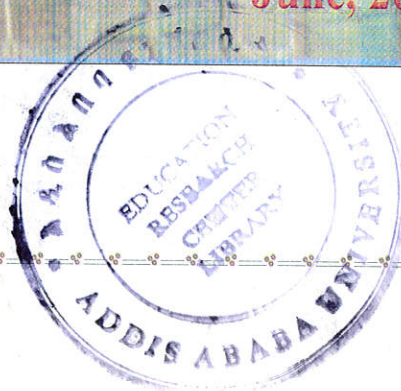


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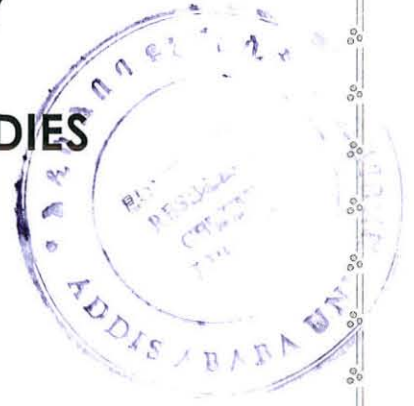
Psychoactive Substance Use Related Psychological Problems
at Two Selected Governmental Hospital In Addis Ababa

BY
Workneh Kebede

June, 2009



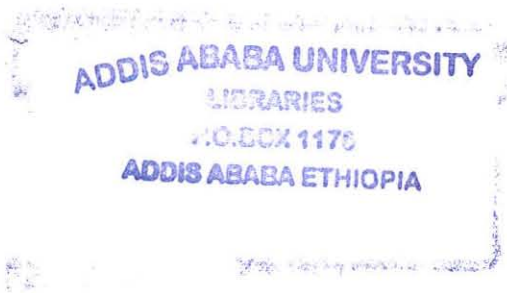
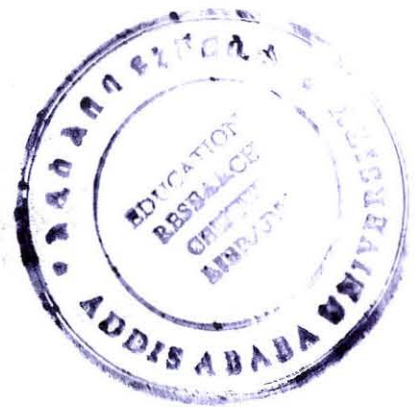
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List of Acronyms

- AAU - Addis Ababa University
- AIDS - Acquired Immune Deficiency Syndrome
- ANOVA - Analysis of Variance
- APA - American Psychological Association
- BDI - Beck Depression Scale
- CAS - Clinical Anger Scale
- CBOs - Community Based Organizations
- CNS - Central Nervous System
- DACA - Drug Administration and Control Authority of Ethiopia
- DASS - Depression, Anxiety and Stress Scale
- DSM - Diagnostic and Statistical Manual of Mental Disorders
- GOs - Governmental Organizations
- HAS - Hamilton Anxiety Scale
- HDS - Hamilton Depression Scale
- HIV - Human Immune Deficiency Virus
- LSD - Lysergic Acid Diethylamide
- MCB - Ministry of Capacity Building
- MMPI - Minnesota Multiphasic Personality Inventory
- NGOs - Non - Governmental Organizations
- SATU - Substance Abuse Treatment Unit
- UNs - United Nations
- WHO - World Health Organization

ABSTRACT

The general objective of this study was to explore psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa. The study also aimed at finding if there are duration of use, treatment intensity and number of substance use differences in exposure to the psychological problems (depression, anxiety and anger symptoms). Investigation of the psychological services in the two hospitals was also another objective. To meet these objectives, 68 substance users, 5 caregivers/parents and 5 health professionals were purposively selected and included in the sample. Three scales measuring the psychological problems (depression, anxiety and anger symptoms) and two semi - structured interviews were used as instruments.

Quantitative and qualitative analyses were used to analyze the data obtained through the scales and interviews. Percentage results showed that 69.2% of substance users showed above average level of depression while 58.8% of substance users showed moderate and severe level of anger symptom. Above moderate anxiety symptom was exhibited in only 25% of substance users' participants. Results from the analysis of variance indicated that there were no statistically significant duration of use and number of substance use differences in experiencing depression, anxiety and anger symptom levels. Only treatment intensity (inpatient and outpatient substance users) in experiencing depression were statistically significant variation but in relation to anxiety and anger were not statistically significant. The main and interaction effects of the three - way ANOVA, the treatment intensity (main effect) is found to bring statistically significant mean differences in depression level and the interaction effects (duration of use and number of substance use) indicated statistically significant differences in anger symptom levels. But the rest main and interaction effects of the three - way ANOVA came up with statistically non significant results. Interview results with caregivers/parents and health professionals showed the availability of psychological / counseling services in the two hospitals. Recommendations and implications of the study are indicated.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Because of the large magnitude of the problems related to substances use, the problems have been the subject of considerable research. Articles, journalistic accounts, scientific papers and reports are replete with evidences of the wide spread of substances use and their consequences. Moreover, health related organization, social organizations, governmental organizations and individuals are crying out about the personal; social, economical, psychological, moral, and health related effects of substance usage.

Substance use and dependence cause a significant burden to individuals and societies throughout the world. For example, the World Health Organization report (2002) indicated that 8.9% of the total burden of disease comes from the use of psychoactive substances. The report showed that tobacco accounted for 4.1%, alcohol 4%, and illicit drugs 0.8% of the burden of disease in 2000. Much of the burden attributable to substance use and dependence is the result of a wide variety of health and social problems, including HIV/AIDS, which driven in many countries by injecting drug use (WHO, 2004).

Similarly, the United Nations and Drug Abuse Control publications described the extent of drug problem. They reported that drugs have invaded schools, sport areas, entertainment fields, financial, business and government administrations causing accidents on the job, learning disabilities, mental health problems including interference with reproductive functions, long term damage to brain, heart and lungs.

In their earlier works, (Robins and Regier,1998) as cited in WHO,(2002) have also demonstrated the growing rate of substance use that intoxicate, stimulate, depress, confuse, cause hallucination, and in general disorganize the personality so that actions and reactions are foggy, sluggish, erratic, violent, irresponsible,

bizarre, uninhibited or other wise abnormal. According to these authors, the loss of physical, mental and occupational competence that resulted from substance misusage leads to a heavy drain in human resource.

The above exemplified survey of previous literatures clearly have demonstrated the besiege of mankind by drug, its short or long term effects and its impact on the user, family, community, and the society at large. The worst aspect of it perhaps is that it mostly attacks those in young age who are the most productive citizens. In most of the early drug use research findings, particularly the youth, has been found as vulnerable and a vanguard victim of drugs (Rupp and Keith 1993, Mauskopf et al.1999, Wong Licinio, 2001) as cited in Goodman J., Lovejoy,E. and Sherratt A.(2005).

Nowlis (1986) stated that "the stereotype of youthful drug user longhaired, self indulgent, dirty, lazy and morally depraved-a perfect symbol for the whole set of other adults anxieties". Moreover, the earlier cited United Nations and UNs pub. (1987 and 1989) as cited in Shitaye G.,(2004) has expressed its deepest sorrow that the future generations of people, in countries all around the globe are being contaminated by drugs; the insidious spread of drug use is seriously affecting the lost in youth in developing and developed countries. According to this view, when a substantial percentage of any generation is addicted, that generation has lost contributing citizens and has acquired a crippling social burden. And in essence, drug and its harmful effects have imposed a staggering burden on the people, particularly the youth and nations of the world. A burden that no society can afford to carry.

In sum, the wide spread drug use among all ages, religions and income groups and in all sectors of the society and its harmful effects on the individual as well as the society at large has threatened the world population. From the analysis of the previous studies, it appears that there is no longer any question as to the psychological consequences of wide spread drug use. Thus, this issue has

become reasonably an important topic of research and discussion in recent years.

At a glance of this research topic one may ask questions "Is there any drugs use problem in Ethiopia?" and "Has there been an increase in the use of drugs?" the answer to these questions probably can be inferred from the earlier cited wide spread drug use analyses of world situation. Thus, it appears to be logical to argue that, Ethiopia as a part and parcel of the globe could not be out of the arena of drug scene. And yet, it probably may be difficult to assert that the prevalence rate of "narcotic and psychotropic drugs" in the country is comparable to that found in many western countries. Besides, documented information about the dissemination of these drugs seems to be not available. Very recently, however, the lay journalists have begun to broadcast the seizure of cocaine and heroin including the dealers and the users through the mass media. In addition to this, the problem of drug use according to Khan and Krishan (1990) as cited in UN's publication, (2000) has been associated with process of urbanization and modernization. Despite the fact that Ethiopia is very poor (Eshetu, 1982) as cited in Allene T. (1992), she however is very much in struggle of these process and thus can not be free from drug problem.

Nevertheless, the drug issue, if it is interpreted in terms of fabricated drugs (hard drug) such as cocaine, heroin, lysergic acid diethylamide (LSD) and the like (e.g. Morphine) may not be a problem of magnitude at present, but "some social, narcotic and psychotropic drugs" use, which is a great concern of the present issue is popular in the country. The WHO Advisory Group, (2004) as cited in the ministry of public health of Colombia (2005) has revealed that the prevalent rate of drugs use, particularly among the young generation was quite high.

Given the fact that the world population was threatened with a wide spread of drugs, drug use and its problem however, has become very high among the young in Ethiopia. Thus, the present study will be undertaken focusing at psychoactive substance use in relation to psychological problems. However,

classification, pattern, extent and reason of drugs use are provided elsewhere in this study.

1.2 Statement of the Problem

This study aims at answering the following specific questions:-

- ◆ Do psychoactive substance users show depression?
- ◆ Do psychoactive substance users show anxiety?
- ◆ Do psychoactive substance users show anger?
- ◆ Is there any psychological services rendered for psychoactive substance users and their caregivers/parents?
- ◆ Are there duration of use (1-10 years and above 10 years) differences in exposure to the psychological problems (depression, anxiety and anger)?
- ◆ Are there treatment intensity (inpatient hospitalization and outpatient treatment) differences in experiencing the psychological problems (depression, anxiety and anger)?
- ◆ Are there number of substance use (single and poly drugs) differences in exposure to the psychological problems (depression, anxiety and anger)?

1.3 Objectives

General Objective

The general objective of this research is to study psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa.

Specific Objectives

The above mentioned general objective however will be attained through the following specific objectives:-

- ◆ To investigate whether or not psychoactive substance users show depression.
- ◆ To examine the relationship between psychoactive substance users and their level of anxiety.
- ◆ To explore whether or not psychoactive substance users show anger symptoms.
- ◆ To investigate the psychological services rendered for psychoactive substance users and their caregivers/parents.
- ◆ To examine if there duration of use, treatment intensity (inpatient hospitalization and outpatient treatment) and number of substance use (single and poly drugs) differences in exposure to psychological problems (depression, anxiety and anger).
- ◆ Forward recommendation for minimizing psychoactive substance use related psychological problems (depression, anxiety and anger symptoms).

1.4 Significance of the Study

The researcher hopes that the results of the study will be helpful in the following ways:-

- ◆ It helps to explore the relationship that exists between psychoactive substance use and psychological problems.
- ◆ It helps to assess the psychological services rendered and improvements to be made.
- ◆ Provide relevant information about psychoactive substance use related psychological problems:-
 - For the concerned social services;
 - For preventive, interventive and rehabilitative strategies of substance use programs; (if needed) and
- ◆ To contribute some points to use as a source of document for further studies.

1.5. Delimitation and Limitation of the Study

The study is delimited at two public hospitals in Addis Ababa. These two hospitals (Amanuel Specialized Mental Hospital and St. Paul General Specialized Hospital), are selected because they have a relatively well organized Substance Abuse Treatment Unit (SATU) with 10 and 5 beds respectively and working intensively on substance use treatment for both inpatient and outpatient drug users. The study also had some limitations. First, although drawn from the two hospitals the sample size was small. Besides, because caregivers were used as key informants concerning the psychological services provided for substance users, there may be some gap in understanding and expressing the feelings of drug users. Getting equal number of participants for inpatient and outpatient was also another problem encountered in this study.

1.6. Operational Definition of Terms

The present researcher used drug/drug use, substance/substance use and psychoactive substance/drug interchangeably because in many literatures they have more or less the same meaning.

A psychoactive substance/drug - is chemical substance that acts primarily upon the central nervous system where it alters brain function, resulting in temporary changes in perception, mood, consciousness and behavior (www.MerriamWebster.com G2-3447200393.html).

Duration of use - the number of years or months the patient took the specified drug or substance.

Narcotic drugs - are addictive drugs that reduce the user's perception of pain and induce euphoria (a feeling of exaggerated and unrealistic well being) (www.Encyclopedia.com/doc).

Number of substance use - refers the numerical number of psychoactive drugs or substances a patient is accustomed to.

- ◆ **Poly drugs** - is the use of two or more drugs or substances which is psychoactive.
- ◆ **Single drug** - a specified one drug or substance which is psychoactive.

Psychotropic or psychodynamic drugs - any drug capable of affecting the mind, emotions, and behavior (Merriam Webster.com G2-3447200393.html).

Psychological Problems – in this study refers to:

- ◆ **Anger** - An emotional state that may range in intensity from mild irritation to intense fury and rage (www. Merriam Webster. com G2-3447200393. html).
- ◆ **Anxiety** - the autonomic response pattern that is characteristically part of the person's response to a certain anxious stimulation (Shertzer and Stone, 1974).
- ◆ **Depression** - a psychoneurotic or psychotic disorder marked especially by sadness, inactivity , difficulty in thinking and concentration, a significant increase and decrease in appetite and time spent sleeping, fallings of dejection and hopelessness, and sometimes suicidal tendencies (Carson – Dewitt, R.,2003).

Treatment intensity - refers to ways of treatment a patient is given as an outpatient and inpatient.

- ◆ **An inpatient-** is a substance user who is "admitted" to the hospital and stays overnight or for an indeterminate time, usually several days or weeks.
- ◆ **An outpatient** - is a substance user who is not hospitalized overnight but who visits a hospital, clinic, or associated facility for diagnosis or treatment.

CHAPTER TWO: A REVIEW OF RELATED LITERATURE

2.1 Drug: Meaning and common Issues

2.1.1 Definition of Drug

Definitions of drugs are often very general in character. For example, WHO as cited in Chrusciel, (1996) describes as a drug "any substance which when introduced into a living organism modifies one or more of its function." From a scientific or pharmacological view point, a drug is any substance that by its chemical nature which alters or affects the structure or function of the living organism (Nowlis, 1990). These two definitions are so broad that they encompass every thing from vitamin to laxative (Nowlis, 1990), or they are inclined to include all foreign materials to the human body (Ahuja, 1992). However, Charconnet (1999) noted that the above definitions are very close to each other and both of them have the advantage of being applicable not only to illicit drugs (as cocaine, LSD, opiates, etc), but also to licit drugs (as alcoholic beverages, tobacco, etc).

Further a drug has been defined in numerous ways by different professionals or schools of thoughts. For example, a drug in medical sense is any substance prescribed by a physician or manufactured expressly for the purpose of relieving pain or for treating and preventing disease (Nowlis,1990), In psychological and sociological context, it is a term for habit - forming substance which directly affects the brain or Central Nervous System (CNS) (Ahuja, 1992). For Laurie (1967) as cited in Ahuja, R., (1992) a drug refers to any chemical substance which affects bodily functions, mood, perception or consciousness, which has the potential for misuse, and which may harm the individual and the society. And according to Houser and Richmond (1991) as cited in Amare G. and Krikorian, A.D.(1993) a drug is any substance that creates physical and/or psychological effects and dependency to the individual.

To summarize, even though, some of the definitions given are general, some professional, while others are operational yet, the definitions given by Nowlis (1990) and WHO seem to be the most popular and comprehensive. However, the operational definitions provided by Houser and Richmond (1991) as cited in Amare G. and Krikorian, A.D.(1993), Laurie (1967) and Ahuja (1992) are widely understood meanings of a drug. Therefore, substances such as pills, fumes, plants, plant products, powders or liquid associated with distinct physical and/or psychological effects for the users are drugs (Ahuja,1992); Houser and Richmond, (1991) as cited in Amare G. and Krikorian, A.D.(1993).

2.1.2 Classification of Drugs

A drug has been defined by different authors but referring to the same concept, a chemical substance. Like wise, drugs have been classified in various forms by different authors.

For example, drugs may be classified according to their social usage, as socially accepted drugs like, alcohol, tobacco etc, and non-accepted drugs as cocaine, LSD, Marijuana and the like (Nowlis, 1990). Drugs may also have originally been available only as unknown active agent in the plant or a plant product like coffee, tobacco, Marijuana, chat, cocaine and the like and classified by its chemical analysis and pharmacological effects on a standard measures (WHO Advisory Group, 1980) as cited in UNs publication,(2000). Apart from this, Nowlis (1990) as cited in Allene T, 1992 argued that listing of all plants and /or plant products, liquids and Volatiles which are consumed by drug users to date would be very difficult.

More over, Houser and Richmond (1991) as cited in Amare G. and Krikorian, A.D.(1993) have classified under five principal categories of stimulants, depressants, hallucinogens, narcotics and volatile chemical. Further they argued that many of these categories have familiar names, but it would be difficult to list all the pills, powders, plants, fumes and liquids now being experimented with in

an effort to produce some abnormal physical or psychological sensations. These authors have emphasized that the use of certain of these substances can cause injury to vital organs of the body, including the liver, heart, kidneys, brain and also lead to drug dependence.

The classification of drugs could also be much more understood in relation to the effects that they cause to the users. Thus, from the stand point of psychological and physiological effects, drugs fall into two categories; the depressants and the stimulants (Ahuja, 1992). In this classification, the former are those which decrease mental and physical activities whereas the later are those which excite and sustain activity and diminish symptoms of fatigue.

The most comprehensive classification of drugs which is much more related to the present study is the one provided by the WHO. The WHO has classified drugs of use by psychic, physical and drug dependence that they bring about on man (Nahas, 1981) as cited in Allene T. (1992). By and large, these classifications have been adopted throughout the world with their proper biological or pharmacological markers. These classifications are presented in Table 1.

Table 1- The WHO Classification of Drugs of Use

| N.o | Drug Type | Psychic Dependence | Physical Dependence | Tolerance |
|------------|---|---------------------------|----------------------------|--------------------------------|
| 1 | Alcohol | Mild to marked | Mild to marked | Some |
| 2 | Barbiturate and certain other sedatives | Mild to marked | Mild to marked | Substantial |
| 3 | Opiate (Morphine) | Moderate to marked | Marked | Marked |
| 4 | Cocaine | Mild to marked | None | None |
| 5 | Amphetamines and certain stimulants | Mild to marked | Little if any | Marked |
| 6 | Khat (Chat) | Mild to Moderate | Little if any | Little if any |
| 7 | Hallucinogens | Mild to Moderate | None | May be marked with some agents |
| 8 | Cannabis (Marijuana) | Mild to Moderate | Little if any | Probably some at higher dose |
| 9 | Volatile solvents (inhalants) | Mild to Moderate | Little if any | Some with certain agents |

Source: Nahas,(1981) as cited in Allene T., 1992

Finally, with respect to licit use and trade, all narcotic drugs have been divided into three schedules (Schroder, 1988). These are:

- a) Schedule I: Illicit "narcotic drugs" (e.g.: cannabis, heroin, amphetamine, cathinon, and all the substances of schedule I of the 1971 convention: That is control of manufactured, trade, import, and distribution.
- b) Schedule II: Licit drugs not available as such on special prescription (used only as raw materials and intermediate such as coca leaves, codeine, poppy straw concentrate, etc)
- c) Schedule III: Licit drugs available on special prescription (e.g. Cathine)

To summarize, classification of drug as such may not be considerably important in the present context; however, the main intention here is to introduce the reader, about the international drug classification with respect to other internationally known and used drugs.

2.1.3 Patterns of Drug Use

Although drugs of use were classified in the above manner, the pattern of use however has been markedly changed from single to multiple in recent years. This phenomenon has been observed in parts of the world that alcohol, tobacco, cocaine, opiates or other drugs are often consumed together. For this, Nevadomsky (1992) says that there is a kind of coalescence of drug use in which certain drugs tend to go together. For example, a student who drinks alcohol is likely to be a person who smokes cigarettes. Like wise, Charconnet (1999) pointed out that in the course of drinking bouts which have become a ritual for young people in western Europe alcoholic beverages are combined with "joints" (hashish cigarettes).

Supporting examples could be cited from the results of the studies produced from different parts of the world. For instance, in France, a study made by the

National Institute of Health and Medical Research as cited in Charconnet, (1999) demonstrated that a repeated and early striving for intoxication is an important factor in predicting the later use of an illicit drug. Similarly, Smart and Fejer (1995) as cited in Nevadomsky J. (1992) reported that a multiple drug use of alcohol, tobacco, marijuana, barbiturates and others, at the same time or successively has been dramatically increased among Canadian students.

After reviewing several literature conducted on drug use research, Knox (1990) as cited in Shitaye G. (2004) concluded that the sizeable proportions of the findings in his review were studies conducted on the multiple drug use patterns among the rising generation. Similarly, Grandde and others (1994) as cited in Nevadomsky, J. (1992) have reviewed voluminous research findings on drug use. From their review they concluded that a multiple drug use was very high. However, alcohol and tobacco in some studies were not included as drugs. According to them, when these substances were included then, the magnitude of multi-drug users would have been much greater. Finally, these researchers commented that, experimentation with two or more substances among the youth is frequently the main step in the move towards devastating drug addiction. Moreover, the pattern and the extent of drug use are inseparable, as the forthcoming discussion would show.

2.1.4 Extent of Drug Use

Extent here refers to the amount of drug use, wide spread and the problems which exist in the population (Richman and Rootman, 1992). A number of surveys and clinical studies are available which show the prevalence rate of various drugs of use in parts of the world.

The wide spread use of drugs and its related human tragedy. As one of the United Nations Drug Abuse Publication (1999) has pointed out, no nation has been immune to the devastating problems caused by drug use. Thus, there is no longer any question as to the social consequences of wide spread drug use.

Because, the insidious effects of drug use and its impacts have imposed a staggering burden on the people and the nations of the world; a burden that no society can afford to carry (UNS Pub., 1997) as cited in Shitaye G.,(2004).In describing drug use as one of the greatest challenges of the time, Shelder and Block (2000) pointed out that "almost daily, we are besieged by media reports of drug-related tragedy, of shootings in our schools, gang warfare, and overdose related death." Besides, drugs entice, captivate and ultimately destroy people from all walks of life.

Apart from its numerous consequences, an added risk connected with drug use recently received much public attention: the danger of the drug users falling victim to the disease AIDS. Patients are intravenous drug users (Novick and others, 1986) as cited in Allene T., (1992). Furthermore, the (UNS. Pub., 2000) stated that, a much higher percentage of AIDS patients are regular users of variety of drugs which are known to suppress the users' immune systems. Similarly, the WHO report (2002) estimated that there are more than 5 million injecting drug users in the world all vulnerable to HIV.

Beyond these, the human destructions caused by drug dependence are the damages to traditional values, life styles and national economies (Ahuja, 1992). In short, drug use has posed a serious threat every where, to the user, the family, the community, and the society as a whole.

The reports of the WHO for the General Assembly of the United Nations (2000) by the topic "Drugs know no boundary" has put forward the type and the extent of currently used drugs in all regions of the world. According to this report "drugs use in Africa is related with (cannabis, and natural psychoactive plants); in the Americas, (cocaine, cannabis, heroine, multiple drugs including alcohol, and psychoactive plants); continued to increase, in Asia, Far East, Middle East and Europe (cocaine, heroin, cannabis, amphetamines, and multiple drugs) uses are rising rapidly reaching epidemic proportion in most countries." Further the report pointed out that, in both developed and developing countries the use of

psychoactive drugs such as tranquillizer, depressants and stimulants of the Central Nervous System are increasingly growing. Thus, a wide spread drug use has become a problem no longer confined to small segments in a given population. For example, drug has invaded the home, the work place, the schools, the entertainment fields, sport areas, financial administrations, businesses, and government administrations affecting all ages, classes, religious groups and moral values (Houser and Richmond, 1992).

Although drug has invaded every segment of the population, perhaps the worst aspect of drug use is that it makes its deepest impression on those who are most vulnerable - youth. It is probably good to note here that for several researchers youth are students and the vice versa (Hartnoll, et al, 1983; Khan and Krishan, 1992) as cited in Allene T., (1992). However, in its broad sense, one of the UNS Divisions of Narcotic Drugs Publication (1997) as cited in WHO,(2002) serious number 880 has stressed the severity of the problem and highlighted the extent of drug use among the young in the following phrases. "Never before have their numbers been growing so rapidly. The wide spreading drug use is depriving today's youngster's - our children - of the right to enter the coming century with dignity, good health and the chance to make substantial contribution to the future of their countries and the world". This suggests that, the wide spread drug use and its consequences are endangering both in and out of school young in general. Nevertheless in its narrow sense, others considerably a large number of researches have been conducted that show the extent of drug use among the student population, which probably are useful in the present context.

