

CERTIFICATE

This is to certify that, the thesis “Tendency of Substance & Drug Abuse on Universities Students of Bangladesh” submitted to the Department of Pharmacy, East West University, Mohakhali, Dhaka-1212, in partial fulfillment of the requirements for the degree of Bachelor of Pharmacy (B. Pharm) was carried out by Loknath Saha (ID# 2005-2-70-047) under our guidance and supervision and that no part of the thesis has been submitted for any other degree. We further certify that all the sources of information and facilities availed of in this connection is duly acknowledged.



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Dedicated to

My Dear Parents, My Respectable Teachers

And

My Dear Friends

Tendency of Substance & Drug Abuse on Universities Students of Bangladesh

**A thesis report submitted to the department of pharmacy, East West University,
Bangladesh, in partial fulfillment of the requirements for the degree of Bachelor of
Pharmacy.**

**Submitted by:
Loknath Saha
ID# 2005-2-70-047**

The Mission

As a student of university in Bangladesh, the survey of taking drugs & substance abusing is dedicated to protecting health and saving lives of students from substance abusing. Every day, the different organizations involve in Public Health work to keep millions around the world safe from illness and injury by pioneering new research, deploying its knowledge and expertise in the field and educating tomorrow's scientists and practitioners in the global defense of human life. The overarching mission of this paper is to aware & advance the public's health through learning, and communication.



Acknowledgement

At first I would like to thank the most merciful and almighty GOD who has given me strength to complete this report on “Tendency of Substance & Drug Abuse on Universities Students”.

I would also like to thanks Mr. **Atiqul Haque Pathan (AHP)**, our respective Course Instructor of Pharmaceutical Research (PHRM-404). He has helped me a lot and given me the proper direction and guideline to complete this report “Tendency of Substance & Drug Abuse on Universities Students”.

I would also like to thanks the students of East West University, North South University, The University of Asia Pacific, Dhaka University and others. They have given me lots of support to complete this report by providing necessary data, information and advices.

Abstract

Purpose: The objective of this research work was to prepare and evaluate the students set out to invent drugs especially for recreational human consumption with the increased size and scope of the drug uses. The elderly are among those most vulnerable to prescription drug abuse or misuse because they are prescribed more medications than their younger counterparts. Most people take prescription medications responsibly; however, an estimated 48 million people (ages 12 and older) have used prescription drugs for nonmedical reasons in their lifetimes. **Method:** This community-based & descriptive study was conducted in 4 selected universities of Dhaka city over a 9-month period. These selected areas included their campus for moving into the university and in other locations with major concentrations of addicted people. **Findings:** The alarming is the fact that the survey found that these medications among the most commonly abused prescription drugs by adolescents. The abuse of certain prescription drugs-opioids, central nervous system (CNS) depressants, and stimulants- can alter the brain's activity and lead to addiction. While we do not yet understand all of the reasons for the increasing abuse of prescription drugs, we do know that accessibility is likely a contributing factor. In addition to the increasing number of medicines being prescribed for a variety of health problems, some medications can be obtained easily from pharmacies. **Conclusion:** It hopes to decrease the prevalence of this problem by increasing awareness and promoting additional research on prescription drug abuse. Prescription drug abuse is not a new problem, but one that deserves renewed attention. It is imperative that as a Nation we make ourselves aware of the consequences associated with the misuse and abuse of these medications from the young generation.

Methodology: This community-based, cross-sectional and descriptive study was conducted in five selected universities of Dhaka city over a 9-month period from January to October 2009. These selected areas included their campus for moving into the university and in other locations with major concentrations of addicted people.

Sampling : Samples were drawn from adult men and women who are between 19 to 26. To identify potential participants for inclusion in the study, enrollment was carried out at home while the students prepared to sleep. Depending on the number of adults available for interview, clusters of five respondents were sometimes required. We (interviewer) went to the centre of the location being occupied by students and spun a bottle to randomly select a direction. The interviewers used a table of random numbers for selecting a number (n) between one and the number of adults along the direction pointed by the bottle. Counting adults situated along that direction, the first Interview was with the EWU students. Subsequent interviews were conducted with the nearest adult until the cluster was completed.

Sample size : For the survey questionnaire, a sample was required for females and males aged 19-26 years. The sample size required using simple random sampling was 250. However, Allowing for an unknown cluster-sampling design effect. In total, we conducted 250 semi-structured interviews: 150 with men and 100with women.

Collection of data and research instrument: We (interviewers) conducted a cross-sectional semi structured survey of students). Information was collected on substance and drug-abuse. The sets of questionnaire contained structured questions that were pre-coded and also contained several open-ended questions. Five interviewers (four males and one females aged 21- 25 years) with experience and worked together in each site.

Several measures were taken to ensure the safety of the interviewers. Before conducting interviews in a cluster area, we informed them about the survey. Further, influential persons in the cluster areas were contacted before the start of interviews. Last, we mandated that interviewers travel and work in individuals.



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[1.1] **Introduction:** A growing number of literature and empirical research have documented on drug abusing on youth. While it is difficult to give an accurate picture of the extent of drug abuse among youth because of the severe lack of information, we can look at smaller samples of young people in our countries for some indication of the direction youth culture is taking. Since youth culture is increasingly global and emanates from the West, studying target groups in these countries can provide some hints about the new trends in drug abuse. The understanding of the relationship between drug abuse and young generation is currently at the heart of social research. There is a consistent worry in and by the mass media, communities, parents and the public at large of the various problems brought about by youth who abuse drugs. This paper attempts to explain the relationship between abusing drugs and in which way they are involved. The theoretical implication of the study is that drug abuse alone is an inadequate explanatory variable for why drug abusers become involved in addiction. For a proper understanding of activities committed by drug abusers, focus must go beyond their addiction to drugs to include both micro and macro factors in order to obtain a proper understanding of addiction, the dependent variable of this research. Understanding what drugs are is fundamental to understanding their potential abuse. ^[7] ^[40]

A drug is abused when its usage is socially and medically disapproved. Thus drug abuse is a situation when a drug is taken out of any medication, at the same time, it is socially disapproved and or the use of illicit drugs and substances. Drug addiction is the continued use of drugs, which leads to dependence on the drug. According to Clinard and Meier (1995), the term "addiction" refers to physical dependence, an adaptive state of the body that is manifested by physical disturbance when drug use stops . It is understood from this definition that drug addiction/abuse is a situation when illicit drugs are continuously used because the addict anticipates pains or discomfort if he/she withdraws from the use of the drug. . Influenced by these, many youths are inclined to imitate the so-called 'fast life' and take drugs as a symbol of status. ^[40]

[1.2] **Definition of drug abuse & its types:** A psychoactive substance is something that people takes to change the way they feel, think or behave. Some of these substances are

called drugs, and others, like alcohol and tobacco, are considered dangerous but are not called drugs. The term drug also covers a number of substances that must be used under medical supervision to treat illnesses. For our purposes then, we will talk about drugs as those man-made or naturally, occurring substances used without medical supervision to change the way a person feels, thinks or behaves so that they "can have fun."

Drugs are chemicals that tap into the brain's communication system and disrupt the way nerve cells normally send, receive, and process information. There are at least two ways that drugs are able to do this: (1) by imitating the brain's natural chemical messengers, and/or (2) by over stimulating the "reward circuit" of the brain. ^[14]

Some drugs, such as marijuana and heroin, have a similar structure to chemical messengers, called neurotransmitters, which are naturally produced by the brain. Because of this similarity, these drugs are able to "fool" the brain's receptors and activate nerve cells to send abnormal messages.

