THE EFFECT OF SUBSTANCE ABUSE ON THE QUALITY OF LIFE OF THE USER

By

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Statement of Authorship

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Abstract

Background: Substance abuse affects all aspects of a person's life. Substance related problems are gradually becoming a burning issue in Bangladesh.

Objectives of the study: The objectives of the study were to see the socio-demographic characteristics, association between socio-demographic factors and quality of life QOL, and the effects of substance abuse on different domains of QOL of the abuser.

Methodology: Cross sectional study design was selected to conduct this study on 101 substance abusers from APoN Gaon by using World Health Organization Quality of Life (WHOQOL-Bref).

Result & discussion: This study encompasses that, QOL has a significant association with age (P>0.025), marital status (P>0.039), pre-morbid occupation (P>0.006), frequency to use substances (P>0.000), and ways to collect money to use substances (P>0.005). This result showed that 25-35 olds users' physical and social health is better than others. Similarly, ≥36 year's older user's psychological and environmental health is better than others. Male user's physical and environmental health is better than females. Female user's psychological and social health is better than males. Higher educated users QOL is better than illiterate and others. Town living users QOL is better than village living users. Married user's physical health, unmarried users' psychological and environmental health and users who lived together had higher scores in social relationship of QOL. Student and unemployed users QOL scores are lower than employed, businessman and housewife. Users whose monthly income >50000 taka had higher scores in all domains of QOL. Poly-SUs and daily users QOL scores lower than others. In addition, users those collected money by stealing and drugs business had lower scores in QOL than others.

Conclusion: Substance abuse and QOL is interlinked. The findings of this study would help to determine the disease burden and consequence to use substance. Therefore the study would provide feedback to the family, community and finally to the policymakers.

Key words: *Substance abuse, Quality of life, Substance abuse and effects on QOL*

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List of Acronyms

ADHD: Attention Deficit and Hyperactivity Disorders
ADLs: Activities of Daily Living
APoN: Ashokti Ponorbason Nibas
BHPI: Bangladesh Health Professions Institute
CNS: Central Nervous System
CRP: Centre for the Rehabilitation of the Paralysed
DSM: Diagnostic and statistical manual disorders
GBD: Global Burden of Disease
OT: Occupational Therapy
OTs: Occupational Therapist
QOL: Quality of Life
SPSS: Statistical Package for Social Science
SUD: Substance Used Disorders
SU: Substance users
WHO: World Health Organization
WHOQOL: World Health Organizations Quality of Life

CHAPTER 1
INTRODUCTION

Substance abuse is a major public health and socioeconomic problem across the world (Odejide, 2006). It affects all aspects of a person's life and creates problems in physical, psychological, environmental health and social relationships. Roy *et al.*(2010) in Bangladesh showed that the most common problems which contribute to a decreased quality of life (QOL) are the Physical problems among the users. All areas of life, work/study, housework, marriage, finance and others, as well as emotional and legal problems, are also common for both men and women who use substances (users) (Srivastava *et al.* 2009). Worldwide, 5.4% of the total burden of diseases occurs due to alcohol use; illicit substances and tobacco use is responsible for 3.7% of the global burden of disease (WHO, 2014). Global Burden of Disease analysis (Murray and Lopez, 1996) reports that the prevalence of alcohol use disorders in adults to be around 1.7% globally. The rates are 2.8% for men and 0.5% for women. Moreover, those the number of people who are dependent on psychoactive substances including alcohol, drugs and tobacco, is also increasing. This ultimately diverts a person from normal activity and causes behavioral, cognitive and physiological disturbance (Srivastava *et al.*2009).

It has been proposed that (Grand and Pickring, 1996) abuse or dependence on substances increases depressive disorder. Users have a higher level of ill health and physical impairments than the general population, which affects physical and psychosocial functioning as it relates to an individual's QOL (Srivastava *et al.* 2009).

Users have less energy, disturbed sleep, are less able to perform ADLs, and have reduced capacity for work. Bangladesh is a developing country. Most people live in poverty. Substance abuse, like in other countries, is common. Here, there are not only male users but female user rates are increasing day by day. For a developing nation this has an equal impact on males and females. Day by day our working age group is being destroyed by addiction. If proper steps are not taken our country will be greatly hampered.

Although our country has many drug rehabilitation centers there is a lack of proper awareness among the people how to rehabilitate an addict and help make them independent and productive. Occupational Therapy (OT) has an important role to rehabilitate the substance abuser and provide intervention for making a person independent in day to day life (Davis, 2006).

To rehabilitate an addict and create a good QOL, their physical, psychological, environmental health and social relationships need to improve. This study aims firstly to provide basic information about the effects of substance abuse. Secondly it aims to identify what problems face the user and the harmful effects of substance abuse on their QOL. This will help to plan and provide effective treatment. Finally, it will discuss the responsibility of an OT.

1.1. Background

Substance abuse is increasing day by day in South Asian countries like Bangladesh. 10% of outpatients are visiting different healthcare centers due to substance related complications in Bangladesh (Akther, 2012). The United Nations, 2002 estimates that over 1 million people are addicted to drugs in Bangladesh. The Begum report of 1991 and the DNC Report of 1995 show that the majority of users are male between 13 and 30 years old, most of them college or university students and some of them are unemployed and dismissed from their jobs. Those who abuse substances are diverted from attendance at schools and colleges. Akther, 2012 study shows that among the addicted 79.4% users are male and 20.6% are female.

The problems of everyday life (work/study, housework, marriage, friendship and finance) increase when misusing substances and relationship problems can develop, which impair a persons' QOL (Dietze *et al.*2011). More alarming and shocking is the criminal activities undertaken to get the drugs among users in Bangladesh. Loss of the ability to concentrate, loss of interest in work, increase in sexual demand, street robbery or hijacking and violence are common among the drug abusers (Begum, 1999).

The GBD project (Murray and Lopez, 1996) estimated alcohol to be responsible for 1.5% of all deaths and 3.5% of the total disability in life. Nowadays, 1 in 3 adults or 1.2 billion people worldwide are smoking and it is expected that it will be raised more

than 1.6 billion by 2025. In Asia in 1990, 1.1 million deaths occurred due to tobacco use, and it is estimated that 4.2 million will die by 2020. In the whole world, prevalence of drug abuse and dependence ranges from 0.4% to 4%. The prevalence of heroin and cocaine use is 0.25% (Srivastava *et al.*2009).

A study by Mueller *et al.* (2009) showed that the main illicit substances used in Bangladesh are cannabis, heroin, Yaba, injecting drugs, cough syrup and opium poppy. Among the 20,000 IDUs (intravenous drug users) in Bangladesh buprenorphine is the most commonly injected drug due to its relatively easy availability and the low cost of syringes (Johnson, Spitzer and William, 1995). Young people depend on illicit substances for pleasure and to become socially active. Drug use causes different neurological and cardiovascular problems, and the most productive age groups can deviate from their roles. But this is now becoming an alarming issue in Bangladesh because HIV infection rates among IDUs in Bangladesh increased dramatically from 1.4% in 2000 to 4% in 2002, and remained at 4% until 2004 (Michael *et al*, 2008). Another study Jagero and Mbulwa (2012) estimated that 7% of IDUs in central Bangladesh were infected with HIV which also has harmful effects on all domains of QOL of an individual.

Treatment and rehabilitation programs need to start as soon as possible to prevent the relapse of addiction in Bangladesh, but it is still neglected. Nowadays, different therapeutic techniques need to be adopted for proper rehabilitation. Moreover, there is a lack of research in Bangladesh to explore the effects on QOL among users. During her 3rd year placement, the researcher met with a large number of users, both male and female who were receiving rehabilitation from Apon Gaon. She saw that most of the males and females were in the productive age group. It is a matter of astonishment that these people are removed from their day to day activities and that they are leading a poor and unhealthy life. She was interested to find out the effects of substance abuse on the QOL of the users.

1.2. Significance of the study

The researcher explains broadly the problems that face the substance abusers in their QOL. People who abuse substances (users) mostly experience bad effects in their physical health. In addition to these physical changes, most people also experience bad effects on their psychological health, environmental health and social relationships. This is a more serious issue in our society and culture. Many people in our society tend to hide this issue. Moreover, most of the family members do not take this issue seriously. That is why in the acute stage the patient does not get enough treatment. Family members or carers feel uncomfortable or shy about having a substance abuser in their family, and do not explore appropriate treatment. The result of this study can be helpful for the carer and the patient to understand the harmful effects of substance abuse on QOL, and also can raise awareness among the newly engaged substance abusers and their carers.

OT is a new profession in Bangladesh. Most of the general population of Bangladesh has lack of knowledge about OT. In many instances the medical professionals also do not have enough knowledge regarding OT. Occupational Therapists (OTs) play an important role in rehabilitating substance users (SU). They use counseling (individual and family), group therapy, cognitive behavioral therapy, relaxation techniques, life skills training for improving the QOL of the abuser (Arbesman, and Logsdon, 2011; Dobkin *et al.* 2002). There is a lack of research about the effects of substance abuse on QOL of users in Bangladesh. This study will help as a guideline to identify the user's problems in their QOL by abusing substances, and create awareness amongst the general public about the bad effects of substance abuse. The result of this study will also help OTs to provide more effective treatment for users. Ultimately, the country will greatly benefit from this research.

This study is very important for other health professionals. The focus is on improving QOL for people who abuse substances in their everyday life. It may assist in the development of other professionals such as doctors, social workers, psychiatrists, psychologists, counselors, and the staff of addiction rehabilitation centers to improve their knowledge of this topic.

The Schuckit, study of 2009 reported that the physiological consequences, persistent impairment of QOL, and ability to function, are the major problems among substance

abusers. OTs is interested in a client's performance and their main focus of treatment is to improve a person's functional ability. If this study helps OTs to develop their knowledge about the effects of substance abuse on QOL, then they will be able to develop skills in rehabilitation for their client. Patients may benefit from this type of OT intervention. The researcher is very interested in this area. It is hoped that further resources are developed in this area after completing this study. Users and their carers, health professionals as well as OTs, will have more knowledge about the effects on QOL of the users.

Finally from this study, patients themselves may benefit from a more holistic rehabilitation from a practitioner who has gained in knowledge.

1.3. Aim of the study

The aim of this study is to find out the effects of substance abuse on a person's quality of life.

1.4. Objectives of the study

- To identify the socio-demographic characteristics of the substance abusers
- To identify the association between socio-demographic factor and overall quality of life (QOL) among SU
- To identify the effects of substance abuse on physical health, psychological health, social relationship, and environmental health of the user.

CHAPTER 2
LITERATURE REVIEW

2.1. Abuse

Abuse is a recurring pattern of alcohol or other drug use which substantially impairs a person's functioning in one or more important life areas such as familial, vocational or employment, psychological, legal, social or physical. Any use of a toxic substance by a youth is considered abuse (David, 2012).

2.2. Substance Abuse

Substance abuse means using psychoactive substances in a way that may cause physical, psychological, economic, legal, or social harm to users themselves or to people directly or indirectly associated with them (Falls, 2014).

The DSM-IV definition is as follows:

"*A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period: Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions or expulsions from school; neglect of children or household)"* (Medicine Net, 2015).

Criminal activity or antisocial behavior is common with drug abusers. In addition physical, social and psychological harm is also possible. Moreover, day by day the personality of the abuser changes (Karrow, Verthein, and Krausz, 2008). A study by Bolyn, 2010 found that health problems, social problems, morbidity, injuries, unprotected sex, violence, deaths, motor vehicle accidents, homicides, suicides, physical dependence and psychological addiction, are the common symptoms of the abuser.

2.3. Substance use disorder

It has been discussed that substance abuse and dependence both are accordingly called substance use disorder. Physical reactions like arrhythmia, nausea, paranoia, poor decision making like unsafe sex, risk of injury or death and driving related accidents are the main effect of abusing substance (WHO, 2014). Not only the user but also

their family members and fellow workers experience the negative effects of substance abuse. The user can fail to perform responsibilities and can be involved in interpersonal conflicts. Social, financial and legal problems, neurological impairments, cancer, cardiovascular disease, liver disease and reproductive disorders are rising day by day amongst users (Marged, 2014).

2.4. Quality of Life (QOL)

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"* (WHO, 2014).

Individual and societies general wellbeing is known as QOL. It has some context like international development, healthcare, politics and employment. It is consists of some component like wealth and employment, healthy environment, physical and mental health, education, recreation, leisure time and social relationships (Gregory *et al.*2009).

2.5. Physical Health

Health is the overall condition of a living organism at a given time. It is the soundness of the body, freedom from disease or abnormality, and the condition of optimal well-being. It is when the body is functioning as it was designed to function (Nordfjaern, 2011).

"Physical health as a state of physical well-being in which an individual is mechanically fit to perform their daily activities and duties without any problem" (WHO, 2014).

2.6. Psychological health:

"Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014).

2.7. Environmental health

Environmental health comprises those aspects of human health, including QOL, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations (WHO, 2000).

2.8. Social relationship

In social science, a social relation or social interaction is any relationship between two or more individuals. Social relations derived from individual agency form the basis of social structure and the basic object for analysis by social scientists (Social relation, 2012).

2.9. Causes for abusing substance

The bio-psychosocial approach systematically considers biological, psychological, and social factors and their complex interactions are responsible for abusing substance.