Hartnoll and others (1983) as cited in Allene T. (1993), by surveying the extent of drug use among seven European cities of Amsterdam, Dublin, Hamburg, London, Paris, Rome and Stockholm, reported that though the drug of use in cities varied in terms of the social and cultural groups involved, the use of cocaine, cannabis, alcohol, tobacco and other drugs have increased among students. They also noted that, the rates for females, although generally lower than for males, accounted for a significant proportion of drug users. This summarization

corroborates with studies of Hartnoll, et al (1983), Mott (1986) in Britain; Bergret (1981) in France, and Rodriguez and Anglin (1987) in Spain as cited in WHO (2002). For instance, Bersten (1981) as cited in Allene T. (1992) circulated a questionnaire in Stockholm schools and found that every third student had experimented with drugs at least. Bergret (1981) summarized that 30 percent of the students in France have tried "hard" drugs while 60 percent of them soft drugs. With this he also noted that, there was a marked increase in 12 and 13 years - old drug users.

Haworth (1982) found that 20 percent of university and high school students were drug users in Zambia. In Egypt, cannabis, glue and petroleum sniffing were found to be widely prevalent among the student population (Soueif, and others, 1983; Soueif, and others 1986) as cited in Allene T. (1992) and the Sudanese students especially of lower grades are involved in glue and petroleum sniffing (Ibrahim, 1984). Although there is no nation wide statistics about the nature of drug use in Ethiopia, Zein and Massersha (1979) reported that use of drugs like cigarette, glue and petroleum sniffing were significantly high among Gondar High School students. Further more, Zein (1984) reported that Gondar College students were found to be a multiple drug users with the emphasis of chat. Elmi (1983) and Elmi and others (1986) have widely discussed the wide spread use of chat chewing among the Somalian youth all over the country.

To summarize, as it has been mentioned elsewhere, most of the researches on drug use has been concerned with school and university students, either because they are easily accessible, well defined groups or because particular concern has been expressed about them (Hantroll and Mitcheson, 1983). All of them may be acceptable reasons, the later case, however, a particular concern about school and university students is that, drug use brings into the school environment the illegal activities connected to drug use (Shedler and Block, 1990) as cited in WHO(2004). Such as theft, prostitution, selling drugs to others and the like UNS Pub., (2000) go with it.

Hence the above and other studies substantiate the view that extensive drug use among the young has become a serious problem in terms of the number of individuals involved and the variety of the substances used.

2.1.5 Reasons for Drug use

To both the professional and the general public alike, one of the most pressing questions about drug use is the question of why? Answering this question may not be an easy task. Because, the reasons why people turn to drugs are as varied as the people who use them as well as the drug themselves. However, recent research findings have come across with various reasons depending upon the cultural context, the type of the people studied and the types of drugs under consideration. Generally speaking, Khan and Krishan (1992) as cited in Allene T. (1992) have suggested that, interest, attitudes, temperament, adjustive efficiency and life goal of the individuals may have a decisive role in their drug taking. These however are latent considerations as Fracchia (1994) as cited in Shitaye G. (2004) would note. There are several overt reasons reported by drug users as well.

The social and the cultural context in which drugs are taken (Nahas, 1981) as cited in Allene T. (1992) have been reported as reinforcing influences in drug taking behavior. The other more important factors which appear to facilitate drug use have been listed as: the ready availability of drugs, increasing mobility, particularly of youth, general public acceptance of the use of modifiers, and abundance of information about drug effects and sources and an unstable or broken home. Similarly, the Ministry of Public Health of Colombia (2005) and the UNS Drug Abuse control (1989) have outlined peer pressure, curiosity, ignorance, alienation, changing social structure and urbanization as the main reasons for drug using. Mott (1986) as cited in Amare G. and Krikorian, A. D. (1993) has also underlined the availability of drugs and the social support provided by peers as main reasons of drug use. In a similar manner, reasons ranging from the familiar issue of youth discontent, that is, feeling of frustration and boredom, to a greater

availability of variety of drugs on the market were emphasized (Goduco - Auglar, 1992).

Yet there are other reasons that have been reported by drug users during investigations. For example, Nevadomsky (1992) as cited in Liddle A. Howard and Rowe L. Cynthia (2006) reported that about one half of the students in his study had used drugs out of curiosity, enjoyment and the rest half to improve academic performance and enhance concentration. He further has noted that, drugs as a big aid to concentration have been found to be a popular belief among many students. External locus of control and negative self concept were the most important reasons given for drug use (Jurich and Polson, 1984) as cited in Liddle A. Howard and Rowe L. Cynthia (2006) as were reported by drug users. Drug users according to Jurich and Polson have exhibited elements of external locus of control by being passive, feeling powerless, feeling hopeless and demonstrating very little over their impulses. Finally Jurich and Polson listed eight typical motivations as were ranked by drug users as compared to non-users during their study. These are: external locus of control, escape, relief of personal stress, improvement of self concept, identity seeking, disillusion, rebellion and recreation ranked respectively.

Dube et al (1987) as cited in Elmi et al (1997) provided a long list of reasons for drug use as reported by subjects. They rank ordered these as: to relieve tension, to have fun, to feel high or get high, to satisfy curiosity, to ease depression, to gain acceptance in the group and to heighten sexual experience. Likewise Ahuja (1992) grouped reasons for drug use among college and university students into four reasons: (a) physiological causes such as staying awake, heightening sexual experience, removing pain, getting sleep, etc (b) psychological or personality causes such as relieving tension, easing depression, removing inhibitions, satisfying curiosity, feeling high and confident, intensifying perception, removing boredom, etc (c) social causes such as facilitating social experience, being accepted by friends, challenging social values, challenging authority, etc, and (d) miscellaneous causes like improving study, solving

academic problem, sharpening religious insight, deepening self-understanding, solving personal problems, to achieve high grades, etc. These groups of reasons of Ahuja (1992) were identified after a survey of college and university students.

By contrast, some researchers have emphasized the variation of reasons from drug to drug (Mott, 1986; Khan and Krishna, 1992). For instance, in relation to cannabis Khan and Krishna (1992) as cited in James N. P. and Philip M.P., (2004) reported six reasons for starting on the drug: curiosity, influence of companionship, personal problems, oneness in the religious group, physical prowess and substitution of other addiction. The main reasons for alcohol use were; celebrating occasion, feeling good, and relieving tension.

To sum up, evidently the above analysis of previous studies on reasons of drug use has shown that there is no single cause for drug use, as there is no single type of drug user as well as the drug itself. Thus the decision of an individual to use drugs is most likely determined by multiple of factors (Fracchia, 1984) such as availability (Nahas, 1981; Mott, 1986), personal needs and values (Hindelang and Curman, 1990) as cited in UNS Pub. (2000), peer influence UNS pub. (2000), personal characteristics and behavioral tendencies (attitude, interest, temperament) (Khan and Krishna, 1992) so that attributing a causal influence to any single one is impossible and simplistic. Moreover, the social and cultural context in which drugs are taken (Nahas, 1981) and the physiological as well as psychological causes (Ahuja, 1992) should also be considered.

2.1.6 Drug users

2.1.6.1 Demographic Characteristics of Users

Who use drugs? To answer this question it is a characteristic of many drug use studies to determine the association between the socio - demographic variables and the dependent variable. Several researchers (e.g. Gobar, 1986; Nevadomsky, 1992; Ahuja, 1992) have demonstrated the demographic variables

of drug users in association with drug use behavior. Although it is difficult to treat all of these variables assumed to be associated to drug use, some but which are commonly used to explain users characteristics in most of drug use studies are presented here.

One of the common variables which have been the focus of attention in most drug use studies is the age of the user. As has been noted else where in this review, many researchers have agreed that drug use starts during adolescence Shedler and Block, (1990) and even earlier UNS pub., (1987). In the meantime, however, age difference occur with the type of the drug used Gobar, (1986) and Smart and Fejer, (1985) For instance, Gobar, (1986) states that younger students were found to be heavy users of drugs like amphetamines, hallucinogens, and nicotine; while older students were heavy users of marijuana, alcohol and tobacco in his finding. Similar finding were reported by Smart and Fejer (1985). In college population, the age groups 16 - 21 years have been the most crucial in developing the habit of consuming drugs (Ahuja, 1992). But in Ethiopia context, Zein (1984) found that the college students who were highly participating in drug consumption ranged from 16 to 23 year old. Nevertheless, there may be cultural differences between these two groups.

Evidence that drug use is more common among males than females is convincing (Khana and Krishna, 1992). Several of the studies reviewed reported in support of the statement just mentioned (Gobar, 1986 and Zein, 1984). For Example Ahuja, 1992 reported that drug use among male was more prevalent than female. However, in most recent survey of the extent and the nature of drug use in Europe, Hantroll and others (1999) would suggest that, thought not statistically significant, there is a trend that more females use drugs in Europe.

Even though a good deal of association may be observed between un mentioned demographic variables and drug using, the above cited examples are sufficient for this study. Moreover, psychological factors associated with drug use behavior are discussed below.

2.1.6.2 Psychological Factors

Demographic factors such as the above and others have been found to be important to explain the drug users. However, everything considered, studies have also shown that the using of drugs or abstaining from them depend largely on the attitude of individuals and their personalities.

2.1.6.2.1 Personality traits

Personality considered in drug use research to explain users characteristics were: security - insecurity, Neuroticism - Psychoticism and Introversion - extroversion.

To exemplify some of the research studies, Penk and others (1978) as cited in Paige Quinette and Pamela J. Brown, 2003 administered the Minnesota Multiphasic Personality Inventory (MMPI) and found that feelings of insecurity were factors for both black and white drug users. Ministry of Public Health of Colombia (2005) reported that drug users among students were neurotic, psychotic and crime prone. Likewise Amare and Krikorian (1993) have attempted to attribute chat use to psychosis. According to them, some psychotic people have been observed around Harrar and Dire Dawa caused by frequent use of excessive chat. As regard to introversion-extroversion, Mohan and others (1990) suggested that extroversion is one of the personality traits of drug users. These hints of personality factors, however, are very important to other chat use researches to verify the views of Amare and Krikorian (1993).

2.1.6.2.2 Attitude towards Drugs

Some researchers hold that the whole personality factor as well as environmental factors can be expressed by attitudes. Amare and Krikorian (1993). Strongly argued that by investigating individual's attitudinal or belief system, we are essentially taking into account the role of environmental factors as well as

intrinsic variables such as personality, motivational and perception. In early 1960's, Doob (1978) as cited in Allene T. (1992), has contend that an attitude is an implicit correlate of an objective that is overt, behavior pattern. In turn, this implicit response can serve as a stimulus or drive for overt observable behavior. Campbell (1978) as acited in Shitaye G. (2004), has also claimed that attitudes are internal manifestations of behavioral dispositions. Thus behavior can be modified by experience; and so, therefore, can attitude. Thus an attitudinal valance is regarded as a product of the individual personality but it also embraces the results of environment-organism interaction and other contingent environment - organism interaction and other contingent environmental factors to past, present and even future behavior Hindmarch and others (1985) as cited in Amare and Krikorian (1993). Further in relation to drug use, Hindmarch and others argued that since the individual attitudinal frame work is his internal cognizance of his behavior world, it is possible to conclude that certain individuals maintain their cognitive integrity by adopting an attitude frame work which prohibit either an escalation of drug use (light users) or in the case of non-users, a commencement of drug use. On the other hand, there are individuals who tend to maintain cognitive consistency by altering their attitudinal frame work to fit their own behavior in the external situation and continue to use drugs (heavy users).

In short, the above argument assumes that drug users use drugs because they hold certain attitudes, and that non - users are prevented by their own attitudes from using drugs. On this point, Dorn and Thompson (2002) suggested that it is from this assumption that our attitudes are responsible to our behavior, and that a more anti - drug attitude makes drug use less likely, that underpins much current drug education. More precisely, whether given individuals would abstain, experiment or frequently use depends much on the way they look at drugs. That is their perception of what drugs do or do not do or what they do to the users can modify their behavior. And it is from this perception of drugs that certain individuals hold positive and others may hold negative attitudes towards drugs.

Thus since attitudes are important variables in behavior modification, many researchers have brought attitudes towards drugs under focus.

For example, Hindmarch as cited in Hantroll and Mitcheson, 1995 asked university and college students about their attitudes towards drugs. Both users and Non - users expressed neutral evaluation of cannabis. LSD was viewed as particularly harmful by non-users, but drug users hold positive attitude towards it. He also asked both groups about their attitudes towards drug users and found that drug users believed themselves to be more interesting as people, while non - users thought drug users were less interesting as people.

Kosviner and Hawks as cited in Hantroll and Mitcheson, 1995 enquired about attitudes to cannabis use among university students. Their results confirm that users of cannabis are consistently favorable towards its use and legalization than non - users.

Dube et al (1987) as cited in Shitaye G. (2004), assessed the attitudes of 1,000 university students towards drugs and reported that users of cannabis consistently had a favorable attitude towards its use; but both users and non-users favored stringent measures to curb it.

Users and non - users attitudes towards drugs have been also explored by Nevadomsky (1992). He then found that users and non - users significantly differed in the use of cannabis. Users showed favorable attitudes and non - users hold unfavorable attitude.

SouEIF et al (1986) as cited in UNS pub. (2000), concluded that drug users, more so than non - users believed that drugs are beneficial rather than harmful, that even among the users some respondents had believed that drugs are harmful. In addition to this, they also have noted that attitudes towards drug use and social acceptance seem to be important factors in taking the decision to being using drugs.

Non - users in Ahuja's (1992) investigation had believed that drug users are not thoughtful and creative students and that drugs impair academic performance, while user had been the opposite. Furthermore, Binnie as cited in Hantroll and Mitcheson, 1995 assessed student's attitude towards drug use and found that users had consistently more favorable attitude toward cannabis seeing cannabis users as more interesting as people, more creative, more successful academically and more able to cope with life. However, the non - users had hold the negative attitude for these statements.

Likewise Hindmarch have surveyed the drug use attitude of university students and summarized their results that there had no attitudinal differences between users and non - users of alcohol and tobacco; while significant differences had existed between users and non-users of cannabis.

Apart from these studies, surveys of attitude toward drugs have been conducted by Mott, (1986) and Back and Smith, (1990). Almost all of the studies reflect attitudinal differences that had existed between users and non - users.

Thus, one of the most interesting points to be noted from the previous surveys of attitude is that, the difference between users and non - users had occurred if a given drug had not been accepted by the society. For example, in some studies (Mott, 1986; Hindmarch et al, 1995 and Soueif and others 1996) as cited in UNS pub. (2000), alcohol and tobacco are considered to be socially accepted drugs and hence no attitudinal difference between users and non - users in evaluating these substances had occurred. The other is that, drug users in almost all studies have been found holding positive attitudes towards drugs and negative for negatively stated items about drugs, while non-users, had held negative attitudes towards drugs.

In general the assessment of the available literature on the demographic and personality variables has reveled some important characteristics of drug users. In

both variables numerous researchers more or less have found similar results on different population as well as on variety of drugs. In summary these results show that, drug users are young, males, neurotic, in secured and persons that tend to hold positive attitude towards drugs.

2.2. Drug Use Related Psychological Problems

A large number of researchers in the area of drug and behaviors have agreed that psychoactive substances tend to cause different psychological problems in addition to the physical, social, moral and economical ones. These psychological problems are organized and presented below.

2.2.1. Psychoactive Drugs and Depression

Longchamp,C., Cattacin,S. and Lehmann,P. (1998) as cited in Quimette P. and Brown Pamela J. (2003) conducted a study to investigate the psychological consequences of drugs. A study was made of hospitalized drug users. 46 subjects, aged 19 - 61 years were interviewed 2 - 18 days during admission and re-examined after 6 - 10 weeks. The results indicated that the depression symptoms occurred at both times. There was a decrease of symptom severity between the two interviews, but at the later time, 21 % still suffered from moderate to severe depression symptoms. High level of anger was also observed.

Kohn, L. and Pipette, D. (2001) as cited in Quimette P. and Brown Pamela J. (2003) findings also tend to support the finding of the previous research. The researchers to examine the emotional and behavioral problems among drug users (aged 18 - 49 years) using the Behavioral Assessment system before hospital admission. In total, data were collected on 118 drug users and results suggested that a substantial portion of the samples endorsed significantly elevated level of behavioral difficulties across the broad range of problem behaviors. Single drug users shown tiredness, depressed mood, aggression, different phobias, anger

and hyperactivity. Where as multi drug users were reported to have the above problems as well as anxiety and lack of concentration.

Botvin and et.al. (2003) as cited in John Brick (2004) did a six years research review of psychotropic drugs and Psychiatric consequences related to it. Results indicated that the psychotropic drug effects contribute to psychiatric problems. Insomnia at night, reactive depression and irritability, different phobias, emotional disturbances, lack of concentration, stress, depression and isolation were common problems immediately after use of drugs.

2.2.2. Psychoactive Drugs and Anxiety

A study was conducted by Mc Neill, A. and Armitage (1999) as cited in Dodgen, C. E. and Shea, W. M. (2000), to find out if psychoactive drugs are related with psychological problems. 88 admitted psychotropic and narcotic drug users were assessed a few days after admission for psychiatric diagnosis and severity of problems. All were inpatients and had to be treated for substance use. The results indicated that drug user showed more symptoms of anxiety.

Similarly Schmid, Wibberley and Price (1998) as cited in Schuckit, M.A. (2006) reported the presence of anxiety shortly after taking drugs. A follow up study on drug users for up to one year was done on 50 drug users aged 20 and above. The instruments measure depression and anxiety. Anxiety was common but increased over the one year.

Calafat and Hibell (2001) as cited in Karch, S. B. (2007) did a four years study of cannabis users to assess anxiety and stress outcomes. Their aims were to assess the prevalence of anxiety and stress symptoms. The symptoms were measured using the anxiety and stress symptoms semi - structured interview and observational record for 10 - 20 years substance users. Of the 51 subjects, 80% of these drug users had anxiety and stress symptoms. A high percentage of anxiety symptoms were identified in poly drug users.

2.2.3 Psychoactive Drugs and Anger

In a study by Digiuseppe and Tafrate (2001) drugs cause serious health and psychological problems. In this study the researchers examined anger-related problems following discharging from hospital and for this purpose 35 in and out patients substance users aged 18 - 42 years were selected and studied at the hospital. The impact of anger scale was employed to measure the impact of drug use. Assessments were done shortly after the treatment of 3 months. The results indicated that 65% of substance users reported serious anger symptoms. Similarly Kinnear and Brislin, R.W. (1994) as cited in Digiuseppe and Tafrate (2001) also strengthens the findings of the previous researches. In a study 69 admitted drug users were assessed a few days for psychiatric diagnosis, severity of use and psychopathology. All were inpatients. At 3 months follow - up assessment 50 (72.46%) of the users were interviewed again. Of the users, 56.5% showed anger.

The Psychiatric consequences of drug users were also investigated by Voyer, D. and Bryden, M.P. (1993) as cited in David M. MCDowell and Henry I. Spitz (1999) follow - up study of drug users for up to one year was done at the Psychiatry Department of Homlan Hospital on 32 drug users. The result indicated the presence of specific anger symptoms.

Another study worth mentioning at this Point is the findings of Smith, J.C. (1995). In a prospective study of anger and depression in substance users involved in cannabis and marijuana abuse, the researcher wanted to check the prevalence of anger and depression. He designed a 12 month prospective study at the Addiction Treatment Department of Ulianna Hospital. 45 drug users aged 25 - 39 years were subjects of the study. Fear scale and diagnostic criteria for anger symptoms were used as measures. The results indicated that depression symptoms and anger was found in 30(67%) and 35 (79%) drug users respectively. And finally he concluded that one in two substance users involved in drug use was found to suffer Depression and anger when they were assessed 10 weeks after admission to the hospital.

2.3. Drug Related Psychological Problems with Reference to other Major Variables

Differences in the manifestation of the psychological problems (depression, anxiety and anger) have been investigated to see if it is related with other variables. The extents of the psychological problem differ from user to users. The same type of drugs may elicit different psychological problems. Since these variabilities may reflect their diverse use of frequency and duration of drugs, treatment intensity and number of substance use; several studies emphasized the importance of looking in to each of these variables. For example, duration of drug use (Wieczorek and kruk, 1994 as cited in David H., Katie S. and McBride N. (2002); Ross and Renyi, 1969 as cited in Stewart, S.H. and Conrod, P.J. (2008)) treatment intensity (Gordon, 1987; Johnson O' Malley and Bachman, 1996 as cited in Johnson S. L. (2005)) and number of substance use (Eggert and Herting, 1998; Hawkins, Catalano and Miller, 2001 as cited in Farral, J. and Stewart, W. F.(2006)) are the major variable often considered. And some of the variables are reviewed here under.

2.3.1 Duration of Use and Psychological Problems

Wieczorek and kruk (1994) conducted a study to see if there exists duration of drug use difference in exposure to the psychological problems. In their 6 months study at the Addiction Treatment Department, institute Suisse de prevention studied 75 drug users aged 15 - 45 years and involved in drug use for 15 years and for above 15 years. The results disclosed that the presence of psychological problems was not significantly associated with duration. Similar comparison done by Ross and Renyi (1996) indicated that duration of drug use not predicted psychological problems symptoms.

In a similar study aimed at identifying time differences in developing psychological problems, it was found that users for above 15 years were not

more likely to develop the psychological problems than users for below 15 years (Warren Bickes and Marc,1995).

Inconsistent and even more differing results were reported regarding duration of drug use differences in exposure to the psychological problems. Lennon and et al. (1999) as cited in Kaufaman, M. J. (2001) conducted a survey on 64 subjects who had been in serious use of drugs. They assessed the presence of depression and anxiety symptoms using structured clinical interview for DSM III-R and the DASS. In the study they also used standardized clinical assessments to strengthen the methodological quality of the study. The results indicated that drug users for above 4 years significantly show depression and anxiety symptoms rather than drug user for 2 years. Hoffman and Goldfrank (1990) assessed the trends in experiencing the psychological problems between levels of duration and frequency of drug use. A study was conducted on drug abusers who were between 20 - 56 years of age and admitted to the hospital for treatment of drugs. The analyses revealed a significant association between the duration of drug use and the psychological problems experienced.

The study by kapp and Narring (2003) as cited in Linton, J. M. (2008), in their study they tried to investigate the clinical anger symptoms of drug users. 44 users (16 - 38 years old) were interviewed 5 - 6 weeks. Results indicated that the duration of drug use significantly contribute to the drug users clinical anger symptoms.

2.3.2. Treatment Intensity and Psychological Problems

Gordon and et al (1987) made a study to investigate the treatment intensity difference in experiencing the psychological problems. They measured the anxiety symptoms using anxiety rating scale and observation record for both inpatient and outpatient drug users. Drug users' responses were assessed and results indicated that a high percentage of anxiety symptoms were identified in inpatient drug users.

Johnson O'Malley and Bachman (2003) had also found out there was inpatient and outpatient drug users' difference in experiencing psychological problems. They did the study on 106 drug users, (52 inpatient and 54 outpatient) using emotional and behavioral assessment system, a multi informant system of standardized rating with reference to adolescence and adult standardized rating scale that assess clinical symptoms. Results suggested that inpatient drug users exhibited broader psychological problems (anxiety, depression, stress, anger, loss of memory, and suspiciousness) than outpatient.

Other studies came up with different and inconsistent findings when compared with the above results. Amos and et al (1998) as cited in Johnson S. L. (2005) made a study on the prevalence of psychological problems on drug users and the findings indicated that the prevalence of psychological problems not statistically significant difference between out patient and in patient drug users.

The findings by Morgan and Krueger (2000) as cited in Liddle, H.A and Rowe, S.I. (2006) also strengthen the results of Amos and et al (1998). In their study on drug users who were between 16 to 55 years of age, they used anger questioner for drug users and standard anger reaction scale for caregivers. Result indicated no statistically significant association between the anger level and the treatment intensity. The same researchers came up with similar findings after 3 years. They did a follow up study on 52 drug users (aged 17 - 38) using self - completed psychometric assessments. Results indicated that the psychological problem was not related with the drug users of treatment intensity (inpatient and outpatient).

Lalor and Smith, (1989) as cited in Kronzier and Tinsley, J. A. (2005) studied the psychological consequences of substance on 35 Australian. Symptoms were assessed by the psychometric assessment scale, semi-structured interviews and questionnaire developed for the study. The results indicated that the psychological consequence due to substances was not statistically significant difference between inpatient and outpatient drug users.

2.3.3. Number of Substance Use and Psychological Problems

Some researchers noted that number of drug use have brought a significant difference in experiencing psychological problems. Some of these researchers for instance reported higher psychological problems in multi drug users (Miller and Gmel, 2002). Egger and Hurting (1998) gave much attention to examine whether differences in use of different substance brings variation in manifesting psychological problems. 48 Denmark drug users were examined in 1998, the findings revealed that use of different substances (chat, tobacco and cocaine) expose at risk for developing different psychological problems. However, Hawkins, Catalano and Miller (2001), came up with different findings. A follow up study was made on inpatient drug users (22 males and 13 females aged 21-52) attending at Substance Treatment Department. Diagnostic clinical interview and self completed psychometric assessments were performed. Results showed that no statistically significant variation on psychological problems exhibited between single and multi substance users.

