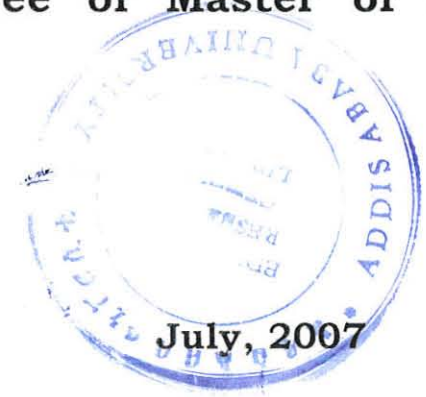
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF PSYCHOLOGY

PREVALENCE AND CORRELATES OF MENTAL DISORDERS AMONG PRISONERS AT DEBREMARKOS

By

Menwagaw Terefe

A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Counseling Psychology



July, 2007

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Chairman, Department Graduate Committee	Signature
Sentayehu Tadesse Advisor	Signature
Examiner (Internal)	Signature
Dr. Abdinasir Ahmed Examiner (External)	Signature

ACKNOWLEDGEMENT

At the outset, I would like to express my deepest gratitude to my advisor Dr. Sentayehu Tadesse for his unreserved and valuable guidance, illuminating suggestions and persistent encouragement, which undeniably helped me to work diligently on my thesis. For sure, this study would not have been a reality in such form had it not been for his valuable and critical comments.

I am also very much indebted to all my family members who helped me morally from the very beginning to the end.

Finally, words can't express my heartfelt gratitude to all the respondents and the prison staff members for their honest cooperation during data collection.

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Acronyms

ADAMHA	Alcohol, Drug Abuse and Mental Health Administration
APA	American Psychiatric Association
CI	Confidence Interval
CIDI	Composite International Diagnostic Interview
DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental disorders
EPHA	Ethiopian Public Health Association
GAD	Generalized Anxiety Disorder
GHQ	General Health Questionnaire
ICD	International Classification of Diseases
ISPI	Iowa Structured Psychiatric Interview
OCD	Obsessive-Compulsive Disorder
PSE	Present State Examination
PTSD	Post-Traumatic Stress Disorder
SADS	Schedule for Affective Disorder and Schizophrenia
SPSS	Statistical Package for Social Sciences
SRQ	Self-Reporting Questionnaire
WHO	World Health Organization

Abstract

No studies so far have been conducted in Ethiopia to estimate the prevalence of mental disorders in a prison population. In order to explore the magnitude of mental disorders and their associations with socio-demographic factors and some criminal histories of inmates, a study was conducted in Debre Markos town using the Amharic version of the Composite International Diagnostic Interview (CIDI). A total of 104 inmates aged 19-59 years (all the 48 female prisoners purposely taken as a sample and 56 males selected by systematic random sampling) were interviewed by non-clinician interviewers. The aggregate life-time prevalence estimate of mental disorders was 46.6 percent and 41.9 percent when substance was not included. The most frequent specific diagnoses were: anxiety disorders (9.3 percent), major depression (7.4 percent), dissociative amnesia (7.4 percent), and dysthymic disorder/recurrent depressive episode (5.6 percent). Associations of specific mental disorders with demographic factors and criminal histories of inmates were assessed using one way analysis of variance. Moreover, comparisons for significant group mean differences were tested by Pot Hoc test (Scheffe's) and t-test. Female sex was shown to have statistically significant association with dysthymic disorder ($t=2.10$, $P<0.05$), manic depression/bipolar disorder ($t=2.94$, $P<0.05$), and dissociative amnesia ($t=2.71$, $P<0.05$) where as the male sex was significantly associated with tobacco dependence ($t=2.63$, $P<0.05$). Anxiety disorders were strongly associated with the younger age group (19-24 years) and less associated with the middle age group (25-44 years) (Mean difference=20.51, $P<0.05$). Anxiety disorders were also associated with inmates who are in their beginning phase of imprisonment and the least association found among those stayed longer periods in prison (Mean difference=14.28, $P<0.05$). Major depression was strongly associated with the younger age group and the single/unmarried marital status. Alcohol dependence was found to have statistically significant association with the divorced and was less associated with the married (Mean difference=12.50, $P<0.05$). Few services (primary school, handicraft and medication) were available in the prison. It was concluded that the aggregate prevalence rate of mental disorders is substantial and there is a need to make interventions. Hence, establishing a holistic and integrated medical, psychotherapeutic, and vocational interventions were recommended to improve the mental well-being of prisoners.

