.52; SD ± 0.942, the score of their satisfaction on mobility was mean 2.57; SD ± 0.952, maximum participants didn't feel pain during performing any activities and the mean scores was 4.47; SD ± 0.902, mean scores of satisfaction on sleep was 2.41; SD ± 1.013 and the satisfaction on work capacity of the participants was moderate, the score was mean 2.52; SD ± 0.802.

In psychological domain, satisfaction on bodily image and appearance were moderate and mean score was 2.95; SD ± 0.810, maximum participants have negative feelings, perception and thought and their score was mean 1.94; SD ± 0.817, they had poor self-esteem and the score was mean 2.42; SD ± 0.813, they thought their life were not meaningful (mean 1.58; SD ± 0.607), life enjoyment were poor among themselves (mean 1.76; SD ± 0.709) and they had poor ability to concentrate and thinking to perform any activities (mean 2.00; SD ± 0.812).

In social domain, they had poor satisfaction on personal relationship and mean score was 2.63; SD ± 1.044, they didn't get sufficient social support (mean 2.31; SD ± 0.764) and they had poor satisfaction on sexual relationship (mean 1.74; SD ± 0.863).

In environmental domain, they had poor financial resource and mean score was1.90; SD ± 0.759, they felt safe and secured on their life moderately (mean 2.75; SD ± 0.824), they were satisfied moderately with their access to health services (mean 2.90; SD ± 0.790), they were satisfied moderately with their home environment (mean 3.13; SD ± 0.823); they didn't get important information sufficiently for day-to-day life and mean scores was 1.46; SD ± 0.591, they had poor opportunities for recreation and leisure activities (mean 1.73; SD ± 0.734), they were moderately satisfied with their physical environment (mean 2.76; SD ± 0.820) and also transportation system (mean 3.00; SD ± 0.841).

Table 3: Relationship between Quality of Life scale and socio- demographic factor of schizophrenic patient

Socio-demographic factor	N	Overall QOL	Overall health	Physical health	Psychological health	Social relationship	Environmental health
Age							
18-22	9	1.67± 0.71	2.78 ± 0.71	2.603 ± 0.998	1.907± 0.412	2.18 ± 0.390	2.33 ± 0.750
23-27	20	2.5± 0.502	2.2± 1.14	2.6 ± 0.93	2.0 ± 0.553	2.13 ± 0.511	2.4 ± 0.652
28-32	26	1.84± 0.674	2.61 ± 1.12	2.76 ± 0.82	2.14 ± 0.46	2.16 ± 0.470	2.40 ± 0.75
33-37	17	2.05± 0.899	2.76 ± 0.903	2.8163 ± 0.818	2.34 ± 0.553	2.31 ± 0.449	2.42 ± 0.630
38-42	7	2.0 ± 1.0	2.0 ± 1.25	2.8163 ± 0.79	2.04 ± 0.57	2.57 ± 0.377	2.40 ± 0.744
43-45	4	2.5 ± 1.29	3.25 ± 1.154	2.3214 ± 0.535	2.041 ± 0.732	2.0 ± 0.75	2.64 ± 0.716
p-value		0.249	0.546	0.212	0 .248	0.005	0.859
Sex							
Male	47	1.91 ± 0.802	2.65 ± 1.05	2.72 ± 0.893	2.064 ± 0.488	2.09 ± 0.466	2.39 ± 0.727
Female	36	1.72 ± 0.7411	2.55 ± 1.03	2.59 ± 0.769	2.17 ± 0.524	2.37 ± 0.472	2.43 ± 0.642
p-value		0.706	0.647	0.458	0.263	0.398	0.879
Marital status							
Unmarried	68	1.21 ± 0.4136	2.64 ± 1.075	2.30 ± 0.78	2.13 ± 0.514	2.21 ± 0.455	2.37 ± 0.676
Married	13	1.72 ± 0.732	2.56 ± 1.108	2.5 ± 0.09	1.95 ± 0.478	2.2 ± 0.478	2.57 ± 0 .744

Divorced	2	1.5 ± 0.707	2.0 ± 0.0	2.0 ± 0.81	2.34 ± 0.516	2.20 ± 0.394	2.64 ± 0.944
p-value		0.94	0.669	0.004	0.257	0.125	0.398
Educational level							
Illiterate	15	1.8 ± 1.014	2.86 ± 0.975	2.84 ± 0.844	2.144 ± 0.564	2.21 ± 0.455	2.43 ± 0.708
Signature/ Less than primary schooling	24	1.95± 0.7514	2.625 ± 0.7801	2.67 ± 0.846	2.01 ± 0.560	2.21 ± 0.478	2.372 ± 0.70
Primary completed	20	1.85 ± 0.853	2.65 ± 0.8870	2.81 ± 0.869	2.11 ± 0.478	2.205 ± 0.394	2.36 ± 0.717
Secondary schooling	10	1.69 ± 0.842	2.8 ± 1.37	2.72 ± 0.646	2.366 ± 0.535	2.39 ± 0.449	2.32 ± 0.576
S.S.C completed	6	1.833 ± 0.94	2.33 ± 0.41	2.78 ± 0.941	1.916 ± 0.47	1.77 ± 0.384	2.642 ± 0.862
H.S.C completed	5	1.75 ± 0.71	2.0 ± 0.816	2.8 ± 0.832	2.233 ± 0.427	2.18 ± 0.575	2.51 ± 0.514
Graduation	3	1.82 ± 0.60	2.5 ± 0.707	2.61 ± 0.970	2.0 ± 0.557	2.22 ± 1.07	2.57 ± 0.994
p-value		0.286	0.572	0.005	0.321	0.599	0.025

Table 3 shows the relationship between QOL scale and socio- demographic factor of schizophrenic patient. It shows that p value for overall QOL (0.249> 0.05); overall health (0.546> 0.05); physical health domain (0.212> 0.05); psychological health domain (0.248> 0.05); social relationship domain (0.005< 0.05) and environmental health domain (0.859> 0.05). It proves that there are no statistically significant difference between age and overall QOL, overall health, physical health domain, psychological health domain and environmental health domain. On the other hand, there is statistically significant difference between age and social relationship domain.

According to gender, it shows that p value for overall QOL (0.706> 0.05); overall health (0.647> 0.05); physical health domain (0.458> 0.05); psychological health domain (0.263> 0.05); social relationship domain (0.398> 0.05) and environmental health domain (0.879> 0.05). It proves that there are no statistically significant difference between gender and overall QOL, overall health, physical health domain, psychological health domain and environmental health domain.