2.4 Psychological Treatments for Drug Users

Drug users may become distressed and are at risk of developing psychological problems. Because of the perceived need to minimize the distress and to prevent chronicity, various forms of psychological therapy have been developed. One such therapy is Cognitive Behavioral Therapy. Some claim that it is helpful; others claim it may not do any good but at least it does no harm.

CBT was created by the pioneering researchers and scientists Dr. Albert Ellis (2001) and Dr. Aaron Beck and colleagues (2001). CBT is the theory that our behaviors and feelings are influenced by the way we think. This means that in order to change what you do and how you feel, you have to change the way you think about situations. CBT is used in a lot of different settings as treatment for alcohol and drug abuse (Jermey, 2008).

Cognitive therapy is essentially a method that identifies thoughts that produce negative or painful feelings, as well as result in maladaptive behavior or reactions. Beck discovered that the primary point of intervention was at the level of a person's thoughts; if changes are made in thinking (automatic thoughts, assumptions, and core beliefs), changes in emotions and behavior will follow. Behavioral techniques and strategies are employed as needed to enhance the treatment outcome (i.e., anger management, relaxation training, graduated exposure to feared situations, assertiveness training). The course of treatment is typically brief, and people usually experience relatively rapid relief and enduring progress (Thompson, 2003).

In the treatment for alcohol and drug dependence, the goal of cognitive behavioral therapy is to teach the person to recognize situations in which they are most likely to drink or use drugs, avoid these circumstances if possible, and cope with other problems and behaviors which may lead to their substance abuse.

Major assumptions of CBT are: substance abuse is mediated by complex cognitive and behavioral processes, Substance abuse and associated cognitive behavioral processes are, to a large extent, learned, Substance abuse and associated cognitive behavioral processes can be modified, particularly by means of CBT. A major goal of CBT for substance abuse is to teach coping skills to resist substance use and to reduce the problems associated with substance abuse; CBT requires comprehensive case conceptualization that serves as the basis for selecting specific CBT techniques. To be effective, CBT must be provided in the context of warm, supportive, and collaborative therapeutic relationships (Thompson, 2003).

Raymond D., Gane Baron and Helen S. (1999) as cited in Thomas D. and Loreen R.(1999) recommended rational emotive behavior therapy, client centered and family therapy for substance users. These treatments could be highly effective than cognitive behavioral therapy. Douglas H. R. and Richard H. (1999) as cited

in Thomas D. and Loreen R. (1999) also recommended psychodynamic and behavioral approach for people who are at risk of developing psychological problems due to drug abuse.

SUMMARY

The foregoing review of past research reports has brought several points in light. First, it has shown that psychological problems (depression, anxiety and anger symptom) of substance users are common. Some researches reported differences in the psychological problems as a function of duration of use, treatment intensity and number of substance use while others reported no differences in experiencing the psychological problems as a result of the above factors. In the reviewed researchers' cognitive behavioral therapy, rational emotive behavior therapy, client centered, family therapy, psychodynamic and behavioral approach methods are recommended as a means to deal with the psychological problems of substance users.

CHAPTER THREE: METHODOLOGY

3.1 The Research Design and Methodology

The purpose of the present study is to investigate psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa specifically, it aims to:-

- ◆ Investigate whether or not psychoactive substance users show depression.
- ◆ Examine the relationship between psychoactive substance users and their level of anxiety.
- ◆ Explore whether or not psychoactive substance users show anger symptoms.
- ◆ Investigate the psychological services rendered for psychoactive substance users and their caregivers.
- ◆ Examine if there duration of use (1-10 years and above 10 years), treatment intensity (inpatient hospitalization and outpatient) and number of substance use (single and poly drugs users) differences in exposure to psychological problems (depression, anxiety and anger).
- ◆ Forward recommendation for minimizing psychoactive substance use related psychological problems (depression, anxiety and anger).

Therefore, the study of a factorial type which deals with the measurement of substance users' psychological problems (depression, anxiety and anger) as dependent measures in terms of two level of duration of drug use (1-10 years and above 10 years), two level of treatment intensity (inpatient hospitalization and outpatient) and two level of number of substance use (single and poly drugs). Furthermore, supplementary correlation analyses are made in order to check the relationships among the dependent variables (depression, anxiety and anger).

3.2 Sampling Techniques

The hospital and participant selection are described below.

3.2 .1 Hospital Selection

There are two public hospitals working intensively on substance use treatment in Addis Ababa. These two hospitals (Amanuel Specialized Mental hospital and St. Paul General Specialized hospital) were selected purposively and used as samples for the study. It must be clear that the drug users coming to these hospitals are not representative of the drug users' population for quite a few reasons. First, not many people in the country know about the existence of the medical alternative for helping the drug users. Second, some of those who are aware of the existence of the medical alternative refuse to accept it in principle and go elsewhere to seek help. Thirdly, the medical alternative is in acute shortage in the country, centers are available only in Addis Ababa and other provincial cities and there are many problems which prevent a lot of patients from coming or being brought to these centers. Fourthly, many drug users do not come to the hospital until their problem reaches extreme severity and manifests itself in aggression, destruction or disruption of peace in some way. The fifth reason is shortage of drugs. The budget allocated for drugs in the hospital are very small and there is, in general, very frequent absence of essential psychotropic drugs in the country. People drop the idea of coming to the hospital when the news about the absence of drugs spreads Atalay A., Menilik D. and Mesfin A. (1995). As a result, samples of drug users' perhaps not tend to be representing different socio - economic classes, areas of Addis Ababa and different regions or heterogeneous groups.

3.2.2. Techniques for Selecting Substance Users, Caregivers/parents and Health Professionals

68 purposively selected substance users 41(25 inpatient and 16 outpatient) from Amanuel Specialized Mental hospital and 27 (10 inpatient and 17 outpatient) from St. Paul General Specialized hospital who were users of different types of substance were the participants of the study. In the sampling process, substance users were recorded from patient history card and included as a sample. In addition to the above participants, 5 purposively selected caregivers/parents of drug users and 5 volunteer health professionals working in the selected two hospitals were included in the study. In brief, the sample has the following profile.

Table 2- Number of Drug Users Selected From Each Hospitals

| Use of Duration | Name of the Hospitals | | | | | | | | Total |
|-----------------|-------------------------------------|------------|-------------|------------|---------------------------------------|------------|-------------|------------|-------|
| | Amanuel Specialized Mental Hospital | | | | St. Paul General Specialized Hospital | | | | |
| | Inpatient | | Outpatient | | Inpatient | | Outpatient | | |
| | Single drug | Poly drugs | Single drug | Poly drugs | Single drug | Poly drugs | Single drug | Poly drugs | |
| 1 - 10 yrs | 7 | 3 | 5 | 3 | 2 | 6 | 3 | 5 | 34 |
| > 10 yrs | 3 | 12 | 1 | 7 | 1 | 1 | 4 | 5 | 34 |
| Total | 10 | 15 | 6 | 10 | 3 | 7 | 7 | 10 | 68 |

3.3. Variables Included in the Study

In order to meet the objectives of the research, there were three dependent variables (depression, anxiety level and anger) and three independent variables (duration of use, treatment intensity and number of substance use).

3.3.1. Dependent Variables

The following three levels were used as measures of the dependent variables.

- 1. Depression Scale** - 21 items, measured on a four point scale ranging from 0 (minimal) to 3 (severe). 0 - none / minimal, 1- mild, 2 - moderate and 3 - severe. Beck et al (1996) recommended the following cut - off points for the depressive symptoms. Levels from 0 -13 none/ minimal, 14 - 19 mild depression, 20 - 28 moderate depression and 29 - 63 severe depression.
- 2. Anxiety Scale** - 14 items, measured on a five - point scale ranging from 0 (not present) to 4 (severe). Max Hamilton (1959) recommended the following cut - off points for the severity of anxiety symptomatology. Levels from 18 + mild anxiety, 25 + moderate and 30 + severe anxiety symptoms.
- 3. Anger scale** - 21 items, measured on a four - point Likert scale ranging from 0 (minimal) to 3 (severe). 0 - none, 1 - mild, 2 - moderate and 3 - severe. William (1997) recommended the following cut - off points for clinical anger symptoms. Levels from 0 -13 minimal clinical anger, 14 -19 mild clinical anger, 20 - 28 moderate clinical anger and 29 - 63 severe clinical anger.

3.3.2 Independent Variables

| | | |
|-------------------------|------------|--------------------------------|
| Duration of use: | Two levels | D1=1-10 years D2= >10 years |
|-------------------------|------------|--------------------------------|

Some findings report a significant association between duration of substance use and psychological problems experienced Hoffman and Goldfrank (1990) others failing to coincide (Ross and Renyi, 1996). As a result, duration of drug use inclusion in the study as a variable could give clue to our problem.

Treatment intensity:

Two levels

T1= Inpatient

T2=Outpatient

Researchers came up with different findings concerning the treatment intensity and the level of psychological problems manifested. Gordon and et al (1987), for instance found out that inpatient drug users exhibited broader psychological problems than outpatient. For others, a patient categorized under inpatient way of treatment is not a significant factor for psychological problems Amos and et al (1998). It is thus worth while to include the variable see its effect.

Number of substance use:

Two levels

S1= Single drug

S2= Poly drugs

Some researchers noted that number of substance use differences have brought a significant difference in experiencing psychological problems Egger and Hurting (1998). Others like Hawkins, Catalano and Miller (2001), however, came up with different findings. Their results showed that no statistically significant variation on psychological problems exhibited between single and multi drug users. Hence the importance of including number of substance use, in this study, as an independent variable would be unquestionable.

Measurements

The measurement employed in psychometrical science are often complex and deciding the appropriate instruments need critical examination. Kerlinger (1977) as cited in Amanuel H. (2006) indicated that in handling the complex psychological realities, substantial progress can be made with the help of critically and empirically examined measuring instruments for their reliability and validity. Hence, in this study an attempt was made to maximize the validity of response through employing relatively appropriate statistical instruments.

3.4 Instruments

To get the desired information regarding psychological problems of drug users the following instruments were used.

1.3.4.1 Scales

3.4.1.1 Scale of Depression

In order to measure depression level of drug users, the latest version - Beck Depression Inventory - II (BDI - II) was used. The BDI - II is a self report analysis of depressive symptoms or an instrument for measuring the severity of depression in adolescents 13 years of age and up, as well as adults. This version of the test is specifically designed to address DSM - IV criteria for depression not included in the two previous versions (Coholey, 1987) the test contains 21 items is designed in the form of a multiple - choice questionnaire where each question is accompanied by four answers to choose from, most of which assess depressive symptoms on a Likert scale of 0 - 3. All answers are given a rating starting from zero progressing to three depending upon the nature and intensity of the depressive symptoms (www.realdepressionhelp.com/beck).

The BDI - II helps evaluate levels of various emotional symptoms, such as feelings of dejection, failure, self - blaming, self - loathing, pessimistic attitude, harboring guilt complex and suicidal tendencies. The Beck Depression Scale also helps evaluate levels of physiological problems such as lack of hunger and appetite, constant spells of sobbing and crying, unexplained fatigue and tiredness, lack of interest in working and socializing with friends and family, loss of weight, lack of interest in sex, as well as feelings of one's mind being preoccupied.

Thus, BDI - II is divided into two main sections, one comprising of questions pertinent to emotional symptoms and the other containing questions pertinent to physical or physiological symptoms.

Beck Depression Scale or BDI - II has been found to be extremely efficient in assessing and evaluating the severity of depression in people since it covers both

the emotional and physiological aspects of depression. Therefore, the subject matter contained in BDI - II is representative of clinical depression in its entirety and is in concurrence with other scales like the Hamilton Depression Scale (HDS).

The Beck Depression Scale or BDI - II addresses three significant characteristic features affecting depression, which are depressive symptoms based on:

- Negative feelings towards one self.
- Negative feelings arising from repeated failure or inability to do well in various aspects of life - personal, professional, or both.
- Negative feelings arising or stemming from physical imbalance or somatic causes.

Thus, BDI - II is a well - designed questionnaire that takes into account all possible reasons and factors contributing to depression and examines the severity and intensity of depression in people diagnosed with the condition.

History

The Beck Depression Inventory - II was developed by Aaron Beck in 1996, an expert and initiator of cognitive therapy who had designed the scale. This scale also goes by the names Beck Scale of Depression or Beck Depression Inventory (BDI - II). It serves as an indicator of the occurrence and severity of the symptoms of depression in adolescents and adults in either a clinical or non - clinical environment (Beck et al, 1996).

Reliability

Several types of reliability can be demonstrated with BDI - II, in terms of the internal consistency and stability of the instrument.

Test - Retest Reliability

A one week test - retest correlation of .93 resulted from a study of 26 outpatients who had been referred for depression and took the BDI - II during their first and second therapy sessions (Beck et al, 1996). This would lend support to the BDI - II being a measure for one construct, depression.

Internal Consistency

In a study with both white Mexican - American subjects, an internal consistency coefficient of .80 was computed for the BDI - IA. No significant differences were found between participants from the two cultural backgrounds there fore supporting the test's reliability across ethnic groups and aging populations (Ames, Gate wood - Cole well and Kacz Mark, 1989). The BDI - II yields a coefficient alpha of .92 for the outpatient population (n = 500). The coefficient alpha for the college students (n=120) in the sample was .93 (www.realdepressionhelp.com/beck).

Validity

Concurrent Validity

BDI-II total scores have been correlated with scores on other psychological tests. Beck et al, (1996) found the BDI - II is positively related to the scale for Suicide Ideation ($r = .37$, $n = 158$) as well as the Beck Hopelessness Scale ($r = .68$, $n = 158$). The BDI - II was also positively correlated with the Hamilton Psychiatric rating scale for Depression ($r = .71$, $n = 87$) and the Hamilton Rating Scale for Anxiety ($r = .47$, $n = 87$) this would lend support for the convergent validity of the BDI - II (www.realdepressionhelp.com/beck).

Discriminate Validity

Beck et al, 1996 studied the diagnostic efficiency of the BDI - II as a tool. They found a diagnostic efficiency study using a clinical college sample of 127 students yielded a 93% true positive rate and 18% false positive rate. Therefore, the BDI - II could be considered useful as a diagnostic tool and for screening individuals who may be in need to counseling.

Construct Validity

Psychometrically, studies of the BDI - II indicate excellent internal consistency and one - week test - retest reliability on clinical samples, as well as substantial diagnostic efficiency and correlations with other tests purporting to measure the construct of depression (www.cps.nova.edu/~epphelp/BDI.html).

Administration of the Inventory

The BDI - II administer by a train interviewer who read aloud each statement in the category and ask the patient to select the statement that seems to fit him or her best at the present time (www.cps.nova.edu/~epphelp/BDI.html).

Scoring

People taking BDI - II have to select only one answer from four possible options given and, based on the option selected, scores will assigned. "Zero" scores will be awarded to the option that describes least severity of symptom and "three" scores will be awarded to options that describe maximum severity. Therefore, the total scores are directly proportional to the intensity and degree of depression experienced by the person taking the test.

Having said the above, one must note that Beck Depression Scale or Inventory scores are interpreted differently for regular people when compared to people

who have been diagnosed with depression. Regular people who take the test and get a total score of 21 or higher are indicative of depression, whereas scores for people who have been diagnosed with depression are interpreted as follows:-

- Scores between 0 and 13 are indicative of people experiencing minimum symptoms of depression.
- Scores between 14 and 19 are indicative of people experiencing minor symptoms of depression.
- Scores between 20 and 28 are indicative of people experiencing average levels of symptoms of depression.
- Scores between 29 and 63 are indicative of people experiencing major or severe form of depression. (www.cps.nova.edu/~epphelp/BDI.html).

3.4.1.2 Scale of Anxiety

The Hamilton Anxiety Scale (HAS) is a 14 - items test measuring the severity of anxiety symptoms present in children and adults. Since its introduction by Max Hamilton in 1959, it has become a widely used and accepted outcome measure when assessing the impact of anti - anxiety medications, therapies, and treatments for the evaluation of anxiety in clinical trials. It was included in the National Institute of Mental Health's Early Clinical Drug Evaluation Program Assessment Manual, designed to provide a standard battery of assessments for use in psychotropic drug evaluation. The HAS can be administered prior to medication being started and then again during follow - up visits, so that medication dosage can be changed in part based on the patient's test score ([www.psychiatrictimes.com / Clinical - Scales/ anxiety](http://www.psychiatrictimes.com/Clinical-Scales/anxiety)).

Reliability

In the first, 292 adults were administered both a desktop and clinician HAMA in counterbalanced order. The overall Internal scale consistency (coefficient alpha) was high .92 and the mean item - to - total scale correlation was .65. The test - retest reliability was .96 (Guy and William, 2003) available at ([www.psychiatrictimes.com / Clinical - Scales/ anxiety](http://www.psychiatrictimes.com/Clinical-Scales/anxiety)).

Concurrent Validity

Wessely (1975) found moderate correlation between the Hamilton Anxiety Scale (HAS) and the Beck Anxiety Inventory ($r = .52$).

Administration of the Inventory

The HAS administer by an interviewer who asks a semi - structured series of questions related to symptoms of anxiety. The interviewer then rates the individuals on a five - point scale for each of the 14 items. Seven of the items specifically address psychic anxiety and the remaining seven items address somatic anxiety ([www.fpnotebook.com/ Psych/Exam/Hmltn Anxtyscl.htm](http://www.fpnotebook.com/Psych/Exam/HmltnAnxtyscl.htm)).

Scoring

For the 14 items, the values on the scale range from zero to four: zero means that there is no anxiety, one indicates mild anxiety, two indicates moderate anxiety, three indicates severe anxiety and four indicates very severe or grossly disabling anxiety. The total anxiety score ranges from 0 - 56. The seven psychic anxiety items elicit a psychic anxiety score that ranges from 0 - 28. The remaining seven items yield a somatic anxiety score that also ranges from 0 to 28([www.fpnotebook.com/ Psych/Exam/Hmltn Anxtyscl.htm](http://www.fpnotebook.com/Psych/Exam/HmltnAnxtyscl.htm))

3.4.1.3 Clinical Anger Scale

An objective self-report instrument - the Clinical Anger Scale (CAS) - was designed to measure the psychological symptoms presumed to have relevance in the understanding and treatment of clinical anger. Twenty-one sets of statements were prepared for this purpose. In writing these groups of items, the format from one of Beck's early instruments was used to design the Clinical Anger Scale (Beck et al, 1961; Beck, 1963, 1967). The following symptoms of anger were measured by the CAS items: anger now, anger about the future, anger about failure, anger about things, angry - hostile feelings, annoying others, angry about self, angry misery, wanting to hurt others, shouting at people, irritated now, social interference, decision interference, alienating others, work interference, sleep interference, fatigue, appetite interference, health interference, thinking interference, and sexual interference. Subjects were asked to read each of the 21 groups of statements (4 statements per group) and to select the single statement that best described how they felt (e.g., item 1: A = I do not feel angry, B = I feel angry, C = I am angry most of the time now, and D = I am so angry all the time that I can't stand it). The four statements in each cluster varied in symptom intensity, with more intense clinical anger being associated with statement "D." Each cluster of statements was scored on a 4-point Likert scale, with A = 0, B = 1, C = 2, and D = 3. Subjects' responses on the CAS were summed so that higher scores corresponded to greater clinical anger (21 items; range 0 - 63) (www.4semo.edu/snell/Scales/CAS.HTM).

Reliability

The internal consistency of the 21 items on the Clinical Anger Scale was analyzed by means of Cronbach alpha, and yielded reliability coefficients of .94 (males and females together), .95 (males only), and .92 (females only). In addition to conducting internal reliability analyses, test-retest analyses were also performed. The correlations between the two administrations of the CAS were

.85 (males), .77 (females), and .78 (both males and females)(www.angersolution.com/images/theclinicalangerscalewithscoringinstructions.pdf).

Validity

Convergent Validity

Preliminary evidence for the validity of the Clinical Anger Scale was determined by examining the correlations between the CAS and the scores on Spielberger's anger - related instruments. As expected, the scores on the Clinical Anger Scale were positively and strongly correlated with the two subscales on the State-Trait Anger Scale. Moreover, the Clinical Anger Scale was positively correlated with the subscales on the Anger Expression Scale, although the relationships were not always as strong nor as significant as for the State -Trait Anger Scale. These findings thus provide support for the convergent validity of the Clinical Anger Scale. Additional Validity Findings for the CAS This section presents the results of analyses conducted to examine the relationship between the CAS and the measures of psychological symptoms, personality traits, and other unhealthy behaviors (i.e., acting out and neuroticism indexes)(www.angersolution.com/images/theclinicalangerscalewithscoringinstructions.pdf).

Scoring

A scoring procedure similar to Beck's (Beck et al, 1996) is used with the Clinical Anger Scale (CAS) - where a clinical anger score in a particular range is labeled in a manner similar to Beck's procedure. That is, clinical interpretation of the CAS scores is accomplished through the following interpretive ranges: 0 - 13 - minimal clinical anger; 14 - 19 - mild clinical anger; 20 - 28 - moderate clinical anger; and 29 - 63 - severe clinical anger (www.4Semo.edu/snell/Scales/CAS.HTM).

3.4.2 Semi - Structured Interviews

3.4.2.1 Semi - Structured Interview for caregivers/Parents

A semi-structured interview was developed for caregivers of drug users participants to find out the kind of services provided. Caregivers were asked to comment on the medical and psychological services given for the drug users. The questions were prepared in the way to fit the objectives of the study (see Appendix 6).

3. 4. 2. 2. Semi - Structured Interview for Health Professionals

Semi-structured interview was also developed for health professionals to comment on the medical and psychological services rendered at the hospitals. The information gathered through this questionnaire helped to further check the responses given by caregivers. And it also helped as a mean to crosscheck the responses given by both parties (see Appendix 7).

3.5 Pilot Testing

The researcher first translated the three scales (depression, anxiety and anger) in to Amharic. A psychologist from the Amanuel Mental Specialized hospital, Psychology Department also translated the items independently. The translations were compared and improvements in phrasing were made in some of the items in the researcher's translation. The improved translation was then pilot tested on 20 hospitalized and follow - up patients of drug users. The drug users who took part in the piloting were selected through purposive sampling method. Drug users who were abuse of different types of substances and duration of use were selected and pilot tested. The purpose of the pilot study was to collect data that would be used for screening items measuring the level of depression, anxiety and anger. It was also to find out if the wording, instruction and response categories of the instrument as a whole were clear and comprehensible to

respondents. Face-to-face contacts with caregivers/parents was done and respondents were asked to comment on any ambiguous word, phrase or sentence. The researcher also noted respondents' levels of understanding the question while reading and questions who were frequently asked for further clarifications were improved. Finally, the responses of the pilot group were subjected to item analysis. Correlation of items with the overall total was computed and the results of the item analyses are presented below in a summary form.

Different people proposed different index value as a criterion values for judging whether the item is valid or not. For instance, Garret and wood worth (1967) as cited in Amanuel H. (2006) have suggested that as a general rule, items with validity indices (DI) of 0.20 or more are regarded as satisfactory. In the present study therefore, the criterion value for the discrimination index was set as $r = .20$. And items with correlation coefficient of 0.18 - 0.19 were used by making modifications. The item-total correlation for each the scales are given (see Appendix 8,9&10).

Reliability of the instruments was assessed by Chronbach alpha using the data collected during the pilot survey. The computation yielded reliability coefficient of 0.897, 0.842 and 0.910 for depression scale, anxiety scale and anger scale respectively. The above coefficients of reliability clearly show that the instruments seem to be highly reliable. But, some important modifications were made after the pretest in the wording and arrangement of the instrument.

3.6 Ethical Consideration of the Research

Ethical review of the instrument was made in Amanuel Specialized Mental hospital by ethical review committee before administering the questionnaire and conducting the interviews. The researcher explained the objective and ethical consideration of the research to the respondents in written form and make sure

that they understood everything. Then both the researcher and the participants signed the informed consent before any activity was done.

The researcher informed all study participants that they have the right not to partake in or to withdraw from the study at any stage and assured the respondents in complete privacy and no participants are seated close by allowing interruption. Finally, before the administration of the questionnaire the researcher expressed thankfulness to them for their willingness to participate in the study.

3.7. Procedure of Data Collection

After the scales were improved and the necessary changes have been made, the final survey was carried out from March 1 to April 30, 2009 in the selected two hospitals. Almost similar procedures were followed in the selected two hospitals while conducting the final survey. And the procedures used to select drug users were stated orderly as follows:-

- ◆ Getting a permission letter from the head/medical director and ethical review committee of the hospitals.
- ◆ Finding volunteer counselor or the psychiatric nurses to help the researcher in the process of obtaining the target samples.
- ◆ Selecting sample using purposive sampling method.
- ◆ Getting subjects and introducing the researcher and the purpose of the research.
- ◆ Signing written informed consent so as to assure that they are willing to participate in the study.
- ◆ Selecting a comfortable place.
- ◆ Read the questionnaire /scales to drug users.
- ◆ Restating questions that were not clear or difficult to understand.
- ◆ The three scales took 35 - 40 minutes on average.
- ◆ Finally, making sure that all the questions are answered and give thanks.