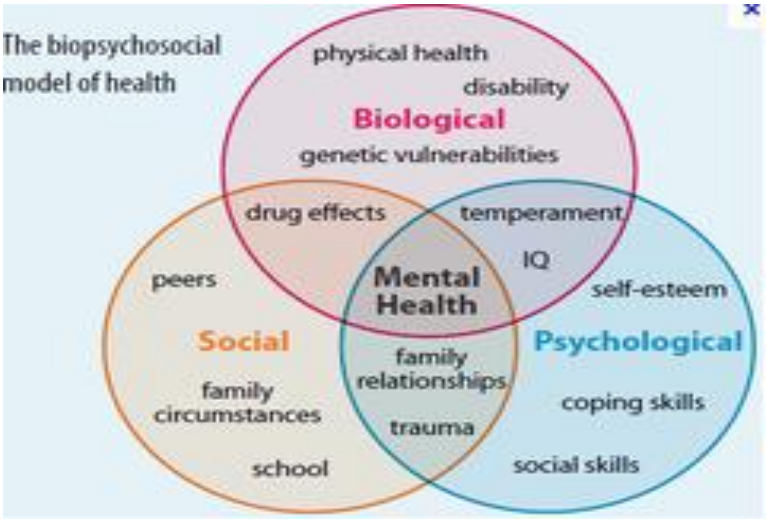

Fig 1: Bio-psychosocial model.

(Source: http://www.google.com/imgres?imgurl=http://www.physio-pedia.com/images/thumb/c/cb/Biopsychosocial-model-of-health.PNG/400px-Biopsychosocial-model-of-health.PNG&imgrefurl=http://www.physio-pedia.com/Biopsychosocial_Model&h=206&w=244&tbnid=8TbJvOOiO4LhqM:&zoom=1&tbnh=155&tbnw=184&usg=__8BnDH1tjZVclFZGXrxQT-XJWTtE=&docid=kbSIqx_DNK0zcM&itg=1)

1. Biological reason

Hereditary factors also influence substance abuse. The genes that people are born with and combination of environmental influence are also responsible for abusing substances. Gender, ethnicity and the presence of other mental disorders can also influence substance abuse (Substance abuse & mental health, 2010). There has a strong tendency for the children to become alcoholics or addicts if their parents abused substance (Alcohol rehab, 2014).

2. Psychological reason

2.1. Addictive personality

Although some users for presenting an addictive personality, not all users share these characteristics. The addictive personality includes traits such as impulsiveness, easily stressed, anxiety, history of antisocial behavior, low confidence and self esteem, depression, jealousy and insecurity in relationships, attention seeking behavior etc (Alcohol rehab, 2014).

2.2. Mental health problems

Depression or anxiety can influence substance use to help cope with these feelings. Those who are unable to cope with stress, anxiety and sadness have high risk to become addicted. Substances can increase the symptoms of depression and anxiety. Many times people develop depression because of substance abuse (Bolyn, 2010).

2.3. Low self esteem

People who have low self esteem and self confidence are abusing substance more than confident people (Bolyn, 2010). Many people abuse substances to impress their peers or obtain social status. Young people with low confidence are more likely to abuse substance in order to get acceptance from others (Alcohol rehab, 2014).

2.4. Traumatic experience in childhood

Majority of individuals abusing substance during adulthood suffered from abuse or neglect during childhood. Children's parents who were users also have a higher risk of becoming addicted. Most of teens start to abuse drugs in order to escape from emotional pain (Drug abuse, 2012). People, who were sexually abused, robbed at

gunpoint or experienced a plane crash might develop substance abuse problems (Bolyn, 2010).

2.5. Curiosity

Often people first use substance for curiosity. Abusing substance begins after getting euphoric effects. This is common among teens and young adults (Merkanges, Dierker, and Fenton, 2014). People are abusing substance for creating a recreational mood. One day they become dependent on substance and they have no awareness about the bad effects of substance. Some people are abusing substances to fit with their peers, enhance energy or improve their athletic performance. Others use to relieve anxiety, depress or stressful situations (Drug abuse, 2012).

3. Social reason

3.1. Social support

Humans learn by observing others activities. Most teenagers used substance following peer pressure to fit with their peers. Social learning theory suggested that substance abuse is a learned behavior. If the individual notices that abusing substance seems to bring other people enjoyment, it will encourage them to do the same (Alcohol rehab, 2014).

3.2. Environment

The environment can also be responsible. Family and friends, socioeconomic status, QOL stress and parental involvement, chaotic home environment can influence someone beginning to abuse substances (Substance abuse & mental health, 2014). Some people who grew up in dysfunctional households and impoverished neighborhoods, also have a higher risk to abuse substances. TV and movies are also play role to influence the substance (Alcohol rehab, 2014).

3.3. Poor socialization

Child's socialization outside the family may also increased the risk of substance abuse. Aggressive or shy behavior in the classroom, poor social coping skills, poor school performance, and association with deviant peer group or isolating oneself from peers altogether, perception of approval of drug use behavior (Edwards, 2014).

3.4. Family factor

Family history factors that influence a child's early development have been shown to be related to an increased risk of drug abuse. Chaotic home environment, ineffective parenting, lack of nurturing and parental attachment, parental drug use or addiction are also influence to abuse substance (Edwards, 2014). The American Academy of Child and Adolescent Psychiatry report that teens are come from family who abused substance are at risk for abusing drugs or alcohol (Bolyn, 2010).

2.9.1. Risk factors for abusing substance

A large number of factors are responsible for abusing substance. Herein are selected some factors which are responsible to abuse substance.

1. Physical and sexual abuse

According to the Centers for Disease Control and Prevention 2010, the definition of physical child abuse is, any act that causes a child to experience physical harm that is not accidental. There has a lot of evidence that higher level of illicit drug use, including cocaine, heroin and barbiturate has an association with physical and sexual abuse, Mayo clinic (2004) stated that Post traumatic stress disorder (PTSD) also has an association with substance abuse. Being a victim of physical or sexual assault increases the risk of an adolescent turning to substance abuse. NIH (2003) reported that childhood abuse and neglect is linked with adolescent substance abuse. Studies also report that 16-29% of maltreated children abused substances.

2. Emotional abuse

According to the Colorado Department of Public Health an Environment, emotional abuse is a situation whereby intellectual or psychological functioning or development is hindered. From different study it was found that witnessing violence creates great stress and has a risk to abuse substance (Mayo Clinic, 2014).

3. Neglect

Child neglect includes any situation where a child's caregiver does not provide adequate living necessities including protection, clothing, health care and food. From different study found that, childhood neglect has an association with substance abuse (Whitesel *et al.*2013).

4. Deviant peer relationship

Influence of peers also the reason to abuse substance. Research has shown that there has an association between deviant peer relationship and substance abuse. According to Medicine net, 2014 some children have negative parent child relationship, has a great risk to make friendships with deviant peers. Peer pressure and perceived popularity has an association with substance abuse (Alcohol rehabe, 2014). Some adolescents believe that popularity within a peer group increases with the abuse of substance (Medicine net, 2014).

5. Bullying

Bullying as a series of interactions whereby a group or individual verbally or physically assaults a victim who is perceived to be weaker (National library of medicine, 2012). Being a victim of bullying has an association with alcohol use (Whitesel*et al.*2013).

6. ADHD& depression

Several studies have indicated that childhood ADHD leads to increased risk of developing substance use disorder during adolescence or adulthood. There also some indication that depressed adolescents may be at higher risk for developing a substance use disorder (Whitesel *et al.*2013).

2.9.2. Substance abuse and Quality of life

QOL is related to one of the basic human desires, which is to live well and feel good (Moreira et al. 2013). Substance misuse refers to alcohol or drug use that disrupts the social norms. Behavioral, cognitive and physiological disturbances occur due to repeated and excessive alcohol or other drug use, which ultimately influence social functioning and affects QOL (Ezzati *et al.*2003).

Poly-SUs have a poorer QOL than those with only one substance abuse especially in physical and psychological domain, which elevated symptomatology and distress and lower QOL (Bizzarri *et al.*2005). Silva-Lima *et al.*2007 study reported that, there has a negative relationship between substance abuse and QOL. Alcohol Use Disorders Identification Test (AUDIT) – positive (38 score) reported a poorer QOL and more

physical and psychological problems affected the role functioning on an individual with substance abuse. Moreover, emotional health and self perceived general health also affected (Senbanjo, Wolff, and Marshall, 2007). Another study in Finland found that QOL is lower among the smoker, compared with someone who has never smoked. Impairment showed more among the female smoker than the male smoker (Swann *et al.*2008).

In 2011 another study in Australia found that people who abuse substances experience negative effects on work, study or employment, housework, marriage or intimate relationships, social life, physical health and finances (Dietze *et al.*2011).

A recent study showed that, there is a relationship between significant life events, contemporary psychological distress and interpersonal problems among patients with substance disorders (Nordfjaern, Hole, and Rundmo, 2010). Interpersonal problems may increase psychological distress and reduce the QOL among users (Ventegodt and Merrick, 2003; Mueller *et al.*2009). There is a study into interpersonal problems of users, which suggested that substance use relates to social isolation, lower interpersonal competence, boredom, a lack of occupational activities and poor socialization which affect all domains of QOL (Mueser, Drake, and Wallach, 1998).

2.9.3. Common abusing drugs in Bangladesh

- Cannabis - Marijuana, gaze, chaurosh, hashish.
- Opioids – phensydil, heroin, morphin, pethedine.
- Benodiazipines– diazepam, nitrazipam, clonazepam etc.
- Alcohol.
- Cocaine intake is not common in Bangladesh. Taking substance in combination is the commonest form of intake (Substance abuse & mental health, 2010).

2.9.4. Using substance and their effects

Roy et al., 2010 study found that the number of users of illicit drugs in the United States ages 12 and over to be about 24 million. In addition, the survey estimated that 6.8% of Americans abuse or are dependent on alcohol (down from 7.7% in 2002), and 22% of Americans smoke cigarettes (down from 26% in 2002). Many substances can bring on withdrawal, an effect caused by cessation or reduction in the amount of the substance used. Withdrawal can range from mild anxiety to seizures and hallucinations. Drug overdose may also cause death (Whitesel *et al.*2013).

1. CNS stimulants: (e.g. caffeine, nicotine, amphetamine, cocaine)

Short term physical effects include increased heart rate, increased respiration; metabolism etc. amphetamines can also cause psychosis.

Long term effects like birth complications or associated physical health effects e.g. high BP, heart disease, insomnia. Nicotine can cause respiratory problems (Substance Abuse & mental health, 2010).

2. CNS depressants: (e.g. alcohol, benzodiazepines)

Effects include drowsiness, impaired thinking skills, slurred speech, and decreased muscle control and coordination, heart enlargement and cancer of the esophagus, pancreas, and stomach. Alcohol is not widely available in Bangladesh; locally made wine is used by the general population. Withdrawal symptoms include anxiety, irregular heartbeat, tremor, seizures, and hallucinations. In its severest form, withdrawal combined with malnutrition can lead to a life-threatening condition called delirium tremens (DTs).Officials associate alcohol abuse with nearly half of all fatal motor vehicle accidents. In 1992, the total economic cost of alcohol abuse was estimated at 150 billion (Substance Abuse & mental health, 2010).

3. Cannabis: (marijuana, hash)

Short term effects include drowsiness, euphoria, red eyes, and a change in personality, possible anxiety/ paranoia. Long term effects may include lung problems, difficulty in memory and attention, increased dependence on others and mental health problems, including schizophrenia (Substance Abuse & mental health , 2014).

4. Opiates: (heroine, brown sugar)

It can disturb perception and judgment; therefore the person may not feel like they are affected. It can lead to addiction. Effects of heroin include drowsiness, pleasure, and slowed breathing. Withdrawal can be intense and can include vomiting, abdominal cramps, diarrhea, confusion, aches, and sweating. Overdose may result in death from respiratory arrest (stopping breathing). Because heroin is usually injected, often with dirty needles, use of the drug can trigger other health complications (Substance Abuse & mental health, 2010).

5. Tobacco

Hazards include heart disease, lung cancer and emphysema, peptic ulcers, and stroke. Withdrawal symptoms of smoking include anxiety, hunger, sleep disturbances, and depression. Nearly a half million deaths occurred due to tobacco use each year. Tobacco use costs the nation an estimated 100 billion a year, mainly in direct and indirect health care costs (Substance Abuse & mental health, 2010).

6. Cocaine: (also known as crack, coke, snow, rock)

Cocaine use has gone down in the last few years; from 2007 to 2012, the number of current users in the U.S. ages 12 or older dropped from 2.1 million to 1.7 million. Desired effects include pleasure and increased alertness. Short-term effects also include paranoia, constriction of blood vessels leading to heart damage or stroke, irregular heartbeat, and death. Severe depression and reduced energy often accompany withdrawal. Both short- and long-term use of cocaine has been associated with damage to the heart, the brain, the lung, and the kidneys (Substance Abuse & mental health, 2010).

7. Methamphetamines: (also known as meth, crank, ice, speed, crystal)

Methamphetamine is a powerful stimulant that increases alertness, decreases appetite, and gives a sensation of pleasure. The drug can be injected, snorted, smoked, or eaten. It shares many of the same toxic effects as cocaine-heart attacks, dangerously high blood pressure, and stroke. Withdrawal often causes depression, abdominal cramps, and increased appetite. Other long-term effects include paranoia, hallucinations, weight loss, destruction of teeth, and heart damage (Substance Abuse & mental health, 2010).

8. Poly-substance abuse

Poly-substance abuse is defined as the use of three or more groups of addictive substances over a period of 12 months. It is an attempt to enhance the effect of a single drug to create a more intense high. Adult poly-substance abuse is often associated with other mental health conditions. Homelessness, personality disorders, and psychiatric disorders such as major depression, psychosis, and bipolar disorder are common. Older people have more medical conditions that often require prescriptions such as Alzheimer's disease; the tendency to, sometime accidentally, overmedicate (taking more of a drug, forgetting when and if medication was already taken) increases the likelihood of poly-substance abuse. Combined with alcohol, the results can be devastating, even fatal (Drug and Substance Abuse, 2012).