In case of marital status, it shows that p value for overall QOL (0.94> 0.05); overall health (0.669> 0.05); physical health domain (0.004< 0.05); psychological health domain (0.257> 0.05); social relationship domain (0.125> 0.05) and environmental health domain (0.398> 0.05). It proves that there are no statistically significant difference between marital status and overall QOL, overall health, psychological health domain and environmental health domain. On the other hand, there is statistically significant difference between marital status and physical health domain.

In case of educational level, it shows that p value for overall QOL (0.286> 0.05); overall health (0.572> 0.05); physical health domain (0.005< 0.05); psychological health domain (0.321> 0.05); social relationship domain (0.599> 0.05) and environmental health domain (0.025< 0.05). It proves that there are no statistically significant difference between educational level and overall QOL, overall health, psychological health domain and social relationship domain. On the other hand, there are statistically significant difference between educational level and physical health domain and environmental health domain

CHAPTER 5
DISCUSSION

Measuring QOL is common practice to evaluate health interventions. It is important for mental health professionals to assess QOL of patient with mental illness (Connell, O'Cathain and Brazierb, 2014). The aim of this study was to find out the QOL of schizophrenic patient in Bangladesh. In this study researcher measured QOL of schizophrenic patient by using WHOQOL-Bref questionnaire. Researcher found that score of overall QOL of the Bangladeshi schizophrenic patients were mean 1.83; SD $\pm$ 0.778. Findings of this study suggested that most of the schizophrenic patient lead poor QOL in Bangladesh. Another study also carried out with same questionnaire. They found schizophrenic patient were neither satisfied nor dissatisfied with their overall QOL and the average score was 3.21 (SD $\pm$ 0.94) (Galuppi *et al.*, 2010). Versola-Russo (2006) stated that poor socioeconomic status, poor knowledge about impact of illness, poor family and social support, poor educational levels, poor transportation facilities, lack of employment are responsible for poor QOL of schizophrenic patient.

One study suggested that physical health problems are common among schizophrenic patients. It contributes to the increase mortality rate and decreasing QOL. Their study found that cardiovascular disease contributes most strongly to the increase mortality among schizophrenic patients. Obesity, metabolic aberrations, smoking, alcohol, lack of exercise and poor diet are also responsible for poor health and mortality (Hausswolff-Juhlin *et al.*, 2009). In this study, researcher found that mean score for general health of schizophrenic patient was 2.63; SD $\pm$ 1.044. This findings indicates Bangladeshi schizophrenic patient were poor to moderately satisfied with their general health. Galuppi *et al.* (2010) found moderate satisfaction on their general health perception (mean score 3.14).

Different factors influence QOL of schizophrenic patient. Age is one of the factors which influence QOL of schizophrenic patient. Banerjee (2012) stated that schizophrenia arises during young adulthood (late adolescence for males and young adulthood for females). In this study, researcher found that maximum participants were 28-32 age groups 31.3% (n=26), 24.1% (n=20) respondents were 23 to 27 age group, 20.5% (n=17) participants were 33 to 37 age group, only 10.8% (n=9)

participants were 18 to 22 age group and few of the respondents were above 38 years of age. This finding indicates that schizophrenia affects more in young adult population in Bangladesh. World Health Organization (2015) also reports that late teens or young adult have more chance to develop schizophrenia. This is similar with the findings of this study.

Sex is another factor which also influences QOL of schizophrenic patient. In this study, among the 83 participants maximum participants were male 56.6% (n=47) and 43.4% (n=36) of the respondents were female. Findings of this study indicate males are more vulnerable to develop schizophrenia rather than female in Bangladesh. According to McGrath (2006) frequency of developing schizophrenia is considerably higher in males than in females. On the two independent systematic reviews found the overall male: female risk ratio is 1:4. Present study shows that QOL is very poor among female (41.7%) participant rather than male (31.9%) and QOL is poor among male (48.9%) participant rather than female (47.2%).

QOL also depends on marital status. Literature supported that QOL were significantly related to marital status. They found that married or cohabitating respondents had a higher QOL than single respondents and divorced respondents. On the other hand, divorced, widowed or separated respondents had a higher QOL than single respondents. They found the mean QLS scores of married/cohabitating participants was 72.28, for single respondents 53.87 and for divorced, widowed or separated respondents 62.40. Their findings indicate that QOL is lower for individuals with schizophrenia who are single (Nyer *et al.,* 2010). In this study, researcher found that maximum of the respondents was married (81.9%); few of the respondents (15.7%) were unmarried while very few respondents were divorced (2.4%).

A study was conducted among community-care schizophrenic patients and long-term hospital-care schizophrenic patients to know their QOL. They reported that educational level influence the QOL of schizophrenic patient (Rossler *et al.,* 1999). Another study reported that low level education affects schizophrenic patient's QOL. They found lower educational level among 75.6% participants (Cardoso *et al.,* 2005). In this study, researcher found that 28.9% respondent's education level was less than primary level, 24.1% respondent's education level was primary completed while only 18.1% of the respondent's education level was illiterate. Few of the respondents

education level were secondary school (12.0%), SSC completed (7.2%), HSC completed (6.0%) and graduated (3.6%). This finding proposes that low level education worsen QOL of Bangladeshi schizophrenic patient.

In this study, researcher found poor to moderate QOL in four domains of the WHOQOL-Bref scale among schizophrenic patient in Bangladesh. Total mean scores were 2.7; SD $\pm$ 0.106 for the physical health domain, mean 2.108; SD $\pm$ 0.0787 for psychological health domain, mean 2.226; SD $\pm$ 0.116 for social relationship domain and mean 2.47; SD $\pm$ 0.077 for environmental domain. Among four domains psychological and social domain score were comparatively lower. Findings of this study shows that, schizophrenic patient's QOL poor on psychological domain in Bangladesh. Radhakrishnan *et al.* (2012) was conducted a study with same scale. They found that physical health domain score was mean 60.83; SD ± 18.84, psychological well-being score was mean 58.29; SD ± 23.69, social relationship domain score was mean 50.52; SD ± 29.04 and environmental domain score was mean 60.98; SD ± 29.97. Their study also found comparatively lower score on psychological and social domain. And schizophrenic patient's QOL poor on social domain.