In order to collect data from the caregivers/parents of drug users' and health professionals selected from the two hospitals, the following procedures were followed.

- ◆ Getting permission letter from the head/ medical director and ethical review committee of the hospitals.
- ◆ Finding volunteer counselor or the psychiatric nurses to help the researcher in the process of obtaining the target samples.
- ◆ Selecting samples using purposive sampling method.
- ◆ Getting subjects and introducing the researcher and the purpose of the research.
- ◆ Obtaining verbal informed consent so as to assure that they are willing to participate in the study.
- ◆ Conducting the interview with giving the samples.
- ◆ The interview with caregivers/parents of drug users' took 15 - 20 minutes on average.
- ◆ The interview with health professionals took 10 - 15 minutes on average.
- ◆ Making sure that all the questions are answered.
- ◆ Giving thanks.

3.8. Method of Data Analysis

SPSS version 16 was used to enter, clean and analyze the quantitative data. Questionnaires that were not properly filled or inconsistent were excluded. Percentage, preliminary statistics (means and standard deviation) were computed for each levels of independent variable and one - way analysis of variance were used to analyze the data. In addition, three - way analyses of variance were carried out for three dependent variables separately. These were:-

1. Level of Depression

2 (Duration of use) × 2 (Treatment Intensity) × 2 (Number of Substance Use)

2. Level of Anxiety

2 (Duration of use) × 2 (Treatment Intensity) × 2 (Number of Substance Use)

3. Level of Anger

2 (Duration of use) × 2 (Treatment Intensity) × 2 (Number of Substance Use)

Analysis of variance is selected because it is helpful to address the specific aims of the study, that is, difference among groups in relation to the psychological problems. As Kerlinger (1986) as cited in Amanuel H. (2006) has said it, for the design with more than two independent variables, employing analysis of variance may enhance the ability to understand complex psychological and educational realities. Qualitative descriptions were also used for semi - structured interview questions. Supplementary analysis using simple correlation was made in order to examine relationships among the three dependent measures.

CHAPTER FOUR: RESULTS

The major objective of the present study was to examine psychoactive substance use related psychological problems (depression, anxiety and anger) at two selected governmental hospitals in Addis Ababa. This study also tried at investigating when there users' levels of psychological problems differ as a function of treatment intensity, duration of use and number of substance use.

In order to properly meet the above objectives the collected data on both the dependent and independent variables were presented based on the specific research questions raised in chapter one.

4. 1. Subjects' Characteristics

Table 3- Demographic Characteristics of Samples of substance users

| Drug Users Characteristics | Category | Number | Percent |
|-----------------------------------|----------------------------|---------------|----------------|
| Age | 18 - 30 | 38 | 55.9 |
| | 31 - 50 | 30 | 44.1 |
| Sex | Male | 64 | 94.1 |
| | Female | 4 | 5.9 |
| Academic Status | 5 - 12 Grade Level | 32 | 47 |
| | Vocational/College Diploma | 21 | 30.8 |
| | Degree and Above | 15 | 22 |

As can be seen from table 3 above, out of the total drug users samples (N= 68), 38 (55.9%) subjects were youth (18 - 30) while 30 (44.1%) were adult. Out of the total respondents, 94.1% were male while the rest 5.9% were female. The respondents academic status shows that 47% of them were between 5 -12 grade level, 30.8% of the informants had vocational/ college diploma and the rest 22% of the informants had first degree and above.

Table 4- Demographic Characteristics of Samples of key informants

| Health Professionals | | | | Caregivers/Parents of Drug users | | | |
|----------------------|------|------|--------|----------------------------------|------|------|--------|
| Age | | Sex | | Age | | Sex | |
| 18 - 35 | > 35 | Male | Female | 18 - 35 | > 35 | Male | Female |
| 3 | 2 | 4 | 1 | 1 | 4 | 2 | 3 |

As can be read from table 4 above, out of the total key informant samples of health professionals (N= 5), 4(80%) subjects were males while 1(20%) were female. 60% of health professionals were youth (18 - 35) while 40% were adult. From the samples of caregivers/parents 40% males and 60% females.

Table 5- Type of Drugs Used by Respondents

| N.O. | Type of Drugs | Frequency | Percent |
|------|------------------------------|-----------|---------|
| 1 | Chat | 46 | 67.6 |
| 2 | Cigarette | 37 | 54.4 |
| 3 | Alcohol | 30 | 44.1 |
| 4 | Cannabis (Hashish or Ganja) | 17 | 25 |
| 5 | Petidin | 5 | 7.4 |
| 6 | Heroin | 4 | 5.9 |
| 7 | Marijuana | 4 | 5.9 |
| 8 | Amphetamine | 3 | 4.4 |

As table 5 indicated the type of drugs that are used by the highest number of the respondents were chat (67.6%), cigarette (54.4%), alcohol (44.1%) and cannabis (25%) respectively. While petidin (7.4%) and heroin (5.9%). Marijuana and amphetamine were used by 5.9% and 4.4% of the respondents respectively.

Table 6- Mean and Standard Deviation of the Independent Variables with Respect to Depression Level

| Manifested Depression Level | | | |
|------------------------------------|------------------|-------------|-----------|
| | | Mean | SD |
| Duration of Use | D1 (1-10 Yrs) | 25.35 | 13.08 |
| | D2 (>10 Yrs) | 23.47 | 11.77 |
| Treatment Intensity | T1 (Inpatient) | 27.84 | 11.74 |
| | T2 (Outpatient) | 20.79 | 12.2 |
| Number of Substance Use | S1 (Single Drug) | 22.59 | 12.88 |
| | S2 (Poly Drugs) | 25.55 | 12.13 |

One can read from the mean and standard deviation levels from table 6 above by taking the depression level as dependent and duration of use, treatment intensity and number of substance use as independent variables. The result shows that the mean level of single drug users was 22.59 while poly drug users had a mean level of 25.55. And the mean level of inpatient and outpatient were 27.84 and 20.79 respectively.

Table 7- Mean and Standard Deviation of the Independent Variables with Respect to Anxiety.

| Manifested Anxiety Level | | | |
|---------------------------------|------------------|-------------|-----------|
| | | Mean | SD |
| Duration of Use | D1 (1-10 Yrs) | 18.11 | 12.49 |
| | D2 (>10 Yrs) | 18.15 | 9.38 |
| Treatment Intensity | T1 (Inpatient) | 19.77 | 11.83 |
| | T2 (Outpatient) | 16.39 | 9.97 |
| Number of Substance Use | S1 (Single Drug) | 15.88 | 11.26 |
| | S2 (Poly Drugs) | 19.52 | 10.76 |

The result from the above table indicates the mean and standard deviation levels from table by taking the anxiety level as dependent and duration of use,

treatment intensity and number of substance use as independent variables. The result shows that the mean level of inpatients was 19.77 while outpatients had a mean level of 16.39. Single drug users had 15.88 mean level of anxiety as compared with 19.52 mean value of poly drug users.

Table 8- Mean and Standard Deviation of the Independent Variables with Respect to Anger Level.

| Manifested Anger Level | | | |
|-------------------------------|------------------|-------------|-----------|
| | | Mean | SD |
| Duration of Use | D1 (1-10 Yrs) | 23.34 | 14.5 |
| | D2 (>10 Yrs) | 19.42 | 12.83 |
| Treatment Intensity | T1 (Inpatient) | 22.46 | 14.73 |
| | T2 (Outpatient) | 20.36 | 12.79 |
| Number of Substance Use | S1 (Single Drug) | 19.85 | 15.1 |
| | S2 (Poly Drugs) | 22.43 | 12.9 |

Table 8 above shows that inpatient drug users have higher mean value (22.46) than outpatient drug users (20.36) in anger symptom levels. One can also read from the same table that the mean value of poly drug users (22.43) was greater than those single drug users (19.85).

4.2 Prevalence of Psychological Problems on Substance Users

4.2.1 Depression

The first research question was "do psychoactive substance users show depression?" In order to answer this research question frequency distribution was performed.

Table 9- Depression Level of Substance Users

| Depression Level | Frequency | Percentage |
|-------------------------|------------------|-------------------|
| 0 - 13 (Minimal) | 12 | 17.6 |
| 14 - 19 (Mild) | 9 | 13.2 |
| 20 - 28 (Moderate) | 22 | 32.4 |
| 29 - 63 (Severe) | 25 | 36.8 |
| Total | 68 | 100.0 |

As shown in table 9 above, 36.8 % of the participants showed severe, 32.4 % moderate, 13.2 % mild level of depression. Only 17.6 % of the participants showed clinically non significant level of depression (below 13).

4.2.2 Anxiety Level of Substance Users

In order to check whether or not drug users show anxiety, frequency table was performed and presented below.

Table 10- Anxiety Level of Substance Users

| Anxiety level | Frequency | Percentage |
|----------------------|------------------|-------------------|
| 0 – 17 (Not Present) | 38 | 55.9% |
| 18 - 24 (Mild) | 13 | 19.1% |
| 25 - 29 (Moderate) | 9 | 13.2% |
| 30 - 56 (Severe) | 8 | 11.8% |
| Total | 68 | 100.0 |

Table 10 above indicates that 55.9 % of the informants showed no anxiety symptoms. 19.1 % of the participants showed mild anxiety symptoms and 13.2 % of the respondents experienced anxiety symptoms in its moderate form. Only 11.8 % of the informants showed anxiety symptoms in severe form.

4.2.3 Clinical Anger Level

The other research question was to explore if drug users show anger, table 11- below gives a summary of the results.

Table 11- Anger Level of Substance Users

| Clinical Anger Level | Frequency | Percentage |
|-----------------------------|------------------|-------------------|
| 0 -13 (Minimal) | 23 | 33.8 |
| 14 -19 (Mild) | 5 | 7.4 |
| 20 - 28 (Moderate) | 20 | 29.4 |
| 29 - 63 (Severe) | 20 | 29.4 |
| Total | 68 | 100.0 |

As can be seen in table 11 above, 29.4 % of the participants showed clinical anger in its moderate and severe level. 7.4 % of participants showed mild form and 33.8 % of the respondents experienced anger in its minimal level.

4.3. Differences in the Manifestations of Psychological Problems

Differences in the manifestation of the psychological problems (depression, anxiety and anger) have been investigated to see if it is related with other variables. The next part of the result focuses on answering research questions raised in relation to differences.

4.3.1. Differences in the Depression Level

In order to answer the research question, is there use of duration differences in exposure to depression? Analysis of variance was examined taking depression level as a dependent variable and use of duration as an independent variable.

Table 12- Summary Table of One - Way ANOVA on Substance Users' Depression Level and Duration of Use

| Sources of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------|----------------|----|--------------|------|
| Between groups | .024 | 1 | .024 | .000 |
| Within groups | 8125.785 | 66 | 123.118 | |
| Total | 8125.809 | 67 | | |

P > 0.05

As can be seen from table 12 above, there was no statistically significant mean difference between two substance users' groups of duration of use (1-10 years and above 10 years) in terms of depression manifestation.

Are there treatment intensity differences in experiencing depression? In an attempt to answer this research question, one way analysis of variance was computed. The results are shown in table 13 below.

Table 13 - Effects of Treatment Intensity on the Depression Level

| Sources of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------|----------------|----|--------------|-------|
| Between groups | 845.404 | 1 | 845.404 | 5.895 |
| Within groups | 9464.901 | 66 | 134.408 | |
| Total | 10310.305 | 67 | | |

P > 0.05

As shown in table 13 above, the results indicated that there was statistically significant mean difference among inpatient and outpatient substance users in manifesting depression.

Are there number of substance use differences in exposure to depression? In order to find answer to the above research question, the means were compared and results are presented in table 14 below.

Table 14 - Summary Table of One - Way ANOVA on Substance Users' Depression Level and Number of Substance Use

| Source of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------------|-----------------------|-----------|---------------------|----------|
| Between groups | 139.891 | 1 | 139.891 | .908 |
| Within groups | 10170.414 | 66 | 154.097 | |
| Total | 10310.305 | 67 | | |

P>0.05

The F ratio in table 14 indicates that the depression level of substance users' was the same between single and poly drug users.

The main and interaction effects of the three variables (duration of use, treatment intensity and number of substance use) were investigated by employing a three - way ANOVA here in table 15.

Table 15 - Three - Way Summary Table ANOVA on Substance Users' Depression Level.

Dependent Variable: Depression level

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|-------------------------|----|-------------|---------|------|
| Corrected Model | 1412.410 ^a | 7 | 201.773 | 1.361 | .239 |
| Intercept | 34144.850 | 1 | 34144.850 | 230.244 | .000 |
| Duration of Use | 46.571 | 1 | 46.571 | .314 | .577 |
| Treatment Intensity | 782.628 | 1 | 782.628 | 5.277 | .025 |
| Number of Substance Use | 157.173 | 1 | 157.173 | 1.060 | .307 |
| Duration of Use * Treatment Intensity | 136.438 | 1 | 136.438 | .920 | .341 |
| Duration of Use * Number of Substance Use | 21.069 | 1 | 21.069 | .142 | .708 |
| Treatment Intensity * Number of Substance Use | 123.270 | 1 | 123.270 | .831 | .366 |
| Duration of Use * treatment Intensity * Number of Substance Use | 14.426 | 1 | 14.426 | .097 | .756 |
| Error | 8897.895 | 60 | 148.298 | | |
| Total | 50858.250 | 68 | | | |
| Corrected Total | 10310.305 | 67 | | | |

a. R Squared = .137

When figures of the three - way analysis of variance are examined, it is found in table 15 that, the main effect for treatment intensity is found to bring statistically significant mean differences. But the rest interaction and main effects were not statistically significant.

4.3.2. Differences in the Anxiety Level

In order to seek answer for the research question "Are there duration of use differences in exposure to anxiety?" analysis of variance was carried out taking anxiety as a dependent variable and duration of use as an independent variable.

Table 16 - Summary Table of One - Way ANOVA on Substance Users' Anxiety Levels and Duration of Use.

| Sources of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------|----------------|----|--------------|------|
| Between groups | .024 | 1 | .024 | .000 |
| Within groups | 8125.785 | 66 | 123.118 | |
| Total | 8125.809 | 67 | | |

P>0.05

As table 16 shows, duration of use did not brought statistically significant mean difference on the amount of anxiety level.

One of the research questions raised in the statement of the problem was, are there treatment intensity differences in exposure to anxiety levels of substance users? Thus, to see whether treatment intensity differences bring variation in the anxiety level, one - way ANOVA was made and result are described in table 17 below.

Table 17- Summary Table of One-Way ANOVA on Substance Users' Anxiety Level and Treatment Intensity.

| Sources of Variance | Sum of Squares | Df | Mean Squares | F |
|---------------------|----------------|----|--------------|-------|
| Between groups | 193.759 | 1 | 193.759 | 1.612 |
| Within groups | 7932.050 | 66 | 120.18 | |
| Total | 8125.809 | 67 | | |

P>0.05

The above table indicates that the overall differences between the means are not statistically significant. It means that drug users who were from different ways of treatment groups show similar levels of anxiety.

Are there number of substance use differences in experiencing anxiety? To answer the above research question analysis of variance was performed and presented below.

Table 18 - Summary Table of One - Way ANOVA on Substance Users' Anxiety Level and Number of Substance Use.

| Sources of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------|----------------|----|--------------|-------|
| Between groups | 212.679 | 1 | 212.679 | 1.774 |
| Within groups | 7913.130 | 66 | 119.896 | |
| Total | 8125.809 | 67 | | |

P>0.05

The above table shows that there was no statistically significant difference between drug users' anxiety levels across the different number of substance use groups (single and multi drug).

Table 19 - Three - Way Summary Table ANOVA on the Anxiety Level of Substance Users'

Combining the three factors with their different levels, a three - way ANOVA was employed here under to see the main and interaction effects of the independent variables with respect to the levels of anxiety.

Dependent Variable: Anxiety level

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|-------------------------|----|-------------|---------|------|
| Corrected Model | 645.645 ^a | 7 | 92.235 | .740 | .639 |
| Intercept | 17904.497 | 1 | 17904.497 | 143.616 | .000 |
| Duration of Use | 13.733 | 1 | 13.733 | .110 | .741 |
| Treatment Intensity | 202.242 | 1 | 202.242 | 1.622 | .208 |
| Number of Substance Use | 234.648 | 1 | 234.648 | 1.882 | .175 |
| Duration of Use * Treatment Intensity | 83.688 | 1 | 83.688 | .671 | .416 |
| Duration of Use * Number of Substance Use | 50.314 | 1 | 50.314 | .404 | .528 |
| Treatment Intensity * Number of Substance Use | 51.459 | 1 | 51.459 | .413 | .523 |
| Duration of Use * Treatment Intensity * Number of Substance Use | 2.049 | 1 | 2.049 | .016 | .898 |
| Error | 7480.164 | 60 | 124.669 | | |
| Total | 30483.000 | 68 | | | |
| Corrected Total | 8125.809 | 67 | | | |

a. R Squared = .079

According to table 19 above, the three main effects (duration of use, treatment intensity and number of substance use) as previously seen were found to be not significant at an alpha 0.05 level. Further as seen in table 19, two and three level interactions are presented to examine all the possible combinations. The two

and three level interactions brought non significant mean differences. In general, the main and interaction effects of the three independent variables were examined. All the three independent variables (main effects) were unable to bring a statistically significant difference consistently in all the analyses made above. All the interactions also were not significant.

4.3.3. Differences in the Anger Level

One - way ANOVA was computed to see if there are duration of use differences in experiencing anger. The results are described in table 20 below.

Table 20 - Summary Table of One - Way ANOVA on Substance Users' Anger Level and Duration of Use

| Sources of Variance | Sum of Squares | df | Mean Squares | F |
|---------------------|----------------|----|--------------|-------|
| Between groups | 260.818 | 1 | 260.818 | 1.386 |
| Within groups | 12423.946 | 66 | 188.242 | |
| Total | 12684.765 | 67 | | |

P>0.05

As one can read from the above table, there exists no statically significant mean difference in manifesting anger as a result of duration of use.

Are there treatment intensity differences in exposure to clinical anger symptoms? In an attempt to answer this research question, one - way analysis of variance was computed. The results are shown below.

Table 21- Summary Table of One - Way ANOVA on Substance Users' Anger Level and Treatment Intensity.

| Sources of Variance | Sum of Square | df | Mean Square | F |
|---------------------|---------------|----|-------------|------|
| Between groups | 74. 443 | 1 | 74. 443 | .390 |
| Within groups | 12610.322 | 66 | 191.065 | |
| Total | 12684.765 | 67 | | |

It can be seen from table 21 above that the overall differences between the means are not statistically significant. It means that drug users who were from inpatient and outpatient groups show similar levels of clinical anger.

Are there number of substance use differences in exposure to anger symptoms? In order to find answer to the above research question, the means were compared and results are presented in table 22.

Table 22- Summary Table of One - Way ANOVA on Substance Users' Anger Level and Number of Substance Use.

| Source of Variance | Sum of Square | df | Mean Square | F |
|--------------------|---------------|----|-------------|------|
| Between groups | 107.094 | 1 | 107.094 | .562 |
| Within groups | 12577.670 | 66 | 190.571 | |
| Total | 12684.765 | 67 | | |

As shown in the above table, drug users' anger level did not have statistically significant mean differences when computed with number of substance use (single and poly drugs).

Table 23 - Three - Way Summary Table ANOVA on Substance Users' Anger Level.

Dependent Variable: Anger Level

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|--|-------------------------|----|-------------|---------|------|
| Corrected Model | 1499.481 ^a | 7 | 214.212 | 1.149 | .345 |
| Intercept | 23584.628 | 1 | 23584.628 | 126.512 | .000 |
| Duration of Use | 654.855 | 1 | 654.855 | 3.513 | .066 |
| Treatment Intensity | 17.963 | 1 | 17.963 | .096 | .757 |
| Number of Substance Use | 352.206 | 1 | 352.206 | 1.889 | .174 |
| Duration of Use * Treatment Intensity | 124.849 | 1 | 124.849 | .670 | .416 |
| Duration of Use * Number of Substance Use | 779.413 | 1 | 779.413 | 4.181 | .045 |
| Treatment Intensity * Number of Substance Use | 2.526 | 1 | 2.526 | .014 | .908 |
| Duration of Use * Treatment Intensity* Number of Substance Use | 109.227 | 1 | 109.227 | .586 | .447 |
| Error | 11185.283 | 60 | 186.421 | | |
| Total | 43946.000 | 68 | | | |
| Corrected Total | 12684.765 | 67 | | | |

a. R Squared = .118

The three main effects (duration of use, treatment intensity and number of substance use) were found to be not significant at an alpha = 0.05 level. The interaction effects (duration and number of substance use) indicated statistically significant difference. But the rest interaction effects indicated statistically non significant difference analyses made. To sum up, an attempt was made to examine the main and interaction effects of the three independent variables up on the reported anger levels. The main effects exhibited no statistically significant differences.

✓ 4.4. **Psychological Service Given For Substance Users and Caregivers/Parents**

In this part information gathered through interview concerning the psychological services given for substance users and caregivers are presented. The data obtained from the caregivers/parents of substance users participants and health professionals working at the two hospitals are explained separately.

4.4.1. Response of Caregivers/Parents of Substance Users

In order to answer the research question, is there any psychological service given for substance users? Interviews were carried out with caregivers/parents of substance users' participants and the results indicated that almost all of the caregivers of substance users indicated the availability of counseling services in the two hospitals. The respondents also indicated that substance users were showing different psychological problems (e.g. anxiety, stress, fear, worry, losing control, poor concentration, speaking very quickly, depression, unable to sleep or want to sleep all the time, etc.) and these problems need to get attention and treated.

4.4.2. Response of Health Professionals

To explore the psychological services rendered in the two hospitals, semi - structured interviews were carried out with health professionals in the two hospitals. Consequently, all of the health professionals indicated the availability of counseling services for substance users and their caregivers. But all the health professionals indicated that, the service is of great importance and need to be enhance its service and well organized.

4.5. The Relations among Depression, Anxiety and Anger Levels

In order to see the relationships among the three dependent variables, Pearsons' product moment coefficient correlations were computed. Table 24 below gives summary of correlations among the three dependent variables.

**Table 24 -Correlations among the Three Dependent Variables
(Depression, Anxiety and Anger Level)**

| Psychological problems | Depression | Anxiety | Anger |
|-------------------------------|-------------------|----------------|--------------|
| Depression | 1 | .535** | .472** |
| Anxiety | .535** | 1 | .671** |
| Anger | .472** | .671** | 1 |

**Correlation is significant at the 0.01 level (2 tailed)

As the above table indicates there is a significance correlation at alpha = 0.01 level (2 tailed) among the three dependent variables (depression, anxiety and anger). One can also see that, there are positive and direct relationships among the dependent variables (depression, anxiety and anger).

CHAPTER FIVE: DISCUSSION

The results mentioned in the previous chapter are discussed in relation with the available researches.

5.1. Prevalence of Psychological Problems on Substance Users

5.1.1 Depression

One of the specific objectives of the study was to examine if substance users show depression. And the result indicates that, 30.8% of substance users showed below average level of depression, 32.4% moderate level of depression and 36.8% severe symptoms of depression. It means that substance users (69.2%) show higher levels of depression and this findings is consistent with many previous researches. For example Longchamp,C., Cattacins, S. and Lehmann, P.(1998) reported that substance users suffered from moderate to severe depression symptoms.

Kohn,L.and Pipett,D.(2001) also found that drug users showed tiredness, depressed mood, aggression, different phobias, anger, hyperactivity, anxiety and poor concentration. In a six years research review conducted by Botvin and et al (2003), substance users indicated insomnia at night, different phobias, emotional disturbances, Lack of concentration, stress, depression and isolation. It is thus advantageous to Know that substance users experience depression and this will help to design appropriate service needed to minimize the psychological problems under investigation. Substance users experienced depression may be the result of artificial stimulant decrease in central nervous system which alters or affects the structure or function of the users.

5.1.2. Anxiety

As shown in the result section, 55% of substance users showed no anxiety symptoms, 19.1% mild symptoms, 13.2% moderate symptoms and 11.8% severe symptoms of anxiety. The present finding is however, inconsistent with the findings who advocate drug users showed more symptoms of anxiety (Mc Neill, and Armitage, 1999).

5.1.3 Anger

The present study indicates that 33.8% of substance users showed minimal level of anger, 7.4% mild symptoms and 58.8% of drug users in its moderate and severe symptoms of clinical anger. According to the present result, clinical anger symptoms were common on drug users. This findings is in line with some other past findings of Digiuseppe and Tafrate (2001), Kinnear and Brislin, R.W. (1994), Voyer, D. and Bryden, M.P. (1993) and Smith, J.C. (1995). Some substance users showed clinical anger before taking drugs, while others before and after using of drugs. But it is possible to conclude from the above finding and previous researches and say most substance users are at risk of showing symptoms of clinical anger.

5.2 Differences in the Manifestation of Psychological Problems

In the present study an attempt was made to explore if there exist differences in experiencing the psychological problems (depression, anxiety and anger) as a function of the three independent variables (duration of use, treatment intensity and number of substance use).