2.9.5. Substance abuse and effects on daily function

Various health problems also have an association with substance abuse which can also divert a person from normal roles. Most adolescent users have poor educational performance, as well as impaired coordination and memory (United Nations, 2002). Moreover, mothers who abuse drugs during pregnancy risk giving birth to a disabled child. Pediatric complications, prematurity, abruption of placenta, low birth weight and neglect of the child and family responsibilities are common amongst women users (Sania, 2010).

The drug user can be unable to become relaxed or have fun without taking drugs. They may also show sudden changes in work or school attendance and quality of work or grades. They may frequently borrowing money and stealing things from employer, home or school. There may be a deterioration of physical appearance and grooming, such as wearing sunglasses or long sleeve shirts frequently or at inappropriate time, and they may express feelings of depression and hopelessness (Gordon and Gunnell, 2014).

Most drug users become unemployed and financial sources are stopped. Sexual relationship also affected. There has a risk of transmission of HIV and other blood born disease to the abuser's partner (David de la, 2014). Domestic violence, physical and emotional distress in the family is also common; this is why social relationships may be broken up. Family members and relatives feel reluctant to support the user

and they lose their social support. In most cases, society neglects the abuser and their family; users can become totally dependent on their family and lose capacity to do ADLs and other functional activities. They also can suffer mental health disorders and may become unable to cope with daily life. Abuser totally deviates from meaningful life and have a poor satisfaction and self esteem. Day by day they gave up all meaningful activity as a result of addiction and become burden for the society and family (Substance abuse & Mental health, 2010).

CHAPTER 3
METHODOLOGY

3.1. Study design

Cross sectional study design

The researcher used quantitative method for this study. This method aims to show causal explanations and relationships between variables (Bailey, 1997). The study is a cross sectional study which was conducted over a short period of time to identify the effects of substance abuse on QOL. Levin (2006) stated that cross-sectional studies provide a 'snapshot' of the characteristics associated with subjects, at a specific point in time and only one group can be used. Mann, 2003 and Levin, 2006 both have mentioned in their study, as there is no follow up in cross sectional study, less resources are required to run the study. So the researcher used this design to provide a 'snapshot' of the effects of substance abuse on QOL of users who were admitted at least 4 months ago at Ashukti Ponorbation Nibas (APoN).

3.2. Sample selection

The participants of the study were males and females who are undergoing rehabilitation at Addiction Rehabilitation Residence (APoN). Participants are selected according to inclusion criteria and excluded from the study according to exclusion criteria.

Inclusion criteria

- Those who are medically stable and were not perceived to be under the influence of substances (Moreira *et al.*2013).
- Adult men and women whose ages range between 18 to ≥36 years. According to Moreira *et al.*2013 – the age range of young adults is 18 to 24 years old, and adults are 25 to 60 years old.
- Additionally those who agreed to participate in the study after informed consent.
- Those who are have been receiving rehabilitation for last 4 months at APoN.

Exclusion criteria

- Those who have associate problem e.g. - brain injury or other cognition dysfunction because they may not have adequate cognitive capacity
- Those who are in the acute phase and newly admitted to APoN for treatment
- Those who have hearing and visual impairment

3.3. Sample size

The researcher took 101 patients of all users who met the inclusion criteria. At APON at least 300 male and 30 female are undergoing treatment. The researcher has taken a sample from them on the ratio of 10:1. Based on this ratio researcher will take 91 male and 10 female patients.

3.4. Sampling strategy

The study is a quantitative study. The researcher worked to identify the effects of substance abuse on a person's QOL. For this study the researcher collected data by using purposive sampling from the population who met the inclusion criteria. The sampling strategy was non random sampling and purposive sampling because researcher did not simply study whoever was available, but used judgment to select a sample (Frankel & Wallen, 2000). That means the sample was made up of participants who were able to give appropriate information to fulfill the research aims and objectives. Purposive sampling method is used to study the lived experience of a specific population. The purpose is to identify the effects of substance abuse on an individual's QOL. So, the researcher used these sampling strategies.

3.5. Study setting

The study was set at APoN, which is a specialized rehabilitation center for users. In APoN both males and females receive rehabilitation services with at least 300 male patients, 30 to 50 females and more than 50 drug addicted children. It is situated at Jailapara near the Basta Bazaar, Singairupazila under the Manikgong district. This is a nongovernment organization in Bangladesh. Here the users stay for at least for 6 months and when a patient becomes physically ready they are moved on to a rehabilitation phase where they are being prepared to return community life. Different services such as medical, OT, psychotherapy, vocational training and other services

are provided to reintegrate the individual into society. The researcher selected this setting because it is a unique rehabilitation center where men, women and children receive services and this allowed the researcher to collect data from both male and female patients.

3.6. Data collection tools

For data collection investigator will use:

- Standardized Bangla Questionnaire by using WHOQOL- Bref
- Consent form
- Paper, pen and pencil

WHOQOL-Bref

For identifying the effects of substance abuse on QOL a valid questionnaire called the World Health Organization Quality of Life (WHOQOL-Bref) was used. It is a questionnaire of 26 items distributed into four domains (physical, psychological, social relationships, and environment) and self-assessment, in which the answers are recorded in individual five-point scales. The researcher used this questionnaire in order to classify the individuals of the sample as having lower or higher QOL (Moreira et al. 2013).

Development of demographic questionnaire

The researcher developed a demographic questionnaire related to the research question by reviewing different literature related to QOL of users. This questionnaire helped to identify the demographic variables of patients such age, sex, marital status, and living area, level of education, pre-morbid occupation and drinking frequency (Dietze et al. 2011).

Field test of the questionnaire

A field test was conducted with 3 male and 1 female SU. Field test conducted to refine the question according to participant's perception. From the field test the researcher became aware of which parts the participants found difficult to understand. However, finally field test data was not analyzed. This helped the researcher to ensure that the data collection was going in the right way.

3.7. Data collection procedure

Before collecting data the researcher took permission from the Head of APoN and took detailed information from the responsible person and the patients about appropriate times when patients were free from therapy and other personal work. The researcher explained the study's aim and purposes to participants before collecting data. They had the opportunity to ask questions related to the study and if they are interested to participate in the study they signed or gave a finger print to show their consent. For the participants who were unable to read the information sheet and consent form, the researcher read the information and consent form to them. Once consent was received the researcher collected data through structured questionnaires and closed questions. Interviews were face to face interview because as it provided the opportunity to observe facial expressions and this will helped the researcher to determine whether the participant understood the questions or not (Arsham, 2015 and Owens, 2002). Researcher went to each participants ward to interview them and collect the data. Each interview took approximately 10 minutes and each participant was asked questions in the same way to maintain consistency. As patient may not have understood that what he or she has to do, the researcher was present to assist with any questions.

3.8. Ethical consideration

The researcher took into account ethical considerations like:

- ✓ Getting the permission to do this study from the academic institute before beginning the study
- ✓ Taking informed consent from the participants.

A written consent would be used take the permission of each participants of the study.

- ✓ The researcher has insured that all participants are informed about their rights and reserves and about the aim and objectives of the study.
- ✓ Researcher has ensured that the organization (APoN Gaon) was not hampered by the study.
- ✓ The participant had the right to leave the study when he/she wants.
- ✓ All kinds of confidentiality were strictly maintained.

- ✓ The researcher was eligible to do the study after knowing the academic and clinical rules of doing the study.
- ✓ All rights of the participant were reserved and researcher was accountable to the participant to answer any type of study related question.
- ✓ Researcher will maintain confidentiality about service information of the organization.

3.9. Data analysis

Researcher input the data in statistical package for social science (SPSS) software 17.0 version and analyzed the data by selecting the frequency of the descriptive statistics and the central themes and standard deviation of the dispersion to show the percentage, mean and standard deviation of the dataset. To show association between QOL and demographic variables like gender, education level, income, age range, marital status and drinking frequency the chi-square test (x^2) was selected. The researcher used statistical analysis to show the effects of substance abuse on QOL. And descriptive analysis was used to show the effects on QOL with demographic variables. Every questionnaire was rechecked for missing information or unclear information. The researcher put the name of the variables into SPSS and the types, values, decimal, label alignment and measurement level of data (Stemler, 2001). And finally researcher fulfilled the objectives and showed the result.

CHAPTER 4
RESULT

Results at a glance

Aim	Objectives	Result
To find out the effects of substance abuse on a person's quality of life.	To identify the socio-demographic characteristics of the substance abusers	Out of 101 participants 38.6% was within 25-36 years older, 90.1% was male, 36.6% had educational level H.S.C and above, 79.2% lived in town, 40.6% was unmarried, 32.7% involved in business, 32.7% had no income, 34.7% used dual type of substances, 78.2% used substances daily, and 29.7% collected money to abuse substances from business.
	To identify the association between socio-demographic factor and overall quality of life (QOL) among SU	➢ QOL and age range has significant association (P>0.025, χ^2=17.509). In addition, marital status (P>0.039, χ^2=21.908), pre-morbid occupation (P>0.006, χ^2=39.200), frequency to abuse substances (P>0.000, χ^2=28.491), and ways to collect money to abuse substances (P>0.005, χ^2=34.051) all are highly associated with the overall QOL. ➢ On the other hand, there is no association between overall QOL and gender (P<0.179, χ^2=6.278), educational level (P<0.428, χ^2=12.227), living place (P<0.523, χ^2=3.215), monthly income (P<0.490, χ^2=15.471), type of SU (P<0.688, χ^2=9.179). In the present study the researcher did not find any association between the QOL and gender, because of selecting male and female sample in a ratio.
	To identify the effects of substance abuse on physical health, psychological health, social relationship, and environmental health of the user.	This result showed that 25-35 olds users' physical and social health is better than others. Similarly, ≥36 year's older user's psychological and environmental health is better than others. Male user's physical and environmental health is better than females. Female user's psychological and social health is better than males. Higher educated users QOL is better than illiterate and others. Town living users QOL is better than village living users. Married user's physical health, unmarried users' psychological and environmental health and users who lived together had higher scores in social relationship of QOL. Student and unemployed users QOL scores are lower than employed, businessman and housewife. Users whose monthly income >50000 taka had higher scores in all domains of QOL. Poly-SUs and daily users QOL scores lower than others. In addition, users those collected money by stealing and drugs business had lower scores in QOL than others.

4.1. General socio-demographic characteristics of the participants

In this study the researcher used many socio-demographic components these are age, gender, educational level, living place, marital status, pre-morbid occupation, monthly income, type of substance used, frequency to use substance, and ways to collect money to use substances. SUs aged between 18 to 53 years old, who were receiving inpatient services from APoN for the rehabilitation of their addiction were included in the study. The researcher categorized all the demographic characteristics. Out of 101 participants, 37.6%(38) were within 18-24 years age range, 38.6%(39) participants were within 25-36 years and 23.8%(24) were within ≥36 years age range. Demographic criteria of SU participants are presented in table 1.

Overall, the participants are male 90.1%(91) and female 9.9%(10) with a mean± SD age of (28.8±7.9) years. Most of participants 36.6%(37) had education H.S.C and above, 29.7%(30) were educated up to S.S.C, 28.7%(29) to primary school level and 5%(5) were illiterate. In addition most of the participants lived in urban 79.2%(80) and a lesser number of people lived in rural areas 20.8%(21).

From 101 participants 36.6%(37) were married, 40.6%(41) were unmarried, 12.9%(13) were divorced, and 9.9%(10) of the participants were lived together. Most of the participant 31.7%(33) were businessman, employed 28.7%(25), 15.8%(16) were students, 15.8%(16) were unemployed and only 1%(1) were housewives. In addition, 9.9%(10) participant's pre-morbid occupation was acting, working at garments factory, day laboring, driving, politics, electrician, doctor, cricketer, teaching and some of them engaged with media. Of the client's monthly income 18.8%(19) had above 50000 taka, 21.8%(22) had a monthly income of 21000 to 50000 taka, 7.9%(8) had 11000 to 20000 taka, 18.8%(19) had 1000 to 10000 taka and some of the participants 32.7%(33) had no income at all.

With regards to substances, 28.7%(29) participants had only used one type of substance, 37.4%(35) participants had used two types of substances, 5%(5) used three types, and the largest number of participants were poly-SUs 31.7%(32). Additionally, 78.2%(79) participants used substances daily, 6.9%(7) weekly and 14.9%(15) participants were used substances less than weekly. These participants' collected money to take substances by stealing 10.9%(11), business 29.7%(30), drugs business

7.9%(8), from family 15.8%(16) and in other ways 35.6%(36) like employee, from friends or relatives, collecting money from area, driving rickshaw or bus, begging, working in the media, arranging cocktail party, and taking loan from office etc.