Under physical health domain, it is concerned with such questions- satisfaction on activities of daily living; dependency on medicinal substances and medical aids; energy and fatigue to perform daily living activities; mobility; pain and discomfort during work performance; satisfaction on sleep and working capacity. Bangladeshi schizophrenic patient were badly needed of medical treatment for their better QOL (mean 1.83; SD ± 0.778). On the other hand, most of the participants didn't feel pain or discomfort to perform daily activities (mean 4.47; SD ± 0.902). They were poor to moderate satisfy with their performance of daily living activities (mean 2.58; SD ± 0.813); energy for everyday life activities (mean 2.52; SD ± 0.942); sleep and rest (mean 2.41; SD ± 1.013); mobility (mean 2.57; SD ± 0.952) and working capacity (mean 2.52; SD ± 0.802). Among four domains Bangladeshi schizophrenic have highest score on physical health domain. Literature supported that schizophrenic patient had highest average score on physical health domain and Arithmetic Mean (AM) =13.22; SD=2.17 of WHOQOL-Bref scale (Makara-Studzinska, Wołyniak and Partyka, 2011). Galuppi *et al.* (2010) found that there is a relation between age and

physical health. Hypertension, diabetes and rheumatic diseases possibly increase with aging processes which worsen physical health. They also found that patient were poorly satisfied with their life. Among all participants 54.8% of males and 50% of females were completely disappointed with their working life. According to McEvoy (2007) early effective treatment is really essential for schizophrenic patient for better improvement. Otherwise there is a possibility of increasing risk of brain volume loss with adverse effects for long-term treatment outcomes among patient. Almeida *et al.* (2013) stated on their study, chronic pain worsen QOL of schizophrenic patients. They found the high frequency of pain among chronic schizophrenic patient. In present study, most of the patient reported that they have no pain and discomfort during performing any activities in Bangladesh. Raj (2013) stated that, schizophrenia prevents a person to perform their daily living activities. They face many difficulties to perform any activity with this disability in different areas of their life. On another study it is stated that poor quality of sleep affects their QOL which lessen their coping ability with stress (Hofstetter, Lysaker and Mayeda, 2005).

Psychological health domain is concerned with questions on positive and negative feelings, self-esteem, body image, physical appearance, personal believes and attention. In this study, Bangladeshi schizophrenic patient were lower score in psychological domain. They moderately satisfied with their bodily image and appearance (mean 2.95; SD ± 0.810) where they had poor to moderate self-esteem (mean 2.42; SD ± 0.813). They often have negative feelings, perception and thinking (mean 1.94; SD ± 0.817). Most of the patient thought that their life was not meaningful (mean 1.58; SD ± 0.607) and they had poor enjoyment in their life (mean 1.76; SD ± 0.709). They had poor concentration and thinking ability to perform any activities (mean 2.00; SD ± 0.812). Makara-Studzinska, Wołyniak and Partyka (2011) also found lowest score on psychological health domain (AM=12.02; SD=3.15) of WHOQOL-Bref scale on their study. According to National Institute of Mental Health (2015), schizophrenic patient have poor attention ability, lack of pleasure in everyday life, poor self- esteem and present negative thought. A study was conducted in Nigeria to compare QOL domain scores among patients with schizophrenia and diabetic patients. On their study it is stated that schizophrenic patient faces trouble due to having negative feelings, poor self-esteem, anger and frustration. These worsen their

QOL. They found on their study that most of the patient present depressive and anxiety symptoms (Abioda, Morakinyo and Ibrahim, 2013).

According to Abioda, Morakinyo and Ibrahim (2013) schizophrenic patient face difficulties in social relationship for different reason. The main reason might be societal stigmatisation. This causes reduction of opportunities for socialisation, marriage, work and social integration. They found poor QOL in social domain score in their study. Another study also found lowest scores on the social relationship domain of WHOQOL-Bref scale. Schizophrenic patients were victim of social isolation and discrimination (Solanki *et al.,* 2008). In this study researcher found that Bangladeshi schizophrenic patient have poor QOL on social relationship domain. They were poor to moderate satisfied on personal relationship (mean 2.63; SD ± 1.044), very poor to poor satisfaction on sexual relationship (mean 1.74; SD ± 0.863) and they didn't get sufficient social support (mean 2.31; SD ± 0.764). Galuppi *et al.* (2010) also found poor satisfaction level on sexual life. They found 59.7% of males and 54.7% of females were totally dissatisfied with their sexual relationship.

In this study, schizophrenic patients reported poor to moderate ratings on environmental health domain in Bangladesh. They had poor financial resource (mean 1.90; SD ± 0.759). This may due to low income or poor income opportunities. They were moderately satisfied with their life security (mean 2.75; SD ± 0.824), access to health services (mean 2.90; SD ± 0.790), home environment (mean 3.13; SD ± 0.823), physical environment (mean 2.76; SD ± 0.820) and transportation system (mean 3.00; SD ± 0.841). They were poorly satisfied on opportunities of recreation and leisure activities (mean 1.73; SD ± 0.734). They didn't get important information sufficiently for day-to-day life (mean 1.46; SD ± 0.591). A study was conducted on North-Western Nigerian schizophrenic patient to know their QOL. They found poor score on environment domain of WHOQOL-Bref scale and the score was mean (SD) 13.70(1.94) (Abioda, Morakinyo and Ibrahim, 2013). Another study also found lowest average score (AM=12.70; SD=2.22) on environment domain of WHOQOL-Bref scale (Makara-Studzinska, Wołyniak and Partyka, 2011). In low and middle income country mentally ill people have poor accessibility to take treatment according to their needs. Around 75% to 85% mentally ill people are deprived from proper treatment (World Health Organization, 2009).

In this study, researcher found there were no statistically significance with age and overall QOL (p value 0.249> 0.05), overall health (p value 0.546> 0.05), physical health domain (p value 0.212> 0.05), psychological health domain (p value 0.248> 0.05) and environmental health domain (p value 0.859> 0.05). On the other hand, there was statistically significance with age and social relationship domain (p value 0.005< 0.05). Galuppi *et al.* (2010) found negative correlation between age and QOL, mostly on their overall health satisfaction ($r = -0.35$; $p < 0.0005$) and psychological health satisfaction ($r = -0.12$; $p < 0.05$).

In this study, researcher didn't found any statistically significant difference between gender and overall QOL (p value 0.706> 0.05); overall health (p value 0.647> 0.05); physical health domain (p value 0.458> 0.05); psychological health domain (p value 0.263> 0.05); social relationship domain (p value 0.398> 0.05) and environmental health domain (p value 0.879> 0.05). Another study found better QOL among female rather than male. They also didn't found statistically significant differences between men and women in specific domains and in general health perception (Makara-Studzinska, Wołyniak and Partyka, 2011).

In case of marital status, researcher didn't found statistically significant difference between marital status and overall QOL (p value 0.94> 0.05); overall health (p value 0.669> 0.05); psychological health domain (p value 0.257> 0.05); social relationship domain (p value 0.125> 0.05) and environmental health domain (p value 0.398> 0.05). However, there was statistically significance with marital status and physical health domain (p value 0.004< 0.05). On the other hand, one study found significant correlation between the marital status and the QOL (Makara-Studzinska, Wołyniak and Partyka, 2011).