CHAPTER ONE

Introduction

1.1 Background

The American Psychiatric Association's Diagnostic and Statistical Manual for Mental Disorders, fourth edition (DSM-IV) conceptualizes the term 'Mental Disorder' as "a clinically significant behavioral or psychological syndrome or pattern that occurs in a person that is associated with present distress (painful symptom) or disability (impairment in one or important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom. ...this syndrome or pattern must not be an expectable response to a particular event" (APA, 1994).

Mental health problems exist world-wide and are increasing both in the developed and developing countries (Ben-Tovim, 1982). Today, as a result of lack of access to any kind of effective mental care, over 450 million people are estimated to be suffering from mental disorders in the world (Leekassa et al, 2004). It is estimated that about 40% of the population will experience some diagnosable mental illness during their life time. Twenty five percent of women and 12-15% of men can expect to suffer from depression in the course of a "life time ". Fifty percent of families will have at least one family member with mental illness some time during the life of the family (Bromet and Parkinson, 1992).

Numerous studies have been conducted in the world by different researchers to estimate prevalence of mental disorders in community, hospitals and prisons. Prevalence of mental disorders refers to the number of individuals in a statistical population that at a given point in time (point prevalence) or over a period of time (period prevalence) experienced mental disorder(s). Prevalence data provide an indication of a condition and may have implications to the provision of services needed in a community or institution (Friis and Seller, 1999).
Of the community based studies done world-wide which illustrate early community prevalence studies include: The Lundby Study started in 1947 in Sweden on 2550 children and adults of rural population in which total estimated prevalence of obvious psychopathology of 8.4% and

probable cases of 28.2% was found(Essen-moller,1956). The second one, the Sterling Country Study, on 1010 rural adults using a structured questionnaire schedule and estimated the prevalence in DSM diagnostic terminology to be 20% (Leighton et al, 1963). The third, which was initiated in 1954 and known as the Midtown Manhattan study, used methods similar to the Sterling Country Study and interviewed 1660 adults of the Midtown Manhattan. In this study however, instead of using DSM diagnostic terminology, assembled material was rated by psychiatrists in terms of a continuum of symptoms form and severity. A 23.4% prevalence of typical clinical cases was found in this study (Orly and Wing, 1979).

More recently, Alonso et. al. (2004), conducted a study on the prevalence rates of mood, anxiety, and alcohol disorders in six European countries (a representative sample of non-institutionalized inhabitants from Belgium, France, Germany, Italy, Netherlands and Spain aged 18 or older) using a revised version of the Composite International Diagnostic Interview (CIDI) revealed that 14% reported a life time history of any mood disorder, 13.6% any anxiety disorder, and 5.2% a life time history of any alcohol disorder. Moreover, in the United Arab Emirates, a community psychiatric survey was conducted by Abou-Salah et al (2001) using the Self-Reporting Questionnaire (SRQ) and the Composite International Diagnostic Interview (CIDI). Life time prevalence and 1-week prevalence rates of mental disorders as measured by the SRQ were estimated as well as the life time prevalence rates CIDI ICD-10 psychiatric disorders. In this study, overall life time prevalence of ICD-10 psychiatric disorders was found to be 8.2% while the 1-week prevalence rate of mental disorders as measured by the SRQ was 18.9 percent.