Other drugs, such as cocaine or methamphetamine, can cause the nerve cells to release abnormally large amounts of natural neurotransmitters, or prevent the normal recycling of these brain chemicals, which is needed to shut off the signal between neurons. This disruption produces a greatly amplified message that ultimately disrupts normal communication patterns. ^[15]

Nearly all drugs, directly or indirectly, target the brain's reward system by flooding the circuit with dopamine. Dopamine is a neurotransmitter present in regions of the brain that control movement, emotion, motivation, and feelings of pleasure. The over stimulation of this system, which normally responds to natural behaviors that are linked to survival (eating, spending time with loved ones, etc. produces euphoric effects in response to the drugs. This reaction sets in motion a pattern that "teaches" people to repeat the behavior of abusing drugs. ^[11]



As a person continues to abuse drugs, the brain adapts to the overwhelming surges in dopamine by producing less dopamine or by reducing the number of dopamine receptors in the reward circuit. As a result, dopamine's impact on the reward circuit is lessened, reducing the abuser's ability to enjoy the drugs and the things that previously brought pleasure. This decrease compels those addicted to drugs to keep abusing drugs in order to attempt to bring their dopamine function back to normal. In addition, they may now require larger amounts of the drug than they first did to achieve the dopamine high—an effect known as tolerance. ^[17]

Long-term abuse causes changes in other brain chemical systems and circuits as well. Glutamate is a neurotransmitter that influences the reward circuit and the ability to learn. When the optimal concentration of glutamate is altered by drug abuse, the brain attempts to compensate, which can impair cognitive function. Drugs of abuse facilitate no conscious (conditioned) learning, which leads the user to experience uncontrollable cravings when they see a place or person they associate with the drug experience, even when the drug itself is not available. Brain imaging studies of drug-addicted individuals show changes in areas of the brain that are critical to judgment, decision making, learning and memory, and behavior control. Together, these changes can drive an abuser to seek out and take drugs compulsively despite adverse consequences—in other words, to become addicted to drugs.

Drug abuse also causes brain damage. Again, depending on the drug, the strength and character of this damage varies. However, one thing is clear, drug abuse affects the way the brain functions and alters its responses to the world. That is what psychoactive means, after all, something that acts on your brain. How drug abuse will affect your behavior, actions, feelings and motivations is unpredictable. By meddling in the natural ways the brain functions, abusers exposes themselves to risks they may not even have imagined.

Finally, drug abuse damages the ability of people to act as free and conscious beings, capable of taking action to fulfill their needs. How free drug abusers are when they have no control over their actions or reactions is debatable. What is unarguable is that by

giving in to bio-chemical processes that are deviant, a drug abuser loses what makes humans admirable and unique. ^[21]

[1.3] **Drug Abuse types:** Drugs of abuse are of two types: natural drugs and psychotropic substances (or synthetic substances). The former includes opium, cocaine and cannabis. The latter includes pethidine, barbiturates, tranquilizers, amphetamines, lysergic acid diethylamide. Both types are subject to control under United Nations Conventions. Drugs, which are mostly abused in Bangladesh, are heroin, hemp (ganja), pethidine and some psychotropic substances such as mandrax, valium, librium, secondal, etc.

Previously ganja was cultivated in Naogaon. In the past, this was a good source of revenue but now, since Bangladesh is a signatory of the UN Convention, its production was stopped in all phases in this country. ^[15]

[1.4] **Commonly Abused Drugs:** Drugs known to cause addiction include illegal drugs as well as prescription or over-the-counter drugs, according to the definition of the American Society of Addiction Medicine are: ^[29] ^[26]

Stimulants:

- Amphetamine and Methamphetamine
- Caffeine
- Cocaine
- Nicotine

- Sedatives and Hypnotics:
 - Alcohol
 - Barbiturates

- Benzodiazepines
- Phensedyl
- Marijuana/ Cannabis(Ganja)
- Opiate and Opioid analgesics

- Morphine and Codeine
- Heroin
- Meperidine/Pethidine

[1.5] **Reasons of drug abuse:** No single factor can predict whether a person will become addicted to drugs. Risk for addiction is influenced by a person's biology, social environment, and age or stage of development. The more risk factors an individual has, the greater the chance that taking drugs can lead to addiction. ^[42]

For example:

- **Biology:** The genes that people are born with—in combination with environmental influences—account for about half of their addiction vulnerability. Additionally, gender, ethnicity, and the presence of other mental disorders may influence risk for drug abuse and addiction.
- **Environment:** A person's environment includes many different influences—from family and friends to socioeconomic status and quality of life in general. Factors such as peer pressure, physical and sexual abuse, stress, and parental involvement can greatly influence the course of drug abuse and addiction in a person's life.
- **Development:** Genetic and environmental factors interact with critical developmental stages in a person's life to affect addiction vulnerability, and adolescents experience a double challenge. Although taking drugs at any age can lead to addiction, the earlier that drug use begins, the more likely it is to progress to more serious abuse. And because adolescents' brains are still developing in the areas that govern decision-making, judgment, and self-control, they are especially prone to risk-taking behaviors, including trying drugs of abuse.
- **Sometimes they are self-depressed and forward themselves to drug abuse,** which leads to drug addiction.

[1.6] Abuse & Addiction: The nonmedical use or abuse of prescription drugs is a serious and growing public health problem in this country. The elderly are among those most vulnerable to prescription drug abuse or misuse because they are prescribed more medications than their younger counterparts. Most people take prescription medications responsibly; however, an estimated 48 million people (ages 12 and older) have used prescription drugs for nonmedical reasons in their lifetimes. ^[15]

The abuse of certain prescription drugs-opioids, central nervous system (CNS) depressants, and stimulants- can alter the brain's activity and lead to addiction. While we do not yet understand all of the reasons for the increasing abuse of prescription drugs, we do know that accessibility is likely a contributing factor. In addition to the increasing number of medicines being prescribed for a variety of health problems, some medications can be obtained easily from online pharmacies. Most of these are legitimate businesses that provide an important service; however, some online pharmacies dispense medications without a prescription and without appropriate identity verification, allowing minors to order the medications easily over the Internet. ^[42]

We hope to decrease the prevalence of this problem by increasing awareness and promoting additional research on prescription drug abuse. Prescription drug abuse is not a new problem, but one that deserves renewed attention. It is imperative that as a Nation we make ourselves aware of the consequences associated with the misuse and abuse of these medications. ^[15]



Part 2: Impact of drug abuse

II. The measurement of impact of drug abuse

[2.1] Familial Impact of drug abuse: The family is often viewed as the basic source of strength, providing nurturance and support for its individual members as well as ensuring stability and generational continuity for the community and culture. One of the saddest aspects of the insidious nature of drug addiction is that by the time an addict realizes he/she has a problem, that problem has already taken a heavy toll on the family. Drug addiction on family impact is immeasurable but at the same time very subtle.

Drawing on a substantial research study comprising interviews with problem drug users and their extended family, Marina Barnard examines the effects of drug use not only the effects of drug use not only on drug users themselves, but also the feelings of anger, sadness, anxiety, shame and loss that are commonly experienced by their extended family. She records the effects of drug use on family dynamics and relationships, including possible social and emotional costs. Its impact on the physical and mental health of family members is also discussed. The author highlights the often-overlooked role of grandparents in protecting the children of drug users and considers the perspectives of practitioners such as teachers, social workers and health professionals. The conclusions drawn point to the fact that current service provision, in treating the problem drug user in isolation, fails to address the needs of drug-affected families, and misses the opportunity to develop family-oriented support and treatment.

Women who are not drug abusers may be affected by problems related to drug abusing men. The problems of male partners may affect women in the form of difficulties in interpersonal relationships, instability, violence, child abuse, economic insecurity, deprivation of schooling and risk of sexually transmitted disease, including HIV infection.^[12]

[2.2] **The Effects of Stress on Drug Abuse** : The emotional impact and uncertainty stemming from the overwhelming damage to our people of our society make it more important than ever that we have effective methods to cope with stress. These times may

be particularly difficult for people who are vulnerable to substance abuse or who may be recovering from an addictive disorder. We know, for example, that stress is one of the most powerful triggers of relapse, even after prolonged periods of abstinence from drugs of abuse.

It is especially important during these stressful and uncertain times that we all focus on restoring our emotional well-being. We must be attentive to how we as individuals are responding to stress - and to how our family, friends, and colleagues are responding. Be alert for increases in substance use and make sure that substance abusers and those with mental health problems seek professional help. ^[40]

[2.3] Economical impact of drug abuse: Substance-abuse related cases tend to be more expensive to treat than the average hospital case, accounting for 23 percent, or nearly one fourth, of the total Medicare payments for hospital care in the US. Furthermore, Medicare spent over \$13 billion of its \$57 billion inpatient short-stay hospital expenditures on substance-abuse related care. These amounts exceed the 1 out of 5 dollars spent in the Medicaid program for substance-abuse related conditions. The economic cost of drug abuse in the United States was estimated at \$180.9 billion in 2002 due to criminal justice system activities, including productivity losses, expenditures on health services, costs of premature mortality, and therapies for HIV. In Bangladesh, the average cost of drugs per person was from \$1.9 to \$3.1 per day, or from \$707 to \$1,135 per year. ^[13]

[2.4] Drug situation in Bangladesh: Because of its geo-political situation and porous border, Bangladesh has turned into a country, which is both a consumer of and a transit route for illicit drugs to international markets. Bangladesh produces opium and cannabis, though in minute quantity, in Bandar ban district along the Myanmar border, the northeastern region and in southern silt islands. Drug abuse and addiction have become a growing phenomenon in Bangladesh, especially in cities. It has affected people from all unofficial estimates of the number of illicit drug users show more than 2 million, including women, and the age group with the highest frequency of drug use is 18-35

years. The prevalence of illicit drug use was 4 per cent: cannabis (3%), phensydil (0.8%), heroin (0.3%), and charas (0.3%) and is on the rise.