5.2.1. Differences in the Depression Level

5.2.1.1 Duration of Use

The result of the present study indicates that there were no statistically significant duration differences in experiencing depression. The result shows that substance users irrespective of their difference in use of durations seem to experience similar level of depression. This result coincide with some other past findings of Wieczork and Kruk (1994), Ross and Renyi (1969) and Warren Bikckes and Marc (1995) who reported statistically non significant duration of drug use difference in exposure to depression. It is therefore encouraging that the psychological effects of drugs were equally manifested by all the users irrespective of duration of use differences. This finding is indicative that no discrimination seems to be required if there is a plan for future intervention program among these groups. The present finding is however, inconsistent with some other findings who advocate duration of drug use differences in exposure to the psychological problems (Lennon and et al 1999).

5.2.1.2. Treatment Intensity

It has been investigated that, there was statistically significant treatment intensity differences in experiencing depression in drug users. This indicates that inpatient drug users experience higher level of depression than outpatient. (This goes in line with the result of Johnson O'Malley and Bachman (2003). It is therefore good to plan different treatment intervention strategies for hospitalized and follow - up substance users. Other findings however, found out that there is no statistically significant difference between inpatient and outpatient drug users' level of depression (Amos and et al 1998).

The explanation given for similar level of depression irrespective of difference in treatment intensity is that the criteria for categorization of drug users under inpatient and outpatient are simply willingness and economic capacity of the patient.

5.2.1.3. Number of Substance Use

One of the objectives of the present study was to find out if there are number of substance use differences in experiencing depression. And the findings showed that there were no statistically significant depression level differences as a result of single and poly drugs. From the result, it is clear to understand that drug users who were users of different number of substances level differences. Finding by Hawkins, Catalane and Miller (2001) is parallel to the present finding. The above researchers indicate that difference in the depression level may probably be the result of frequency and type of drug use than number of substance. The result is inconsistent with what other researchers found Egger and Hurting (1998) and Miller and Gmel (2002). These researchers found out that use of different substances (multi-drugs) expose at risk for developing different psychological problems. The three - way ANOVA summery table indicates that the main effect for treatment intensity is found to bring statistically significant mean differences, this may be due to environmental factors. But all the other interaction and main effects were not statistically significant. Local and international researches are lacking in this area and needs to get attention.

5.2.2. Differences in the Anxiety Level

5.2.2.1. Duration of Use

The finding of the present study indicates that there was no statistically significant duration of drug use differences in experiencing anxiety. The result shows that substance users irrespective of their difference in duration of drug use seem to experience similar level of anxiety level. The result is consistent with some other past finding of Wieczorek and kruk (1994) and Ross and Renyi (1996).

Other findings pointed out that drug user for above 4 years significantly show anxiety symptoms rather than drug users for 2 years (Lennon and et al 1999). According to Lennon and et al (1999), the difference in manifestation of anxiety level is the result of biological than psychological factors. It is also indicated that

drug users for long time are more vulnerable to develop intense anxiety than short time drug users. But the finding of the present study was against this result.

5.2.2.2. Treatment Intensity

Investigations were carried out to determine if treatment intensity variation brought significant difference in exposure to anxiety level. And the finding of the present study shows that treatment intensity as an independent factor did not brought any significant difference in the anxiety level of substance users. Drug users showed similar level of anxiety irrespective of difference in treatment intensity. This result is consistent with what other researcher found Amos and et al 1998 and Laler and Smith (1998). These researchers found out that the prevalence of anxiety was not affected by ways of treatment.

5.2.2.3. Number of Substance Use

To explore whether different number of substance use brought variations in the anxiety level, analysis of variance was made and the finding indicates no statistically significant differences among single and poly drugs of substance users. This indicates that substance users irrespective of the number of substance use show similar level of anxiety. This is consistent with what Hawkins, Catalano and Miller (2001) indicated in that the number of substance use that drug users experienced do not provide sufficient information to identify users who are at risk of developing different psychological problems.

The main and interaction effects were also computed are results indicates that none of the main and interaction effects have brought statistically significant differences among the drug users. This indicates that variables (duration of use, treatment intensity and number of substance use) computed separately were also unable to bring any difference when combined with other variables. Researches are lacking in this area and needs to be encouraged.

5.2.3 Differences in the Anger Level

5.2.3.1 Duration of use

Analysis of variance was made to see if there is duration of use differences in the manifestation of clinical anger symptoms. And it was found that there was no statistically significant duration of use differences indicating that both categories (below 10 years and above 10 years) had similar level in clinical anger symptoms. This result is in line with the findings of Warren Bickes and Marc (1995).

Other finding by kappa and Narring (2003) indicates that duration of use significantly contribute to the drug users clinical anger symptoms. The difference in anger symptoms level was related to the higher frequency of depression and fear history among the users on these studies, the above researchers failed to keep other things constant for both groups,

5.2.3.2 Treatment Intensity

Treatment intensity difference in experiencing symptoms of clinical anger was not found in substance users. This means both inpatient and outpatient substance users showed similar clinical anger symptom levels, this is also a case in the findings of Morgan and Krueger (2000), Lalor and Smith (1989) and Amos and et al (1998).

This finding however, is not supported by Johnson O'Malley and Bachman (2003) who found out that there was inpatient and outpatient drug users' difference in experiencing psychological problems. Results suggested that inpatient drug users exhibited broader psychological problems (anxiety, loss of memory, stress, depression and suspiciousness) than outpatient.

5.2.3.3. Number of Substance Use

According to the findings of the present study, anger symptoms were not related with the number of substance. The result from the data indicates that there was no statistically significant difference when taking anger symptom levels as a dependent and number of substance use as independent variable. Users of different number of substance found to have similar symptoms of anger. This is also supported by Hawkins, Catalano and Miller (2001) who stated that psychological problems were largely predicted by physiological and personality factors than substance use differences.

Researchers comparing the number of substance use different with the psychological problems (depression, anxiety and anger symptoms) are lacking and needs to be encouraged.

The entire three main and the other interaction effects were computed and results indicated that none of the main and interaction effects have brought statistically significant differences among substance users. This indicates that variables computed separately were also unable to bring any difference when combined with other variables.

5.3 Psychological Service Given for Substance Users and Caregivers/ Parents

The information obtained from the caregivers /parents of substance users and health professionals working at the two hospitals regarding the psychological services rendered are discussed below.

5.3.1 Interview with Caregivers / Parents of Substance Users

According to the results from the interview almost all of the caregivers /parents of substance users indicated the availability of counseling services in the two hospitals. The respondents also replied that substance users participants were showing different psychological problems (e.g. Poor concentration, sleep disturbances, aggression, anxious, isolation, etc...) and these problems need to be treated and get attention.

Various psychological services are being used and proposed by different researchers. Raymond D., Gane Baron and Helen S. (1999) recommended rational emotive behavior therapy, client centered and family therapy for substance users. These treatments could be highly effective than cognitive behavioral therapy. Douglas H. R. and Richard H. (1999) also recommended psychodynamic and behavioral approach for people who are at risk of developing psychological problems due to drug abuse.

5.3.2 Interview with Health Professionals

The results from the health professionals also confirmed that counseling services in the two hospitals were available. In addition to this, the health professionals indicated that counseling section needs to be enhanced and well organized.

CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary

This study was primarily intended to investigate psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa. In accordance with this major goal, the following questions were formulated:-

- ◆ Do psychoactive substance users show depression?
- ◆ Do psychoactive substance users show anxiety?
- ◆ Do psychoactive substance users show anger?
- ◆ Is there any psychological services rendered for substance users and their caregivers/parents?
- ◆ Are there uses of duration (1-10 years and above 10 years) differences in exposure to the psychological problems (depression, anxiety and anger)?
- ◆ Are there treatment intensity (inpatient hospitalization and outpatient) differences in experiencing the psychological problems (depression, anxiety and anger)?
- ◆ Are there number of substance use (single and poly drugs) differences in exposure to the psychological problems (depression, anxiety and anger)?

To answer these questions the study was conducted in two hospitals at Addis Ababa. The participants of the study were 68 substance users of different types. 5 caregivers / parents and 5 health professionals from the two hospitals.

In order to secure relevant data that help answer the set questions, the following instruments were used.

- ◆ Three scales measuring the depression, anxiety and anger symptoms levels of psychoactive substance users.
- ◆ Semi – structured interview with caregivers/parents of psychoactive substance users.
- ◆ Semi – structured interview with health professionals from the two hospitals.

Data obtained from three sources were analyzed using both quantitative and qualitative methods of analysis. Data obtained from the three scales were intended to see the prevalence of the psychological problems (depression, anxiety and anger symptoms). Percentages were used to show the prevalence of the problem. Duration of use, treatment intensity and number of substance use differences were analyzed using analysis of variance method. A three way ANOVA was used to see the main and interaction effects. Data gathered from the two semi – structured interviews were analyzed using qualitative descriptions of the obtained responses.

The results regarding the prevalence of the psychological problems indicated that 69.2% of substance users showed above average level of depression while 58.8% of substance users showed moderate and severe level of anger symptom. Above moderate anxiety symptom was exhibited in only 25% of substance users' participants.

Results from the analysis of variance indicated that there were no statistically significant duration of use and number of substance use differences in experiencing depression, anxiety and anger symptom levels. This means that substance users showed similar levels of depression, anxiety and anger irrespective of use of duration and number of substance use differences. Only treatment intensity in experiencing depression were statistically significant variation but in relation to anxiety and anger were not statistically significant.

The main and interaction effects of the three - way ANOVA, the main effect for treatment intensity is found to bring statistically significant mean differences in depression level and the interaction effects (duration and number of substance use) indicated statistically significant differences in anger symptom. But the rest main and interaction effects of the three - way ANOVA came up with statistically non significant results.

Interview results with the 5 selected caregivers/parents of substance users and 5 health professionals showed the availability of counseling services in the two hospitals. The caregivers/parents and health professionals indicated that counseling service has great importance.

6.2. Conclusions

The following are the major findings of the study:-

- Psychoactive substance users showed depression, anxiety and anger symptoms.
- There was no statistically significant duration of use difference in experiencing depression, anxiety and anger symptoms.
- There was no statistically significant treatment intensity difference in experiencing anxiety and anger symptoms.
- There was statistically significant treatment intensity difference in experiencing depression symptom.
- There was no statistically significant number of substance use difference in experiencing depression, anxiety and anger symptoms.
- There was a professional psychological/ counseling services provided for substance users and their caregivers /parents in the two hospitals to minimize the psychosocial problems.
- The main and interaction effects indicated statistically non significant mean differences in experiencing the psychological problems (depression and anxiety). This indicates that variables (duration of use, treatment intensity and number of substance use) computed separately were also unable to bring any difference when combined with each others in the manifestation of depression and anxiety.
- The interaction effects (duration of use and number of substance use) indicated statistically significant mean differences in experiencing anger symptom.

6.3 RECOMMENDATIONS

Despite the widespread prevalence of substance use, there are only scanty efforts made by government, non-government and community based organizations to reverse the situation. In view of the complex nature of the problem, isolated attempts will not bring about the desired outcome. The efforts of any single actor in addressing the problem can not solve such a huge social problems. Rather, concerted and interdisciplinary manner can only bring about a meaningful change. Therefore, based on the findings of the study the present researcher forwarded the following recommendations:-

- ◆ Since the findings indicated that drug users showed depression, anxiety and clinical anger symptoms, so it is recommended that professional counselors along with social workers need to conduct early assessment and screen for depression, anxiety and clinical anger symptoms and refer them for treatment when appropriate. Such approach will pave a way for early intervening strategies and hence minimize psychological problems (depression, anxiety and clinical anger symptoms) of drug users.
- ◆ The result of the present study indicated that the psychological needs of drug users is not given due attention. There is an urgent need for health care staff working with substance users involved in different drug types. And psychological treatment needs to be given the same priority as screening for physical treatment. The need to create awareness of the possible psychological consequences of drugs should be highlighted.
- ◆ Any drug user is at risk in developing depression, anxiety and clinical anger symptoms regardless of treatment intensity, duration of use and number of substance use differences. Thus in devising treatment plan for drug users no treatment intensity, duration of use and number of substance use discriminations are needed.

- ◆ The two hospitals (Amanuel Specialized Mental Hospital and St. Paul General Specialized Hospital) provide counseling services for drug users and sometimes for their caregivers/parents to alleviate the psychological problems (depression, anxiety and anger symptoms). It is really encouraging and such services providers need to be well organized in terms of facilities and professionals, particularly St. Paul General Specialized Hospital.
- ◆ The researcher found out that nurses and medical doctors took a single psychology course which does not fully enable them execute counseling services. In this regard the new educational policy needs to encompass counseling courses for these professionals so that they can be able to provide better counseling services for the victimized citizens.
- ◆ Administrators of the hospitals should work very closely with different GOs, NGOs, and CBOs to enhance the service. It is well accepted that, "the better a patient feels psychologically, the better she/he heals physically"; and to minimize physical problems psychological harms should be treated well.
- ◆ Raising the awareness of various sections of the community about the nature, magnitude and consequences of the problem of substance use via different media is one of the key preventive processes.
- ◆ Instituting public education programs on substance abuse and providing in - service training programs for counselors, school teachers, members of school anti - drug clubs, Journalists, health professionals, law enforcing agents and others working in relation to drugs is mandatory.
- ◆ Expansion of different entertainment centers for youth and implementation of the national youth policies should be given due importance. This will protect and control youth in general and substance users in particular from different problems including drugs.

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አማኑኤል አአምሮ ስፔሻላይዝድ ሆስፒታል፣ የግሩፕ ቴራፒ/ቡድን ውይይት/ ማስታወሻ ሰነድ፣ ሚያዝያ 15, 2001

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APPENDICES

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY

Date _____
Place _____
Signature _____

Data Collector: Please follow the following instructions before using the questionnaire.

1. This instrument can be used to collect data from selected participants who are outpatients and inpatients of the hospital.
2. Prior to the administration of the questionnaire introduce yourself formally and remind the selected participants that they have been selected as eligible respondents for the study through purposefully sampling method.
3. Explain the general and specific objectives of the study using the information below:

The General Objective of the Study

The general objective of this research is to study psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa.

The Specific Objectives of the Study

- ◆ To investigate whether or not psychoactive substance users show depression and anger.
- ◆ To examine the relation ship between psychoactive substance users and their level of anxiety.

- ◆ To investigate the psychological services rendered for psychoactive substance users and their caregivers/parents.
- ◆ To examine if there duration of use, treatment intensity (inpatient and outpatient) and Number of substance use (single and poly drugs) differences in exposure to psychological problems (depression, anger and anxiety).
- ◆ Forward recommendation for minimizing psychoactive substance use related psychological problems (depression, anger and anxiety).

Some Ethical Considerations of the Study

1. Give enough information and explanation to all study participants about the study (who it is for; what it is about; its objectives and methodology; actual and potential impact to various bodies, including the institutions where the study is conducted, study participants and their related populations).
2. Since the respondents could be sensitive to some of the items included in the instrument present the items with caution;
3. Inform all study participants that they have the right not to partake in or to withdraw from the study at any stage;
4. Make sure that you interview all respondents in complete privacy and no participants are seated close by allowing interruption;
5. Secure the informed consent of all respondents who participate in the study and before the administration of the questionnaire express your thankfulness to them for their willingness to participate in the study.
6. Protect research participants' mystery and confidentiality

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይክሎጂ ትምህርት ክፍል

ቀን _____

ቦታ _____

ፊርማ _____

መረጃ ሰብሳቢ፡ እባክዎ ፎርምን ከመሙላትዎ በፊት የሚከተሉትን መመሪያዎች ይከተሉ።

1. ይህ ፎርም አልጋ ይዘው/ተኝተው ወይም በተመላላሽ የሚታከሙ ተሳታፊዎችን በመምረጥ መረጃ ለማሰባሰብ ይውላል።
2. መረጃውን ከማሰባሰብዎ በፊት እራሳዎን ያስተዋውቁ፤ ተሳታፊዎችን ለጥናቱ የሚሆን መረጃ ለማሰባሰብ መመረጣቸውን ያስታውሷቸው።
3. በሚከተለው መረጃ መሰረት የጥናቱን አላማ ያብራሩላቸው።

የጥናቱ አጠቃላይ ዓላማ፡-

የጥናቱ አጠቃላይ ዓላማ በዕፅ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የስነልቦና ችግሮችን በሁለት በተመረጡ የመንግስት ሆስፒታሎች ለማጥናት ነው።

የጥናቱ ዋና ዋና ዓላማዎች

- ዕፅ ተጠቃሚዎች የድብርት ወይም የንዴት ስሜት እንደሚያሳዩ ወይም እንደሚያሳዩ ለመፈተሽ፤

- ዕዕ መጠቀም ከተጠቃሚዎቹ የጭንቀት መጠን ጋር ግንኙነት መኖሩን ለመመርመር፤
- ለዕዕ ተጠቃሚዎች የሚሰጠው የስነልቦና አገልግሎት እና የአገልግሎቱን ስጪዎች ሁኔታ ለመመርመር፤
- የዕዕ መጠቀሙ ጊዜ መብዛት፣ የህክምናው ዓይነት (ተመላሽ እና ተኝቶ መታከም) እንዲሁም የሚጠቀሙት የዕዕ ብዛት (አንድ፣ ሁለትና ከዛባይ) ከስነ ልቦና ችግሮች (ድብርት፣ ጭንቀት እና ንዴት) ጋር ግንኙነት እንዳላቸው ለማጥናት ነው።

የጥናቱ ስነ ምግባር መርሆች

1. ስለጥናቱ በቂ መረጃ ይስጡ፤ ይኸውም የሚከተሉትን ያካትታል ጥናቱ ምን እንደሆነ፣ ዓላማውን እና አሰራሩን፤ ጥናቱ የሚሰራባቸውን ተቋሞች እና ለተለያዩ አካላት ያለውን ጥቅም በተጨማሪም ለተሳታፊ ግለሰቦች እና ለተቀረው ህዝብ ያለውን አንድምታ።
2. የመረጃ አሰባሰብ ሂደት በተሳታፊዎች ላይ ጥሩ ያልሆነ ስሜት ሊፈጥር ስለሚችል በጥንቃቄ መቅርብ አለበት ።
3. የጥናቱ ተሳታፊዎች በማንኛውም ደረጃና ሁኔታ ተሳታፊነታቸውን ማቋረጥ እንደሚችሉ ማሳወቅ።
4. ተሳታፊዎች በሂደቱ ውስጥ ብቻቸውን መሆናቸው እና ከማንኛውም ጣልቃ ገብነት ነፃ መሆናቸውን ማረጋገጥ።
5. የተሳታፊዎችን ፍቃድ ማግኘትና መፈራረም እንዲሁም መጠይቁን ከማቅርብ በፊት ለፍቃደኝነታቸው ምስጋና ማቅርብ።
6. የተሳታፊዎችን መረጃ ሚስጥራዊነት መጠበቅ።

Addis Ababa University
School of Graduate Studies
Department of Psychology

The primary goal of this study is to find out psychoactive substance use related psychological problems. The study has three parts first if the users show depression, second the magnitude of anxiety and third the condition of anger. The information you give will be kept confidential and be only applied for the study. Your frank information help to reach the goals of the study.

General Information

1. About the user:-

1.1 Age_____

1.2 Sex_____

1.3 Academic status _____

1.4 Type of substance use_____

1.5 Duration of use_____

1.6 Diagnosis _____

1.7 Manner of treatment: Outpatient_____ Inpatient_____

1.8 Type of treatment: Drug treatment_____Counseling_____

1.9 Duration of treatment _____

1.10 Name of hospital in charge _____

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይኮሎጂ ትምህርት ክፍል

መመሪያ: የዚህ ጥናት ዋና አላማ በዕዕ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የስነልቦና ችግሮች ካሉ መፈተሽ ነው። ከዚህ ጥናት የሚገኘው መረጃ ችግሩን ለመቀነስ በሚደረገው ጥረት ላይ ከፍተኛ አስተዋፅኦ ይኖረዋል። መጠይቁ ሶስት ዋና ክፍሎች አሉት። የመጀመሪያው ክፍል የድብርት ስሜትን፣ ሁለተኛው ክፍል የጭንቀት መጠንን ሶስተኛው ደግሞ የንዴት/የቁጠነት ስሜት ሁኔታን ይለካል። ለጥያቄዎቹ የሚሰጡት መልሶች በሚስጥር የሚያዙና ለጥናት ዓላማ ብቻ የሚውሉ ይሆናሉ። የእርሶ ግልፅ የሆነ መልስ የጥናቱን ዓላማ ከግብ ለማድረስ በጣም አስፈላጊ ነው።

አጠቃላይ መረጃ

I. የዕዕ ተጠቃሚው/ዎን በተመለከተ

1.1 ዕድሜ-----

1.2 ፆታ-----

1.3 የትምህርት ደረጃ-----

1.4 የሚጠቀሙት የዕዕ ዓይነት /Type of substance use/-----

1.5 ዕውን ለምን ያህል ጊዜ ተጠቀሙ/Use of Duration/_____

1.6 የምርመራ ውጤት/Diagnosis/ -----

1.7 ህክምናውን የሚከታተሉበት ሁኔታ:- በተመላላሽነት-----በመኝታ -----

1.8 የተደረገው “የዕርዳታ” ዓይነት :- ህክምና ----- ካውንሰሊንግ -----

1.9 እርዳታው የቆየበት ጊዜ-----

1.10 የሚታከሙበት ሆስፒታል ስም-----

Addis Ababa University
School of Graduate Studies
Department of Psychology

Instruction: This questioner consists of 21 groups of statements .Please read each group carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including item 16 (changes in sleeping pattern) or item 18 (changes in appetite).

1. **Sadness**

- 0 I do not feel sad.
- 1 I feel sad much of the time.
- 2 I am sad all the time.
- 3 I am so sad or unhappy that I can't stand it.

2. **Pessimism**

- 0 I am not discouraging about my future.
- 1 I feel more discouraged about my future than I used to be.
- 2 I do not expect things to work out for me.
- 3 I feel my future is hopeless and will only get worse.

3. **Past Failure**

- 0 I do not feel like a failure.
- 1 I have failed more than I should have.
- 2 As I look back, I see a lot of failures.
- 3 I feel I am a total failure as a person.

4. **Loss of Pleasure**

- 0 I get as much pleasure as I ever did from the things I enjoy.
- 1 I don't enjoy things as much as I used to.
- 2 I get very little pleasure from the things I used to enjoy.
- 3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

- 0 I don't feel particularly guilty.
- 1 I feel guilty over many things I have done or should have done.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

6. Punishment Feelings

- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

7. Self-Dislike

- 0 I feel the same about myself as ever.
- 1 I have lost confidence in myself.
- 2 I am disappointed in myself.
- 3 I dislike myself.

8. Self-criticalness

- 0 I don't criticize or blame myself more than usual.
- 1 I am more critical of myself than I used to be.
- 2 I criticize myself for all of my faults.
- 3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or wishes

- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself ,but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

10. Crying

- 0 I don't cry anymore than I used to.
- 1 I cry more than I used to.
- 2 I cry over every little thing.
- 3 I feel like crying ,but I can't.

11. Agitation

- 0 I am no more restless or wound up than usual.
 - 1 I feel more restless or wound up than usual.
 - 2 I am so restless or agitated that it's hard to stay still.
 - 3 I am so restless or agitated that I have to keep moving or doing something.
12. Loss of interest

- 0 I have not lost interest in other people or activities.
- 1 I am less interested in other people or things than before.
- 2 I have lost most of my interest in other people or things.
- 3 It's hard to get interested in anything.

13. Indecisiveness

- 0 I make decisions about as well as ever.
- 1 I find it more difficult to make decisions than usual.
- 2 I have much greater difficulty in making decisions than I used to.
- 3 I have troublemaking any decisions.

14. Worthlessness

- 0 I don't feel I am worthless.
- 1 I don't consider myself as worthwhile and useful as I used to.
- 2 I feel more worthless as compared to other people.
- 3 I feel utterly worthless.

15. Loss of Energy

- 0 I have as much energy as ever.
- 1 I have less energy than I used to have.
- 2 I don't have enough energy to do very much.
- 3 I don't have enough energy to do anything.

16. Changes in sleeping pattern

- 0 I have not experienced any change in my sleeping pattern.
- 1a I sleep somewhat more than usual.
- 1b I sleep somewhat less than usual.
- 2a I sleep a lot more than usual.
- 2b I sleep a lot less than usual.
- 3a I sleep most of the day.
- 3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

- 0 I am no more irritable than usual.
- 1 I am more irritable than usual.
- 2 I am much more irritable than usual.
- 3 I am irritable all the time.

18. Changes in Appetite

- 0 I have not experienced any change in my appetite.
- 1a My appetite is somewhat less than usual.
- 1b My appetite is somewhat greater than usual.
- 2a My appetite is much less than before.
- 2b My appetite is much greater than usual.
- 3a I have no appetite at all.
- 3b I crave food all the time.

19. Concentration Difficulty

- 0 I can concentrate as well as ever.
- 1 I can't concentrate as well as usual.
- 2 It's hard to keep my mind on anything for very long.
- 3 I find I can't concentrate on anything.