According to educational level, researcher found statistically significant difference between educational level and physical health domain (p value 0.005< 0.05) and environmental health domain (p value 0.025< 0.05). On the other hand, researcher didn't found any statistically significant difference between educational level and overall QOL (p value 0.286> 0.05); overall health (p value 0.572> 0.05); psychological health domain (p value 0.321> 0.05) and social relationship domain (p value 0.599> 0.05). Cardoso *et al.* (2005) found that low level education has significantly associated with QOL especially on the social relationship domain.

CHAPTER 5
LIMITATION AND RECOMENDATION

Limitation

During the time of conducting this study there were some limitations present. The limitations are given below:

i. Researcher selected sample only from NIMH & H. Researcher did not take any sample from other hospitals or community due to time limitation.

ii. The research participants are small in number. It is not possible to generalise the findings.

iii. In this study, WHOQOL-BREF questionnaire was used to measure QOL of schizophrenic patient. However, WHOQOL-BREF is not a specific questionnaire for schizophrenic patient. Findings may be getting better if other schizophrenia related instrument could be used for this study.

iv. Sometimes patient didn't give actual information. It was very challenging for the researcher to collect data.

Recommendation

OT needs to conduct various studies related to QOL. This study provides the information about the QOL among schizophrenic patients'. The study related to this topic may be benefited for providing OT treatment in Bangladesh. This may involve:

- To find out the QOL of caregiver of schizophrenic patient's.
- To find out the QOL of other psychiatric conditions such as- Bipolar mood disorder, Obsessive Compulsive disorder.
- Further research should be conducted with large number of participants. It will help to generalise the result easily.

CHAPTER 6
CONCLUSION

QOL is a vast aspect for every human being. It is more subjective and also indefinable. This concept includes some factor such as physical and mental health, social and personal relationships, and activities of daily life, productivity, leisure, and psychological factors. Measuring QOL is important in mental health sector. Schizophrenia is one of the severe mental disorder which affects person QOL.

In Bangladeshi perspective, schizophrenic patient lead poor QOL in every sphere of their life. They face difficulty on their activities of daily living such as- self-care, productivity and leisure. Schizophrenia affects all aspects of person's life such as physically, psychologically, socially and economically. By the findings of this study it is understood that most of the schizophrenic patient lead poor QOL in every domain. Among four domains, they were poorly satisfied on psychological and social domain. They were less satisfied with their overall QOL and general health. They get poor social support and become stigmatised. They have poor self-esteem.

The connection between the QOL of people with schizophrenia and some socio-demographic, economic or clinic factors has been proved by many studies. In this study, there were statistically significant difference between age and social relationship domain (p value 0.005< 0.05); marital status and physical health domain (p value 0.004< 0.05); educational level and physical health domain (p value 0.005< 0.05) and environmental health domain (p value 0.025< 0.05). However, there were no statistically significant difference between gender and overall QOL, general health and four domains. Therefore it can be said that, it is important for schizophrenic patient to maintain QOL.

Occupational therapist has a great role on mental health sector. It is impotent to focus on this issue during OT treatment sessions with schizophrenic patient. Skilled occupational therapists can help schizophrenic patient to improve their QOL.

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Appendix 1

Permission for conducting study

Approval Letter

January 08, 2015
The Head of the Department
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

Subject: Application for seeking approval to conduct the study for fulfillment of 4th year of B.Sc. in Occupational Therapy course

Sir,
With due respect, I want to state that, I am sincerely seeking permission to conduct my research project as the part of my 4th year course curriculum. The title of my research is "Quality of Life of Schizophrenic patient in Bangladesh". The aim of the study is "To find out the Quality of Life (QoL) of schizophrenic patient in Bangladesh". Now I am looking for your kind approval to start my research project and I would like to assure that anything of my project will not harmful for the participants.

So, I therefore hope that you would be kind enough to grant me the permission of conducting the research and help me to complete a successful study as a part of my course.

Sincerely yours,
Bushra Yeasmin
.....
Bushra Yeasmin
4th year, B.Sc. in Occupational Therapy
Department of Occupational Therapy
BHPI, CRP, Savar, Dhaka-1343

Approved by	Signature and comment
Research supervisor **Mir Hasan Shakil Mahmud** Lecturer in Occupational Therapy Department of Occupational Therapy BHPI, CRP ,Savar, Dhaka-1343	It may allow to her Conduct this study. Best of luck. 11/01/15
Supervisor **SK. Moniruzzaman** Assistant Professor & Acting Head Department of Occupational Therapy BHPI, CRP ,Savar, Dhaka-1343	Best wishes 11/01/2015

Appendix 2A

Permission letter for data collection

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404 , Fax: 7745069

BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178,8053662-3, Fax: 8053661

তারিখ ঃ ১০.০১.২০১৫

প্রতি

পরিচালক

জাতীয় মানসিক স্বাস্থ্য ইনষ্টিটিউট

ঢাকা।

বিষয় ঃ রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রসঙ্গে।

জনাব,

আপনার সদয় অবগতির জন্য জানাচ্ছি যে, পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্রে-সিআরপি'র শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেলথ্ প্রফেশনস্ ইনষ্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন অকুপেশনাল থেরাপি কোর্স পরিচালনা করে আসছে।

উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামুলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন অকুপেশনাল থেরাপি কোর্সের ছাত্রী বুশরা ইয়াসমিন তার রিসার্চ সংক্রান্ত কাজের জন্য আগামী ১২.০১.২০১৫ তারিখ থেকে ১৫.০২.২০১৫ তারিখ পর্যন্ত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আগ্রহী।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

অধ্যাপক ডাঃ এম এ কাদের
অধ্যক্ষ
বিএইচপিআই।

Appendix 2B

Permission letter for data collection

Government of the People's Republic of Bangladesh
Office of the Director-cum-Professor
National Institute of Mental Health & Hospital
Sher-e-Bangla Nagar, Dhaka-1207

Memo No.NIMH/2014/ 70 Dated : 17.01.2015

To

Professor Dr. M A Kader
Principal
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343.