Table 1: Participant's demographic characteristics (N=101)

Variables	Frequency (n)	%
Age		
18-24 years	38	37.6%
25-35 years	39	38.6%
36 and above years	24	23.8%
Mean ± SD	28.8±7.9	
Gender		
Male	91	90.1%
Female	10	9.9%
Education Level		
Primary	29	28.7%
Up to S.S.C	30	29.7%
H.S.C and above	37	36.6%
Illiterate	5	5%
Living place		
Village	21	20.8%
Town	80	79.2%

Variables	Frequency (n)	%
Marital status		
Married	37	36.6%
Unmarried	41	40.6%
Divorce	13	12.9%
Live together	10	9.9%
Pre-morbid occupation		
Employee	25	24.7%
Business	33	32.7%
Study	16	15.8%
Housewife	1	1%
Unemployed	16	15.8%
Others	10	9.9%
Monthly income		
Not at all	33	32.7%
1000-10000	19	18.8%
11000-20000	8	7.9%
21000-50000	22	21.8%
More than 50000	19	18.8%
Type of substance		
1 type of SU	29	28.7%
2 types of SU	35	34.7%
3 types of SU	5	5%
Poly-SU	32	31.7%

Variables	Frequency (n)	%
Frequency to abuse substance		
Daily	79	78.2%
Weekly	7	6.9%
More than weekly	15	14.9%
Collected money to abuse substances		
Stealing	11	10.9%
Business	30	29.7%
Drugs business	8	7.9%
From family	16	15.8%
Others	36	35.6%

4.2 The association of quality of life with demographic factors such as age, sex, education level, living place, marital status, pre-morbid occupation, monthly income and sources, types of substance use, and frequency to use substances:

The association between overall QOL and demographic factors is presented in table 2. There is a significant association (P>0.025) between QOL and age range of the people with SUs and x^2 value is 17.509. In addition marital status (P>0.039) (χ^2=21.908), pre-morbid occupation (P>0.006) (χ^2=39.200), frequency to abuse substances (P>0.000) (χ^2=28.491), ways to collect money to abuse substances (P>0.005) (χ^2=34.051) all are highly associated with the overall QOL. This may be because; these demographic factors have a greater impact on a person's QOL.

Table -2: Association between overall QOL and demographic factors:

Demographic Variables	Overall QOL					value	
	Very poor (%)	Poor (%)	Neither Poor nor good (%)	Good (%)	Very good (%)	Chi-square (χ^2)	P-Value
Age							
18-24 years	73.7	13.2	10.5	-	2.6	17.509	.025
25-35 years	56.4	25.6	12.8	5.1	-		
36 years and above	29.2	25.0	25.0	16.7	4.2		
Total	56.4	20.8	14.9	5.9	2.0		
Gender							
Male	54.9	20.9	16.5	6.6	1.1	6.278	0.179
Female	70	20	-	-	10		
Total	56.4	20.8	14.9	5.9	2		
Educational level							
Primary	62.1	20.7	17.2	-	-	12.227	0.428
Up to S.S.C	20.7	16.7	6.7	3.3	3.3		
H.S.C and above	17.2	24.3	18.9	13.5	2.7		
Illiterate	60	20	20	-	-		
Total	56.4	20.8	14.9	5.9	2		
Living place							
Village	66.6	23.8	9.5	-	-	3.215	0.523
Town	53.8	20	16.3	7.5	2.5		
Total	56.4	20.8	14.9	5.9	2		

Demographic Variables	Overall QOL					value	
	Very poor (%)	Poor (%)	Neither Poor nor good (%)	Good (%)	Very good (%)	Chi-square (χ^2)	P-Value
Marital status							
Married	70.3	5.4	18.9	2.7	2.7	21.908	0.039
Unmarried	41.5	36.6	14.6	7.3	-		
Divorce	46.2	15.4	15.4	15.4	7.7		
Live together	80	20	-	-	-		
Total	56.4	20.8	14.9	5.9	2		
Pre-morbid occupation							
Employee	56	16	8	20	-	39.200	.006
Business	45.5	15.2	33.3	3	3		
Study	75	18.8	6.3	-	-		
Housewife	-	100	-	-	-		
Unemployed	75	18.8	6.3	-	-		
Others	40	50	-	-	10		
Total	56.4	20.8	14.9	5.9	2		

Demographic Variables	Overall QOL					value	
	Very poor (%)	Poor (%)	Neither Poor nor good (%)	Good (%)	Very good (%)	Chi-square (χ^2)	P-Value
Monthly income							
Not at all	69.7	21.2	9.1	-	-	15.471	0.490
1000-10000	52.6	26.3	15.8	-	5.3		
11000-20000	37.5	37.5	12.5	12.5	-		
21000-50000	50	18.2	18.2	13.6	-		
More than 50000	52.7	10.5	21.1	10.5	5.3		
Total	56.4	20.8	14.9	5.9	2		
Type of substance							
1 type of SU.	51.7	27.6	13.8	3.4	3.4	9.179	0.688
2 types of users.	51.4	17.1	22.9	8.6	-		
3 types of users.	100	-	-	-	-		
Poly-SUs.	59.4	21.9	9.4	6.3	3.1		
Total	56.4	20.8	14.9	5.9	2		

Demographic Variables	Overall QOL					value	
	Very poor (%)	Poor (%)	Neither Poor nor good (%)	Good (%)	Very good (%)	Chi-square (χ^2)	P-Value
Frequency to abuse substance							
Daily	65.8	16.5	11.4	6.3	-	28.491	.000
Weekly	14.3	57.1	14.3	14.3	-		
More than weekly	26.7	26.7	33.3	-	13.3		
Total	56.4	20.8	14.9	5.9	2		
Collected money to abuse substance							
Stealing	81.8	18.2	-	-	-	34.051	0.005
Business	40	13.3	40	3.3	3.3		
Drugs business	62.5	25	-	12.5	-		
From family	62.5	12.5	18.8	-	6.3		
Other ways	58.3	30.6	-	11.1	-		
Total	56.4	20.8	14.9	5.9	2		

On the other hand, there is no association between overall QOL and gender (P<0.179) (χ^2=6.278), educational level (P<0.428) (χ^2=12.227), living place (P<0.523) (χ^2=3.215), monthly income (P<0.490) (χ^2=15.471), type of SU (P<0.688) (χ^2=9.179). In the present study the researcher did not find any association between the QOL and gender, because of selecting male and female sample in a ratio. Though these demographic factors has no association with overall QOL but from 100%(101) participants, majority 56.4%(57) has very poor QOL and this score is higher than poor, neither poor not good, good, and very good.

4.3. Effects of substance abuse on physical health, psychological health, social relationship, and environmental health of the user.

Of the 101 subjects included in the study 90.1%(91) were male and 9.9%(10) were female. The general sample characteristics are summarized in Table-1. Among the users, 28.7%(29) used 1 type of substance, 74.7%(35) used 2 types of substances, 5%(5) used 3 types of substances and 31.7%(32) used poly-substances.

As for the domain scores on the WHOQOL-BREF, the researcher observed that different ages people's scores are different. At the same time the researcher also found that scores are different (higher or lower) on the basis of demographic factors in all domain of WHOQOL-BREF.

Table-3 describes the mean values and standard deviation of the WHOQOL-BREF domains, classified by socioeconomic variables (gender, age, education, income, type of substance, frequency to use substance, ways to collect money to abuse substances). The researcher found that 18-24 year olds had lower scores in all domains physical (8.71 ± 2.9), psychological (6.92 ± 2.1) and environmental (11.55 ± 2.4) than 25-35 year olds and ≥36 year olds except in the social domain (10.58 ± 3.9). Females' physical domain (8.88 ± 2.86) and environmental domain (12.25 ± 2.448) scores were lower than male participants (8.20±2.0), (12 ± 2.4). On the other hand, females' psychological (8.60 ± 3.1) and social domains scores (11.70 ± 3.5) were higher than males psychological (7.56 ± 2.7) and social (11.49± 3.1) domain.

Table -3: WHOQOL-Bref mean scores for users, classified by domains:

Demographic variables	Domains			
	Physical (Mean ± SD	Psychological (Mean ± SD)	Social (Mean ± SD)	Environmental (Mean ± SD)
Age (N)				
18-24 years (38)	8.71±2.9	6.92 ± 2.1	11.55 ± 2.3	11.55 ± 2.4
25-35 years (39)	8.90 ± 2.7	8.05 ± 2.9	12.05 ± 3.2	12.62 ± 2.4
36 and above (24)	8.83 ± 2.7	8.21 ± 2.9	10.58 ± 3.9	12.67 ± 2.4
Gender				
Male(91)	8.88 ± 2.9	7.56 ± 2.7	11.49 ± 3.1	12.25 ± 2.4
Female (10)	8.20 ± 2.04	8.60 ± 3.1	11.70 ± 3.5	12 ± 2.4
Educational level				
Primary (29)	8.17 ± 2.4	7.28 ± 1.9	11.97 ± 2.4	11.07 ± 2.6
Up to S.S.C (30)	8.07 ± 2.6	7.17 ± 2.6	11.47 ± 3.5	12.30 ± 2.5
H.S.C and above (37)	9.84 ± 2.9	8.54 ± 3.3	11.46 ± 3.4	13.11 ± 2.1
Illiterate (5)	9.40 ± 2.3	6.40 ± +0.9	9.60 ± 1.9	12 ± 1.7
Living place				
Village (21)	8.67 ± 2.3	7.33 ± 1.8	11.38 ± 3.5	10.95 ± 2.7
Town (80)	8.85 ± 2.9	7.75 ± 2.9	11.55 ± 3.04	12.56 ± 2.3
Marital status				
Married (37)	9.05 ± 2.847	7.57 ± 2.7	12 ± 2.0	12 ± 2.3
Unmarried (41)	8.88 ± 2.7	7.90 ± 2.7	11.46 ± 3.4	12.63 ± 2.6
Divorce (13)	8.46 ± 2.9	7.54 ± 2.5	9.69 ± 4.3	11.54 ± 2.7
Live together (10)	8.10 ± 2.3	7.20 ± 3.2	12.30 ± 3.2	12.30 ± 2.1
Pre-morbid occupation				
Employee (25)	8.68 ± 3.1	7.48 ± 3.2	11.08 ± 2.7	12.20 ± 2.6
Business (33)	9.18 ± 2.4	8.03 ± 2.6	11.27 ± 3.8	12.79 ± 2.4
Study (16)	8.94 ± 3.2	7.06 ± 2.1	11.81 ± 2.7	11.69 ± 2.4
Housewife (1)	7	13	12	11
Unemployed (16)	8.50 ± 2.6	7.38 ± 2.6	11.31 ± 2.9	12.13 ± 2.1
Others (10)	8.40 ± 2.8	7.80 ± 2.9	13.20 ± 2.8	11.60 ± 2.8

Demographic variables	Domains			
	Physical (Mean ± SD)	Psychological (Mean ± SD)	Social (Mean ± SD)	Environmental (Mean ± SD)
Monthly income				
Not at all (33)	8.79 ± 2.9	7.27 ± 2.2	11.70 ± 2.5	11.55 ± 2.5
1000-10000 (19)	7.64 ± 1.7	6.95 ± 21.5	10.32 ± 3.1	11.21 ± 2.2
11000-20000 (8)	7.75 ± 3.4	7.25 ± 2.9	10.75 ± 3.2	13.13 ± 3.1
21000-50000 (22)	9.14 ± 2.0	7.77 ± 2.8	12.45 ± 2.7	12.59 ± 1.6
More than 50000 (19)	10.05 ± 3.4	9.11 ± 3.5	16.63 ± 4.2	13.63 ± 2.3
Type of substance				
1 type of SU (29)	9.79 ± 3.1	8.14 ± 2.9	12.41 ± 3.1	12.28 ± 2.7
2 types of substance users (35)	8.63 ± 2.5	7.46 ± 2.8	11.54 ± 2.9	12.20 ± 2.4
3 types of users (5)	7.80 ± 1.3	7.60 ± 1.3	11.20 ± 1.5	11.60 ± 2.9
Poly-SUs (32)	8.28 ± 2.7	7.47 ± 2.5	10.72 ± 3.4	12.31 ± 2.3
Frequency to abuse substance				
Daily (79)	8.47 ± 2.5	7.20 ± 2.3	11.10 ± 3.1	12.03 ± 2.4
Weekly (7)	10 ± 3.8	9.86 ± 4.3	12.71 ± 1.6	14.29 ± 2.1
More than weekly (15)	10.07 ± 3.1	9.07 ± 3.3	13.13 ± 3.2	12.33 ± 2.5
Collected money to abuse substance				
Stealing (11)	8.18 ± 1.8	7.18 ± 2.6	10.64 ± 2.7	10.55 ± 1.8
Business (30)	9.43 ± 2.4	8.23 ± 2.6	11.93 ± 3.4	13.13 ± 2.3
Drugs business (8)	7 ± 2.9	6.75 ± 1.8	9.50 ± 2.8	11.38 ± 2.7
From family (16)	8.69 ± 3.5	7.25 ± 3.3	12.69 ± 2.2	11.75 ± 2.2
Other ways (36	8.94 ± 2.8	7.72 ± 2.8	11.36 ± 3.2	12.39 ± 2.5

Those with an education level H.S.C and above had higher scores in domains such as physical (9.84±2.9), psychological (4.54±3.3), and environmental domain (13.11±2.1) compared to illiterate and other people.

Illiterate people's social domain scored higher (9.60±1.9) than others. From 101 subjects 79.2%(80) lived in a town and only 20.8% (21) lived in a village area. From them, participants who lived in a town had higher scores in domains such as physical (8.85±2.9), psychological (7.75±2.9), social (11.55±3.048) and environmental (12.56±2.3) domains than those living in villages.

In addition, married people had a higher score in the physical domain (9.05±2.8); unmarried participants had higher scores in the psychological (7.90±2.7) domain. Participants who lived together had higher scores in the social (12.30±3.2) and environmental (12.30±2.1) domain. Divorced participants had lower scores in psychological (7.54±2.5), social (9.69±4.3) and environmental (11.54±2.7) domains of QOL.

Participants, whose pre-morbid occupation was business, had higher scores in physical (9.18±2.4) and environmental (12.79±2.4) domain than those occupations were employee, student, and unemployed. In addition, housewives had higher scores in social (12) and psychological (13) domains. In the contrary, housewife's physical (7), and environmental (11) domain scores; student's psychological (7.06±2.1) and employed users social (11.08±2.7) domain scores lower than others.