The most commonly injected drug is buprenorphine (Tidigesic). A national survey data indicates that HIV incidence among IDUs jumped from 1.8% in 2001 to more than 4% in 2004. In one Dhaka "hotspot" the prevalence has jumped to 8.9%, indicating the start of a concentrated epidemic among this group. Another study found marked increase of seroprevalence of markers of hepatitis among IDUs.

Drug addiction, a decaying menace, is not only injurious to an individual but also imperils the health of the entire social fabric and national development, with fast cascading impact. Drug abuse is responsible for lost wages, soaring health-care costs, broken families, increased complicated diseases, deteriorating community living, and loss of productive force. Many people in the country are improperly informed about the potentially devastating affects of drugs.

There should be massive campaign to spread the understanding about the damaging effects of narcotics. In order to reverse the trend of addiction in Bangladesh, it is important to address the endemic poverty, absence of economic opportunities, and the social ills. We must declare an emergency war on drug addiction in its "highest priority" to save the country from imminent self-destruction, and fight all together hand in hand to say just say no to illicit drugs. ^[42]

[2.5]Geographical vulnerability of Bangladesh: Bangladesh is located between the Golden Crescent to the west, comprising Afghanistan, Pakistan and Iran, and the Golden Triangle to the east, comprising Myanmar, Laos, Vietnam and Thailand. Afghanistan remains the largest cultivator of illicit opium poppy in the world, accounting for approximately 87% of illicit opium worldwide, and amounts to one third of its GDP. Myanmar is the world's second largest producer of illicit opium, with annual production of 1,090 metric tones. ^[42]By far the most important drug-threat for Bangladesh is from India. India's large and fairly advanced chemical industry manufactures a wide range of

chemicals, including precursor chemicals acetic anhydride (AA), ephedrine and pseudo ephedrine, and other chemicals which can be diverted for the manufacture of illicit narcotics. Indian opium stocks now exceed minimum requirements, almost tripling between 1999 to 2003, from a stock of 509 metric tons in 1999-2000 to 1776 metric tons in 2005-06. Most of India's brown sugar heroin comes from diverted licit Indian opium and is locally manufactured and transmitted in Bangladesh, Nepal, Sri Lanka, and the Maldives. India produces methaqualone (mandrax), psychotropic pharmaceuticals (LOPPS), and both organic and synthetic and extremely harmful phensydil, which are supplied to Bangladesh, Pakistan, Middle East and Nepal. Within the bordering localities of India, there are a number of small, medium, or even large factories, producing phensydil.

[2.6]Drug addicted in percentage: Peoples type Addicted in percentage^[42]

- * Male 93.9 %
- * Female (in Dhaka city) 20.6 %
- * Unmarried 64.8 %
- * Either students or unemployed (youth generation) 56.1 %
- * Smokers 95.4 %
- * Influenced by friends 85.7 %
- * Addicted to codeine-containing cough syrup 65.8 %
- * Addicted to more than one drug 64.3 %
- * Took drugs in groups 65.8 %
- * A history of unprotected sex 63.8 %

Part three: Data analysis

[3] Chapter-1: Data in Table

Data analysis: Data were collected from different sources.

1. Survey by the writers

Collected from sources

Writer's survey data:

TOTAL NO. OF DRUG USER	200
AVERAGE AGE	23

Table-1: Distribution of the respondents by their network

	Total	%
EAST WEST UNIVERSITY	91	45
NORTH SOUTH UNIVERSITY	36	18
UNIVERSITY OF DHAKA	42	21
OTHERS	31	16

Graph-1: Distribution of the respondents by their network.