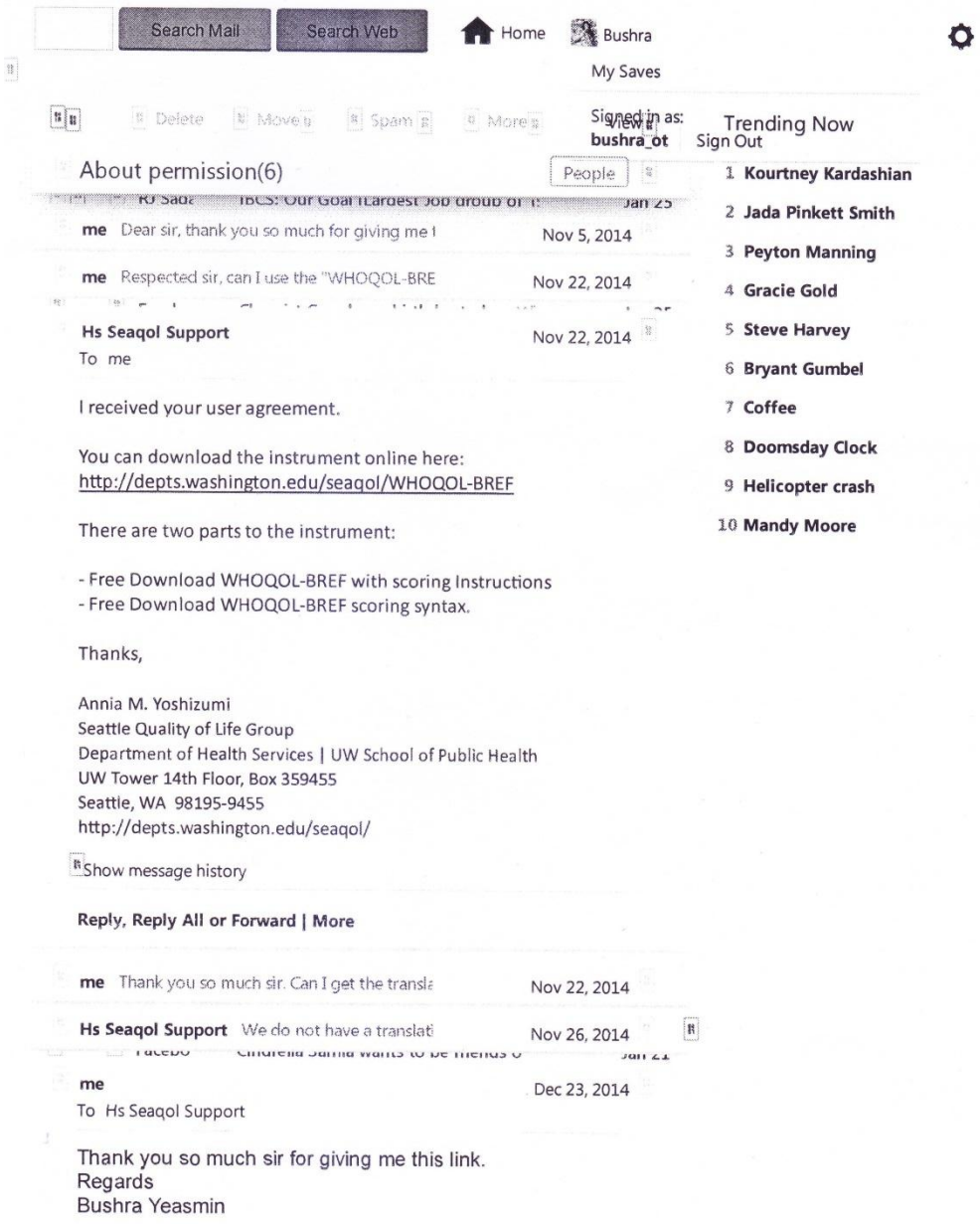
Subject: Ethical Clearance.

This is to inform you that your Research Proposal entitled **"Quality of life of schizophrenic patient in Bangladesh"** has been reviewed and approved by the ethical committee of the institute. Your student Bushra Yeasmin is given permission to conduct your research activities in NIMH, Dhaka.

(Prof. Dr. Md. Waziul Alam Chowdhury)
Director-cum-Professor
National Institute of Mental Health, Dhaka.

Appendix 3A

Permission for using WHOQOL-BREF Questionnaire (English version)



Search Mail Search Web Home Bushra My Saves

Delete Move to Spam More Signed in as: bushra_ot View Sign Out

About permission(6) People

me Dear sir, thank you so much for giving me t Nov 5, 2014

me Respected sir, can I use the "WHOQOL-BRE Nov 22, 2014

Hs Seaqol Support Nov 22, 2014
To me

I received your user agreement.

You can download the instrument online here:
http://depts.washington.edu/seaqol/WHOQOL-BREF

There are two parts to the instrument:

- Free Download WHOQOL-BREF with scoring Instructions
- Free Download WHOQOL-BREF scoring syntax.

Thanks,

Annia M. Yoshizumi
Seattle Quality of Life Group
Department of Health Services | UW School of Public Health
UW Tower 14th Floor, Box 359455
Seattle, WA 98195-9455
http://depts.washington.edu/seaqol/