Studies have been also conducted by different researchers in the world to estimate prevalence rates of mental disorders in prisons. Research findings from different countries indicated that mental disorders are especially prevalent in prison population. The prevalence of serious personality disorders, drug and alcohol dependence, suicidal and self-harming behavior and all forms of mental disorders (both psychotic and neurotic) are alarmingly much higher in prisons than in the general population (WHO, 2006). Many of the disorders may be present before admission to prison, and may be further exacerbated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a consequence of prevailing conditions and also possibly due to torture or other human rights violations (WHO, 2001).

A systematic review of 62 surveys from 12 Western countries by Fazel and Danesh (2002) on serious mental disorders (psychosis, major depression, and antisocial personality disorders) in a general prison population gives some insight into the extent of the problem that exists in prisons in Western countries today. This review suggests that typically about one in seven prisoners have psychotic illnesses or major depression, and about half of all male prisoners and one in five women prisoners have antisocial personality disorder. These rates, which are considerably higher than those found in comparable community samples, reflect a substantial level of treatment need.

Only a few studies were done to study the prevalence rate of mental disorders in developing countries especially in Africa. Almost all these studies attempted to estimate either total prevalence or only major categories like psychosis and neurosis (Paltiel, 1987). Although earlier studies done to estimate prevalence of mental disorders in developing countries were few, recent studies have consistently shown a prevalence rate as high as those of the developed.

However, there is little information to be found about the prevalence of specific mental disorders in developing countries and Ethiopia is no exception (Rashid, 1993). Until recently, studies on the prevalence of mental disorders in the country have been scarce. The few earlier studies were done mostly by foreigners. Most of these earlier studies were done using clinical samples from attendees of out-patient clinics. Two studies, one by Giel and Van Luijk (1969) and the other by Kortman (1985) reported on community surveys. Giel and Van Luijk conducted few studies by using Kessel's methods, which is a four point classification of psychological disorders. They found a 18.5% prevalence in out patient attendants of a teaching hospital in Addis Ababa and a 19% prevalence in out-patient attendants of Bonga health center in South Western Ethiopia in 1967 (Solomon ,1989).

The late 80's and the 90's have shown changes in psychiatric research in the country. More Ethiopians have been involved in studying mental health problems locally. Araya et al (1993), in summary of the studies done in Ethiopia, reported prevalence rates ranging from 18-27% in the out-patient departments at a rural hospital. They further analyzed records from 1986 to 1990, at two out-patient departments in Addis Ababa, Amanuel and St. Paul's hospitals and came up with

the finding that the most prevalent diagnoses were psychoses (31.2%) and neurosis (51.1%) (Mulugeta, 1996).

In summary, from what has been reported in studies done in the country and from worldwide statistics, the Ethiopian Public Health Association (EPHA) expert group in its report on Mental Health in Ethiopia (2006) conservatively estimated that 12% of Ethiopians suffer from mental disorders. Moreover, according to the WHO's report (2001), the average prevalence of mental disorders in Ethiopia is 15% for adults and 11% for children (WHO, 2007).

Most of the previous studies done in Ethiopia on the prevalence of mental disorders were community-based which attempted to determine the prevalence of mental disorders in the general population. There were also few studies on the magnitude of mental disorders in health institutions using clinical samples from attendees of out-patient clinics. There have been no previous studies that have attempted to estimate the prevalence of mental disorders in prisons. The present study was conducted with the aim of filling the gap and providing data on the overall and specific prevalence estimates of mental disorders and their associations with socio-demographic factors among prisoners at Debremarkos town, Amhara region, using the Amharic version of the Composite International Diagnostic Interview (CIDI) according to the definitions and criteria of DSM-IV (Diagnostic and Statistical Manual for Mental Disorders Fourth Edition).