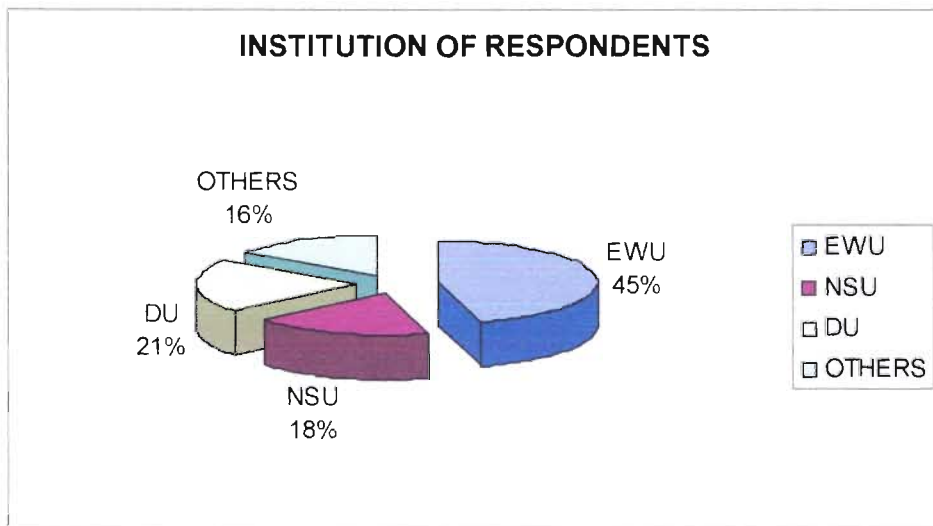


Table-2: Distribution of the respondents by their SEX

	Total	%
MALE	133	66
FEMALE	67	44

Graph-2: Distribution of the respondents by their SEX

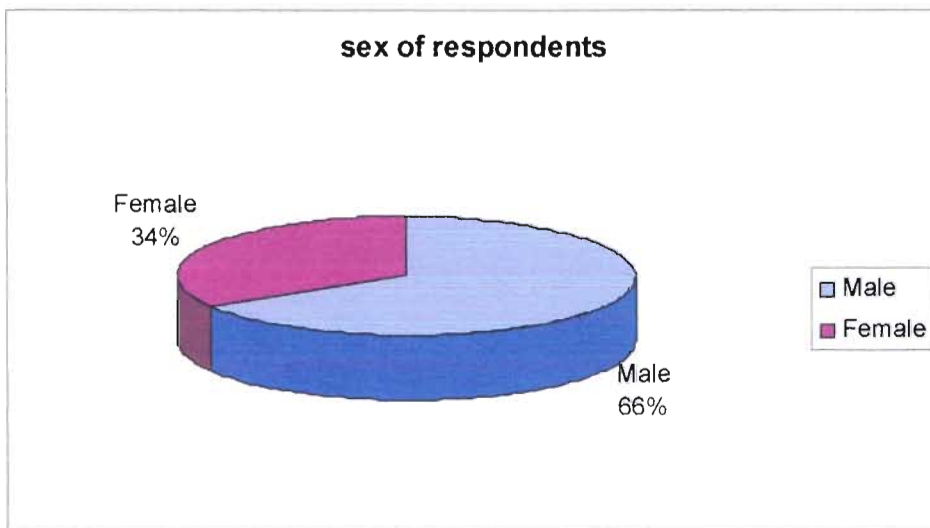


Table-3: Distribution of the respondents by their AGE

AGE	TOTAL	%
19	8	4
20	17	9
21	27	14
22	45	22
23	40	23
24	30	15
25	18	9
26	15	8

Graph-3: Distribution of the respondents by their AGE

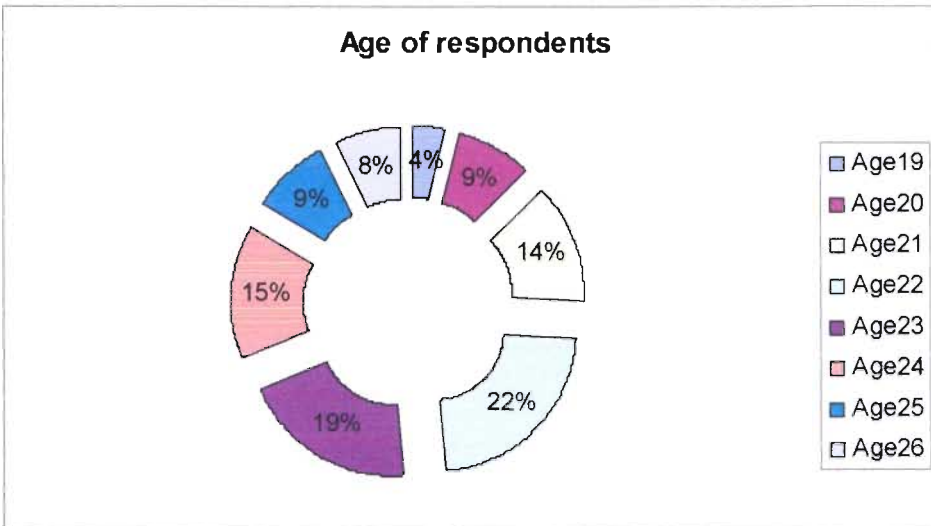


Table-4: Distribution of the respondents by their depressed at time

	Total	%
YES	167	83
NO	33	17

Graph-4: Distribution of the respondents by their depressed at time

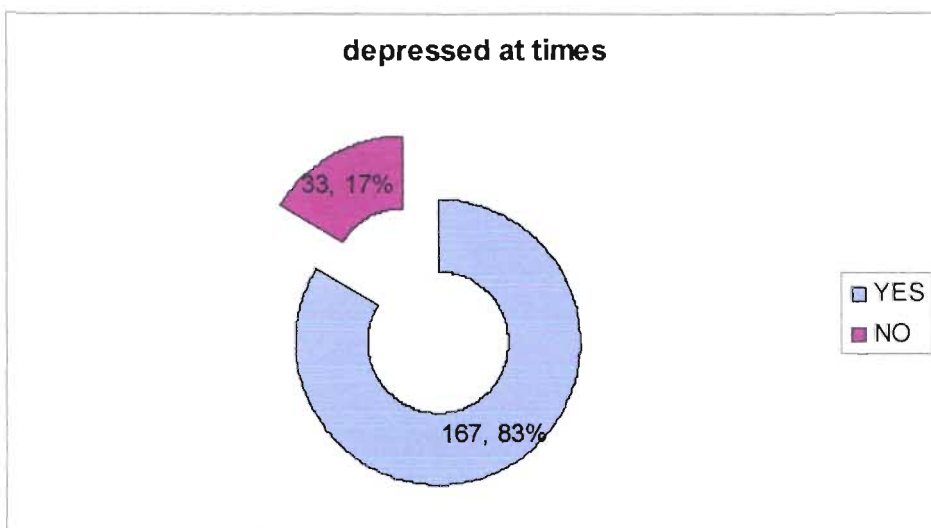


Table-5: Distribution of the respondents who have reason behind depression

	Total	%
STUDY	38	19
FAMILY PROBLEMS	59	29
WITHOUT ANY REASON	21	11
OTHERS	56	28
No comments	12	6
both	14	7



Graph-5: Distribution of the respondents who have reason behind depression

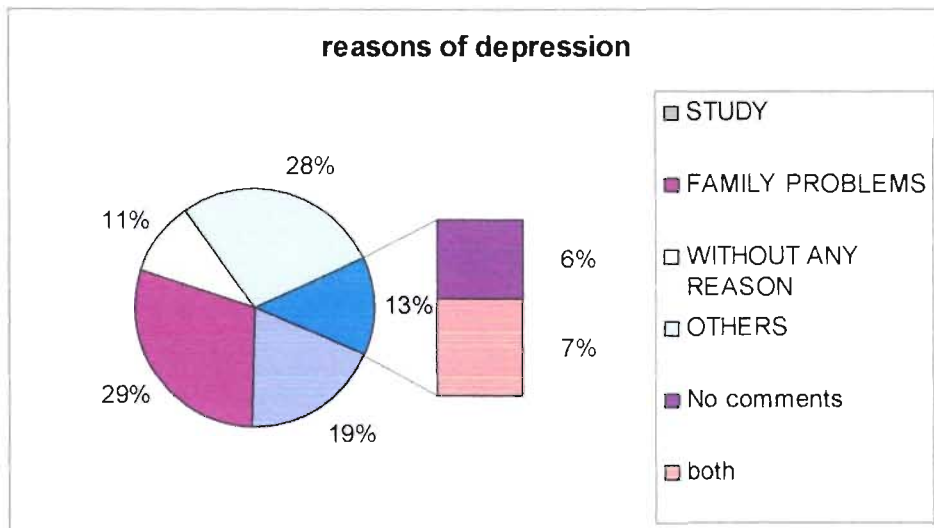


Table-6: Distribution of the respondents who have problems regarding sleeping

	Total	%
YES	47	24
NO	95	47
SOMETIMES	58	29

Graph-6: Distribution of the respondents who have problems regarding sleeping

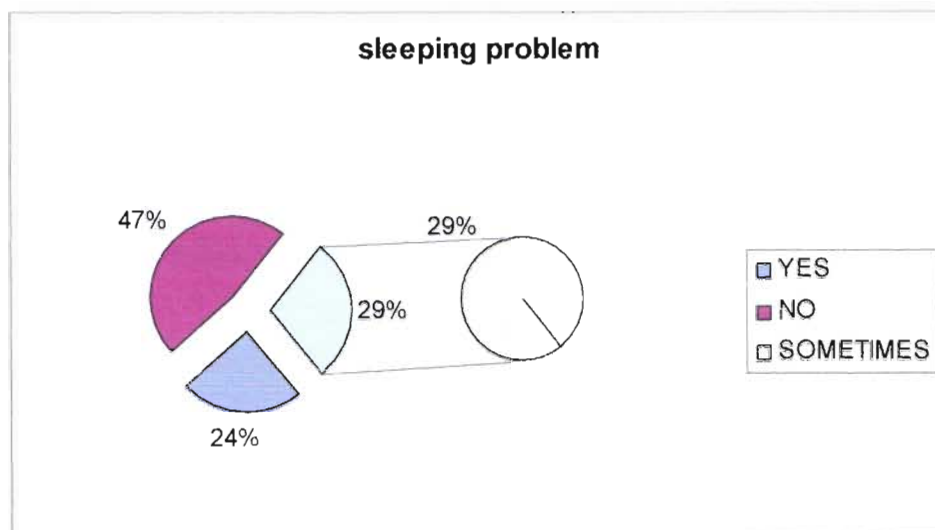


Table-7: Distribution of the respondents who have ever seen a doctor regarding sleeping problems

	Total	%
YES	17	9
NO	183	91

Graph-7: Distribution of the respondents who have ever seen a doctor regarding sleeping problems