Show message history

Reply, Reply All or Forward | More

me Thank you so much sir. Can I get the transla Nov 22, 2014

Hs Seaqol Support We do not have a translati Nov 26, 2014

me Dec 23, 2014
To Hs Seaqol Support

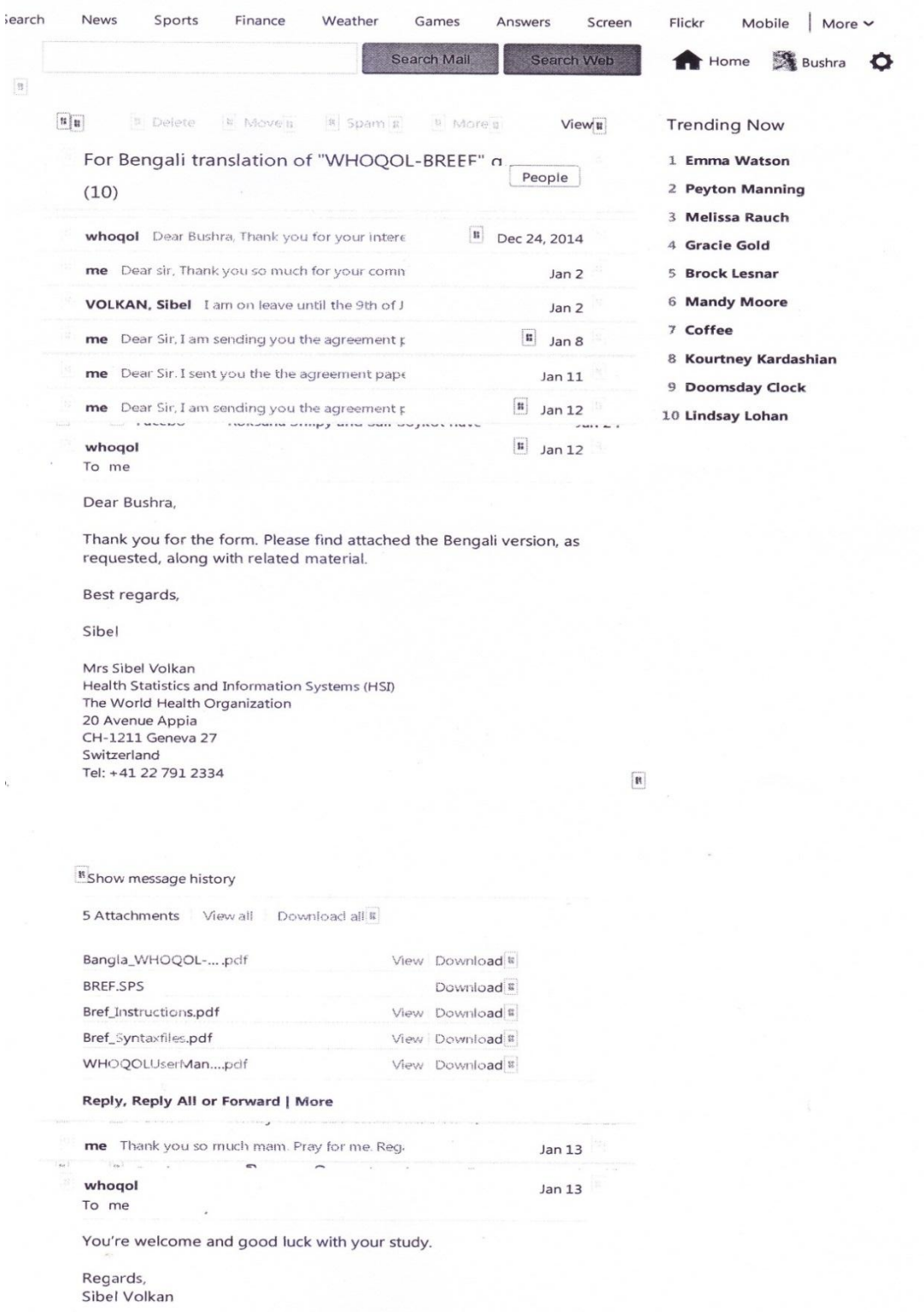
Thank you so much sir for giving me this link.
Regards
Bushra Yeasmin

Trending Now

1 **Kourtney Kardashian**
2 **Jada Pinkett Smith**
3 **Peyton Manning**
4 **Gracie Gold**
5 **Steve Harvey**
6 **Bryant Gumbel**
7 **Coffee**
8 **Doomsday Clock**
9 **Helicopter crash**
10 **Mandy Moore**

Appendix 3B

Permission for using WHOQOL-BREF Questionnaire (Bengali version)



search News Sports Finance Weather Games Answers Screen Flickr Mobile More

Search Mail Search Web

Home Bushra

Delete Move Spam More View

For Bengali translation of "WHOQOL-BREEF" a (10)

People

whoqol Dear Bushra, Thank you for your intere Dec 24, 2014

me Dear sir, Thank you so much for your comn Jan 2

VOLKAN, Sibel I am on leave until the 9th of J Jan 2

me Dear Sir, I am sending you the agreement p Jan 8

me Dear Sir. I sent you the the agreement pape Jan 11

me Dear Sir, I am sending you the agreement p Jan 12

whoqol Jan 12
To me

Dear Bushra,

Thank you for the form. Please find attached the Bengali version, as requested, along with related material.

Best regards,

Sibel

Mrs Sibel Volkan
Health Statistics and Information Systems (HSI)
The World Health Organization
20 Avenue Appia
CH-1211 Geneva 27
Switzerland
Tel: +41 22 791 2334

Show message history

5 Attachments View all Download all

Bangla_WHOQOL-....pdf	View	Download
BREF.SPS		Download
Bref_Instructions.pdf	View	Download
Bref_Syntaxfiles.pdf	View	Download
WHOQOLUserMan....pdf	View	Download

Reply, Reply All or Forward | More

me Thank you so much mam. Pray for me. Reg. Jan 13

whoqol Jan 13
To me

You're welcome and good luck with your study.

Regards,
Sibel Volkan

Trending Now

1 **Emma Watson**
2 **Peyton Manning**
3 **Melissa Rauch**
4 **Gracie Gold**
5 **Brock Lesnar**
6 **Mandy Moore**
7 **Coffee**
8 **Kourtney Kardashian**
9 **Doomsday Clock**
10 **Lindsay Lohan**

Appendix 4A

Information sheet

The name of the researcher is Bushra Yeasmin. She is a student of 4th year, Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI). As a part of his academic issues she has to conduct a dissertation in this academic year. The researcher would like to invite you to participate in this study. The title of the study is "Quality of life of Schizophrenic patient in Bangladesh".

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

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

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

Bushra Yeasmin
Student of 4th year
B. Sc. in Occupational Therapy
Department of Occupational Therapy
Bangladesh Health Professions Institute
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343.

Appendix 4B*

তথ্য পত্র

গবেষকের নাম বুশরা ইয়াসমিন। তিনি বাংলাদেশ হেল্‌থ প্রফেশনস্‌ ইনস্টিটিউটের বি. এস. সি ইন অকুপেশনাল থেরাপি চতুর্থ বর্ষের ছাত্রী। প্রাতিষ্ঠানিক কার্যের অংশ হিসেবে চলতি শিক্ষাবর্ষে তাকে একটি গবেষনামূলক কাজ করতে হবে। তাই গবেষক আপনাকে এই গবেষণায় অংশগ্রহণ করার জন্য আমন্ত্রণ জানাচ্ছে। গবেষণার বিষয় "বাংলাদেশের সিজোফ্রেনিয়া রোগীদের জীবনযাত্রার মান"।

এই গবেষণায় আপনার অংশগ্রহন সম্পূর্ণরুপে স্বেচ্ছায়। আপনি এই গবেষণা থেকে যে কোন সময় আপনার অংশগ্রহণ প্রত্যাহার করতে পারবেন। এই গবেষণায় অংশগ্রহণের মাধ্যমে আপনি আর্থিকভাবে লাভবান হবেন না। এই অংশগ্রহণ কখনোই আপনার জন্য ক্ষতির কারন হয়ে দাঁড়াবে না। কিন্তু এই গবেষণার মাধ্যমে সেবা প্রদানকারী সদস্যগণ, আপনার অভিজ্ঞতার কথা জানতে পারবেন এবং প্রাপ্ত তথ্য সমূহ সেবার মানোন্নয়নে সাহায্য করবে।