20. Tiredness or fatigue

- 0 I am no more tired or fatigued than usual.
- 1 I get more tired or fatigued more easily than usual.
- 2 I am too tired or fatigued to do a lot of the things I used to do.
- 3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of interest in Sex

- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to do.
- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

THE QUESTIONNAIRE IS COMPLETED!

THANK YOU!!

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይኮሎጂ ትምህርት ክፍል

መመሪያ: ይህ መጠይቅ 21 ጥያቄዎችን ይዟል። እባክዎን እያንዳንዱን ጥያቄ በጥሞና በማንበብ / በማዳመጥ ላለፉት ሁለት ሳምንታት (ዛሬን ጨምሮ) የእርስዎን ስሜት በትክክል የሚገልፁትን ምርጫዎች በማክበብ ይመልሱ። በእያንዳንዱ ጥያቄ ስር ከተዘረዘሩት ምርጫዎች ውስጥ አብዛኛዎቹ የእርስዎን ስሜት በእኩል የሚለኩ ከሆነ ከፍተኛ ማርክ የያዘውን ምርጫ ያክብቡ ። እባክዎን ለእያንዳንዱ ጥያቄ (ጥያቄ ቁጥር 16 እና 18 ጨምሮ) አንድ ምርጫ መምረጥዎን እርግጠኛ ይሁኑ።

1. ማዘን

- 0. የሀዘን ስሜት አይሰማኝም።
- 1. አብዛኛውን ጊዜ የሀዘን ስሜት ይሰማኛል።
- 2. ሁልጊዜ የሀዘን ስሜት ይሰማኛል።
- 3. የሀዘን ስሜት ከፍተኛ ስለሆነ መቋቋም ተስኖኛል።

2. ጨለምተኝነት

- 0. የወደፊት ህይወቴን ሳስብ ብሩህ ነው።
- 1. የወደፊት ህይወቴን ሳስብ ከወትሮው በተለየ ሁኔታ ጨለምተኛ አመለካከት ይሰማኛል።
- 2. ነገሮች እኔ እንደጠበኳቸው ይሳካሉ/ይፈጸማሉ ብዬ አልጠብቅም።
- 3. የወደፊት ህይወቴ ተስፋ ቢስ እና በመጥፎ ብቻ የተሞላ ይመስለኛል።

3. ስላለፈው ውድቀት ማሰብ

- 0. የወድቀት ስሜት አይሰማኝም።
- 1. ከተጠበቀው በላይ ወድቀት አጋጥሞኛል።
- 2. ወደ ኋላ ስመለከት ብዙ ውድቀቶቼ ይታዩኛል።
- 3. ሙሉ በሙሉ ወድቀት ውስጥ ያለሁ ይመስለኛል።

4. እርካታ ማጣት

- 0. በነገሮች በቂ የሆነ እርካታ አገኛለሁ።
- 1. በነገሮች ብዙም እርካታ አላገኝም።
- 2. ከዚህ በፊት በቂ እርካታ የሚሰጡኝ ነገሮች በአሁን ሰዓት በጣም ጥቂት እርካታ ነው የሚሰጡኝ።
- 3. እርካታ ከሚሰጡኝ ነገሮች ምንም ዓይነት እርካታ ማግኘት አልቻልኩም።

5. የጥፋተኝነት/የበደለኝነት ስሜት

- 0. የጥፋተኝነት ስሜት አይሰማኝም።
- 1. በሰራዊቶቼ ወይም መስራት በሚገባኝ ነገሮች ላይ የጥፋተኝነት ስሜት ይሰማኛል።
- 2. አብዛኛውን ጊዜ የጥፋተኝነት ስሜት ይሰማኛል።
- 3. ሁል ጊዜ የጥፋተኝነት ስሜት ይሰማኛል።

6. የቅጣት ስሜት

- 0. በሌሎች የመቀጣት ስሜት አይሰማኝም።
- 1. በሌሎች የመቀጣት ዓይነት ስሜት ይሰማኛል።
- 2. በሌሎች መቀጣት አለብኝ።
- 3. በሌሎች እየተቀጣሁ እንዳለሁ ይሰማኛል።

7. እራስን መጥላት

- 0. ለእራሴ ያለኝ ስሜት እንደወትሮ ተመሳሳይ ነው።
- 1. በእራስ የመተማመን ስሜቴ ጠፍቷል።
- 2. በራሴ ሁኔታ /ሥራ ተከፍቻለሁ።
- 3. እራሴን እጠላለሁ።

8. እራስን መውቀስ/መተቸት

- 0. እደቀድሞው/እንደበፊቱ ራሴን አልወቅስም/አልተቸም።
- 1. ከበፊቱ በተለየ ሁኔታ ራሴን እወቅሳለሁ/እተቸለሁ።
- 2. በሰራሁት ጥፋት /ስህተት ሁሉ ራሴን እወቅሳለሁ/ እተቸለሁ።
- 3. ለተፈጠሩ /ለተከሰቱ መጥፎ ነገሮች ሁሉ ራሴን እወቅሳለሁ/እተቸለሁ።

9. እራስን ለማጥፋት ማሰብ ወይም መመኘት

- 0. እራሴን ለማጥፋት ምንም አይነት ሀሳብ የለኝም።
- 1. እራሴን ለማጥፋት ሀሳብ ቢኖረኝም አልፈፀመውም።
- 2. እራሴን ማጥፋት እፈልጋለሁ።
- 3. አጋጣሚውን ባገኝ እራሴን አጠፋ ነበር።

10. ማልቀስ

- 0. እንደበሬቱ አላለቅስም።
- 1. ከሁልጊዜው ለየት ባለ ሁኔታ አለቅሳለሁ።
- 2. በትንሽ ነገሮች በቀላሉ አለቅሳለሁ።
- 3. የማልቀስ ስሜት ይሰማኛል ነገር ግን አልችልም።

11. የመቁነጥነጥ ስሜት

- 0. እንደበሬቱ አልቁነጠነጥም።
- 1. ከወትሮው ለየት ባለ ሁኔታ የመቁነጥነጥ ስሜት ይሰማኛል።
- 2. በከፍተኛ ሁኔታ የመቁነጥነጥ ስሜት ስለሚሰማኝ ተረጋግቶ መቀመጥ አልችልም።
- 3. የመቁነጥነጥ ስሜት ስለሚሰማኝ ነገሮችን ያለማቋረጥ እሰራለሁ ወይም እንቀሳቀሳለሁ።

12. ፍላጎት ማጣት

- 0. ለነገሮች ወይም ለሰዎች ያለኝ ፍላጎት አልጠፋም።
- 1. ከወትሮው ለየት ባለ ሁኔታ ለነገሮችና ለሰዎች ያለኝ ፍላጎት ቀንሳል።
- 2. ለነገሮች ወይም ለሰዎች ያለኝን ብዙውን ፍላጎቴን አጥቻለሁ።
- 3. ለማንኛውም ነገር ፍላጎት ማጣት ይሰማኛል።

13. ለመወሰን መቸገር

- 0. እንደበሬቱ ውሳኔዎችን እወስናለሁ።
- 1. እንደበሬቱ ውሳኔዎችን መወሰን ያስቸግረኛል።
- 2. ከሁልጊዜው በተለየ ሁኔታ ውሳኔዎችን ለመወሰን በጣም አስቸጋሪ ሆኖ አገኝቸዋለሁ።
- 3. ውሳኔዎችን መወሰን ያስቸግረኛል።

14. ለእራስ ዋጋ ማጣት

- 0. ለእራሴ የዋጋ ማጣት ስሜት አይሰማኝም።
- 1. ከወትሮ በተለየ መልኩ እራሴን ዋጋ እንዳለው ወይም ጠቃሚ አድርጌ አልቆጥርም።
- 2. ከሌሎች ሰዎች ጋር እራሴን ሳነፃጽር የማይረባ ሰው እንደሆንኩ ይሰማኛል።
- 3. ፈፅሞ የማይረባ ሰው እንደሆንኩ ነው የሚሰማኝ።

15. አቅም የማጣት ስሜት

- 0. እንደበሬቱ በቂ አቅም እንዳለኝ ይሰማኛል።
- 1. ከወትሮው በተለየ መልኩ የአቅም ማነስ ይሰማኛል።
- 2. ብዙ ስራ ለመስራት በቂ አቅም የለኝም።
- 3. ማንኛውንም ነገር ለመስራት በቂ አቅም የለኝም።

16. የእንቅልፍ ስርዓት መቀየር

- 0. በእንቅልፍ ስርዓቱ ላይ ምንም አይነት ለውጥ አላጋጠመኝም።
- 1ሀ. ከሁልጊዜው በተለየ በተወሰነ ደረጃ በዛ ያለ እንቅልፍ እተኛለሁ።
- 1ለ. ከሁልጊዜው በተለየ ያነሰ እንቅልፍ እተኛለሁ።
- 2ሀ. ከሁልጊዜው በተለየ ብዙ እንቅልፍ እተኛለሁ።
- 2ለ. ከሁልጊዜው በተለየ ትንሽ እንቅልፍ እተኛለሁ።
- 3ሀ. አብዛኛውን ቀናት በመተኛት አሳልፋለሁ።
- 3ለ. ወትሮ ከምነቃበት ሰዓት ከ1-2 ሰዓታት ቀድሜ ስለምነቃ ድጋሜ ብተኛ እንቅልፍ አይወስደኝም።

17. ነጭናጫ መሆን

- 0. ከሁልጊዜው በተለየ ሁኔታ ነጭናጫ አይደለሁም።
- 1. ከሁልጊዜው በተለየ ሁኔታ ነጭናጫ ሆኛለሁ።
- 2. ከሁልጊዜው በተለየ ሁኔታ በጣም ነጭናጫ ሆኛለሁ።
- 3. ዘወትር እነጫነጫለሁ።

18. የምግብ ፍላጎት ለውጥ

- 0. በምግብ ፍላጎት ላይ ምንም አይነት ለውጥ የለም።
- 1ሀ. ከሁልጊዜው በተወሰነ ደረጃ የምግብ ፍላጎት ቀንሷል።
- 1ለ. ከሁልጊዜው በተወሰነ ደረጃ የምግብ ፍላጎት ጨምሯል።
- 2ሀ. የምግብ ፍላጎት ከበፊቱ በመጠኑ ቀንሷል።
- 2ለ. የምግብ ፍላጎት ከበፊቱ በመጠኑ ጨምሯል።
- 3ሀ. ምንም የምግብ ፍላጎት የለኝም።
- 3ለ. በየሰዓቱ ምግብ ያስፈልገኛል።

19. የትኩረት ችግር

- 0. እንደከዚህ በፊቱ ትኩረት ማድረግ እችላለሁ።
- 1. እንደወትሮው ትኩረት ማድረግ አልችልም።
- 2. ረዘም ላለ ጊዜ በአንድ ነገር ላይ ትኩረት ሰጥቶ መቆየት ይከብደኛል።
- 3. በምንም ነገር ላይ ትኩረት ማድረግ አልችልም።

20. የድካም ወይም የመሰልቸት ስሜት

- 0. ከሁልጊዜው በተለየ ሁኔታ የመድከምም ሆነ የመሰልቸት ስሜት የለብኝም።
- 1. ከሁልጊዜው በተለየ ሁኔታ በቀላሉ ይደክመኛል /ይሰለቸኛል።
- 2. ከሁልጊዜው በተለየ ሁኔታ በተወሰነ ደረጃ ሥራዎችን መስራት ይደክመኛል/ይሰለቸኛል።
- 3. ከሁልጊዜው በተለየ ሁኔታ በብዛት ሥራዎችን መስራት ይደክመኛል/ይሰለቸኛል።

21. የወሲብ ፍላጎት ማጣት

- 0. በወሲብ ፍላጎት ላይ ምንም ዓይነት አዲስ ለውጥ አላየሁም።
- 1. ከወትሮው በተለየ ሁኔታ ለወሲብ ያለኝ ፍላጎት በጥቂቱ ቀንሷል።
- 2. ከወትሮው በተለየ ሁኔታ ለወሲብ ያለኝ ፍላጎት በጣም ቀንሷል።
- 3. ምንም ዓይነት የወሲብ ፍላጎት የለኝም።

መጠይቁ ተጠናቋል።

አመሰግናለሁ ።

Addis Ababa University
School of Graduate Studies
Department of Psychology

Instruction: Please rate your feeling according to the following scales

| N.O | Items | | Responses | | | | |
|-----|---|--------------------------------------|--------------------|---------------------|-------------------|-------------------|---------------|
| | | | Not present (0) | Just a little(1) | Moderately (2) | Quite a lot(3) | Severe (4) |
| 1 | Anxious mood | Worries | | | | | |
| | | Anticipates worst | | | | | |
| 2 | Tension | Startles | | | | | |
| | | Cries easily | | | | | |
| | | Restless | | | | | |
| | | trembling | | | | | |
| 3 | Fears | Fear of dark | | | | | |
| | | Fear of strangers | | | | | |
| | | Fear of being alone | | | | | |
| | | Fear of animal | | | | | |
| 4 | Insomnia | Difficulty falling/staying asleep | | | | | |
| | | Difficulty with nightmares | | | | | |
| 5 | Intellectual | Poor concentration | | | | | |
| | | Memory impairment | | | | | |
| 6 | Depressed mood | Decreased interest in activities | | | | | |
| | | Anhedonia | | | | | |
| | | Insomnia | | | | | |
| 7 | Somatic complaints: Muscular | Muscle aches or pains | | | | | |
| | | Bruxism | | | | | |
| 8 | Somatic complaints: sensory | Tinnitus | | | | | |
| | | Blurred vision | | | | | |
| 9 | Cardiovascula r symptoms | Tachycardia | | | | | |
| | | Palpitations | | | | | |
| | | Chest pain | | | | | |
| | | Sensation of feeling faint | | | | | |

| | | | | | | | |
|----|----------------------------------|------------------------------|--|--|--|--|--|
| 10 | Respiratory symptoms | Chest pressure | | | | | |
| | | Choking sensation | | | | | |
| | | Shortness of breath | | | | | |
| 11 | Gastrointestinal symptoms | Dysphagia | | | | | |
| | | Nausea/vomiting | | | | | |
| | | Constipation | | | | | |
| | | Weight loss | | | | | |
| | | Abdominal fullness | | | | | |
| 12 | Genitourinary symptoms | Urinary frequency or urgency | | | | | |
| | | Dysmenorrhea | | | | | |
| | | impotence | | | | | |
| 13 | Autonomic symptoms | Dry mouth | | | | | |
| | | Flushing | | | | | |
| | | Pallor | | | | | |
| | | Sweating | | | | | |
| 14 | Behavior at interview | Fidgets | | | | | |
| | | Tremor | | | | | |
| | | paces | | | | | |

THE QUESTIONNAIRE IS COMPLETED!

THANK YOU!!

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይኮሎጂ ትምህርት ክፍል

መመሪያ: ቀጥሎ ከተዘረዘሩት የጭንቀት መለኪያ ጥያቄዎች ውስጥ እርሶን ይበልጥ ሊገልፅ የሚችለውን በጥምና በማንበብ /በማዳመጥ መልስ ይስጡ። ስለትብብርዎ በድጋሚ አመሰግናለሁ።

| ተ.ቁ | ዐ.ነገሮች | | ምላሽ | | | | |
|-----|------------------------|--|-------------|----------|-----------|---------------|-----------------|
| | | | ምንም የለም /0/ | በትንሹ /1/ | መካከለኛ /2/ | አብዛኛውን ጊዜ /3/ | እጅግ በጣም የከፋ /4/ |
| 1 | የጭንቀት ስሜት | መረበሽ ክፉ ነገር ይከሰታል ብሎ መጠበቅ | | | | | |
| 2 | ውጥረት | የፍርሃት/የድንጋጤ ስሜት | | | | | |
| | | በትንሽ ነገር ማልቀስ | | | | | |
| | | መቀበጥበጥ | | | | | |
| | | መርበትበት/መንቀጥቀጥ | | | | | |
| 3 | የፍርሃት ስሜት | ጨለማን የመፍራት ስሜት | | | | | |
| | | የማያውቁትን ሰው የመፍራት ስሜት | | | | | |
| | | የብቸኝነት ስሜት ፍርሃት | | | | | |
| | | እንስሳትን የመፍራት ስሜት | | | | | |
| 4 | የአንቅልፍ ችግር | አንቅልፍ የማጣት ወይም እንቅልፍ ላይ የመቆየት ችግር | | | | | |
| | | አስፈሪ የሆኑ እልሞችን የማየት ችግር | | | | | |
| 5 | አዕምሮአዊ ችግር | በአንድ ነገር ላይ ትኩረት ያለማድረግ ችግር | | | | | |
| | | የማስታወስ ችግር | | | | | |
| 6 | የድብርት ስሜት | ለተለያዩ ተግባራት ያለን ፍላጎት መቀነስ | | | | | |
| | | እርካታ ማጣት | | | | | |
| | | የአንቅልፍ ችግር | | | | | |
| 7 | የጡንቻ ህመም ችግር | የጡንቻ እመም | | | | | |
| | | ጥርስ ማፎጨት | | | | | |
| 8 | የስሜት ህዋሳት ችግር | ጆሮ ውስጥ ተከታታይ የሆነ የመንጫጫት፣ የመጮህ ስሜት መስማት | | | | | |
| | | የብሹታ ዕይታ | | | | | |
| 9 | የልብና የደም ሁኔታ ችግር ምልክቶች | ፈጣን የሆነ የልብ ምት | | | | | |
| | | ያልተለመደ የልብ ምት | | | | | |
| | | የደረት ህመም | | | | | |
| | | እራስን የመሳት ስሜት | | | | | |
| 10 | የአተነፋፈስ ሥርዓት ችግር ምልክቶች | ደረት ላይ የግፊት ስሜት መስማት | | | | | |
| | | የትንፋሽ መቋረጥ ስሜት | | | | | |
| | | የትንፋሽ ቁርጥ፣ ቁርጥ ማለት | | | | | |
| 11 | የሆድና አንጀት ህመም ምልክቶች | የመዋጥ ችግር | | | | | |
| | | የማቅለሽለሽ/የማስታወክ ችግር | | | | | |
| | | የሆድ ድርቀት ወይም አይነ-ምድርን የማስወገድ ችግር | | | | | |
| | | የሰውነት ክብደት መቀነስ | | | | | |
| | | የሆድ መነፋት ችግር | | | | | |

| | | | | | | | |
|----|--------------------------|------------------------------|--|--|--|--|--|
| 12 | የብልትና የሽንት ቧንቧ ችግር ምልክቶች | ቶሎ ቶሎ ወይም ድንገት ሽንት የመምጣት ችግር | | | | | |
| | | ከወር አበባ ጋር የተያያዘ ህመም | | | | | |
| | | ስንፈተ ወሲብ | | | | | |
| 13 | የነርቭ ችግር ምልክቶች | የአፍ መድረቅ | | | | | |
| | | የፊት ወይም የቆዳ መቅላት | | | | | |
| | | የፊት መገርጣት | | | | | |
| | | ላብ ማላብ | | | | | |
| 14 | በቃለ-ምልልስ ወቅት የሚታዩ ባህሪያት | መቅበጥበጥ | | | | | |
| | | መንቀጥቀጥ | | | | | |
| | | ቃላትን በፍጥነት መናገር | | | | | |

መጠይቁ ተጠናቋል።
አመሰግናለሁ።

Addis Ababa University
School of Graduate Studies
Department of Psychology

Instruction: The group of items below inquires about the types of feelings you have. Each of the 21 groups of items has four options. Now go ahead and answer the questions on the answer sheet. Be sure to answer every question, even if you're not sure. Make sure you select only one statement from each of the 21 clusters of statements.

- 1..... 0. I do not feel angry.
 1. I feel angry.
 2. I am angry most of the time now.
 3. I am so angry and hostile all the time that I can't stand it.
2. 0. I am not particularly angry about my future.
 1. When I think about my future, I feel angry.
 2. I feel angry about what I have to look forward to.
 3. I feel intensely angry about my future, since it cannot be improved.
3. 0. It makes me angry that I feel like such a failure.
 1. It makes me angry that I have failed more than the average person.
 2. As I look back on my life, I feel angry about my failures.
 3. It makes me angry to feel like a complete failure as a person.
4. 0. I am not all that angry about things.
 1. I am becoming more hostile about things than I used to be.
 2. I am pretty angry about things these days.
 3. I am angry and hostile about everything.
5. 0. I don't feel particularly hostile at others.
 1. I feel hostile a good deal of the time.
 2. I feel quite hostile most of the time.
 3. I feel hostile all of the time.

6. 0. I don't feel that others are trying to annoy me.
1. At times I think people are trying to annoy me.
2. More people than usual are beginning to make me feel angry.
3. I feel that others are constantly and intentionally making me angry.
7. 0. I don't feel angry when I think about myself.
1. I feel more angry about myself these days than I used to.
2. I feel angry about myself a good deal of the time.
3. When I think about myself, I feel intense anger.
8. 0. I don't have angry feelings about others having screwed up my life.
1. It's beginning to make me angry that others are screwing up my life.
2. I feel angry that others prevent me from having a good life.
3. I am constantly angry because others have made my life totally miserable.
9. 0. I don't feel angry enough to hurt someone.
1. Sometimes I am so angry that I feel like hurting others, but I would not really do it.
2. My anger is so intense that I sometimes feel like hurting others.
3. I'm so angry that I would like to hurt someone.
10. 0. I don't shout at people any more than usual.
1. I shout at others more now than I used to.
2. I shout at people all the time now.
3. I shout at others so often that sometimes I just can't stop.
11. 0. Things are not more irritating to me now than usual.
1. I feel slightly more irritated now than usual.
2. I feel irritated a good deal of the time.
3. I'm irritated all the time now.
12. ... 0. My anger does not interfere with my interest in other people.
1. My anger sometimes interferes with my interest in others.
2. I am becoming so angry that I don't want to be around others.
3. I'm so angry that I can't stand being around people.

13. 0. I don't have any persistent angry feelings that influence my ability to make decisions.
1. My feelings of anger occasionally undermine my ability to make decisions.
 2. I am angry to the extent that it interferes with my making good decisions.
 3. I'm so angry that I can't make good decisions anymore.
14. ... 0. I'm not so angry and hostile that others dislike me.
1. People sometimes dislike being around me since I become angry.
 2. More often than not, people stay away from me because I'm so hostile and angry.
 3. People don't like me anymore because I'm constantly angry all the time.
15. 0. My feelings of anger do not interfere with my work.
1. From time to time my feelings of anger interfere with my work.
 2. I feel so angry that it interferes with my capacity to work.
 3. My feelings of anger prevent me from doing any work at all.
16. 0. My anger does not interfere with my sleep.
1. Sometimes I don't sleep very well because I'm feeling angry.
 2. My anger is so great that I stay awake 1-2 hours later than usual.
 3. I am so intensely angry that I can't get much sleep during the night.
17. ... 0. My anger does not make me feel anymore tired than usual.
1. My feelings of anger are beginning to tire me out.
 2. My anger is intense enough that it makes me feel very tired.
 3. My feelings of anger leave me too tired to do anything.
18. ... 0. My appetite does not suffer because of my feelings of anger.
1. My feelings of anger are beginning to affect my appetite.
 2. My feelings of anger leave me without much of an appetite.
 3. My anger is so intense that it has taken away my appetite.

19. 0. My feelings of anger don't interfere with my health.
1. My feelings of anger are beginning to interfere with my health.
 2. My anger prevents me from devoting much time and attention to my health.
 3. I'm so angry at everything these days that I pay no attention to my health and well-being.
20. 0. My ability to think clearly is unaffected by my feelings of anger.
1. Sometimes my feelings of anger prevent me from thinking in a clear headed way.
 2. My anger makes it hard for me to think of anything else.
 3. I'm so intensely angry and hostile that it completely interferes with my thinking.
21. 0. I don't feel so angry that it interferes with my interest in sex.
1. My feelings of anger leave me less interested in sex than I used to be.
 2. My current feelings of anger undermine my interest in sex.
 3. I'm so angry about my life that I've completely lost interest in sex.

THANK YOU!!