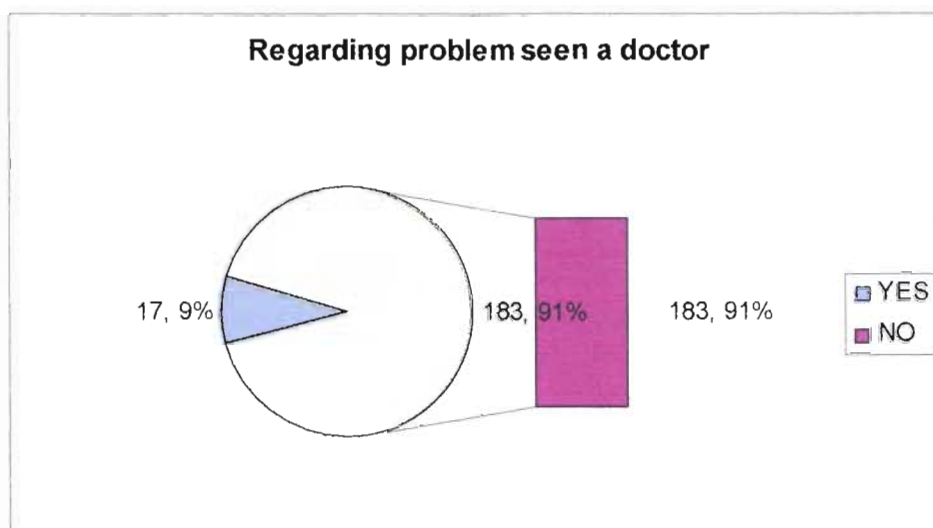


Table-8: Distribution of the respondents to use drugs to overcome depression

	Total	%
YES	53	27
NO	147	73

Graph-8: Distribution of the respondents to use drugs to overcome depression

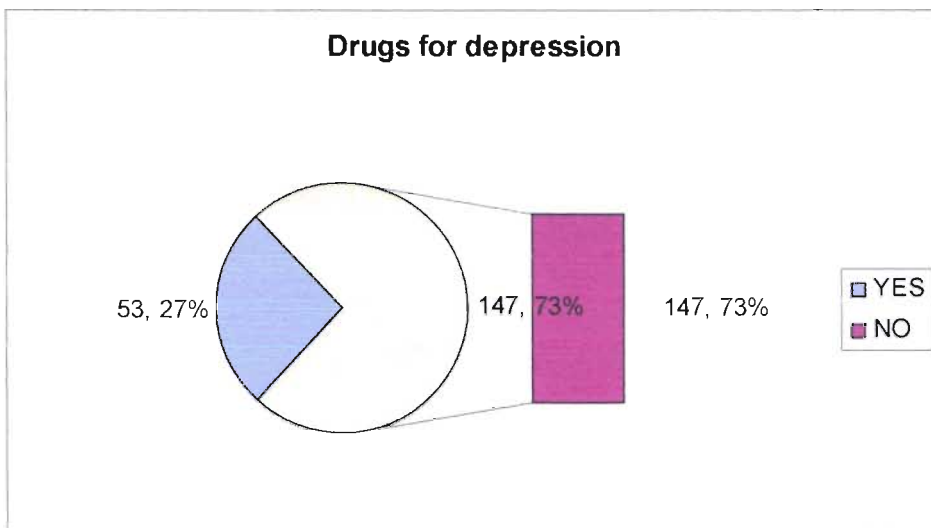


Table-9: Distribution of the respondents to use drugs to overcome anxiety

	Total	%
YES	38	19
NO	162	81

Graph-9: Distribution of the respondents to use drugs to overcome anxiety

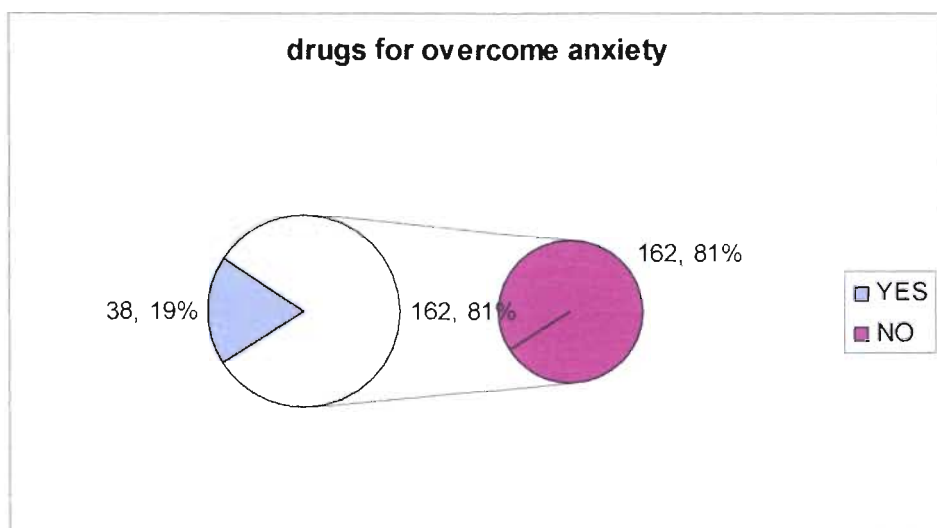


Table-10: Distribution of the respondents to use drugs which a doctor prescribed

	Total	%
YES	03	2.5
NO	196	97
Yes but for a certain period	01	.5

Graph-10: Distribution of the respondents to use drugs which a doctor prescribed.

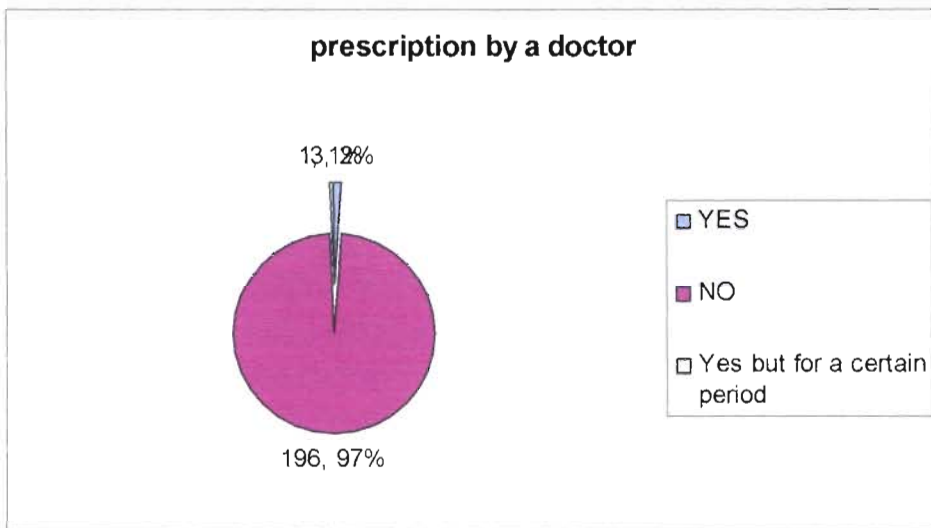


Table – 11: Distribution of the respondents who have ever taken any drug for insomnia

	Total	%
Yes	88	44
No	112	56

Graph-11: Distribution of the respondents who have ever taken any drug for insomnia

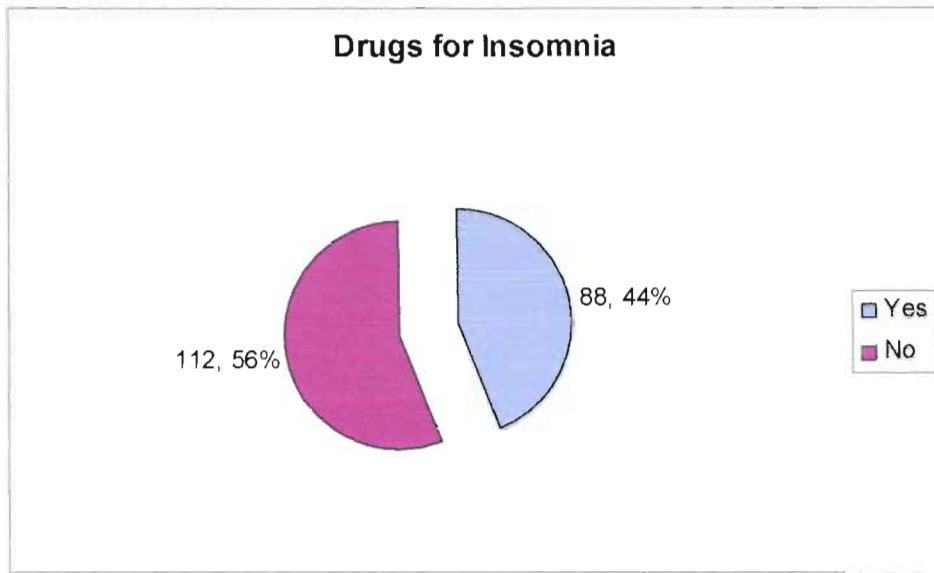


Table-12: Distribution of the respondents to use drugs which was prescribed by a doctor