1.2 Statement of the problem

An estimated 450 million world wide suffer from mental or behavioral disorders (WHO, 2001). These disorders are especially prevalent in prison population (Brugha et al, 2005). The disproportionately high rate of mental disorders in prisons is related to several factors: the widespread conception that all people with mental disorder are a danger to the public; the general intolerance of many societies to difficult or disturbing behavior; the failure to promote treatment, care, and rehabilitation, and above all, the lack of, or poor access to, mental health services in many countries. Many of these disorders may be present before admission to prison, and may be further exacerbated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a consequence of prevailing conditions (Brinded et al, 2002).

There are factors in many prisons that have negative effects on mental health, including: overcrowding, various forms of violence, lack of privacy, lack of meaningful activity, isolation from social networks, insecurity about future prospects (work, relationships, etc), and inadequate health services, especially mental health services, in prisons. The increased risk of suicide in prisons (often related to depression) is, unfortunately, one common manifestation of the cumulative effects of these factors (WHO, 2001). The prevalence rates of major depressive episodes, manic episodes, and schizophrenia are significantly higher in prison inmates than in the general population (Lindquist and Lindquist, 1997).

Researchers in the area agreed that the prevalence of serious personality disorders, substance dependence, suicidal and self-harming behavior, and all forms of mental illness (both psychotic and neurotic) is alarmingly much higher in prisons than in the general population (WHO, 2006).

A systematic review of 62 surveys from 12 Western countries by Fazel and Danesh, (2002) on serious mental disorders (psychosis, major depression, and antisocial personality disorders) in a general prison population gives some insight into the extent of the problem that exists in prisons in Western countries today. This review suggests that typically about one in seven prisoners have psychotic illnesses or major depression, and about half of all male prisoners and one in five women prisoners have antisocial personality disorder. These rates, which are considerably higher than those found in comparable community samples, reflect a substantial level of treatment need.

However, In Ethiopia, most of the previous studies on the prevalence of mental disorders were community-based surveys which attempted to determine the prevalence of mental disorders in the general population. There were also a small number of studies on the magnitude of mental disorders in hospital using clinical samples. Prisoners are generally excluded from community based surveys and as to the knowledge of the researcher, no studies have attempted to estimate the prevalence of mental disorders in a prisoner population. In order to know the extent to which mental health problems are threatening in prisoner population in the country, the researcher was initiated to conduct the present study.

Hence, this study was guided in answering the following research questions:

1. To what extent mental disorders are prevalent among prisoners at Debremarkos?
2. What is the rank order of specific mental disorders according to their prevalence rates?
3. Is there any significant association between specific mental disorders and socio-demographic and criminological characteristics of inmates?
4. To what extent mental health treatment services are available to prisoners?

1.3 Objectives

The present study was conducted to address the following objectives:

1.3.1 General Objective

To contribute some valuable data to the scarcely available study findings on the magnitude of mental disorders in prisons, to create awareness concerning the extent to which mental health problems are threatening in the prison, and to identify the determinants of mental disorders.

1.3.2 Specific Objectives

1. To estimate the prevalence rate of overall and specific mental disorders in the prison population by gender.
2. To estimate the prevalence rates of specific mental disorders (major depression, dysthymic disorder, manic depression or bipolar disorder, anxiety disorders, phobic disorders, dissociative disorder, somatoform disorder, schizophrenia, alcohol dependence, tobacco dependence, eating disorders, and sexual disorders) and indicate their rank order.
3. To assess the association of specific mental disorders (major depression, dysthymic disorder, manic depression or bipolar disorder, anxiety disorders, phobic disorders, dissociative disorder, somatoform disorder, schizophrenia, alcohol dependence, tobacco dependence, eating disorders, and sexual disorders) with socio-demographic and some criminological characteristics of inmates (sex, age, marital status, educational level, type of offence, duration of imprisonment/time served in prison, and previous sentence).
4. To access if there are available mental health treatment programs and mental health professionals.