Participants those monthly income was more than 50000 taka had higher scores in domains such as physical (10.05±3.4), psychological (9.11±3.5), social (16.63±4.2), and environmental (13.63±2.3) domain compared to those who had no income and other people. On the other hand, users those monthly income was within 1000-10000 taka had lower scores in physical (7.64±1.7), psychological (6.95±21.5), social (10.32±3.1), and environmental (11.21±2.2) domain.

SUwho only used 1 substance had higher scores in physical (9.79±3.1), psychological (8.14±2.9), and social (12.41±3.1) domains of QOL. On the other hand poly-SUs had lower scores in all domains of QOL except environmental domain (12.31±2.3) scores.

In addition, daily SUs had lower scores in physical (8.47±2.5), psychological (7.20±2.3), social (11.10±3.1) and environmental (12.03±2.4) domains of QOL than weekly and more than weekly users of participants. Weekly SU had higher scores in physical (10.07±3.1) and social domain (13.13±3.2). Similarly, weekly user had higher scores in psychological (9.86±4.3) and environmental domain (14.29±2.1) than others.

In this study, users who collected money to use substances from business had higher scores in physical (9.43±2.4), psychological (8.23±2.6), and environmental domain (13.13±2.3). Users who collected money from drugs business had lower scores in physical (7±2.9), psychological (6.75±1.8), and social (9.50±2.8) domains. Users who collected money from stealing had lower scores in environmental domain (10.55±1.8) of QOL than others.

CHAPTER 5
DISCUSSION

5.1. Demographic characteristics

The demographic findings of this study show that most of the participants are male (n=91) 90.1% and fewer are female (n=10) 9.9%, because the researcher selected participants in a ratio of residents of APoN (10:1, male: female). According to a UN survey 2002, reported on 65 lakh people in Bangladesh who were drug addicts. Of them 13% are female and rest (87%) are male. In addition, the Tasfaye's *et al.* study of 2014 explained that being male has a strong association with substance use. Akther, 2012 stated that males are more likely than females to abuse drugs. GBD, 2000 reports that globally the substance use rates are 2.8% for men and 0.5% for women. Another study (Dietze *et al.*2011) has explained that men are typically drinking more than women, and younger people are typically drinking more and in a riskier fashion, than older people.

In this present study most participants (n=39) are aged between 25-35 years old, 38 participants are aged between 18-24 years and 24 participants age ≥36 years. The mean ±SD of age range is (28.8±7.9). Other studies Kadri, Bhagyalaxmi, and Kedia, 2003 have shown that in India, out of 560 subjects, 46% of users were in the age group of 26 to 35 years. The mean age of users was (32.8±6) years. Another study (Roy et all., 2010) in Bangladesh showed that out of 500 users, all of them between 15 to 35 years old and the mean age was 28.4±6.7% years.

This present study found that (32)31.7% participants were poly-SUs, (35)34.7% were dual SUs, and (29)28.7% participants were single SUs. A study by Akther (2012) found that out of 296 respondents, 16.9% subjects used multiple types of substances. A majority of them take drugs occasionally, 56% of them taking them once daily. The Bawan (2002) study in India found that out of 179 male SUs, 67% had been using drugs occasionally, 44% had been using drugs regularly. The majority was poly drug users and 45% of them were unemployed. Another study (Roy *et al.*2010) in Bangladesh showed that out of 500 users, 69.5% were poly-SUs and only 30.4% were taking single drugs.

The researcher found that (16) 15.8% of participants using substances collected money from their family, (11)10.9% stealing from others, (8)7.9% from involvement in the drugs business and (36)35.6% from other ways like through employment, from friends or relatives, collecting money from area, driving rickshaws or buses, begging, working in the media, arranging cocktail parties, and taking loan from office. Another study Akther, 2012 found that 70% of abusers took money from their parents, followed by friends (8%) and relatives (4%) and 38% had some criminal association.

Of the 101 substance abusers in the present study 28.7% were employed, 15.8% were students, and 8.9% participants were unemployed. In addition, (10)9.9% of the participant's pre-morbid occupations were acting, working in garment factories, day laboring, driving, politics, electrics, medicine, cricket, teaching and some of them were engaged with the media. Tesfaye. Derse, and Hambisa (2014), explained that college and university students are at the highest risk of substance abuse. Bawan, 2002 found that out of 75 women in India 67% employed, 45% are commercial sex workers and 15% involved in peddling at the road side. Other studies, for example Kadri, Bhagyalaxmi, and Kedia, 2003, in India found out that out of 560 subjects 26.8% were day laborers and 20.2% were private employees.

In the present study, the researcher found that (80)79.2% participants of SUs were from town and only (21)20.8% were from rural areas. Another study (Roy et al., 2010) showed that out of 500 users in Bangladesh, there were 70.8% from urban backgrounds and only 29.2% were from rural backgrounds.

The researcher found that out of (101)100% participants, (37)36.6% users were married, (41)40.6% were unmarried, (13)12.9% were divorced and (10)9.9%participants lived together. Moreira *et al.*2013 estimated that out of 195 participants, 38% are married, 9% are divorced and 53% unmarried. Bawan's, 2002 study on 75 women in India found that 31% of these women were single, 32% divorced and the majority lived with family members

The current study found that (29)28.7% users education level was at primary level, 30(29.9%) were up to S.S.C, (37)36.6% were H.S.C and above and (5)5% users were illiterate. Bawan's, 2002 study on 75 women in India found that half of them were illiterate. Another study; Kadri, Bhagyalaxmi, and Kedia, (2003) study showed that out of 560 subjects, most of the users were educated up to primary or secondary level.

5.2. Association of QOL with the demographic factors

This study demonstrates that, abusing substance has a great impact on a person's QOL. American Psychiatric Association, 1994 explained that substance abuse affects nearly all areas of functioning. Other studies Donovan, 2005; Rudolf and Wahs, 2002; Smith and Larson, 2003 have shown that QOL is poorer among individuals who are substance dependent and treatment seekers. This study has found that there is a link between QOL and demographic characteristics. Paskulin, Vianna, and Molzahn, 2009 explained that demographic variables such as age gender, marital status, educational level and economic level can interfere with the QOL of drug users.

The researcher found that QOL has an association with age (P>0.025, χ^2=17.509), marital status (P>0.039, χ^2=21.908), pre-morbid occupation (P>0.008, χ^2=38.411), and substance abuse frequency (P>0.000, χ^2=28.491), and ways to get money (P>0.018, χ^2=35.517). A study Barger, Donoho, and Wayment, 2011 study found that marital status has weak association with QOL but education and monthly income has a stronger association with QOL. Similarly Domingo-Salvany *et al.*2011 explain that the type of substance use has an association with the QOL, but researcher was not found any association with it (P<0.688, x^2=9.179) within this study. In a study Castro et al., 2007 explained that smokers show greater impairment in QOL in most areas. Another study showed that males with more severe alcohol dependence have poorer quality of life than females (Silva-Lima et al., 2005). Dietze *et al.* 2011 explain that weekly or greater drinking frequency was associated with increased life area problems which also impacts on QOL. Moreover, this study also showed that gender has few significance associations with the QOL. Although another study found an association, in the current study the researcher did not find any association with gender and QOL (P<0.179, χ^2=6.278), because the ratio of residents of APoN selected was 10:1 (male: female).

5.3. Effects of substance abuse on physical health, psychological health, social relationship, and environmental health of the user

Psychoactive SUs had lower scores for almost all domains and for the overall score on the WHOQOL-BREF. Zubaran, and Foresti, 2009; Ventegodt and Marrick, 2003 study explained that there are a lack of studies on QOL of users of psychoactive substances. Bizzarri *et al.*2005 showed that users have poorer QOL in the physical, psychological and social domains than healthy participants. A study by Ezzati *et al.*2003 showed that using substances influences health and social functioning which affects QOL and its all domains.

The current study findings demonstrate that 25-35 year olds user's physical health (8.90±2.7) and social relationships (12.05±3.2) are better than others. And ≥36 older people's psychological health (8.21±2.9) and environmental health (12.67±2.4) is better than that of users of other ages. Some studies explained that older age has a greater risk for a poorer QOL. Conversely, another study showed that older people's QOL scored better than others (Nussbaum and Sen, 1993). Dietze *et al.*2011 said that 25-34 year old people face more problems in work than 18-24 year old drinkers. Moreover, physical and psychological problems are increased for younger people who drink. Lavikainen *et al.*2011 also explain that adolescents are more likely to experience physical harm than others. Another study Preau, Protopopescu, and Spire, 2007 said that among the injecting drug users, QOL is better in the younger population, especially those who have a stable partner and those who do not have any financial problems. Domingo-Salvany *et al.*2011 explains that younger users had a worse QOL than others.

The present study identifies that male user's physical health (8.88±2.9) and environmental health (12.25±2.4) is better than females. But female user's psychological (8.60±3.1) and social relationship (11.70±3.5) is better than males. Moreira *et al.*2013 study showed that women had lower levels of QOL in the four domains of WHOQOL-BREF than men. Similarly Kessler, McGonagle and Zhao, 1994 discussed that women presented a poorer QOL in all domains. Paskulin, Vianna, and Molzahn, 2009 noted that female alcohol users have an impaired QOL. Srivastava *et al.*2009 showed that the health related QOL of smokers showed lower scores in all domains of QOL than non smokers and also explained that female smokers have a

poorer QOL compared to male smokers. Lavikainen *et al.* 2011 explained that girls experience more physical and social health problems than boys using alcohol.

Current study findings demonstrate that H.S.C and above education level client's QOL and domain scores such as physical (9.84±2.9), psychological (8.54±3.3), social (11.46±3.4), and environmental (13.11±2.1) is higher than illiterate physical (9.40±2.3), psychological (6.40±0.9), social (9.60±1.9), and environmental (12±1.7). Paskulin, 2009 study explained that users with higher education levels have a better QOL. Domingo-Salvany *et al.*2011 study explained that those with a lower level of education had a poorer QOL than others.

The present study showed that users whose pre-morbid occupation was business had higher scores in physical (9.18±2.4) and environmental (12.79±2.4) domains of QOL. And users who were housewives had higher scores in social domain (12) and psychological domain (13) compared to those who were unemployed, students, and employees. Domingo-Salvany *et al.*2011 explain that the unemployed had a worse QOL than others. Moreira *et al.*2011 study showed that users who do not have satisfactory jobs are unlikely to present a good QOL.

The current study found that poly-SUs have lower scores in physical (8.28±2.7), psychological (7.47±2.5), and social (10.72±3.4) except the environmental domain (12.31±2.3) of QOL. Another study Bizzarri *et al.* 2005; Astals *et al.*2008 showed that patients with dual SU have poorer QOL than those who only abuse one substance especially within physical and psychological domains.

The present study identifies that user who use substances daily have lower scores in domains such as physical (8.47±2.5), psychological (7.20±2.3), social (11.10±3.1), and environmental (12.03±2.4) of QOL. Dietze *et al.*2011 study showed that daily or weekly drinkers have a poorer QOL than others. Another study (Moreira *et al.*2011) discussed that smokers have lower scores in social relationships and psychological domains of WHOQOL-BREF compared to non-smokers. This study also explained that daily users have lower scores in the physical, psychological, social and environmental domains. Domingo-Salvany *et al.*2011 explain that poly-SUs had a worse QOL than others.

The current study identifies that users living in urban areas have higher scores in physical (8.85±2.9), psychological (7.75±2.9), social (11.55±3.05), and environmental (12.56±2.3) domains of QOL than individuals living in rural areas physical (8.67±2.3), psychological (7.33±1.8), social (11.38±3.5), and environmental (10.95±2.7) domains. Dietze *et al.*2011 explained that drinking has more harmful physical and psychological consequences for those living in rural areas, compared to those living in towns.

This study's findings also demonstrate that users who got money through stealing and drug related businesses had lower QOL scores than other groups. Srivastava *et al.*2009 study showed that adolescents who drank alcohol frequently were involved in different criminal activities like shoplifting, stealing and showed aggressive and violent behavior which also has an impact on QOL.

CHAPTER 6
CONCLUSION

6.1. Limitations

The current study has some potential limitations that should be kept in mind when interpreting the results. Firstly the data was collected on QOL but the sample size of the research was small, this may affect the generalizability of the findings. Although, many studies found significant association with QOL and substance abuse, but it was difficult to find any significant relationships from this small sample size. In addition, there was not much research available regarding the effects of substance abuse on the QOL of the users in Bangladesh. A related article was found but it regarded different countries; and it important to remember that Bangladeshi culture and what QOL means to them is different to other countries.

6.2. Recommendation

As this study has a small sample size, additional, larger studies are needed. More studies are needed to compare the QOL of the SU and non user. QOL of the carers of users also needs to be assessed. Further studies can be done to identify the possible factors which make a user to start to use substances. In addition, in-depth information could be collected on QOL by doing qualitative research. An experimental study could be done to see the effectiveness of OT to improve QOL for users. For preventing addiction the government should take proper steps in Bangladesh. Parents must be educated and advised to be a good role model for their children by not taking substances themselves, and also warning their children against substance abuse. Moreover, it is necessary for parents to provide proper support for children affected by substance abuse. Informing the public about substance abuse is important, the radio, TV, and local newspapers should be used to inform society about substance use. At the rehabilitation period, family counseling is important for SU.

6.3. Conclusion

Nowadays, substance abuse is becoming a burning issue in a social, economical and medical perspective. Not only in Bangladesh but all over the world it has become a major problem.