	Total	%
Yes	11	6
No	176	87
No comments	13	7

Graph-12: Distribution of the respondents to use drugs which a doctor prescribed

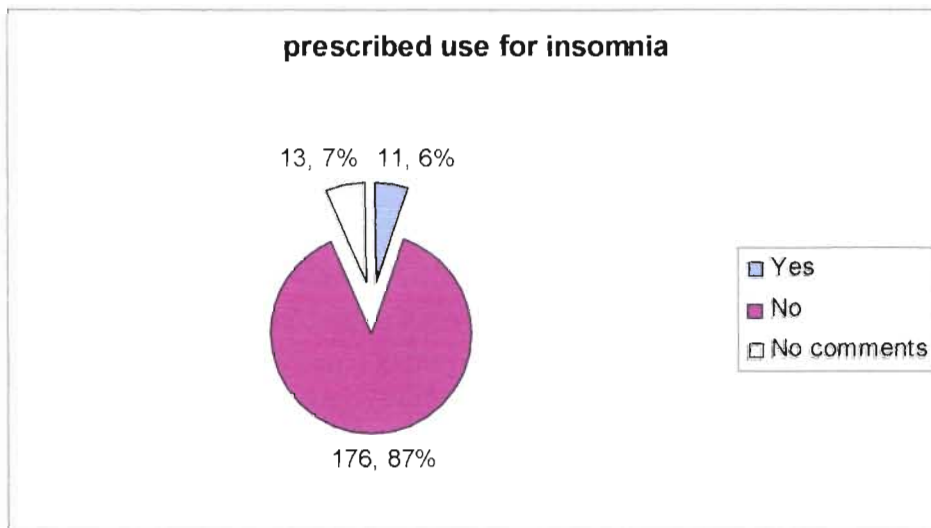


Table – 13: Distribution of the respondents by their drug information

Chemist shop	34	17%
Friends	90	45%
Self motivation	30	15%
both	06	3%
No comments	40	20%

Graph-13: Distribution of the respondents by their drug information.

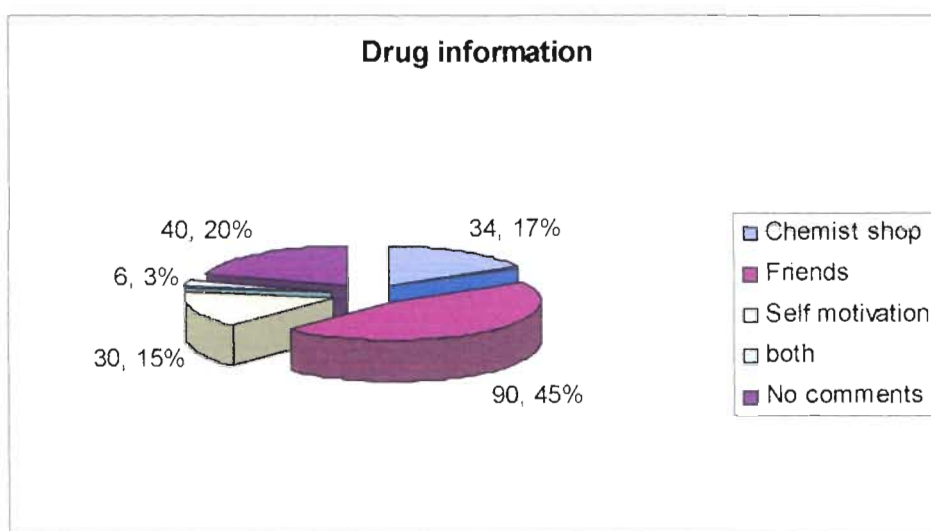


Table – 14: Distribution of the respondents who have taken drug just for curiosity

	Total	%
Yes	88	44
No	111	55
No comments	01	1

Graph-14: Distribution of the respondents who have taken drug just for curiosity

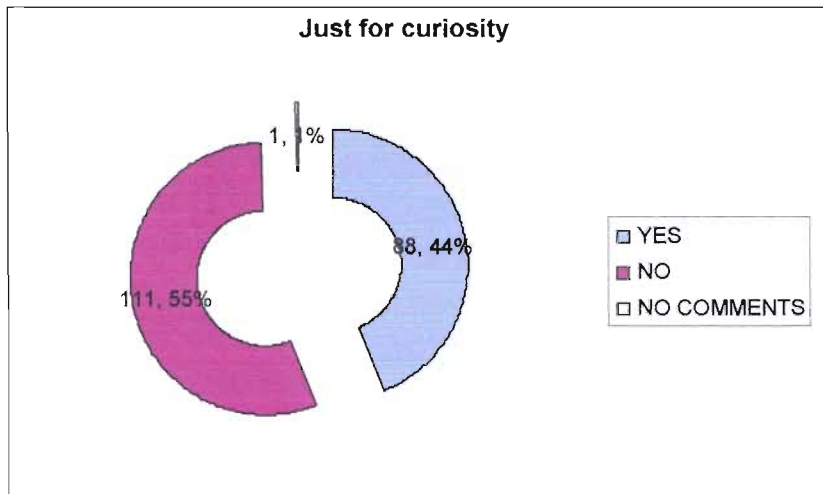


Table – 15: Distribution of the respondents who have become dependent on the drug

	total	%
Yes	42	21
No	158	79

Graph-15: Distribution of the respondents who have become dependent on the drug

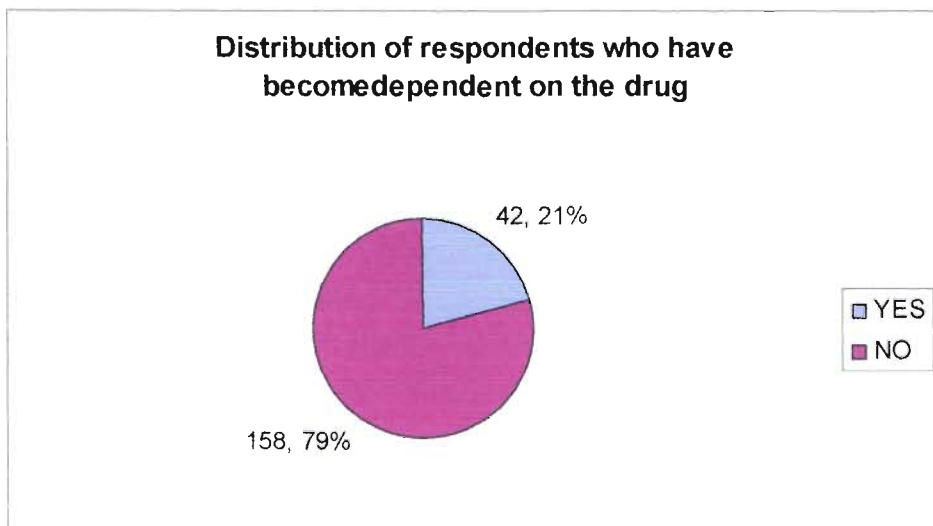


Table – 16: Distribution of the respondents who have informed about long term consequence of drug.

	Total	%
Yes	97	49
No	102	50
No comments	01	1

Graph-16: Distribution of the respondents who have informed about long term consequence of drug.

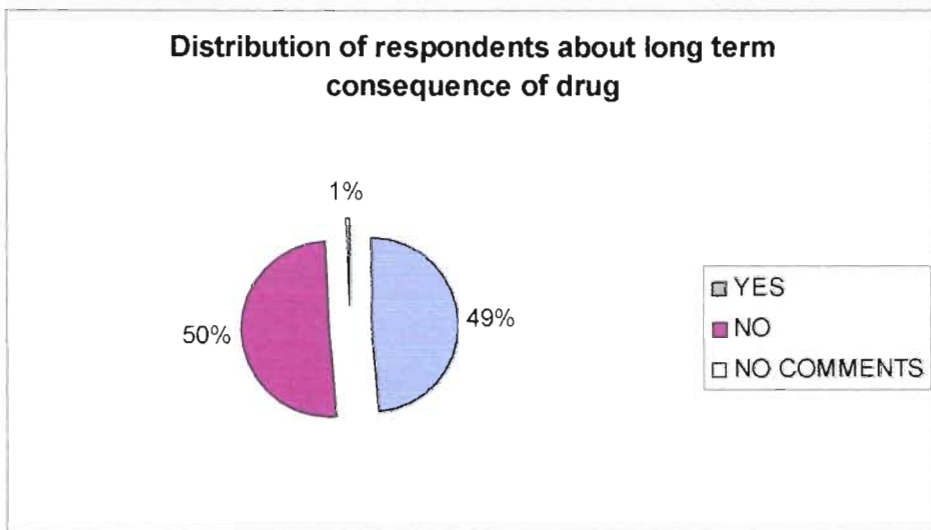


Table – 17: Distribution of the respondents to know about availability of the drug