1.4 Significance of the Study

Prevalence data on specific mental disorders have practical importance for two important purposes. First they are required for scientific understanding of a disorder which will enable us to describe association, etiology, natural history and identification of new syndromes. Secondly they are also of vital importance for planning and evaluation of mental health programs (Bromet, 1992). Prevalence data provide an indication of the extent of mental disorders and may have implications to the provision of mental health services. Thus, it was believed that the present study will provide important empirical evidence regarding the extent of mental disorders present in the prison thereby enabling concerned bodies to be aware of the conditions and take the necessary measures to reduce mental health problems in the prison. Moreover, the findings of this study may provide some important direction for conducting further researches in the area.

1.5 Delimitation of the Study

The scope of this study was delimited to a prison center found in Debremarkos town. The study area was selected because the study area is familiar to the researcher and it was believed that getting cooperation from prison administrators and the society will be at ease. Moreover, the researcher did not find it financially feasible to include other prison centers.

The study was also delimited to examine the prevalence and correlates of mental disorders which are included in the Composite International Diagnostic Interview (CIDI). These specific mental disorders were: major depression, dysthymic disorder, manic depression/bipolar disorder, anxiety disorders, phobic disorders, dissociative amnesia, somatoform disorders, schizophrenia, eating disorders, sexual disorders, and disorders resulting from the use of tobacco and alcohol.

The study was also restricted to selected independent factors to assess their contribution to the dependent variables (mental disorders). These predictor variables were: Sex, age, marital status, educational level, type of offence, previous prison sentence, and length of time served in prison.

1.6 Limitations of the Study

Data were collected at a single site, which limits the general applicability of the findings to other prisons in the country.

1.7 Operational Definition of Terms

Prevalence- this measures the number of individuals with a particular mental disorder over a period of time (in this study referred to as lifetime prevalence) (Friis and Sellers, 1999).

Lifetime prevalence- this measures the number of individuals in a sample population that at some point in their life (up to the time of assessment) have experienced a "case" (mental disorder) (Culhane and Metraux, 1998).

Major depression- a depressed mood or a loss of interest or pleasure in daily activities consistently for at least a 2 week period (APA, 1994).

Dysthymic disorder/dysthymia- a longstanding lower grade mood disturbance than depression that has persisted for years (APA, 1994).

Manic depression/Bipolar disorder- dramatic mood swings from overly "high" and/or irritable to sad and hopeless, and then back again, often with periods of normal mood in between (APA, 1994).

Generalized anxiety- Psychological symptoms include free-floating anxiety (i.e. anxiety not attached to any particular object or event) and a fearful preoccupation with the future (APA, 1994).

Panic disorder- an anxiety disorder characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms that may include chest pain, heart palpitations, shortness of breath, dizziness, or abdominal distress (APA, 1994).

Phobic disorders- an excessive and somewhat irrational fear of some object or situation which is usually so disturbing that it leads to avoidance of that object or situation (avoidance behavior) (APA, 1994).

Dissociative amnesia- one or more episodes of inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by ordinary forgetfulness (APA, 1994).

Somatoform disorder- includes symptoms in multiple organ systems which are the results of inner conflicts and distress including gastric pain, vomiting, burning, and fatigue (Looper and Kirmayer, 2002).

Schizophrenia- a fundamental distortion in thinking and perception and inappropriate emotions. It includes delusions (beliefs that are clearly implausible), auditory hallucinations (hearing sounds without objective basis), disorganized speech, and disorganized behavior (Conklin and Lawrence, 2002).

Eating disorder- involve serious disturbances in eating behavior, such as extreme and unhealthy reduction of food intake (anorexia nervosa) or severe overeating (bulimia nervosa), as well as feelings of distress or extreme concern about body shape or weight (APA, 2000).

Sexual disorders- Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement (APA, 1994).

Alcohol or substance dependence- maladaptive pattern of substance use (alcohol or tobacco), leading to significant impairment or distress (Goff et al, 1992).