This study encompasses that the users those pre-morbid occupation was business, employee, and study, used more substances than others. Moreover, being younger, deviant peer relationship, curiosity, and family factors also have more risk of using substances. Parents and teachers need to provide proper support and advice to the younger children to stop them becoming users. Behavioral programs should be planned and be carried out to help affected youth to cease dealing with drugs.

Using substances has harmful effects on physical health, psychological health, social relationships and the environmental health of an individual. Moreover different demographic factors also have impacts in all domains of QOL of a user. A proper rehabilitation service facilitates them to cope and recover from harmful effects as much as possible. It also helps them with successful community reintegration which is very important for a user.

Substance abuse affects all areas of an individual's QOL. It affects an individual and their family physically, psychologically, socially and economically. It is necessary to focus on all domains of QOL during the rehabilitation period. The main aim is to help the users to adapt to a healthier lifestyle and improve their QOL. With other health professionals, skilled occupational therapists can help them (user) to cope with any situation that may arise, for example a stressful situation, and also help them to become a productive person in society and within their family.

The researcher hopes, that if all professionals concentrate on all domains of QOL and provide holistic treatment focusing on it, this will help to improve QOL for people who abuse substances.

REFERENCES

- Alcohol rehab (2014). Biological reason. Available at: http://alcoholrehab.com/drug-addiction/substance-abuse-and-genetics/. [Accessed 12 August 2014].
- Akter, J. (2012) 'Prevalence of substance abuse among female residential students of Dhaka university', ASA University Review, 16(1). Available at: http://www.asaub.edu.bd/data/asaubreview/v6n1sl9.pdf. [Accessed 8 July 2014].
- Alcohol rehab (2014). Reason for substance abuse. Available at: http://alcoholrehab.com/drug-addiction/reasons-for-substance-abuse/. [Accessed 12 August 2014].
- Arbesman, M, and Logdon, D.W. (2011) 'Occupational therapy interventions for employment and education for adults with serious mental illness: a systematic review', 65, pp.238-246. Available at: http://ajot.aota.org/Article.aspx?articleid=1853033. [Accessed8 July 2014].
- Arsham, H. (2015)**Questionnaire Design and Surveys Sampling.** Available at: http://home.ubalt.edu/ntsbarsh/stat-data/surveys.htm. [Accessed at 23 January 2015].
- Bailey, D.M. (Ed.). (1997) Research for the health professional: a practical guide. United states of America: Jean-Francois Vilain.
- Bawan. (2002) 'Women and drug abuse: The problem in India report 2002'. Available at : http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CDIQFjAA&url=http%3A%2F%2Fwww.unodc.org%2Fdocuments%2Fhiv-aids%2Fpublications%2Fdrugs_abuse_problem_web.pdf&ei=fI87VYvsJcWJuAT-koDgDA&usg=AFQjCNFweD3PDpmx6zlklhqKt02Uo72stg&bvm=bv.91665533,d.c2E. [Accessed 15 October 2014].
- Begum, H.K. (1999) **Drug Abuse and Drug Trafficking: The Deadliest Enemies to be Subdued.** Available at: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCQQFjAA&url=http%3A%2F%2Fbcps.org.bd%2Fpublication%2F2011%2FDrug%2520Abuse%2520and%2520Drug%2520Trafficking.pdf&ei=25Q7Vf-xKoKJuASAzoC

oCg&usg=AFQjCNFojshkiWDG5ixrdAN-5cXKkY7PPQ&bvm=bv.91665533,d.c2E. [Accessed at 23 January 2015].

- Bele. (2014)**Addiction recovery.** Available at: http://alcoholrehab.com/addiction-recovery/impulse-control/. [Accessed 23 August 2014].
- Berger, S.D, Donoho, C.J, Wayment, H.A. (2009) 'The relative contributions of race/ ethnicity' socioeconomic status, health and social relationships to life research, 18(2), pp.179-189. Available at: http://www.pophealthmetrics.com/content/11/1/19. [Accessed 23 August 2014].
- Bio-psychosocial model, 2014. Available at: http://www.google.com/imgres?imgurl=http://www.physio-pedia.com/images/thumb/c/cb/Biopsychosocial-model-of-health.PNG/400px-Biopsychosocial-model-of-health.PNG&imgrefurl=http://www.physio-pedia.com/Biopsychosocial_Model&h=206&w=244&tbnid=8TbJvOOiO4LhqM:&zoom=1&tbnh=155&tbnw=184&usg=__8BnDH1tjZVclFZGXrxQT-XJWTtE=&docid=kbSIqx_DNK0zcM&itg=1. [Accessed17 August 2014]
- Bizzari, J, Rucci, P, Vallotta, A, and Girclli, M. (2005) 'Dual diagnosis and quality of life in patient in treatment for opioid dependence,' Substance use and misuse, 40(12), pp.1765-1776. Available at: http://www.hqlo.com/content/10/1/106. [Accessed17 August 2014]
- Bolyn, M (2010). **What Are the Reasons for Substance Abuse?** Available at: file:///C:/Users/Student/Downloads/What%20Are%20the%20Reasons%20for%20Substance%20Abuse%20%20_%20LIVESTRONG.COM.htm. [Accessed 11 June 2014].
- Castro, M.G, Oliveira, M.S, Moraes, J.F.D, Miguel, A.C, Araujo, R.B. (2007) 'Quality of life and severity of tobacco dependence', Psychiatry, 34(2), pp.61-67. Available at:http://www.scielo.br/scielo.php?pid=S1413-81232013000700010&script=sci_arttext [Accessed 11 June 2014].
- David de la. (2014)**Substance Abuse During Pregnancy: Guidelines for Screening**.Available at: www.doh.wa.gov, washington state department of health. [Accessed 22 September 2014].

- Davis, R. (2006) 'According to the models of care the treatment of drug misusers, does OT have a role the treatment of drug misuse', British Journal of OT, 69(12), p575-577. Available at: http://www.alcohollearningcentre.org.uk/_library/BACKUP/DH_docs/ALC_Resource_MOCAM.pdf. [Accessed 22 September 2014].
- Dietze, P., Room, R.,Jolley, D.,Mztthews, S., &Chikritzhs, T. (2011) 'The adverse consequences of drinking in a sample of Australian adults', Journal of Substance Use, 16(2):116-126. Available at: http://www.med.und.edu/genacis/_files/docs/publications-090114.pdf. [Accessed 22 June 2014].
- Domingo-Salvany, A, Brugat, M.T, Barrio, G, Gonzalez-Saiz, F, Bravo, M.J, and Fuente, L. (2010) 'Gender differences in health related quality of life of young heroin users', Health related quality of life outcomes,8, p.145. Available at: http://www.hqlo.com/content/8/1/145. [Accessed 1 July 2014].
- Donovan, D. (2005) 'Quality of life as an outcome measure in alcoholism treatment research', Journal of studies on Alcohol',15, pp.119-139. Available at: http://www.ncbi.nlm.nih.gov/pubmed/16223064. [Accessed 23 July 2014].
- Dopkin, P.l, Civita, M.D, Paraherakis, A, and Gill, K. (2002) 'The role of functional social support in treatment retention and outcomes among outpatient adult substance abusers', Addiction, 97(3), pp.347-356. Available at: http://www.ncbi.nlm.nih.gov/pubmed/11964111. [Accessed 15 July 2014].
- Drug Abuse. (2012) Contributing Factors of Drug Abuse. Available at: http://www.futuresofpalmbeach.com/drug-abuse/contributing-factors/. [Accessed 4 August 2015].
- Drug and Substance Abuse. (2012) Causes to abuse drugs. Available at: http://www.healthinaging.org/aging-and-health-a-to-z/topic:drug-and-substance-abuse/info:causes-and-symptoms/. [Accessed 6 July 2014].
- Edwards, R.D. (2014) **Causes to abuse drugs.** Available at: http://www.emedicinehealth.com/substance_abuse/page2_em.htm. [Accessed 2 August 2014].
- Ezzati, M, Hoorn, S.V, Rodgers, A, Lopez, A.D, Mathers, C.D, and Murray, C.J. (2003) 'Estimates of global and regional potential health gains from reducing multiple major risk factors', Lancet, 362, pp.271-280. Available

at:https://www.princeton.edu/step/seminars/previous/fall-2005/Ezzati1etal-JointRiskFactorEffects-Lancet2003.pdf. [Accessed12 August 2014].

- Falls. (2014) Consumer fact sheet. Available at: http://en.wikipedia.org/wiki/Substance_abuse. [Accessed 3rd august 2014].
- Franekel, J.R and Wallen, N.E. (2000) **How to design and evaluated research in education?** Available at: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&ved=0CEsQFjAF&url=http%3A%2F%2Fwww.tusculum.edu%2Ffaculty%2Fhome%2Fmnarkawicz%2Fhtml%2F534notes.doc&ei=ZycBVe-8FtCdugTZ84DgAg&usg=AFQjCNFQWuS7tuf34JWhCchXCeCUJvEUug&bvm=bv.87920726,d.c2E[Accessed 23 September 2014].
- Gaskell, H.K. (2014) **'Does low self-esteem in teens lead to alcohol and drug abuse?**' Available at:http://everydaylife.globalpost.com/low-selfesteem-teens-lead-alcohol-drug-abuse-13979.html. [Accessed 23 September 2014].
- Gordon, A, and Gunnell. (2014) **Signs, Symptoms, Effects of Drugs/Substances.** Available at: http://gordongunnell.marriage-family.com/content/1332.aspx. [Accessed 12 July 2014].
- Grant, B, Pickering, M. (1996) 'Co-morbidity between DSM-IV alcohol and drug use disorders: Results from the National Longitudinal Alcohol Epidemiologic Survey', Alcohol Health Research World, 20: pp.67 – 72. Available at: http://medind.nic.in/daa/t09/i1/daat09i1p114.pdf. [Accessed 17 July 2014].
- Gregory, Derek, Johnston, Ron, Pratt, Geraldine, Watts, Michael, Whatmore, Sarah. (2009) "Quality of Life". Dictionary of Human Geography (5th ed.). Oxford: Wiley-Blackwell. Available at: http://seis.bris.ac.uk/~ggrjj/pdfs/publications-list.pdf. [Accessed 12 September 2014].
- Hicks, M.C. (2000) Research methods for clinical therapist applied project design and anlysis. Churchill Livingston, London.
- Jagero, N, and Mbulwa, F. (2012) 'Vulnerability of the female youth to drugs and substance abuse in Makindu town', Bangladesh-e journal of sociology,

9(1). Available at:http://www.bangladeshsociology.net/9.1/6BEJS%209.1-7.pdf. [Accessed: 10 September 2014].

- Johnson J.G, Spitzer R.L, William J.B. (1995)'Psychiatry co morbidity, health status, and functional impairment associated with alcohol abuse and dependence in primary care patients: Findings of the PRIME MD-1000 study', Journal of Consulting and Clinical Psychology,63, pp.133 – 140. Available at: http://www.psychosocial.com/research/prime100.html. [Accessed 3 September 2014].
- Kadri, A.M, Bhagyalaxmi, A. (2003) 'A study of socio-demographic profile of substance abusers attending a de-addiction centre in Ahmedabad city', Indian Journal of Community medicine, XXVIII(2). Available at: http://medind.nic.in/iaj/t03/i2/iajt03i2p74o.pdf. [Accessed 22 September 2014].
- Karow, A, Verthein, U, Krausz, M. (2008) 'Association of personality disorders, family conflicts and treatment with quality of life in opiate addiction', European Addiction Research, 14 (1), pp.38 – 46. Available at: http://www.karger.com/Article/Abstract/110410. [Accessed 23 July 2014].
- Kessler, R.C, McGonagle, K.A, Zhao, S. (1994) 'Lifetime and 12-month prevalence of DSM-IIIR psychiatric disorders in the United States. Results from the National Co morbidity Survey', Arch Gen Psychiatry, 51, pp.8 – 19. Available at: http://apsychoserver.psych.arizona.edu/JJBAReprints/PSYC621/Kessler%20et%20al_Lifetime%20and%2012%20months%20prevalence_Archives%20of%20Gen%20Psychiatry_%60994.pdf . [Accessed 17 September 2014].
- Lavikinen, H, Salmi, V, Aaltonen, M, and Lintonen, T. (2011) 'Alcohol related harms and risk behaviours among adolescents: does drinking style matter?' Journal of Substance Use, 16(3), pp.243-255. Available at: http://informahealthcare.com/doi/abs/10.3109/14659891.2010.499492. [Accessed 17 September 2014].
- Levin, K.A. (2006) Study design III: Cross sectional studies,7, pp.24-25. Available at: http://eprints.qut.edu.au/51090/1/51090.pdf [Accessed 15 October 2014].

- Mann, C. (2003) Observational research methods. Research design II: Cohort, cross sectional and case- control studies, 20, pp.54-60. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1726024/pdf/v020p00054.pdf. [Accessed 15 October 2014].
- Marged. (2014) **Substance used disorders.**Available at:http://en.wikipedia.org/wiki/Substance_use_disorder. [Accessed 5 July 2014].
- Mayo clinic. (2014) Risk Factors to abuse substance**.** Available at: http://www.mayoclinic.org/diseases-conditions/drug-addiction/basics/risk-factors/con-20020970. [Accessed 18 October 2014].
- Medicine net. (2014)what type of drugs commonly abused? Available at: http://www.medicinenet.com/drug_abuse/page2.htm. [Accessed 18 October 2014].
- Medicine Net. 2015 Definition of substance abuse. Available at: http://www.medicinenet.com/script/main/art.asp?articlekey=24405. [Accessed 23 February 2015].
- Merikangas, K.R, Dierker, L, and Fenton, B. (2014) Familial Factors and Substance Abuse: Implications for Prevention. Available at: http://archives.drugabuse.gov/pdf/monographs/monograph177/012-041_Merikangas.pdf. [Accessed 23 July 2014].
- Michael, A. Dawes, Charles, W, Mathias, Dawn, M, Richard, Hill-karturczak, N, and Dougherty, D.M. (2008) 'Adolescent Suicidal Behavior and substance use: Developmental mechanisms', Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907920/. [Accessed 17 August 2014].
- Moreira, T.C, Figueiro, L.R, Ferigolo, M, Fernandes, S,Larre, M.C, and Barros, H.M.T. (2011) 'Quality of life of smokers seeking help to quit through telephone counseling', RevistaBrasileira de cancerologia, 57(3), pp.329-335. Available at: http://www.inca.gov.br/rbc/n_57/v03/pdf_en/06_artigo_qualidade_vida_tabagistas_buscaram_auxilio_deixar_fumar_meio_aconselhamento_telef%C3%B4nico.pdf. [Accessed 15 September 2014].