আপনার কাছ থেকে প্রাপ্ত তথ্যসমূহের সর্বোচ্চ গোপনীয়তা রক্ষা করা হবে। গবেষণা ও গবেষণার তত্ত্বাবধায়ক ব্যতীত এই তথ্যগুলা অন্য কোথাও প্রকাশিত হবে না এবং গবেষণার কোথাও অংশগ্রহণকারীর নাম প্রকাশ করা হবে না।

গবেষণা সম্পর্কিত যেকোন ধরনের প্রশ্নের জন্য নিম্নলিখিত ব্যক্তির সাথে যোগাযোগ করার জন্য অনুরোধ করা যাচ্ছে।

বুশরা ইয়াসমিন

বি. এস. সি ইন অকুপেশনাল থেরাপি

বাংলাদেশ হেল্‌থ প্রফেশনস্‌ ইনস্টিটিউট

পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্র

চাঁপাইন, সাভার, ঢাকা- ১৩৪৩।

* Translated Copy

Appendix 5A

Consent form

This research is the part of Occupational Therapy course and name of the researcher is Bushra Yeasmin. She is a student of Bangladesh Health Professions Institute in B. Sc. in occupational therapy in 4th year. The study was entitled as "Quality of life of Schizophrenic patient in Bangladesh".

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

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

I can consult with the researcher and the research supervisor about the research process or get answer to any question related to research project. I have been informed about above-mentioned information and I am willing to participate in the study with consent.

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

Appendix 5B*

সম্মতিপত্র

এই গবেষণা অকুপেশনাল থেরাপি বিভাগে অধ্যায়নের একটি অংশ এবং গবেষকের নাম বুশরা ইয়াসমিন। তিনি বাংলাদেশ হেল্‌থ প্রফেশনস্‌ ইনস্টিটিউটের বি. এস. সি ইন অকুপেশনাল থেরাপি চতুর্থ বর্ষের ছাত্রী এবং তার গবেষনার বিষয় "বাংলাদেশের সিজোফ্রেনিয়া রোগীদের জীবনযাত্রার মান"।

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

এই গবেষণার জন্য আমার দেওয়া তথ্য সমূহ সম্পূর্নভাবে গোপন ও নিরাপদ থাকবে। শুধুমাত্র গবেষক এই তথ্যগুলো গবেষণার ফলাফল প্রকাশের কাজে ব্যবহার করতে পারবে। এই গবেষণায় আমার নাম ও ঠিকানা প্রকাশ করা হবে না।

আমি এই গবেষণার পদ্ধতি কিংবা গবেষণা সম্পর্কিত যেকোন প্রশ্নের উত্তর গবেষক ও গবেষণা তত্ত্বাবধায়কের কাছ থেকে জানতে পারব।

আমি উপরোক্ত সকল তথ্য সম্পর্কে জানি এবং আমি এই গবেষণায় অংশগ্রহনে সম্মতি জ্ঞাপন করছি।

অংশগ্রহণকারীর স্বাক্ষর/টিপসইঃ	তারিখঃ
গবেষকের স্বাক্ষরঃ	তারিখঃ
স্বাক্ষীর স্বাক্ষর/টিপসইঃ	তারিখঃ

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Appendix 6A

Information Checklist

Before you begin we would like to ask you to answer a few general questions about yourself by circling the correct answer or by filling in the space provided.

1. What is your gender Male…… Female…….

2. What is your date of birth? ....…/.....…/…….

Day/ Month/ Year

3. What is the highest education you received? None at all

Elementary School

High School

College

4. What is your marital status? Single

Separated

Married

Divorced

Living as Married

Widowed

5. Are you currently ill? Yes……..

No……

Appendix 6B*

তথ্য তালিকা

কোড নং- | | | | তারিখ- | | | |

১। অংশ গ্রহণকারীর নাম- মোবাইল নং-

২। লিঙ্গ- পুরুষ- মহিলা-

৩। আপনার বর্তমান বয়স কত?

৪। আপনার শিক্ষাগত যোগ্যতা কি?

নিরক্ষর

স্বাক্ষর/ প্রাথমিক বিদ্যালয়ের কম

প্রাথমিক বিদ্যালয় সম্পূর্ণ

মাধ্যমিক

এস.এস.সি সম্পূর্ণ

এইচ.এস.সি সম্পূর্ণ

স্নাতক

৫। আপনার বৈবাহিক অবস্থা কি?

বিবাহিত অবিবাহিত

বিধবা বিবাহ বিচ্ছেদ

৬। আপনি কি বর্তমানে সুস্থ না অসুস্থ?

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Appendix 7A

WHOQOL-BREF Questionnaire:

Please read each question, assess your feelings, and circle the number on the scale that gives the best answer for you for each question.

	Very poor	Poor	Neither poor nor good	Good	Very Good
1. How would you rate your quality of life?	1	2	3	4	5

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2. How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

	Not at all	A little	A moderate Amount	Very much	An extreme amount
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4. How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5. How much do you enjoy life?	1	2	3	4	5
6. To what extent do you feel your life to be meaningful?	1	2	3	4	5

	Not at all	Slightly	A Moderate Amount	Very much	Extremely
7. How well are you able to concentrate?	1	2	3	4	5
8. How safe do you feel in your daily life?	1	2	3	4	5
9. How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

	Not at all	A little	Moderately	Mostly	Completely
10. Do you have enough energy for everyday life?	1	2	3	4	5
11. Are you able to accept your bodily appearance?	1	2	3	4	5
12. Have you enough money to meet your needs?	1	2	3	4	5
13. How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14. To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

	Very poor	Poor	Neither poor nor well	Well	Very well
15. How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good** or **satisfied** you have felt about various aspects of your life over the last two weeks.

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16. How satisfied are you with your sleep?	1	2	3	4	5
17. How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18. How satisfied are you with your capacity for work?	1	2	3	4	5
19. How satisfied are you with yourself?	1	2	3	4	5
20. How satisfied are you with your personal relationships?	1	2	3	4	5
21. How satisfied are you with your sex life?	1	2	3	4	5
22. How satisfied are you with the support you get from your friends?	1	2	3	4	5
23. How satisfied are you with the conditions of your living place?	1	2	3	4	5
24. How satisfied are you with your access to health services?	1	2	3	4	5
25. How satisfied are you with your mode of transportation?	1	2	3	4	5

The follow question refers to **how often** you have felt or experienced certain things in the last two weeks.