	Total	%
Yes	117	58
No	75	38
No comments	08	4

Graph-17: Distribution of the respondents to know about availability of the drug

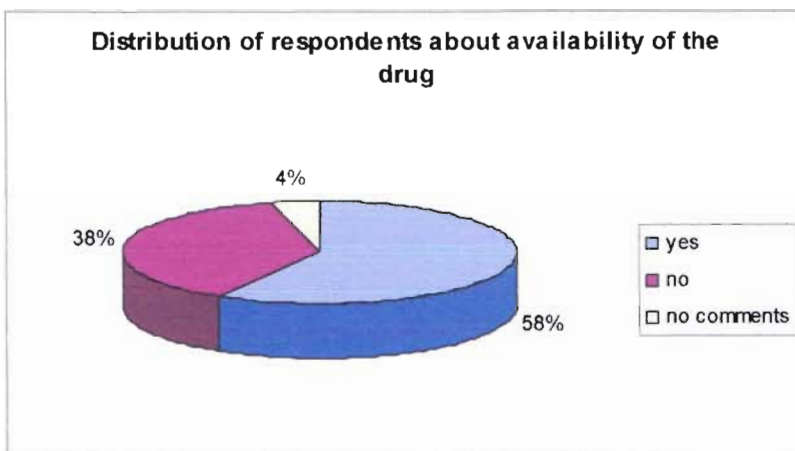


Table – 18: Distribution of the respondents who are able to keep to the limit set

	Total	%
Usually kept to the limit set	153	85
Often used more then intended	25	14
No comments	22	1

Graph-18: Distribution of the respondents who are able to keep to the limit set

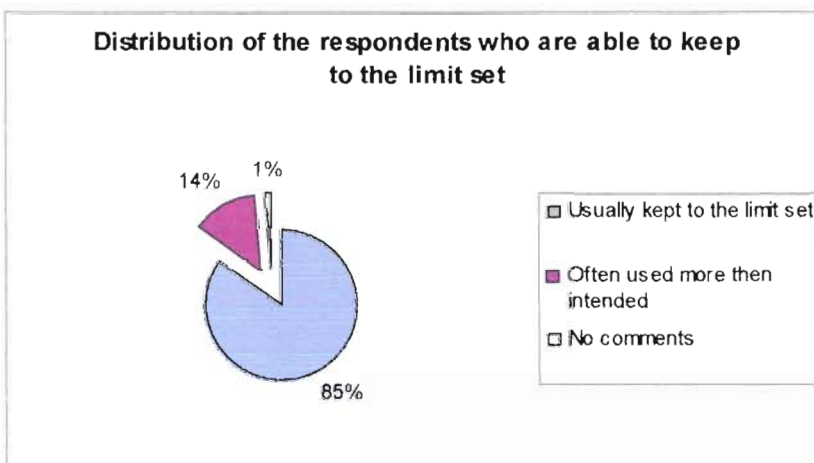
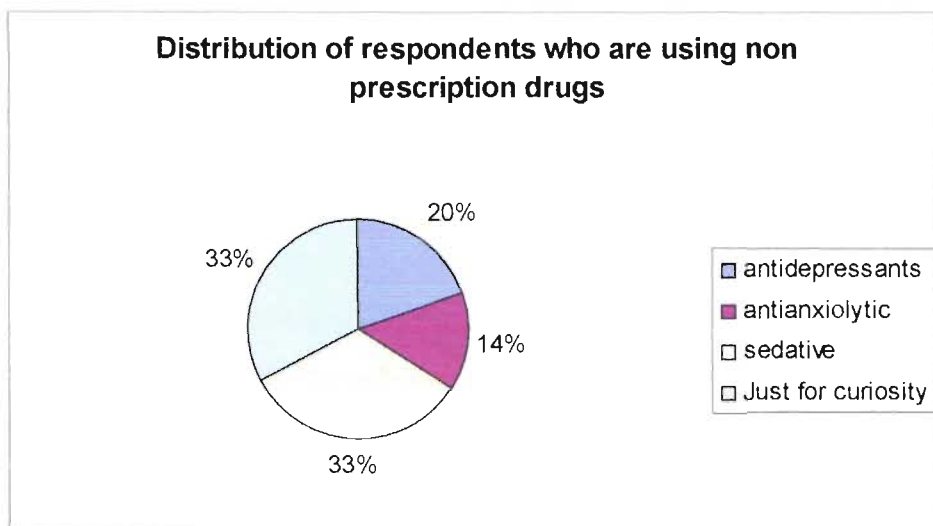


Table – 19: Distribution of the respondents who are using non prescription drug

	Total	%
antidepressants	53	20
antianxiolytic	38	14
sedative	88	33
Just for curiosity	88	33

Graph-19: Distribution of the respondents who are using non prescription drug



Part 4: Treatment Protocol

[4.1] Description of Treatment Protocol: Illicit drug use is a complex but treatable brain disease. It is characterized by compulsive drug craving, seeking, and use that persist even in the face of severe adverse consequences. For most people, misuse drug becomes chronic, with relapses possible even after long periods of abstinence. As a chronic, recurring illness, addiction may require continued treatments to increase the intervals between relapses and diminish their intensity. Through treatment tailored to individual needs, people with drug addiction can recover and lead productive lives. The ultimate goal of drug abusing treatment is to enable an individual to achieve lasting abstinence, but the immediate goals are to reduce drug abuse, improve the patient's ability to function, and minimize the medical and social complications of drug abuse and addiction. Like people with diabetes or heart disease, people in treatment for drug addiction will need to change behavior to adopt a more healthful lifestyle.^[9]

Treatments for drug abusing vary widely according to the types of substance involved, amount of drugs used, duration of the drug addiction, medical complications and the social needs of the individual. Determining the best type of recovery program for a used person depends on a number of factors, including personality, drug(s) of addiction, concept of spirituality or religion, mental or physical illness, and local availability.

The basis of the method lies in the treatment of the brain through a unique combination of medicine, equipment, and a special informational psychotherapy. Medications chosen on an individual basis insure that the patient retains his or her ability to sleep comfortably, and that the overall mood of the patient remains positive.^[1]

Dr. Vorobiev has been treating patients suffering from alcohol and drugs addiction for the last many years. After great research and evaluation, he invented some new and revolutionary methods for the treatment of heroin, cocaine, marihuana, and alcohol and tablet addictions, something that offered real results. His carefully chosen methods create a negative psychological and physiological aversion with the addictive substance.^[2]

Once again Dr. Vorobiev has introduced the blend of various methods combined with his years of experience and expertise to treat Opiates (heroin, methadone, etc.), Cocaine,

Psycho stimulants and Tranquilizers giving unbelievably affective and long term results.

He suggested rehab for following reasons:

- We offer a responsible high quality treatment of drugs (antidepressants, antianxiolytic, sedative) alcohol, benzodiazepines, barbiturates and pathological gambling addiction.
- We carry out serious physical and psychological examinations included the treating of co morbid illnesses.
- Guaranteed discretion and an option of anonymous treatment.

The whole period of treatment consists of six steps. ^[2]

They are:

- Hospitalization
- Diagnostics
- Detoxification
- Treatment itself
- Anti-drug blockade
- Out-patient treatment
- Rehabilitation



[4.2] Types of Treatment: There are two basic types of treatment for drug addiction. ^[9]

{4.2.1} Residential (Non-Pharmacological treatment)

{4.2.1} Anti-addictive drugs (Pharmacological treatment)

4.2.1 Residential treatment: Residential drug treatment can be broadly divided into two camps:

A. 12 step programs or Therapeutic Communities. 12 step programs have the advantage of coming with an instant social support network though some find the spiritual context not to their taste. In the UK drug, treatment is generally moving towards a more integrated approach with rehabs offering a variety of approaches.

A. a. 12 step program: One of many recovery methods is the 12-step recovery program, with prominent examples including Alcoholics Anonymous and Narcotics Anonymous. They are commonly known and used for a variety of addictions for the

individual addicted and the family of the individual. Substance-abuse rehabilitation (or "rehab") centers frequently offer a residential treatment program for the seriously addicted in order to isolate the patient from drugs and interactions with other users and dealers. Outpatient clinics usually offer a combination of individual counseling and group counseling. Frequently a physician or psychiatrist will assist with prescriptions the side effects of the addiction (the most common side effect that the medications can help is anxiety).