CHAPTER TWO

Literature Review

2.1. Prevalence Estimation of Mental Disorders

The American Psychiatric Association's Diagnostic and Statistical Manual for Mental Disorders, fourth edition (DSM-IV) conceptualizes the term 'Mental Disorder' as "a clinically significant behavioral or psychological syndrome or pattern that occurs in a person that is associated with present distress (painful symptom) or disability (impairment in one or important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom. ...this syndrome or pattern must not be an expectable response to a particular event" (APA, 1994).

Mental health problems exist world-wide and are increasing both in the developed and developing countries (Ben-Tovim, 1982). Today, as a result of lack of access to any kind of effective mental care, over 450 million people are estimated to be suffering from mental disorders in the world (Leekassa et al, 2004). It is estimated that about 40% of the population will experience some diagnosable mental illness during their life time. Twenty five percent of women and 12-15% of men can expect to suffer from depression in the course of a "life time ". Fifty percent of families will have at least one family member with mental illness some time during the life of the family (Bromet and Parkinson, 1992).

Prevalence is the measure of a condition in a population at a given point in time (point prevalence) or over a period of time (period prevalence). Prevalence data provide an indication of a condition and may have implications to the provision of services needed in a community or institution (Friis and Sellers, 1999).

Prevalence data on specific mental disorders have practical importance for two important purposes. First they are required for scientific understanding of a disease which enables us to describe association, etiology, natural history and identification of new syndromes. Secondly they

are also of vital importance for planning and evaluation of mental health programmers (Paltiel, 1987).

2.1.1. Global Prevalence Studies of Mental Disorders

2.1.1.1. Community Based Studies

Since 1950, studies have been using a single psychiatrist or a small team headed by a psychiatrist personally (although not done using standardized method or procedure) to estimate the prevalence of specific psychiatric disorders in the community. These studies showed median prevalence of schizophrenia (0.76%), affective psychosis (0.43%), neurosis (5.95%), personality disorder (4.19%), and overall functional disorder (14.05%) giving an aggregate rate of 25.38% (Bruce and Barbara,1982).

Of the community based studies done world-wide after the Second World War those which illustrate early community prevalence studies include: The Lundby Study started in 1947 in Sweden which used psychiatrists to interview 2550 children and adults of rural population in which total estimated prevalence of obvious psychopathology of 8.4% and probable cases of 28.2% was found(Essen-moller,1956). The second one, the Sterling Country Study, was started in1963; 1010 rural adults were interviewed using a structured questionnaire schedule; and investigators also interviewed general physicians practicing there about the same patient and produced a document to be evaluated finally by psychiatrists. This study estimated the prevalence in DSM diagnostic terminology to be 20% (Leighton et al, 1963). The third, which was initiated in 1954 and known as the Midtown Manhattan study, used methods similar to the Sterling Country Study and interviewed 1660 adults of the Midtown Manhattan. In this study however, instead of using DSM diagnostic terminology, assembled material was rated by psychiatrists in terms of a continuum of symptoms form and severity. A 23.4% prevalence of typical clinical cases was found in this study (Orly and Wing, 1979).

The Epidemiologic Catchments Area (ECA) study using Diagnostic Interview Schedule (DIS) according to the Diagnostic Statistical Manual, third revision (DSM III-R) criteria conducted in the USA (1984), in a large sample (200000 community and institutionalized residents in three

sites), estimated a life time prevalence of mental disorders from 29% to 38% in each site. The average rate of specific disorders for three sites was: major depressive episode (5.3%), schizophrenia (1.5%), alcohol abuse/dependence (13.6%), and drug abuse/dependence (5.6%) (Robins et al, 1984).

In the United Arab Emirates, a community psychiatric survey was conducted by Abou-Salah using the Self-Reporting Questionnaire (SRQ) and the Composite International Diagnostic Interview (CIDI) . Life time prevalence and 1-week prevalence rates of mental disorders as measured by the SRQ were estimated as well as the life time prevalence rates CIDI ICD-10 psychiatric disorders. In this study, overall life time prevalence of ICD-10 psychiatric disorders was found to be 8.2% while the 1-week prevalence rate of mental disorders as measured by the SRQ was 18.9% (Abou-Salah et al, 2001).