	Never	Seldom	Quite often	Very often	Always
26. How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Appendix 7B*

প্রশ্নসমূহ

শিরোনাম- বাংলাদেশের সিজোফ্রেনিয়া রোগীদের জীবনযাত্রার মান সম্পর্কিত জিজ্ঞাসাবাদ।

(WHOQOL-BREF) এ অংশের মুল্যায়ন, আপনি আপানার জীবন, স্বাস্থ্য ও জীবনের অন্যান্য দিক সম্পর্কে কি ভাবেন, সে সম্পর্কে দয়া করে সবগুলো প্রশ্নের উত্তর দিন। যদি কোন প্রশ্নের উত্তর কি হবে না বুঝেন তবে যেটিকে সবচেয়ে সঠিক মনে হবে সেই উত্তরটি দিন। এটা প্রায়ই প্রথম উত্তর হতে পারে।

আপনার মান, আশা, আনন্দ ও বিবেচ্য সমূহ স্বরন রাখুন। আমরা আপনার জীবনের গত দু'সপ্তাহের কথা স্মরন করতে বলবো।

সবগুলো প্রশ্ন পড়ুন, আপনার অনুভুতি যাচাই করুন এবং পাশের ছকে যে উত্তরটি সবচেয়ে সঠিক মনে হবে সে নম্বরটিতে বৃত্ত তৈরী করুন।

1. (G1)		খুব খারাপ	খারাপ	ভালও নয় খারাপও নয়	ভাল	খুব ভাল
	আপনার জীবন যাত্রার মান কেমন?	1	2	3	4	5

		খুব অসন্তুষ্ট	অসন্তুষ্ট	সন্তুষ্টও নয় অসন্তুষ্টও নয়	সন্তুষ্ট	খুব সন্তুষ্ট
2. (G4)	আপনার স্বাস্থ্য নিয়ে কি আপনি সন্তুষ্ট?	1	2	3	4	5

নিচের প্রশ্নগুলো গত দু'সপ্তাহে নিম্ন বর্ণিত অভিজ্ঞতাগুলো কি পরিমান হয়েছে সে সম্পর্কে।

		একদম না	কম	মোটামুটি	বেশী	খুব বেশী
3. (F1.4)	শারীরিক ব্যথার জণ্য আপনি কি পরিমান প্রয়োজনীয় কাজ থেকে বিরত ছিলেন?	1	2	3	4	5
4. (F11.3)	আপনার দৈনন্দিন কার্যক্রম ঠিক রাখতে চিকিৎসা কতটুকু প্রয়োজন?	1	2	3	4	5
5. (F4.1)	আপনি জীবনকে কতটুকু উপভোগ করেন?	1	2	3	4	5
6. (F24.2)	জীবনকে আপনার কতটুকু অর্থপূর্ণ মনে হয়?	1	2	3	4	5

		একদম না	কম	মোটামুটি	বেশী	খুব বেশী
7. (F5.3)	আপনি কাজে কতটুকু মনসংযোগ করতে পারেন?	1	2	3	4	5
8. (F16.1)	আপনি দৈনন্দিন জীবনে কতটুকু নিরাপত্ত অনুভব করেন?	1	2	3	4	5
9. (F22.1)	আপনার ভৌত পরিবেশ কতটুকু স্বাস্থ্যকর?	1	2	3	4	5

নিচের প্রশ্নগুলোকে জানতে চাওয়া হয়েছে- গত দুই সপ্তাহে আপনি কতটুকু সম্পূর্ণভাবে কোন কাজ করতে বা অভিজ্ঞতা লাভ করতে পেরেছেন।

		একদম না	কম	মোটামুটি	অধিকাংশ	পরিপূর্ণভাবে
10. (F2.1)	আপনার কি প্রতিদিন কাজ করার মত শক্তি আছে?	1	2	3	4	5
11. (F7.1)	আপনি কি আপনার শরীরের গড়ন	1	2	3	4	5

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	নিয়ে সন্তুষ্ট?					
12. (F18.1)	আপনার কি প্রয়োজন মেটাতে যথেষ্ট্য টাকা আছে?	1	2	3	4	5
13. (F20.1)	আপনি কি দৈনন্দিন জীবন-যাপনের জন্য প্রয়োজনীয় তথ্য পান?	1	2	3	4	5
14. (F21.1)	অবসর কাটানোর/বিনোদনের সুযোগ আপনার কতটুকু আছে?	1	2	3	4	5

		খুব খারাপ	খারাপ	ভালও না মন্দও না	ভাল	খুব ভাল
15. (F9.1)	আপনি কতটা ভালভাবে চলাফেরা করতে পারেন?	1	2	3	4	5

নিচের প্রশ্নতে জানতে চাওয়া হয়েছে- গত দু'সপ্তাহে আপনার জীবনের বিভিন্ন দিক নিয়ে আপনি কতটুকু সন্তুষ্ট?

		খুব অসন্তুষ্ট	অসন্তুষ্ট	সন্তুষ্টও নয় অসন্তুষ্টও নয়	সন্তুষ্ট	খুব সন্তুষ্ট
16. (F3.3)	আপনার ঘুম নিয়ে আপনি কতখানি সন্তুষ্ট?	1	2	3	4	5
17. (F10.3)	দৈনন্দিন কাজ করার ক্ষমতা নিয়ে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
18. (F12.4)	আপনার কাজ করার ক্ষমতা/দক্ষতা (ক্যাপাসিটি) নিয়ে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
19. (F6.3)	নিজেকে নিয়ে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
20. (F13.3)	অন্যদের সাথে আপনার ব্যক্তিগত সম্পর্কসমূহ নিয়ে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
21. (F15.3)	অপনার যৌন জীবন নিয়ে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
22. (F14.4)	বন্ধুদের কাছ থেকে পাওয়া সাহায্যে আপনি কতটুকু সন্তুষ্ট?	1	2	3	4	5
23. (F17.3)	আপনি অপনার বাসস্থানের অবস্থা নিয়ে কতটুকু সন্তুষ্ট?	1	2	3	4	5
24. (F19.3)	আপনি যে স্বাস্থ্যসেবা পান তাতে কি সন্তুষ্ট?	1	2	3	4	5
25. (F23.3)	আপনি যাতায়াত ব্যবস্থা নিয়ে কতটুকু সন্তুষ্ট?	1	2	3	4	5

নিচের প্রশ্নগুলোতে জানতে চাওয়া হয়েছে- গত দু'সপ্তাহে ঐ নির্দিষ্ট বিষয়সমূহ আপনি কত বেশী/ঘনঘন অনুভব করেছেন?

		কখনো না	কখনো কখনো	মাঝে মাঝে	প্রায়শঃই	সব সময়
26. (F8.1)	আপনার হতাশা, উদ্বেগ, অবসন্নতা এই সব নেতিবাচক অনুভূতি কত ঘন ঘন হয়?	1	2	3	4	5