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይኮሎጂ ትምህርት ክፍል

መመሪያ: ከዚህ በታች የተዘረዘሩት 21 ጥያቄዎች የእርስዎን የስሜት ሁኔታ የሚለኩ ናቸው።
ከእያንዳንዱ ጥያቄዎች በታች የተዘረዘሩትን ምርጫዎች በጥምና በማንበብ/ በማዳመጥ
የእርስዎን የስሜት ሁኔታ በትክክል የሚገልፁትን በመምረጥ ጥያቄዎችን በግልፅነት ይመልሱ።

1. 0. የንዴት ስሜት አይሰማኝም።
 1. የንዴት ስሜት ይሰማኛል።
 2. በአሁን ሰዓት አብዛኛውን ጊዜ የንዴት ስሜት ይሰማኛል።
 3. ብዙውን ጊዜ ስለምናደድና የጥላቻ ስሜት ስለሚሰማኝ ሁኔታውን መቋቋም አልችልም።

2. 0. በተለየ ሁኔታ ስለወደፊት ህይወቴ አልናደድም።
 1. ስለወደፊት ህይወቴ ሳስብ የንዴት ስሜት ይሰማኛል።
 2. ወደፊት ስለሚያጋጥመኝ ማሰብ እንዳለብኝ ስረዳ የንዴት ስሜት ይሰማኛል።
 3. የወደፊት ህይወቴ እንደማይሻሻል በማወቁ በጣም እናደዳለሁ።

3. 0. ስኬት አልባ መሆኔ ሲሰማኝ ያናድደኛል።
 1. ማንኛውም ሰው መውደቅ ከሚገባው በላይ የወደቅሁ ስለሚመስለኝ የንዴት ስሜት ይሰማኛል።
 2. ያሳለፍኩትን የውድቀት ህይወት ሳስብ የንዴት ስሜት ይሰማኛል።
 3. እንደማንኛውም ያልተሳካለት ሰው መሆኔን ሳስብ የንዴት ስሜት ይሰማኛል።

4. 0. ለሚያናድዱ ነገሮች እጅን የምሰጥ አይደለሁም።
 1. ከበፊቴ ለነገሮች ያለኝ ጥላቻ እየጨመረ መጥቷል።
 2. በአሁን ሰዓት ባሉት ነገሮች እናደዳለሁ።
 3. ስለሁሉም ነገር እናደዳለሁ የጥላቻ ስሜትም ይሰማኛል።

- 5. 0. በሌሎች ላይ በተለየ ሁኔታ የጥላቻ ስሜት አይሰማኝም።
 - 1. በመጠኑ የጥላቻ ስሜት ይሰማኛል።
 - 2. አብዛኛውን ጊዜ ፍፁም የጥላቻ ስሜት ይሰማኛል።
 - 3. ሁልጊዜ የጥላቻ ስሜት ይሰማኛል።

- 6. 0. ሌሎች ሰዎች እኔን ለማናደድ ጥረት ያደርጋሉ የሚል ስሜት አይሰማኝም።
 - 1. አንዳንዴ ሰዎች እኔን ለማናደድ ጥረት ያደርጋሉ ብዬ አስባለሁ።
 - 2. ብዙ ሰዎች በአሁን ሰዓት እንድናደድ እያደረጉኝ ነው።
 - 3. ሰዎች ሆን ብለውና በተደጋጋሚ እኔን ለማናደድ ጥረት ያደርጋሉ የሚል ስሜት ይሰማኛል።

- 7. 0. ስለእራሴ በማሰብበት ወቅት የንዴት ስሜት አይሰማኝም።
 - 1. ከወትሮ በተለየ ስለእራሴ ሳስብ የንዴት ስሜት በጣም ይሰማኛል።
 - 2. ብዙውን ጊዜ ስለእራሴ እበሳጫለሁ/እናደዳለሁ።
 - 3. ስለእራሴ ሳስብ በጣም እናደዳለሁ።

- 8. 0. ሌሎች ሰዎች ህይወቴን በማመስቃቀላቸው አልናደድም።
 - 1. ሌሎች ሰዎች የእኔን ህይወት ምስቅልቅ ማድረግ እየጀመሩ እንደሆኑ ሲሰማኝ እናደዳለሁ።
 - 2. ሌሎች ሰዎች እኔ መልካም ህይወት እንዲኖረኝ ባለማድረጋቸው የንዴት ስሜት ይሰማኛል።
 - 3. ሌሎች ሰዎች ህይወቴን ስቃይ የተሞላበት በማድረጋቸው ዘወትር እናደዳለሁ ።

- 9. 0. የንዴት ስሜት ተሰምቶኝ ሰው ለመጉዳት አልነሳም።
 - 1. አንዳንዴ ስሜቴ ሰዎች እንድጉዳ ይገፋፋኛል ነገር ግን አላደርገውም።
 - 2. እንዳንዴ ንዴቴ የከፋ በመሆኑ ሌሎችን እየጎዳው እንደሆነ ይሰማኛል።
 - 3. አንዳንዴ ሰዎችን ለመጉዳት እፈልጋለሁ።

- 10. 0. ከበሬቱ በተለየ ሁኔታ ሰዎች ላይ አልጮህም።
 - 1. በአሁን ሰዓት ከበሬቱ በበለጠ በሰዎች ላይ እጮክለሁ።
 - 2. ብዙውን ጊዜ እጮክለሁ።
 - 3. ብዙውን ጊዜ ሌሎች ሰዎች ላይ ስለምጮህ ማቆም ይሳነኛል።

- 11 0. ከሁልጊዜው በተለየ ሁኔታ ነገሮች በአሁን ሰዓት አያበሳጩኝም።
 - 1. ከሁልጊዜው በተለየ ሁኔታ ነገሮች በተወሰነ መልኩ ያበሳጩኛል።
 - 2. አብዛኛውን ጊዜ እበሳጫለሁ።
 - 3. በአሁን ሰዓት ሁልጊዜ እበሳጫለሁ።

- 12 0. የንዴት ስሜት ከሰዎች ጋር ካለኝ ፍቅር ጋር አይጋጭም።
 - 1. የንዴት ስሜት አንዳንዴ ለሰዎች ካለኝ ፍቅር ጋር ይጋጫል።
 - 2. ዘወትር ስለምናደድ ከሌሎች ሰዎች ጋር መሆን አልፈልግም።
 - 3. በጣም ስለምናደድ ከሌሎች ጋር መሆን/መቀላቀል አልችልም።

- 13 0. የመወሰን ችሎታዬ ላይ ተፅዕኖ የሚፈጥር የማይረገብ ንዴት ስሜት የለብኝም።
 - 1. አልፎ አልፎ የንዴት ስሜት በመወሰን ችሎታዬ ላይ ተፅዕኖ ያደርጋል።
 - 2. የንዴት ስሜት የከፋ በመሆኑ መልካም ውሳኔዎችን የመወሰን ችሎታዬ ላይ ተፅዕኖ ያደርጋል።
 - 3. በጣም ስለምናደድ ጥሩ ውሳኔዎችን መወሰን አልችልም።

- 14 0. ሰዎች እኔን እስኪጠሉኝ የሚያደረስ የንዴት ስሜት የለኝም።
 - 1. አንዳንዴ ሰዎች በንዴት ስሜት ምክንያት ከእኔ ጋር መሆንን ይጠላሉ።
 - 2. አብዛኛውን ጊዜ ሰዎች በንዴት ስሜት ምክንያት ከእኔ ጋር ለመቆየት አይፈልጉም።
 - 3. ባለመቋረጥ በሚደርስብኝ የንዴት ስሜት ሰዎች እኔን እስከመጥላት ደርሰዋል።

- 15 0. የንዴት ስሜት ስራ ላይ ተፅዕኖ የለውም/አያደርግም።
 - 1. በየዕለቱ የንዴት ስሜት በስራዬ ላይ ተፅዕኖ እያመጣ ነው።
 - 2. በጣም ስለምናደድ የመስራት ችሎታዬ ላይ ተፅዕኖ አምጥቷል።
 - 3. የንዴት ስሜት ማንኛውንም ዓይነት ስራ እንዳልሰራ እየከለከለኝ ነው።

- 16 0. ንዴት እንቅልፍ ላይ ተፅዕኖ አላደረገም።
 - 1. አንዳንዴ በንዴት ስሜት ምክንያት እንቅልፍ በደንብ አልተኛም።
 - 2. ንዴት በጣም የከፋ በመሆኑ ከወትሮ በተለየ ከእንቅልፍ ነቅቼ ከ1-2 ሰዓታት እንቅልፍ አይወስደኝም።
 - 3. የንዴት ስሜት በጣም ከፍተኛ በመሆኑ በቂ እንቅልፍ ማግኘት አልችልም።

17 0. ከወትሮው በተለየ የንዴት ስሜቱ የድካም ስሜት አልፏል።

- 1. የንዴት ስሜቱ የድካም ስሜት መፍጠር እየጀመረ ነው ።
- 2. የንዴት ስሜቱ በጣም ከፍተኛ በመሆኑ የድካም ስሜት ይሰማኛል።
- 3. የንዴት ስሜቱ ድካም ስለፈጠረብኝ ምንም ነገር ለማድረግ አቅም አሳጥቶኛል።

18 0. የንዴት ስሜቱ በምግብ ፍላጎቱ ላይ ተፅዕኖ የለውም።

- 1. የንዴት ስሜቱ በምግብ ፍላጎቱ ላይ ተፅዕኖ ማድረግ ጀምሯል።
- 2. የንዴት ስሜቱ የምግብ ፍላጎቱን ቀንሶታል።
- 3. የንዴት ስሜቱ ከፍተኛ በመሆኑ የተነሳ የምግብ ፍላጎቱን እጥፍቶታል።

19 0. የንዴት ስሜቱ በጤንነቱ ላይ ተፅዕኖ አላደረገም።

- 1. የንዴት ስሜቱ በጤንነቱ ላይ ተፅዕኖ ማድረግ ጀምሯል።
- 2. የንዴት ስሜቱ ጤንነቱ ላይ ትኩረት እንዳላደረግ እየከለከለኝ ነው።
- 3. በሁሉም ነገሮች ስለምናደድ በአሁኑ ሰዓት ለጤንነቱ ምንም ዓይነት ትኩረት አላደረግም።

20 0. የንዴት ስሜቱ የማሰብ ችሎታዬ ላይ ተፅዕኖ አላደረገም።

- 1. አንዳንዴ የንዴት ስሜቱ በትክክል ለማሰብ በሚያስችለኝ አቅም ላይ ተፅዕኖ ያደርጋል።
- 2. የንዴት ስሜቱ ስለማንኛውም ነገር ለማሰብ እንዳልችል አድርጎኛል።
- 3. የንዴት ስሜቱ ከፍተኛ በመሆኑ የማሰብ ችሎታዬ ላይ ሙሉ ሙሉ ተፅዕኖ አድርጎብኛል።

21 0. የንዴት ስሜቱ ባለኝ የወሲብ ፍላጎት ላይ ተፅዕኖ አላደረገም።

- 1. ከሁልጊዜው በተለየ መልኩ የንዴት ስሜቱ ለወሲብ ባለኝ ፍላጎት ላይ ተፅዕኖ አድርጎብኛል።
- 2. በአሁን ሰዓት ያለኝ የንዴት ስሜት የወሲብ ፍላጎቱን ቀንሶታል።
- 3. የንዴት ስሜቱ የወሲብ ፍላጎቱን ሙሉ ለሙሉ አጥፍቶታል።

መጠይቁ ተጠናቋል!

አመሰግናለሁ!!

Addis Ababa University
School of Graduate Studies
Department of Psychology

The purpose of this research is to study psychoactive substance use related psychological problems at two selected governmental hospitals in Addis Ababa. The information gathered through this questionnaire is helpful to reduce the psychological problems of substance users and their caregivers/parents. All the responses will be kept confidential. Thank you for your cooperation!

Background Information (For Caregivers / Parents)

Sex-----

Age-----

Educational level-----

1. Are the medical services given in the hospital satisfactory?
 - 1.1 If yes, mention the service?
 - 1.2 If no, what needs improvement?
2. Are there any psychological problems you observed on substance users?
 - 2.1 If yes, mention them?
 - 2.2 Is there any service to treat the psychological problems?
 - 2.3 If yes, mention them?
3. Is there any counseling services given for substance users and caregivers?
 - 3.1 If yes, who is giving the services?
 - 3.2 What are the strengths and weaknesses of the counseling services?

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይክሎጂ ትምህርት ክፍል

መመሪያ: የዚህ ጥናት ዋና ዓላማ በዕዕ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የሥነልቦና ችግሮች ካሉ መፈተሽ ነው። ከዚህ ጥናት የሚገኘው መረጃ ችግሩን ለመቀነስ በሚደረገው ጥረት ላይ ከፍተኛ አስተዋፅኦ ይኖረዋል። ለጥያቄዎቹ የሚሰጡት መልሶች በሚስጥር የሚያዙና ለጥናት ዓላማ ብቻ የሚውሉ ይሆናሉ። የእርሶም ግልፅ የሆነ መልስ የጥናቱን ዓላማ ከግብ ለማድረስ በጣም አስፈላጊ ነው።

አጠቃላይ መረጃ ለወላጆች / ተንከባካቢዎች

ዕድሜ -----

የትምህርት ደረጃ -----

ፆታ -----

1. በሆስፒታል ውስጥ ለዕዕ ተጠቃሚው የተደረገለት የህክምና ዕርዳት በቂ ነው ብለው ያምናሉ?

1.1 በቂ ነው ካሉ የተደረገለትን/ የተደረገላትን እርዳታ ቢዘረዝሩልኝ?

1.2 በቂ አይደለም ካሉ መሟላት ያለባቸውን ነገሮች ቢጠቁሙኝ?

2. ተጠቃሚው ላይ ያስከተለው የስነ ልቦና ችግር አለ?

2.1 አዎ ካሉ የታዩትን የስነ ልቦና ችግሮች ቢዘረዝሩልኝ?

2.2 የዘረዘሯቸውን የስነ ልቦና ችግሮች ለማክም የተደረገ ጥረት አለ?

2.3 አዎ ካሉ ጥቂቶቹን ቢጠቁሙኝ?

3. በሆስፒታሉ ውስጥ ለእርሶም ሆነ ለዕዕ ተጠቃሚው የተሰጠ የምክር አገልግሎት አለ?

3.1 አዎ ካሉ አገልግሎቱን የሰጠው ማን ነው?

3.2 የአገልግሎቱን ጠንካራና ደካማ ጎን ቢጠቅሱልኝ?

Addis Ababa University
School of Graduate Studies
Department of Psychology

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Background Information (For Health Professionals)

Age -----

Occupation experience -----

Sex -----

Educational level -----

1. What are the services rendered for substance users and caregivers?
2. Are the medical services given in the hospital satisfactory?
 - If yes, mention the services?
 - If no, what needs to be done?
3. Are there any psychological problems substance users usually show?
 - If yes, mention them?
 - Is there any counseling services given for substance users to alleviate these problems?
 - What are the strengths and weakness of the counseling or psychological service?
4. Finally do you say anything about the benefit of counseling/psychological services?

በአዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሳይክሎጂ ትምህርት ክፍል

መመሪያ፡ የዚህ ጥናት ዋና ዓላማ በዕዕ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የሥነልቦና ችግሮች ካሉ መፈተሽ ነው። ከዚህ ጥናት የሚገኘው መረጃ ችግሩን ለመቀነስ በሚደረገው ጥረት ላይ ከፍተኛ አስተዋፅኦ ይኖረዋል። ለጥያቄዎቹ የሚሰጡት መልሶች በሚስጥር የሚያዙና ለጥናት ዓላማ ብቻ የሚውሉ ይሆናሉ። የእርሶም ግልፅ እና እውነተኛ የሆነ መልስ የጥናቱን ዓላማ ከግብ ለማድረስ በጣም አስፈላጊ ነው።

አጠቃላይ መረጃ ለጤና ባለሙያዎች

ዕድሜ -----

ፆታ -----

አሁን ባሉበት ሞያ ለምን ያህል ጊዜ አገልግለዋል? -----

የትምህርት ደረጃ----- የሚሰሩበት ሙያ -----

1. የዕዕ ተጠቃሚዎች እንዲሁም ተንክባካቢዎቻቸው የሚደረግላቸውን የእርዳታ ዓይነቶች ቢገልፁልኝ ?
2. በሆስፒታል ውስጥ ለዕዕ ተጠቃሚዎች የሚደረግላቸው የህክምና እርዳታ በቂ ነው ብለው ያስባሉ ?
 - 2.1 በቂ ነው ካሉ የሚደረግላቸውን ዋና ዋና እንክብካቤዎች ቢገልፁልኝ ?
 - 2.2 በቂ አይደለም ካሉ መሟላት ያለባቸውን ነገሮች ቢገልፁልኝ?
3. የዕዕ ተጠቃሚዎች የስነ ልቦና ችግር ያጋጥማቸዋል ብለው ያስባሉ?
 - 3.1 አዎ ካሉ በተደጋጋሚ የሚስተዋሉ የስነ ልቦና ችግሮችን ቢገልፁልኝ?
 - 3.2 ከላይ የተዘረዘሩትን የስነ ልቦና ችግሮች በመቅረፍ ረገድ በሆስፒታሉ ውስጥ የሚሰጥ ሙያዊ የካውንስሊንግ ወይም የስነልቦና አገልግሎት አለ? አለ ካሉ ቢጠቅሱልኝ?
 - 3.3 የካውንስሊንግ አገልግሎት ጠንካራና ደካማ ጎን ምንድን ናቸው?
4. በመጨረሻ ስለ ካውንስሊንግ አገልግሎት ጥቅም ማለት የሚፈልጉት ነገር ካለ?

ቀን: _____

የፈቃደኝነት ስምምነት /Informed Consent/

እኔ _____ የተባልኩ በአማኑኤል አእምሮ ስፔሻላይዝድ ሆስፒታል ታካሚ ስሆን በአዲስ አበባ ዩኒቨርሲቲ በካውንስሊንግ ሳይኮሎጂ የድህረ ምረቃ ተማሪ ከሆነው ከአቶ ወርቅነህ ከበደ ጋር “በዕፅ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የስነልቦና ችግሮች” ዙሪያ በሚያደርገው ጥናታዊ ምርምር ላይ ተሳታፊ ለመሆን ፈቃደኝነቴን በመግለጽ ጥናቱ የሚጠይቃቸውን ሁኔታዎች በሙሉ ለማሟላት በፈርማዬ አረጋግጣለሁ፡፡

እኔም ወርቅነህ ከበደ ከታካሚ _____ ጋር ከላይ በተጠቀሰው ጥናታዊ ምርምር ዙሪያ በአማኑኤል አእምሮ ስፔሻላይዝድ ሆስፒታል በመገኘት ለጥናቱ ስኬታማነት የሚያስፈልጉትን ከዚህ በታች የተዘረዘሩትን የጥናቱን ስነ-ምግባራዊ ደንቦች ማለትም፡-

- ተሳታፊዎች በጥናቱ ለመሳተፍ ፍቃደኛ በመሆናቸው ልባዊ ምሥጋና በማቅረብ፤
- ለጥናቱ ተሳታፊዎች ስለጥናቱ በቂ ገለጻ እና መረጃ በመስጠት፤
- አንዳንድ የጥናቱ ጥያቄዎች የተሳታፊዎችን ስሜት ሊረብሹ ስለሚችሉ በጥንቃቄ እና በአግባቡ በማቅረብ፤
- መጠይቁ በሚሞላበት ወቅት አንዱ የሌላይኛውን ግላዊ ሚስጥር እንዳይመለከት እና እንዳይሰማ ጎን ለጎን ፈጽሞ መቀመጥ እንደሌለባቸው ተገቢውን ጥንቃቄ በማድረግ፤
- በጥናቱ ሂደት የሚነሱ ሃሳቦችና መረጃዎች በሙሉ በሚስጥር በመያዝ፤

ጥናታዊ ምርምሩን በአግባቡ ለማካሄድ መስማማቴን በፈርማዬ አረጋግጣለሁ፡፡

የጥናቱ ተሳታፊ ስም:

ፊርማ:

የጥናቱ ባለቤት ስም:

ፊርማ:

ቀን : _____

የፈቃደኝነት ስምምነት /Informed Consent/

እኔ _____ የተባልኩ በቅዱስ ጳውሎስ አጠቃላይ ስፔሻላይዝድ ሆስፒታል ታካሚ ስሆን በአዲስ አበባ ዩኒቨርሲቲ በካውንስሊንግ ሳይኮሎጂ የድህረ ምረቃ ተማሪ ከሆነው ከአቶ ወርቅነህ ከበደ ጋር “በዕፅ ተጠቃሚነት ምክንያት ሊከሰቱ የሚችሉ የስነልቦና ችግሮች” ዙሪያ በሚያደርገው ጥናታዊ ምርምር ላይ ተሳታፊ ለመሆን ፈቃደኝነቴን በመግለጽ ጥናቱ የሚጠይቃቸውን ሁኔታዎች በሙሉ ለማሟላት በፊርማዬ አረጋግጣለሁ፡፡

እኔም ወርቅነህ ከበደ ከታካሚ _____ ጋር ከላይ በተጠቀሰው ጥናታዊ ምርምር ዙሪያ በቅዱስ ጳውሎስ አጠቃላይ ስፔሻላይዝድ ሆስፒታል በመገኘት ለጥናቱ ስኬታማነት የሚያስፈልጉትን ከዚህ በታች የተዘረዘሩትን የጥናቱን ስነ-ምግባራዊ ደንቦች ማለትም፡-

- ተሳታፊዎች በጥናቱ ለመሳተፍ ፍቃደኛ በመሆናቸው ልባዊ ምሥጋና በማቅረብ፤
- ለጥናቱ ተሳታፊዎች ስለጥናቱ በቂ ገለጻ እና መረጃ በመስጠት፤
- አንዳንድ የጥናቱ ጥያቄዎች የተሳታፊዎችን ስሜት ሊረብሹ ስለሚችሉ በጥንቃቄ እና በአግባቡ በማቅረብ፤
- መጠይቁ በሚሞላበት ወቅት አንዱ የሌላይኛውን ግላዊ ሚስጥር እንዳይመለከት እና እንዳይሰማ ጎን ለጎን ፈጽሞ መቀመጥ እንደሌለባቸው ተገቢውን ጥንቃቄ በማድረግ፤
- በጥናቱ ሂደት የሚነሱ ሃሳቦችና መረጃዎች በሙሉ በሚስጥር በመያዝ፤

ጥናታዊ ምርምሩን በአግባቡ ለማካሄድ መስማማቴን በፊርማዬ አረጋግጣለሁ፡፡

የጥናቱ ተሳታፊ ስም:

ፊርማ:

የጥናቱ ባለቤት ስም:

ፊርማ:

Piloting Result of Depression Scale

Case Processing Summary

| | | N | % |
|-------|-----------------------|----|-------|
| Cases | Valid | 20 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 20 | 100.0 |

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .895 | 21 |

Item Statistics

| | Mean | Std. Deviation | N |
|-----------------------------|-------|----------------|----|
| Sadness | .900 | .9679 | 20 |
| Pessimism | 1.050 | 1.1459 | 20 |
| Past Failure | 1.600 | .9947 | 20 |
| Loss of Pleasure | 1.550 | 1.0990 | 20 |
| Guilty Felling | 1.300 | 1.0311 | 20 |
| Punishment Felling | 1.050 | 1.2344 | 20 |
| Self Dislike | 1.350 | 1.1821 | 20 |
| Self Criticalness | 1.800 | 1.2814 | 20 |
| Suicidal Thoughts | .750 | 1.0195 | 20 |
| Crying | 2.250 | 1.0699 | 20 |
| Agitation | 1.400 | 1.1877 | 20 |
| Loss of Interest | 1.500 | 1.3955 | 20 |
| Indecisiveness | 1.450 | 1.1910 | 20 |
| Worthlessness | 1.050 | 1.1459 | 20 |
| Loss of Energy | .950 | .9987 | 20 |
| Changes In Sleeping Pattern | 1.450 | 1.0748 | 20 |
| Irritability | .850 | 1.0894 | 20 |
| Change In Appetite | 1.475 | .8347 | 20 |
| Concentration Difficulty | 1.250 | .9105 | 20 |
| Tiredness | 1.650 | 1.3485 | 20 |
| Loss of Interest In Sex | 1.050 | 1.0501 | 20 |

Item - Total Statistics

| | Scale Mean If Item Deleted | Scale Variance If Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha If Item Deleted |
|--------------------------------|-------------------------------|-----------------------------------|--|--|
| Sadness | 26.775 | 166.170 | .414 | .893 |
| Pessimism | 26.625 | 158.023 | .628 | .887 |
| Past Failure | 26.075 | 163.218 | .520 | .890 |
| Loss Of Pleasure | 26.125 | 159.470 | .603 | .888 |
| Guilty Felling | 26.375 | 159.812 | .635 | .888 |
| Punishment Felling | 26.625 | 169.497 | .199 | .900 |
| Self Dislike | 26.325 | 155.955 | .680 | .886 |
| Self Criticalness | 25.875 | 165.944 | .298 | .897 |
| Suicidal Thoughts | 26.925 | 156.060 | .798 | .883 |
| Crying | 25.425 | 169.981 | .226 | .898 |
| Agitation | 26.275 | 162.881 | .433 | .893 |
| Loss Of Interest | 26.175 | 156.297 | .550 | .890 |
| Indecisiveness | 26.225 | 155.591 | .687 | .885 |
| Worthlessness | 26.625 | 157.234 | .657 | .886 |
| Loss Of Energy | 26.725 | 154.302 | .892 | .881 |
| Changes In Sleeping Pattern | 26.225 | 161.197 | .552 | .890 |
| Irritability | 26.825 | 163.665 | .451 | .892 |
| Change In Appetite | 26.200 | 168.168 | .396 | .893 |
| Concentration Difficulty | 26.425 | 164.086 | .536 | .890 |
| Tiredness | 26.025 | 153.960 | .647 | .886 |
| Loss Of Interest In Sex | 26.625 | 175.760 | .020 | .903 |