- Moreira, T.D.C, figueiro, L.R, Fernandes, S, Justo, F.M, Dias, I.R, Barros, H.M.T, and Ferigolo, M. (2013) 'Quality of life of users of psychoactive substances, relatives, and non-users assessed using the WHOQOL-BREF', CiencSaudeColetiva, 18(7), pp.1413-8123. Available at: http://www.scielo.br/pdf/csc/v18n7/10.pdf. [Accessed 10 July 2014].
- Mueller, S.E, Degen, B, Petijean, S, Wiesbeck, G.A, & Walter, M. (2009) 'Gender differences in interpersonal problems of alcohol-dependent patients and healthy controls', International Journal of Environmental Research and Public Health, 6, pp.3010–3022. Available at: http://edoc.unibas.ch/29684/1/Therapeutic%20and%20psychosocial%20interventions%20in%20the%20treatment%20of%20alcohol-dependent%20patients_SM%C3%BCller_15.08.2013.pdf. [Accessed 23 September 2014].
- Mueser, K.T, Drake, R.E, and Wallach, M.A. (1998) 'Dual diagnosis: a review of etiological theories', Addictive Behaviours, 23, pp.717-734. Available at: http://www.ncbi.nlm.nih.gov/pubmed/9801712.[Accessed 24 August 2014].
- Murray, C.J, Lopez, A.D. (1996) The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020', Global Burden of Disease and Injury Series, I. Available at: http://www.ph.ucla.edu/EPI/29107/cmat29107/lancet367_1747_1757_2006.pdf[Accessed 15 September 2014].
- National coalition for the homeless. (2009) Substance abuse and homelessness. Available at: http://www.nationalhomeless.org/factsheets/addiction.pdf. [Accessed 25 September 2014].
- National Institute of drug abuse. (2014) How does marijuana use affect school, work, and social life? Available at: http://www.drugabuse.gov/publications/research-reports/marijuana/how-does-marijuana-use-affect-school-work-social-life. [Accessed 4 October 2014].
- NIH. (2003) Risk factors to abuse substance. Available at: http://www.drugabuse.gov/publications/preventing-drug-abuse-among-

children-adolescents/chapter-1-risk-factors-protective-factors/what-are-risk-factors. [Accessed 24 September 2014].

- Nordfjaern, T. (2011) 'Do severity levels of substance use related to self-reported variations in psychosocial distress?' Journal of Substance Use, 16(6), pp.422-438. Available at: http://www.diva-portal.org/smash/get/diva2:438799/FULLTEXT02.pdf. [Accessed 6 August 2014].
- Norfjaem, T, Hole, R, and Rundono, T. (2010) 'Inter-relations between patients' personal life events, psychological distress and substance use', Substance use and misuse, 45, pp.1116-1179. Available at: http://www.ncbi.nlm.nih.gov/pubmed/20441456 .[Accessed 4 July 2014].
- Nussbaum, M, Sen, A. (1993) **The Quality of life, oxford: clarendon press; Description and chapter- review.**Available at: http://en.wikipedia.org/wiki/Quality_of_life.[Accessed 1 June 2014].
- Odejide, A.O. (2006) 'Status of drug use/ abuse in Africa: a review', International Journal of Mental Health and Addiction, 4(2), pp.87-102. Available at: http://link.springer.com/article/10.1007%2Fs11469-006-9015-y. [Accessed 3 August 2014].
- Owens, K.L. 2002 Introduction to survey. Available at: <http://www.srl.uic.edu/seminars/Intro/introsrm.pdf. Accessed 10 July 2014.
- Paskulin, L, Vianna, L, and Molzahn, A.E. (2009) 'Factors associated with quality of life of Brazillian older adults', International Neuroscience Review, 56(1), pp.109-115. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1466-7657.2008.00671.x/abstract;jsessionid=E4A493F2615E6B0B130FD8B30141620D.f04t02?deniedAccessCustomisedMessage=&userIsAuthenticated=false. [Accessed 5 September 2014].
- Preaue, M, Protopoescu, C, and Spire, B. (2007) 'Health related quality of life among both current and former injection drug users who are HIV- infected', Drugs and Alcohol Dependence, 86(2-3), p.175. Available at:http://www.ncbi.nlm.nih.gov/pubmed/16930864.[Accessed 18 August 2014].

- Roy, J, Morshed, N.M, Qusar, Nahar, J.S, and Miah, S, Shah, M.A, Shams, S.F, Shahid, S.F.B, Iqbals, M.M, Khanom. (2010) 'Personality traits of SUs in Bangladesh' Bangabandhu Sheikh Mujib Medical University Journal, 3(2), pp.76-81. Available at: http://www.banglajol.info/bd/index.php/BSMMUJ/article/view/7056. [Accessed 5 July 2014].
- Rudolf, H, and Watts, J. (2002) 'Quality of life in substance abuse and dependency', International review of psychiatry, 14, pp. 190-197. Available at: http://informahealthcare.com/doi/abs/10.1080/09540260220144975. [Accessed 5 July 2014]
- Sania, M.N. (2010) 'Drug addiction among undergraduate students of private universities in Bangladesh. Procedia', Social and Behavioral Sciences, 5 (2010),pp. 498–501. Available at: http://www.asaub.edu.bd/data/asaubreview/v6n1sl9.pdf. [Accessed September 2014].
- Schuckit, M.A. (2009) 'Alcohol use disorders' Lancet, 373 (9662), pp.492-501. Available at: http://eb6eac5692db912ed5d9-411b8674dd3ca0f7d171c621142907c5.r53.cf1.rackcdn.com/Alcohol%20and%20men.pdf. [Accessed 12 August 2014].
- Senbanjo R, Wolff, K, Marshall,J. (2007) 'Excessive alcohol consumption is associated with reduced quality of life among methadone patients', Addiction, 102(2),pp.257 – 63. Available at: http://www.oatc.ca/wp-content/uploads/2013/04/Excessive.alcohol.consumption.is_.associated.with_.pdf[Accessed 5 September 2014].
- Silva-Lima, A.F.B, Fleck, M, Pecehansky, F, Boni, R, and Sukop, P. (2005) 'Psychometric properties of the world health organization quality of life instrument (WHOQOL-Bref) in alcoholic males: a pilot study', Quality of life research, 14(2), pp.473-478. Available at: http://www.ncbi.nlm.nih.gov/pubmed/15892436. [Accessed 2 June 2014].
- Smith, K.W, and Larson, M. (2003) 'Quality of life assessments by adult substance abusers receiving publicity funded treatment in Massachusetts', The American Journal of Drug and Alcohol abuse, 29, pp.323-335. Available at:

http://www.ncbi.nlm.nih.gov/pubmed/12765209. [Accessed 15 September 2014]

- Social relation. (2012) Social relationship. Available at: http://en.wikipedia.org/wiki/Social_relation. [Accessed 3 October 2014].
- Srivastava,S, Bhatia, M.S, Rajender, G, Angad, S. (2009) 'Quality of Life in Substance Use Disorders', Delhi Psychiatry Journal, 12(1).Available at: http://medind.nic.in/daa/t09/i1/daat09i1p114.pdf. [Accessed 18 August 2014].
- Stemler, S. (2001). **Practical Assessment, Research and Evaluation, PACE center,** Yale University, 7(17). Available at: http://pareonline.net(getvn.asp). [Accessed 3 October 2014].
- Substance Abuse & Mental Health. (2010) Substance abuse. Available at: http://www.helpguide.org/mental/dual_diagnosis.htm [Accessed 3 October 2014].
- Swann, A.C, Dougherly, D.M, Dazzaglia,P.J ,Phamm, Moeller, F.G. (2004) 'Impulsivity a link between bipolar disorder and substance abuse', Bipolar disorder, pp.204-221. Available at:http://www.ncbi.nlm.nih.gov/pubmed/15117399.[Accessed 15 October 2014].
- Tasfaye, G, Derese, A, and Hambisa, M.T. (2014) 'Substance use and associated factors among students in Ethopia: A cross sectional study', Journal of addiction, 2014, 8 pages. Available at: downloads.hindawi.com/journals/jad/2014/969837.pdf [Accessed 4 August 2014]
- United Nations. (2002) Women and drug abuse: The problem in India report 2002. Available at: https://www.Unodc.org/documents/hiv-aids/publications/drugs-abuse-problem-web.[Accessed 16July 2014].
- Ventegodt, S, Merrick, J. (2003) 'Psychoactive drugs and quality of life', The Scientific World Journal, 3, pp.694-706. Available at: downloads.hindawi.com/journals/tswj/2003/978624.pdf [Accessed 17 July 2014].
- Whitesel, M, Bachand, A, Peel, J, and Brown, M. (2013) 'Familial, social and individual factors contributing to risk for adolescent substance use', Journal of Addiction, ID-579310, 9 pages. Available at:

downloads.hindawi.com/journals/jad/2013/579310.pdf. [Accessed 15 September 2014].

- WHO. (2014) Environmental health. Available at: http://www.who.int/topics/environmental_health/en/. [Accessed 3 July 2014].
- WHO. (2014) Mental health: a state of well-being. *Available at:* http://www.who.int/features/factfiles/mental_health/en/.[Accessed 6 September 2014].
- WHO. (2014) Substance used disorders. Available at:http://www.who.int/substance_abuse/terminology/definition4/en/. [Accessed 7 July 2014].
- WHO. (2014) What Is Physical Health? - Definition, Components & Examples. Available at: http://education-portal.com/academy/lesson/what-is-physical-health-definition-components-examples.html. [Accessed 2 November 2014].
- Wit, H.D. (2008) 'Impulsivity as a determinant and consequence of drug use: a review of underlying process', Addiction Biology, pp.22-31. Available at:http://www.uic.edu/classes/psych/Health/Readings/de%20Witt,%20Impulsivity%20&%20drug%20use,%20AddBio,%202009.pdf .[Accessed 17 August 2014].
- Zubaran, C, and Foresti, K. (2009) 'Quality of life and substance use: concepts and recent tendencies', Psychiatry, 22(3), pp.281-286. Available at: http://www.ncbi.nlm.nih.gov/pubmed/19378380 [Accessed 18 July 2014]

APPENDIX-1

Permission letter to conduct the study

22th July, 2014
To
The Head of the Department
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
Center for the Rehabilitation of the Paralyzed (CRP)
Chapain, Savar, Dhaka- 1343
Subject: Prayer for the approval of Undergraduate Academic Research Project.
Sir,
With due respect, I beg most respectfully state that, I am a student of 4th year, Department of Occupational Therapy, BHPI, the academic institute of CRP. As a partial fulfillment of my Bachelor Science Degree of Occupational therapy course under the medical faculty of Dhaka University, I will have to conduct a research project in this academic year which is a part of my academic curriculum. I have already chosen substance abuse sector as my study and the study is titled as "Effects on quality of life for abusing substance among the people with substance abuser in Bangladesh". The aim of the study is to explore the effects on physical, psychological, environmental health and social relationship for abusing substance among the substance abuser in Bangladesh. I can make sure that the study will never harm to the participants. The detail proposal of the study is attached with the application.

I therefore, pray and hope that you would be kind enough to grant my appeal by giving the permission to conduct the study which will help me to complete a successful study as a part of my course and oblige thereby.

Sincerely yours,

Nazmun Nahar

Nazmun Nahar Naz
4th year, Roll no-15, session: 2010-2011, Department of Occupational Therapy.
BHPI, CRP, Savar, Dhaka- 1343.

Approved by	Comment & Singnature
Supervisor Nazmun Nahar Assistant professor & Head of the Department, Department of Occupational Therapy, BHPI, CRP, Chapain, Savar, Dhaka- 1343	It may allow her to conduct this study. Best of Luck. 23.07.14

APPENDIX-2

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 ঃ ২৩.১০.২০১৪

প্রতি

নির্বাহী পরিচালক

আপন

সিংগাইর, মানিকগঞ্জ

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 নাজমুন নাহার তার রিসার্চ সংক্রান্ত কাজের জন্য আপনার সুবিধামত 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- 3: Consent Form (English)

The researcher ---------- is a B.Sc student of Occupational Therapy Department of Bangladesh Health Professions Institute (BHPI) want to conduct a research about the quality of life of the substance abuser among the man and women within age 18 to ≥36 years in APON GAON. The main aim of the study is to explore the effects of substance abuse on the quality of life of the user.

Researcher will receive permission from participant to take part in the interview. Their information will not share with others. Participant of the study will not benefit or harm from this study. They are free to decline answering any question during interview. All the information that is collected from the interview would be kept safety and maintained confidentiality. Participants can withdraw from the study at any time.