In a survey of treatment providers from three separate institutions (the National Association of Alcoholism and Drug Abuse Counselors, Rational Recovery Systems and the Society of Psychologists in Addictive Behaviors) measuring the treatment provider's responses on the Spiritual Belief Scale (a scale measuring belief in the four spiritual characteristics AA identified by Ernest Kurtz); the scores were found to explain 41% of the variance in the treatment provider's responses on the Addiction Belief Scale (a scale measuring adherence to the disease model or the free-will model addiction).

B. Cognitive-Behavioral Therapy These other programs may use Cognitive-Behavioral Therapy an approach that looks at the relationship between thoughts feelings and behaviors, recognizing that a change in any of these areas can affect the whole. CBT sees addiction as a behavior rather than a disease and subsequently curable, or rather, unlearn able. CBT programs recognize that for some individuals controlled use is a more realistic possibility.^[9]

[4.2.2]Anti-addictive drugs: Other forms of treatment include replacement of drugs Substitute drugs for other forms of drug dependence have historically been less successful than opioid substitute treatment, but some limited success has been seen with drugs such as dextroamphetamine to treat stimulant addiction and clomethiazole to treat alcohol addiction. Bromocriptine and desipramine have been reported to be effective for treatment of cocaine but not amphetamine addiction.^[32]

Other pharmacological treatments for alcohol addiction include drugs like naltrexone, disulfiram, acamprosate and topiramate but rather than substituting for alcohol, these drugs are intended to reduce the desire to drink, either by directly reducing cravings as with acamprosate and topiramate, or by producing unpleasant effects when alcohol is consumed, as with disulfiram. These drugs can be effective if treatment is maintained, but compliance can be an issue as alcoholic patients often forget to take their medication, or

discontinue use because of excessive side effects. Additional drugs acting on glutamate neurotransmission such as modafinil, lamotrigine, gabapentin and memantine have also been proposed for use in treating addiction to alcohol and other drugs. ^{[2][10][24][25]}

Opioid antagonists such as naltrexone and nalmefene have also been used successfully in the treatment of alcohol addiction, which is often particularly challenging to treat. ^[32]

Treatment of stimulant addiction can often be difficult, with substitute drugs often being ineffective, although newer drugs such as nocaïne, vanoxerine and modafinil may have more promise in this area, as well as the GABA_B agonist baclofen. Another strategy that has recently been successfully trialled used a combination of the benzodiazepine antagonist flumazenil with hydroxyzine and gabapentin for the treatment of methamphetamine addiction. Another area in which drug treatment has been widely used is in the treatment of nicotine addiction. Various drugs have been used for this purpose such as bupropion, mecamylamine and the more recently developed varenicline. The cannabinoïd antagonist rimonabant has also been trialled for treatment of nicotine addiction but has not been widely adopted for this purpose. ^{[33][34][35]}

Ibogaine is a psychoactive drug that specifically interrupts the addictive response and is currently being studied for its effects upon cocaine, heroin, nicotine, and SSRI addicts. ^{[33][34]}

The aim of this study was to develop and pilot a harm-minimization model for the identification and treatment of over-the-counter (OTC) drug abuse/misuse by users. Extensive consultation was conducted during the development of the model. This included an exploratory conference involving an interdisciplinary group of delegates and detailed individual consultation with a range of healthcare practitioners. Consultation with a psychologist specializing in communication skills allowed development of the communication aspects of the survey. A comprehensive manual detailing the survey was prepared. The survey is designed to be used by students in conjunction with their healthcare. It focuses on the abuse/misuse of opioids, laxatives and antihistamines and can be broadly divided into three phases, namely: patient identification and recruitment, treatment/referrals and data collection/outcome measurement. Treatment depends on whether the problem is misuse or abuse and on the product. Several treatment paths are available including treatment according to an agreed protocol and referring to the GP or community addiction team (CAT). Community pharmacy based model were recruited and

trained to pilot the model. Of the users, many of them were identified as abusing/misusing OTC products over a one-month period. Some success was noted in that users agreed to stop using the product and/or to try safer alternatives. As expected, some sales had to be refused, as the user was unwilling to accept the seller's intervention. [3][8]

[4.2.3]Drug Relapse Prevention: The adverse health effects of illicit drug use can be significant, but vary greatly depending on the type(s) of drug used and the mode, amount, and frequency of use. Mortality among injection drug users is high due to overdose and medical complications (e.g., HIV, hepatitis, bacterial endocarditic) of injecting contaminated materials. Cocaine use can produce acute cardiovascular and other complications (e.g., arrhythmias, myocardial infarction, seizures).¹ In addition, chronic use of marijuana has been associated with respiratory inflammation and increased risk of airway cancers. [5][9][37]

The indirect legal, social, and economic consequences of illicit drug use are equally important. Violence and other criminal activities related to illegal drugs take a tremendous toll in many communities, and illicit drug use is a major factor in the spread of HIV infection. Most of the total economic burden of illicit drug use is related to the costs of crime and incarceration. Deaths and illness account for 17% of these costs, with almost 10% of the total being associated with HIV/AIDS. Workplaces also suffer economically due to reduced productivity.

Illicit drug use by pregnant women has been shown to adversely affect both mother and fetus in multiple ways, including decreased likelihood of seeking adequate prenatal care and reduced gestational length and birth weight. In addition, illicit drug use increases the risk for child abuse and family violence. Living as a child with someone who abuses drugs is associated with long-term negative outcomes, including an increased likelihood of illicit drug use. The age at which drug use was initiated predicts subsequent abuse and dependence, with higher rates observed among persons who initiate use at younger ages. This trend has been observed in all demographic groups. [5][9][37]

Part- 5

5.1] Experts opinion about drug addiction: Today in Bangladesh there is without doubt a serious drug addiction problem not only among both male and female adults but also among both male and female children, even among very young children under the age of ten years. It is very difficult to believe this, but this is the very reason that classes about awareness and prevention of the spread of drug addiction, including smoking cigarettes, must begin well before children even become teenagers, saying Dr. Md. Nurul Hoque.

Drug addiction is an alarming problem for the whole world where the number of addicts is increasing day by day. While he is talking about drug problem, he identified some factors of drug addiction like -Easy access to drugs; Unemployment problem/economic insolvency; surrounding atmosphere; Estranged in love, mental stress due to family problem. He also talked about what are the sources of money for buying drugs. The source may be from own income; from pocket money; loan from friends, family members; collect money by criminal activities like hijacking, extortion, etc. [39]

While talking about the drug abuse problem he said also about persons involved in drug business/smuggling. They are some elites in society; some political leaders/so-called student leaders; a syndicate of smugglers; some members of the police/BDR/member of Arms forces.

5.2] Recommendation: It has been found that many people, especially the youths are teenager to get rid of drugs. However, unfortunately they can hardly find any way out. The departments of narcotics control, police, Arms forces etc. either do not work or/and even some how are related to drug smuggling/business. According to the discussion with the concerned people such as drug abusers, guardians, teachers, policemen and related persons in the drug business, it is clear that behavioral modification of the abusers is not enough to check the spread of drug taking and drug trafficking in Bangladesh. [3][37]

The concerned people gave the following suggestions in order to free Bangladesh of drugs:

1. Concerned administration should be reshuffled. Culprits, those who are hidden in the police, Arms forces and narcotics control department, must be punished. At the

same time, rewards may be declared for good performance. It is obvious that, drugs business in Bangladesh would fall rapidly if border-crossing areas can be checked properly.

2. Leaders of social institutions like schools, colleges, University, clubs etc. should come forward to build resistance against drugs.

3. The addicts, while talking with the investigators sought treatment to wipe out the negative effects of drugs.

4. Development of a community pharmacy-based model to identify and treat OTC drug abuse/misuse: a pilot study. ^{[5][9][37]}

[5.3]Conclusion: The estimated number of student age 19 and older who use or abuse legal or illegal drugs are startling. This information comes as no surprise to those of us engaged in substance abuse research and treatment endeavors. Recognition of the severity of the problem—its health effects on women and its social and economic consequences for women, their families, and society—inspired this conference and the participation of those attending. Engagement in a wide range of collaborative activities designed to expand and improve treatment services for youth. Working partnerships between and among those in the treatment field, researchers, and public policymakers. This study represents the first reported structured attempt by students to address the abuse/misuse of OTC medication. Work is now ongoing to modify a community pharmacy-based model in light of the pilot study findings. After doing all these we can get our drug-free Bangladesh. ^[3]



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