Inter-Item Correlation of Depression scale

| | Sadness | Pessimism | Past failure | Loss of pleasure | Guilty feeling | Punishment felling | Self dislike | Self criticalness | Sucidal thoughts | Crying | Agitation | Loss of interest | Indesiveness | Worthlessness | Loss of energy | Changes in sleeping pattern | Irretability | Change in appetite | Concentration difficulty | Tiredness |
|-----------------------------|---------|-----------|--------------|------------------|----------------|--------------------|--------------|-------------------|------------------|--------|-----------|------------------|--------------|---------------|----------------|-----------------------------|--------------|--------------------|--------------------------|-----------|
| Sadness | 1 | 0.289 | 0.3936 | 0.2523 | 0.348 | -0.1718 | 0.0782 | 0.1103 | 0.347 | -0.28 | 0.0366 | 0.2338 | 0.178 | 0.1946 | 0.4301 | 0.212 | 0.734 | 0.1429 | 0.209 | 0.536 |
| Pessimism | 0.289 | 1 | 0.3417 | 0.3531 | 0.566 | 0.2958 | 0.3749 | 0.043 | 0.687 | -0.011 | 0.5259 | 0.4772 | 0.407 | 0.4389 | 0.7841 | 0.326 | 0.554 | 0.1758 | 0.24 | 0.353 |
| Past failure | 0.394 | 0.342 | 1 | 0.4525 | 0.585 | 0.2743 | 0.4386 | 0.0991 | 0.623 | 0.198 | -0.036 | 0.2654 | 0.338 | 0.6649 | 0.6146 | 0.121 | 0.379 | 0.133 | 0.174 | 0.283 |
| Loss of pleasure | 0.252 | 0.353 | 0.4525 | 1 | 0.404 | 0.4442 | 0.5732 | 0.2691 | 0.458 | 0.369 | -0.097 | 0.5662 | 0.565 | 0.3949 | 0.4579 | 0.363 | 0.073 | 0.3201 | 0.224 | 0.35 |
| Guilty feeling | 0.348 | 0.566 | 0.585 | 0.4041 | 1 | 0.2771 | 0.3843 | 0.2071 | 0.676 | 0.167 | 0.2837 | 0.2195 | 0.399 | 0.5212 | 0.7309 | 0.277 | 0.417 | 0.4141 | 0.14 | 0.42 |
| Punishment felling | -0.172 | 0.296 | 0.2743 | 0.4442 | 0.277 | 1 | 0.2759 | -0.1597 | 0.345 | 0.428 | -0.158 | 0.2597 | 0.306 | 0.1842 | 0.2156 | -0.022 | 0.045 | -0.08 | 0.082 | -0.084 |
| Self dislike | 0.078 | 0.375 | 0.4386 | 0.5732 | 0.384 | 0.2759 | 1 | 0.2224 | 0.426 | 0.427 | 0.3449 | 0.4307 | 0.593 | 0.7635 | 0.5952 | 0.515 | 0.166 | 0.2773 | 0.501 | 0.51 |
| Self criticalness | 0.11 | 0.043 | 0.0991 | 0.2691 | 0.207 | -0.1597 | 0.2224 | 1 | 0.322 | 0.461 | 0.2974 | 0.206 | 0.407 | 0.1505 | 0.1974 | 0.164 | -0.098 | 0.0751 | 0.271 | 0.171 |
| Sucidal thoughts | 0.347 | 0.687 | 0.6228 | 0.458 | 0.676 | 0.345 | 0.4258 | 0.3223 | 1 | 0.253 | 0.3912 | 0.4624 | 0.574 | 0.5518 | 0.8141 | 0.381 | 0.486 | 0.3687 | 0.298 | 0.469 |
| Crying | -0.28 | -0.011 | 0.1978 | 0.3693 | 0.167 | 0.4284 | 0.4265 | 0.4607 | 0.253 | 1 | 0.0828 | 0.0529 | 0.279 | 0.3756 | 0.1601 | -0.035 | -0.192 | -0.07 | 0.203 | -0.155 |
| Agitation | 0.037 | 0.526 | -0.036 | -0.097 | 0.284 | -0.158 | 0.3449 | 0.2974 | 0.391 | 0.083 | 1 | 0.2541 | 0.275 | 0.3326 | 0.5059 | 0.405 | 0.415 | 0.3444 | 0.438 | 0.355 |
| Loss of interest | 0.234 | 0.477 | 0.2654 | 0.5662 | 0.219 | 0.2597 | 0.4307 | 0.206 | 0.462 | 0.053 | 0.2541 | 1 | 0.491 | 0.3785 | 0.4721 | 0.449 | 0.156 | 0.2801 | 0.145 | 0.378 |
| Indesiveness | 0.178 | 0.407 | 0.3376 | 0.5649 | 0.399 | 0.3061 | 0.5925 | 0.4069 | 0.574 | 0.279 | 0.2753 | 0.4909 | 1 | 0.4454 | 0.5952 | 0.423 | 0.136 | 0.4621 | 0.522 | 0.496 |
| Worthlessness | 0.195 | 0.439 | 0.6649 | 0.3949 | 0.521 | 0.1842 | 0.7635 | 0.1505 | 0.552 | 0.376 | 0.3326 | 0.3785 | 0.445 | 1 | 0.6921 | 0.457 | 0.301 | 0.1233 | 0.341 | 0.455 |
| Loss of energy | 0.43 | 0.784 | 0.6146 | 0.4579 | 0.731 | 0.2156 | 0.5952 | 0.1974 | 0.814 | 0.16 | 0.5059 | 0.4721 | 0.595 | 0.6921 | 1 | 0.479 | 0.573 | 0.4607 | 0.535 | 0.69 |
| Changes in sleeping pattern | 0.212 | 0.326 | 0.1209 | 0.3626 | 0.277 | -0.0223 | 0.5152 | 0.1643 | 0.381 | -0.035 | 0.4051 | 0.449 | 0.423 | 0.4571 | 0.4793 | 1 | 0.076 | 0.5069 | 0.619 | 0.478 |
| Irretability | 0.734 | 0.554 | 0.3788 | 0.0725 | 0.417 | 0.045 | 0.1655 | -0.098 | 0.486 | -0.192 | 0.4149 | 0.1558 | 0.136 | 0.3014 | 0.5732 | 0.076 | 1 | 0.1077 | 0.252 | 0.464 |
| Change in appetite | 0.143 | 0.176 | 0.133 | 0.3201 | 0.414 | -0.0804 | 0.2773 | 0.0751 | 0.369 | -0.07 | 0.3444 | 0.2801 | 0.462 | 0.1233 | 0.4607 | 0.507 | 0.108 | 1 | 0.446 | 0.56 |
| Concentration difficulty | 0.209 | 0.24 | 0.1743 | 0.2235 | 0.14 | 0.082 | 0.5012 | 0.2707 | 0.298 | 0.203 | 0.4381 | 0.145 | 0.522 | 0.3405 | 0.5354 | 0.619 | 0.252 | 0.4459 | 1 | 0.504 |
| Tiredness | 0.536 | 0.353 | 0.2825 | 0.3498 | 0.42 | -0.0838 | 0.5101 | 0.1706 | 0.469 | -0.155 | 0.3549 | 0.3776 | 0.496 | 0.4547 | 0.6898 | 0.478 | 0.464 | 0.5597 | 0.504 | 1 |
| Loss of interest in sex | 0.575 | -0.046 | -0.282 | -0.025 | -0.112 | -0.3675 | -0.2692 | 0.0469 | 0.061 | -0.199 | 0.0675 | 0.0898 | -0.061 | -0.3084 | 0.0527 | 0.117 | 0.375 | 0.2492 | 0.096 | 0.273 |

Piloting Results of Anxiety Scale

Case Processing Summary

| | | N | % |
|-------|-----------------------|----|-------|
| Cases | Valid | 20 | 100.0 |
| | Excluded ^a | 0 | .0 |
| | Total | 20 | 100.0 |

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .842 | 14 |

| Item Statistics | | | |
|--------------------------------|------|----------------|----|
| | Mean | Std. Deviation | N |
| Anxious mood | 1.4 | 1.273 | 20 |
| Tension | 1.1 | 1.334 | 20 |
| Fears | 1.2 | 1.281 | 20 |
| Insomnia | 1.25 | 1.372 | 20 |
| Intellectual | 1.55 | 1.317 | 20 |
| Depressed mood | 1.45 | 1.191 | 20 |
| Somatic complaints Muscular | 0.85 | 1.268 | 20 |
| Somatic complaints sensory | 1 | 1.298 | 20 |
| Cardio vascular symptoms | 0.8 | 1.152 | 20 |
| Respiratory symptoms | 0.95 | 1.191 | 20 |
| Gastrointestinal symptoms | 1.5 | 1.357 | 20 |
| Genitourinary symptoms | 1.1 | 1.334 | 20 |
| Autonomic symptoms | 1.05 | 1.276 | 20 |
| Behavioral interview | 1 | 1.124 | 20 |

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|-----------------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| Anxious mood | 14.8 | 87.116 | 0.627 | 0.767 | 0.822 |
| Tension | 15.1 | 87.989 | 0.554 | 0.872 | 0.827 |
| Fears | 15 | 90.632 | 0.466 | 0.879 | 0.833 |
| Insomnia | 14.95 | 84.682 | 0.677 | 0.89 | 0.818 |
| Intellectual | 14.65 | 84.871 | 0.702 | 0.868 | 0.817 |
| Depressed mood | 14.75 | 87.566 | 0.658 | 0.853 | 0.821 |
| Somatic complaints Muscular | 15.35 | 89.187 | 0.536 | 0.94 | 0.828 |
| Somatic complaints sensory | 15.2 | 94.063 | 0.314 | 0.885 | 0.842 |
| Cardiovascular symptoms | 15.4 | 96.674 | 0.249 | 0.872 | 0.845 |
| Respiratory symptoms | 15.25 | 99.882 | 0.098 | 0.9 | 0.853 |
| Gastrointestinal symptoms | 14.7 | 93.695 | 0.308 | 0.749 | 0.843 |
| Genitourinary symptoms | 15.1 | 93.463 | 0.326 | 0.724 | 0.842 |
| Autonomic symptoms | 15.15 | 83.924 | 0.774 | 0.915 | 0.812 |
| Behavioral interview | 15.2 | 92.589 | 0.453 | 0.888 | 0.833 |

Inter- Item Correlation of Anxiety Scale

| | Anxious mood | Tension | Fears | Insomnia | Intellectual | Depressed mood | Somatic complaints Muscular | Somatic complaints sensory | Cardio vascular symptoms | Respiratory symptoms | Gastro intestinal symptoms | Genitourinary symptoms | Autonomic symptoms | Behavioral interview |
|-----------------------------|--------------|---------|---------|----------|--------------|----------------|-----------------------------|----------------------------|--------------------------|----------------------|----------------------------|------------------------|--------------------|----------------------|
| Anxious mood | 1.000 | 0.564 | 0.400 | 0.603 | 0.301 | 0.535 | 0.561 | 0.127 | 0.057 | (0.160) | 0.274 | 0.068 | 0.732 | 0.515 |
| Tension | 0.564 | 1.000 | 0.419 | 0.388 | 0.297 | 0.368 | 0.538 | 0.456 | (0.226) | (0.361) | 0.407 | 0.379 | 0.523 | 0.246 |
| Fears | 0.400 | 0.419 | 1.000 | 0.240 | 0.243 | 0.386 | 0.602 | (0.095) | 0.029 | (0.062) | 0.272 | 0.296 | 0.508 | 0.219 |
| Insomnia | 0.603 | 0.388 | 0.240 | 1.000 | 0.590 | 0.733 | 0.598 | 0.148 | 0.033 | 0.008 | 0.071 | 0.216 | 0.684 | 0.649 |
| Intellectual | 0.301 | 0.297 | 0.243 | 0.590 | 1.000 | 0.606 | 0.273 | 0.462 | 0.493 | 0.455 | 0.103 | 0.297 | 0.515 | 0.533 |
| Depressed mood | 0.535 | 0.368 | 0.386 | 0.733 | 0.606 | 1.000 | 0.605 | 0.068 | 0.107 | 0.091 | (0.016) | 0.036 | 0.815 | 0.472 |
| Somatic complaints Muscular | 0.561 | 0.538 | 0.602 | 0.598 | 0.273 | 0.605 | 1.000 | 0.256 | (0.166) | (0.284) | 0.015 | 0.009 | 0.688 | 0.222 |
| Somatic complaint sensory | 0.127 | 0.456 | (0.095) | 0.148 | 0.462 | 0.068 | 0.256 | 1.000 | 0.247 | 0.204 | 0.149 | 0.274 | 0.095 | (0.036) |
| Cardiovascular symptoms | 0.057 | (0.226) | 0.029 | 0.033 | 0.493 | 0.107 | (0.166) | 0.247 | 1.000 | 0.837 | 0.303 | 0.014 | 0.222 | - |
| Respiratory symptoms | (0.160) | (0.361) | (0.062) | 0.008 | 0.455 | 0.091 | (0.284) | 0.204 | 0.837 | 1.000 | 0.212 | 0.036 | 0.002 | (0.157) |
| Gastrointestinal symptoms | 0.274 | 0.407 | 0.272 | 0.071 | 0.103 | (0.016) | 0.015 | 0.149 | 0.303 | 0.212 | 1.000 | 0.407 | 0.258 | (0.138) |
| Genitourinary symptoms | 0.068 | 0.379 | 0.296 | 0.216 | 0.297 | 0.036 | 0.009 | 0.274 | 0.014 | 0.036 | 0.407 | 1.000 | 0.059 | 0.351 |
| Autonomic symptoms | 0.732 | 0.523 | 0.508 | 0.684 | 0.515 | 0.815 | 0.688 | 0.095 | 0.222 | 0.002 | 0.258 | 0.059 | 1.000 | 0.477 |
| Behavioral interview | 0.515 | 0.246 | 0.219 | 0.649 | 0.533 | 0.472 | 0.222 | (0.036) | - | (0.157) | (0.138) | 0.351 | 0.477 | 1.000 |

Piloting Result of Clinical Anger Scale

Case Processing Summary

| | | N | % |
|-------|-----------------------|----|-------|
| Cases | Valid | 19 | 95.0 |
| | Excluded ^a | 1 | 5.0 |
| | Total | 20 | 100.0 |

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .910 | 21 |

Item Statistics

| | Mean | Std. Deviation | N |
|---------|------|----------------|----|
| Anger1 | 1.05 | .970 | 19 |
| Anger2 | 1.00 | 1.054 | 19 |
| Anger3 | 1.26 | 1.195 | 19 |
| Anger4 | 1.16 | 1.068 | 19 |
| Anger5 | .79 | .855 | 19 |
| Anger6 | .89 | 1.197 | 19 |
| Anger7 | 1.21 | 1.228 | 19 |
| Anger8 | 1.26 | 1.147 | 19 |
| Anger9 | 1.05 | 1.129 | 19 |
| Anger10 | .68 | 1.057 | 19 |
| Anger11 | .95 | .848 | 19 |
| Anger12 | .53 | .697 | 19 |
| Anger13 | .79 | .855 | 19 |
| Anger14 | .79 | 1.182 | 19 |
| Anger15 | .89 | .994 | 19 |
| Anger16 | 1.16 | 1.119 | 19 |
| Anger17 | .89 | 1.100 | 19 |
| Anger18 | .53 | .905 | 19 |
| Anger19 | .95 | .970 | 19 |
| Anger20 | .95 | 1.079 | 19 |
| Anger21 | .84 | .958 | 19 |

Item-Total Statistics

| | Scale Mean If Item Deleted | Scale Variance If Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---------|-------------------------------|--------------------------------------|--|--|
| Anger1 | 18.58 | 156.702 | .514 | .907 |
| Anger2 | 18.63 | 151.801 | .663 | .903 |
| Anger3 | 18.37 | 158.246 | .348 | .912 |
| Anger4 | 18.47 | 154.152 | .560 | .906 |
| Anger5 | 18.84 | 159.585 | .455 | .908 |
| Anger6 | 18.74 | 156.094 | .422 | .910 |
| Anger7 | 18.42 | 146.813 | .733 | .901 |
| Anger8 | 18.37 | 146.801 | .792 | .900 |
| Anger9 | 18.58 | 152.813 | .575 | .906 |
| Anger10 | 18.95 | 161.386 | .284 | .912 |
| Anger11 | 18.68 | 154.784 | .693 | .904 |
| Anger12 | 19.11 | 161.099 | .483 | .908 |
| Anger13 | 18.84 | 155.140 | .670 | .904 |
| Anger14 | 18.84 | 152.696 | .549 | .906 |
| Anger15 | 18.74 | 154.538 | .591 | .905 |
| Anger16 | 18.47 | 153.263 | .564 | .906 |
| Anger17 | 18.74 | 149.427 | .725 | .902 |
| Anger18 | 19.11 | 162.877 | .279 | .912 |
| Anger19 | 18.68 | 156.339 | .530 | .907 |
| Anger20 | 18.68 | 150.339 | .704 | .902 |
| Anger21 | 18.79 | 160.287 | .368 | .910 |

INTER- ITEM CORRELATION OF CLINICAL ANGER SCALE

| | Anger1 | Anger2 | Anger3 | Anger4 | Anger5 | Anger6 | Anger7 | Anger8 | Anger9 | Anger10 | Anger11 | Anger12 | Anger13 | Anger14 | Anger15 | Anger16 | Anger17 | Anger18 | Anger19 | Anger20 | Anger21 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Anger 1 | 1 | 0.543 | 0.323 | 0.689 | 0.349 | 0.149 | 0.55 | 0.286 | 0.149 | 0.125 | 0.611 | 0.285 | 0.55 | -0.038 | 0.179 | 0.248 | 0.266 | -0.16 | 0.475 | 0.48 | 0.248 |
| Anger 2 | 0.543 | 1 | 0.353 | 0.543 | 0.062 | 0.308 | 0.601 | 0.597 | 0.42 | 0.1 | 0.497 | 0.227 | 0.555 | 0.446 | 0.424 | 0.377 | 0.527 | 0.175 | 0.435 | 0.537 | 0.055 |
| Anger 3 | 0.323 | 0.353 | 1 | 0.314 | -0.052 | 0.176 | 0.415 | 0.352 | 0.277 | 0.113 | 0.069 | -0.042 | 0.329 | 0.002 | 0.305 | 0.133 | 0.022 | 0.173 | 0.348 | 0.356 | 0.184 |
| Anger 4 | 0.689 | 0.543 | 0.314 | 1 | 0.282 | 0.535 | 0.439 | 0.418 | -0.053 | -0.101 | 0.439 | 0.33 | 0.525 | 0.336 | 0.226 | 0.21 | 0.393 | 0.082 | 0.277 | 0.586 | 0.297 |
| Anger 5 | 0.349 | 0.062 | -0.052 | 0.282 | 1 | 0.194 | 0.521 | 0.513 | 0.07 | 0.414 | 0.673 | 0.569 | 0.392 | 0.393 | 0.169 | 0.037 | 0.329 | 0.295 | 0.187 | 0.349 | -0.043 |
| Anger 6 | 0.149 | 0.308 | 0.176 | 0.535 | 0.194 | 1 | 0.016 | 0.345 | 0.087 | -0.203 | 0.158 | 0.07 | 0.357 | 0.337 | 0.177 | 0.594 | 0.455 | 0.157 | 0.33 | 0.383 | 0.469 |
| Anger 7 | 0.55 | 0.601 | 0.415 | 0.439 | 0.521 | 0.016 | 1 | 0.708 | 0.392 | 0.268 | 0.705 | 0.383 | 0.679 | 0.415 | 0.565 | 0.217 | 0.511 | 0.395 | 0.429 | 0.554 | 0.077 |
| Anger 8 | 0.286 | 0.597 | 0.352 | 0.418 | 0.513 | 0.345 | 0.708 | 1 | 0.461 | 0.439 | 0.757 | 0.582 | 0.4 | 0.821 | 0.513 | 0.399 | 0.595 | 0.501 | 0.163 | 0.416 | 0.09 |
| Anger 9 | 0.149 | 0.42 | 0.277 | -0.053 | 0.07 | 0.087 | 0.392 | 0.461 | 1 | 0.62 | 0.293 | 0.387 | 0.357 | 0.3 | 0.599 | 0.609 | 0.497 | -0.029 | 0.56 | 0.504 | 0.368 |
| Anger10 | 0.125 | 0.1 | 0.113 | -0.101 | 0.414 | -0.203 | 0.268 | 0.439 | 0.62 | 1 | 0.352 | 0.616 | -0.016 | 0.3 | 0.178 | 0.045 | 0.065 | -0.049 | 0.254 | 0.277 | -0.162 |
| Anger11 | 0.611 | 0.497 | 0.069 | 0.439 | 0.673 | 0.158 | 0.705 | 0.757 | 0.293 | 0.352 | 1 | 0.52 | 0.444 | 0.598 | 0.257 | 0.302 | 0.53 | 0.4 | 0.266 | 0.3 | 0.194 |
| Anger12 | 0.285 | 0.227 | -0.042 | 0.33 | 0.569 | 0.07 | 0.383 | 0.582 | 0.387 | 0.616 | 0.52 | 1 | 0.103 | 0.547 | 0.245 | 0.173 | 0.221 | -0.023 | 0.125 | 0.482 | 0.048 |
| Anger13 | 0.55 | 0.555 | 0.329 | 0.525 | 0.392 | 0.357 | 0.679 | 0.4 | 0.357 | -0.016 | 0.444 | 0.103 | 1 | 0.174 | 0.495 | 0.385 | 0.625 | 0.079 | 0.522 | 0.71 | 0.228 |
| Anger14 | -0.038 | 0.446 | 0.002 | 0.336 | 0.393 | 0.337 | 0.415 | 0.821 | 0.3 | 0.3 | 0.598 | 0.547 | 0.174 | 1 | 0.311 | 0.237 | 0.58 | 0.577 | -0.059 | 0.339 | 0.067 |
| Anger15 | 0.179 | 0.424 | 0.305 | 0.226 | 0.169 | 0.177 | 0.565 | 0.513 | 0.599 | 0.178 | 0.257 | 0.245 | 0.495 | 0.311 | 1 | 0.565 | 0.7 | 0.127 | 0.224 | 0.409 | 0.273 |
| Anger16 | 0.248 | 0.377 | 0.133 | 0.21 | 0.037 | 0.594 | 0.217 | 0.399 | 0.609 | 0.045 | 0.302 | 0.173 | 0.385 | 0.237 | 0.565 | 1 | 0.646 | 0.023 | 0.469 | 0.376 | 0.646 |
| Anger17 | 0.266 | 0.527 | 0.022 | 0.393 | 0.329 | 0.455 | 0.511 | 0.595 | 0.497 | 0.065 | 0.53 | 0.221 | 0.625 | 0.58 | 0.7 | 0.646 | 1 | 0.394 | 0.255 | 0.51 | 0.458 |
| Anger18 | -0.16 | 0.175 | 0.173 | 0.082 | 0.295 | 0.157 | 0.395 | 0.501 | -0.029 | -0.049 | 0.4 | -0.023 | 0.079 | 0.577 | 0.127 | 0.023 | 0.394 | 1 | 0.033 | -0.027 | 0.165 |
| Anger19 | 0.475 | 0.435 | 0.348 | 0.277 | 0.187 | 0.33 | 0.429 | 0.163 | 0.56 | 0.254 | 0.266 | 0.125 | 0.522 | -0.059 | 0.224 | 0.469 | 0.255 | 0.033 | 1 | 0.581 | 0.469 |
| Anger20 | 0.48 | 0.537 | 0.356 | 0.586 | 0.349 | 0.383 | 0.554 | 0.416 | 0.504 | 0.277 | 0.3 | 0.482 | 0.71 | 0.339 | 0.409 | 0.376 | 0.51 | -0.027 | 0.581 | 1 | 0.26 |
| Anger21 | 0.248 | 0.055 | 0.184 | 0.297 | -0.043 | 0.469 | 0.077 | 0.09 | 0.368 | -0.162 | 0.194 | 0.048 | 0.228 | 0.067 | 0.273 | 0.646 | 0.458 | 0.165 | 0.469 | 0.26 | 1 |



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 አዲስ አበባ ዩኒቨርሲቲ
 የድህረ ምረቃ ተማሪ

ጉዳይ፣ የምርምር ጥያቄ ይመለከታል።

የአዲስ አበባ ዩኒቨርሲቲ የድህረ ምረቃ ተማሪ መሆንዎንና በአግኑኤል ሆ/ል ጥናታዊ ምርምር ለማድረግ እንዲችሉ ጥያቄ ማቅረብዎ ይታወቃል።

ጉዳዩም ለሆስፒታሉ የጥናትና ምርምር ኤትካል ከሚገኙ ቀርቦ ከታየ በኋላ፣ የሚያደርጉት የጥናትና ምርምር ውጤት ከሥነ ምግባር አንጻር በሕመማችን ላይ የሚያስከትል ችግር ስለማይኖር የምርምር ሥራዎን በሆስፒታሉ ማካሄድ የሚችሉ መሆኑን እንገልጻለን።




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Declaration

I the undersigned, declare that this thesis is my original work, has not been presented for a degree in any university and that all sources of materials used in this thesis have been duly acknowledged.

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