In this study I am…… a participant and I have been clearly informed about the purpose of the study . I am willing to participant in this study and I will have the right to refuse in taking part any time at any stage of the study. For this reason I will not to be bounded to answer to anybody. The researcher will be available to answer any study related question or inquiry to the participant. So with my best knowledge I agree to participant willingly with my full satisfaction in this study.

(It will be read in front of the illiterate participant)

Name & Signature / finger print of participant: Date:	
Name & Signature of Researcher: Date:	
Name & Signature of witness: Date:	

Appendix-4: Consent Form (Bangla)

এই গবেষণাটি অকুপেশনাল থেরাপীর একটি অংশ এবং গবেষণাকারীর নাম নাজমুন নাহার নাজ। সে বাংলাদেশ হেল্‌থ প্রফেশন্‌স ইন্সটিটিউট এর বি. এস. সি. ইন অকুপেশনাল থেরাপীর ৪র্থ বর্ষের ছাত্রী। এই গবেষণাটির শিরোনাম হচ্ছে "মাদকে আসক্ত হওয়ার পর একজন মানুষের উপর কি ধরনের প্রভাব পড়ে" এই গবেষণার উদ্দেশ্য হচ্ছে বাংণাদেশে যে সকল মানুষ মাদক সেবন করছে তার ফলে তাদের শারীরিক, মানসিক, পারিপার্শ্বিক স্বাস্থ্যের এবং সামাজিক সম্পর্কের উপর কি ধরনের প্রভাব পড়ছে তা বের করা।

এই গবেষণাতে আমি একজন অংশগ্রহনকারী এবং আমি পরিস্কার ভাবে এই গবেষণার উদ্দেশ্য সম্পর্কে অবগত। আমার যে কোন সময় এই গবেষণা থেকে নিজেকে সরিয়ে আনার অধিকার আছে। এজন্য আমি প্রশ্নের উত্তর প্রদান করার জন্য কারো কাছে দায়বদ্ধ না। এই গবেষণাটির সাথে আমার কোন সম্পৃক্ততা নেই এবং আমার চিকিৎসার সাথে বর্তমানে এবং ভবিষ্যতে কোন ভাবে সম্পৃক্ত না।

আমি আরও অবগত আছি যে, এই কথোপকথন থেকে নেওয়া সমস্ত তথ্যাবলী নিরাপদে এবং গোপন রাখা হবে। আমার নাম এবং ঠিকানা কোন ভাবে প্রকাশ করা হবে না। শুধুমাত্র গবেষণাকারী ও তার সমন্বয়কারী এই ক্ষমতা রাখেন।

আমি এই গবেষণাকারী ও তার গবেষণা সমন্বয়কারীর সাথে এই গবেষণার পদ্ধতি সম্পর্কে অথবা যেকোন প্রশ্নের উত্তর জানার জন্য কথা বলতে পারব।

আমি উপরোক্ত তথ্যগুলো ভালোভাবে জেনে নিজ ইচ্ছায় এই গবেষণায় অংশগ্রহন করছি।

অংশগ্রহনকারীর স্বাক্ষর ও তারিখ .....

গবেষকের স্বাক্ষর ও তারিখ .....

স্বাক্ষ্য প্রদানকারীর স্বাক্ষর ও তারিখ .....

APPENDIX-5

WHOQOL- Bref permission for Bangla Questionnaire

User Agreement for "WHOQOL-100" and/or WHOQOL-BREF and related materials

This agreement is between the World Health Organization ("WHO") and Nazmun Nahar. WHO hereby grants the User a nonexclusive, royalty-free license to use the World Health Organization Quality of Life Questionnaire and/or related materials (hereafter referred to as "WHOQOL-100" or "WHOQOL-BREF") in User's study outlined below. The term of this User Agreement shall be for a period of 1 year, commencing on (date) 30. 08. 2014.

The approved study for this User Agreement is:

Study Title	Effects of substance abuse on QOL among the people with substance abuser.
Principal Investigator	Nazmun Nahar
Sample characteristics	Substance abuser
Sample size	101
Treatment Intervention	Not applicable
Total number of assessments	1 times
Assessment time points	15 minutes.
"WHOQOL-100" or WHOQOL-BREF version – *Please specify language version(s) you would like to receive.*	Bangla
Other measures	not applicable

This User Agreement is based upon the following conditions:

1. User shall not modify, abridge, condense, translate, adapt, recast or transform the WHOQOL-100 or BREF in any manner or form, including but not limited to any minor or significant change in wording or organization, or administration procedures, of the WHOQOL-100 or BREF. If User thinks that changes are necessary for its work, or if translation is necessary, User must obtain written approval from WHO in advance of making such changes.

2. User shall not reproduce WHOQOL-100 or BREF, except for the limited purpose of generating sufficient copies for its own uses and shall in no event distribute copies of the WHOQOL-100 or BREF to third parties by sale, rental, lease, lending, or any other means. In addition, User agrees that it will not use the WHOQOL-100 or BREF for any purpose other than conducting studies as specified above, unless agreed in writing by WHO. In any event, the WHOQOL-100 or BREF should not be used for research or clinical purposes without prior written authorization from WHO.

3. User agrees to provide WHO with an annual update regarding activities related to the WHOQOL-100 or BREF.

4. User agrees to provide WHO with a complete copy of User's raw data and data code books, including the WHOQOL-100 or BREF and any other instruments used in the study. This data set must be forwarded to WHO upon the conclusion of User's work. While User remains the owner of the data collected in User's studies, these data may be used in WHO analyses for further examining the psychometric properties of the WHOQOL-100 or BREF. WHO asserts the right to present and publish these results, with due credit to the User as the primary investigator, as part of the overall WHOQOL-100 or BREF development strategy.

5. WHO shall be responsible for preparing and publishing the overall WHOQOL-100 or BREF results under WHO copyright, including:

a. the overall strategy, administrative set-up and design of the study including the instruments employed;

b. common methods used by two or more Users;

c. the data reported from two or more Users ;

d. the comparisons made between the data reported from the Users;

e. the overall findings and conclusions.

6. User shall be responsible for publications concerning information developed exclusively by User and methods employed only by User. Publications describing results obtained by User will be published in User's name and shall include an acknowledgement of WHO. User agrees to send to WHO a copy of each such paper prior to its submission for publication.

7. WHO may terminate this User Agreement at any time, in any event. Should WHO terminate this User Agreement, User shall immediately cease all use of the WHOQOL100 or BREF and destroy or return all copies of the WHOQOL-100 or BREF. In the event of such termination, all other collateral materials shall be destroyed and no copy thereof shall be retained by User. Notwithstanding the return or destruction of the WHOQOL-100 or BREF and its collateral materials, User will continue to be bound by the terms of this User Agreement.

8. It is understood that this User Agreement does not create any employer/employee relationship. User and its affiliates are not entitled to describe themselves as staff members of WHO. User shall be solely responsible for the manner in which work on the project is carried out and accordingly shall assume full liability for any damage arising therefrom. No liability shall attach to WHO, its advisers, agents or employees.

Please confirm your agreement with the foregoing by signing and returning one copy of this letter to WHO, whereupon this letter agreement shall become a binding agreement between User and WHO.

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Date:

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Date: 30.08.2014

APPENDIX-6

Socio-demographic questionnaire

Participant Code no:

General questions
Please read the explanation on the previous page before answering the questions below!

- What is your age range?
  1. 18-24 years.
  2. 25-35 years.
  3. 36 and above.

- What is your gender?
  1. Male.
  2. Female.

- What is the highest education that you completed successfully?
  1. Primary.
  2. UP to S.S.C
  3. H.S.C and above
  4. Illiterate

- Where you lived?
  1. Village.
  2. Town

- What is your marital status?
  1. Married.
  2. Unmarried
  3. Divorce.
  4. Live together
  5. Widow.

- What was your pre-morbid occupation?
  1. Employee.
  2. Business.
  3. Study.
  4. Housewife.
  5. Unemployed.
  6. Others.

- What was your monthly income?
  1. Not at all
  2. 1000-10000
  3. 11000-20000
  4. 21000-50000
  5. More than 50000.
- What types of substance you had taken?
  1. 1 type of SU.
  2. 2 types of SUs.
  3. 3 types of SUs.
  4. Poly-SUs.
- What was the frequency to abuse substance?
  1. Daily.
  2. Weekly.
  3. More than weekly.

- How you collected money to abuse substances?
  1. Stealing.
  2. Business.
  3. Drugs business.
  4. From family.
  5. Others.

APPENDIX-7

WHOQOL- Bref questionnaire in English

WHOQOL–BREF

UK VERSION

Department of Mental Health

World Health Organisation

Geneva

For Office Use Only

	Equations for computing domain scores	Raw score	Transformed score	
			4-20	0-100
Domain 1	(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17+ Q18 □ + □ + □ + □ + □ + □ + □	=		
Domain 2	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) □ + □ + □ + □ + □ + □	=		
Domain 3	Q20 + Q21 + Q22 □ + □ + □	=		
Domain 4	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25 □ + □ + □ + □ + □ + □ + □ + □	=		

		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	How much do you feel that pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need 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

		Not at all	A little	A moderate amount	Very much	Extremely
6	To what extent do you feel life to be meaningful?	1	2	3	4	5
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	To what extent do you have 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

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

		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 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 transport?	1	2	3	4	5

The following 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

Did someone help you to fill out this form? **YES** / **NO**

THANK-YOU FOR YOUR HELP

APPENDIX- 8

Socio-demographic questionnaire in Bangla

অংশ গ্রহনকারীর কোড নম্বর:

সাধারণ প্রশ্ন নিম্নের প্রশ্নের উত্তর দেয়ার আগে, দয়া করে পূর্ববর্তী পৃষ্ঠার বিবরণী পড়ুন।

- আপনার বয়স কত?
  - ১। ১৮- ২৪ বছর
  - ২। ২৫-৩৫ বছর
  - ৩। ৩৬ এবং ৩৬ বছরের উপরে।
- আপনার লিঙ্গ কি?
  - ১। ছেলে
  - ২। মেয়ে
- আপনার সর্বোচ্চ শিক্ষাগত যোগ্যতা কি?
  - ১। প্রাথমিক
  - ২। মাধ্যমিক
  - ৩। উচ্চ মাধ্যমিক এবং তার উপরে।
  - ৪। অশিক্ষিত
- আপনি কোথায় বাস করেন?
  - ১। গ্রাম
  - ২। শহর
- আপনার বৈবাহিক অবস্থা কি?
  - ১। অবিবাহিত
  - ২। বিবাহিত
  - ৩। বিবাহ বিচ্ছেদ
  - ৪। সহবাস
  - ৫। বিধবা
- আপনি আগে কি কাজ করতেন?
  - ১। চাকুরি
  - ২। ব্যবসা
  - ৩। পড়ালেখা
  - ৪। গৃহিনী
  - ৫। বেকার
  - ৬। অন্যান্য

- আপনার মাসিক আয় কত টাকা ছিল?

  ১। কোন আয় নেই।

  ২। ১০০০-১০০০০ টাকা।

  ৩। ১১০০০-২০০০০ টাকা।

  ৪। ২১০০০-৫০০০০ টাকা।

  ৫। ৫০০০০ টাকার উপরে।

- আপনি কি ধরনের মাদক সেবন করতেন?

  ১। এক ধরনের মাদক।

  ২। দুই ধরনের মাদক।

  ৩। তিন ধরনের মাদক।

  ৪। বিভিন্ন ধরনের মাদক।

- আপনি কিভাবে মাদক সেবন করতেন?

  ১। প্রতিদিন

  ২। সপ্তাহে

  ৩। সপ্তাহে একাধিক বার।

- আপনি মাদক সেবনের টাকা কিভাবে সংগ্রহ করতেন?

  ১। চুরি

  ২। ব্যবসা

  ৩। মাদক ব্যবসা

  ৪। পরিবার থেকে

  ৫। অন্যান্য

APPENDIX-9

WHOQOL-Bref questionnaire in Bangla

C. (WHOQOL-BREF) এ অংশের মূল্যায়ন, আপনি আপনার 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 স্মরন রাখুন। আমরা আপনার জীবনের গত দুসপ্তাহের কথা স্মরন করতে বলবো।

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

		খুব খারাপ	খারাপ	ভালও নয় খারাপও নয়	ভাল	খুব ভাল
1. (G1)	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 দুপ্তাহে নিম্নবর্নিত অভিজ্ঞতাগুলো কি পরিমানে হয়েছে সে সম্পর্কে ।

		একদম না	কম	মোটামুটি	বেশী	খুব বেশী
3. (F1.4)	শারীরিক ব্যথার জন্য আপনি কি পরিমান প্রয়োজনীয় কাজ থেকে বিরত ছিলেন?	1	2	3	4	5
4. (F1.3)	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 অর্থপূর্ন 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 নিরাপত্তা অনুভব করেন?	1	2	3	4	5
9. (F22.1)	আপনার ভৌত পরিবেশ কতটুকু স্বাস্থ্যকর?	1	2	3	4	5

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

		একদম না	কম	মোটামুটি	অধিকাংশ	পরিপূর্নভাবে
10. (F2.1)	আপনার কি প্রতিদিন কাজ করার মত শক্তি আছে?	1	2	3	4	5
11. (F7.1)	আপনি কি আপনার শরীরের গড়ন নিয়ে সন্তুষ্ট?	1	2	3	4	5
12. (F18.1)	আপনার কি প্রয়োজন মেটাতে যথেষ্ট 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 দুসপ্তাহে 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)	আপনার 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 আপনার 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 দুসপ্তাহে ঐ নির্দিষ্ট বিষয়সমূহ আপনি কতবেশী/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

(নিশ্চিত হোন যে সব প্রশ্নের উত্তর দেয়া হয়েছে।)