More recently, Alonso et al conducted a study on the prevalence rates of mood, anxiety, and alcohol disorders in six European countries (a representative sample of non-institutionalizes inhabitants from Belgium, France, Germany, Italy, Netherlands and Spain aged 18 or older) using a revised version of the Composite International Diagnostic Interview (CIDI) revealed that 14% reported a life time history of any mood disorder, 13.6% any anxiety disorder, and 5.2% a life time history of any alcohol disorder (Alonso et al, 2004).

Only a few studies were done to study the prevalence rate of mental disorders in developing countries especially in Africa (Paltiel, 1987). Almost all these studies attempted to estimate either total prevalence or only major categories like psychosis and neurosis. Dhadphale and his colleagues, using SRQ and psychiatric interview, found a prevalence of 28.6% at Kisu, Kenya in1982 (Paltiel, 1987). De Jong and his colleagues, using SRQ and health staff rating found a prevalence rate of 12.0%in 1984 in Southern Guinea Bissau (Paltiel, 1987). Of the studies which went further to estimate prevalence of specific disorders, Orly and Wing in a study done in Uganda using the Present State Examination (PSE) in 1972 found a total prevalence rate of 25.3%; the specific rates were hypomania (2%in males and 2.2% in females), depressive disorders (14.3% in males and 22.6% in females) and anxiety state (3.1% in males and 4.3% in females) (Orly and Wing, 1979).

A study was conducted on the prevalence of specific disorders according to DSM criteria of classification by Gureje et al in Nigeria. In this study done in 1992, the prevalence of specific disorders was estimated using the 12-item General Health Questionnaire (GHQ) and modified venison of CIDI in an urban primary setting of Ibadan. The investigators found a weighted prevalence of specific DSM III-R diagnosis of 27.8% (excluding another 7.3% suffering from non specific disorders to which specific DSM III-R diagnosis could not be assigned). The estimated prevalence of specific DSM III-R disorders in this study was major depression (3.7%), recurrent depression (3.9%), and dysthymia (1.2%), total somatoform disorders (10.8%), and adjustment reactions (2.9%). The prevalence of non specific DSM III-R diagnoses was depressive (2.9%), anxiety (2.7%) and somatoform disorders (3.4%) (Gureje et al, 1992).

2.1.1.2 Prevalence in Hospitals

Over 450 million people are estimated to be suffering from mental disorders in the world today. Only a small proportion of these people receive modern treatment, and most untreated cases are found in low income countries. Over 20% of people who attend general medical clinics do so because of mental disorders (Leekassa et al, 2004). Little is known about prevalence rates of mental disorders in developing countries. What is known comes mostly from studies in hospitals and out-patient clinics (Solomon, 1989).

A report from Nigeria by German GA in 1987 stated that of 1460 new patients attending a general clinic over a period of 3 months, 15% of the patients were diagnosed as having a psychiatric disorder (Belayneh, 1995). Gureje et al (1992), using the 12-item General Health Questionnaire (GHQ), and the CIDI, in an urban primary care setting in Nigeria reported a weighted prevalence of 27.8%for a specific DSM III-R diagnosis (Mulugeta, 1996). Dhadphale et al (1983), in a two stage screening procedure using SRQ and Psychiatric Interview Schedule (PIS), in a study among the general hospital of 388 out-patients in a rural and semi-urban area of Kenya reported a psychiatric morbidity of 29% (Mulugeta, 1996).

2.1.1.3 Prevalence of Mental Disorders in Prisons

Mental disorders occur at high rates in all countries of the world. The disorders are especially prevalent in prison population. The disproportionately high rate of mental disorders in prisons is related to several factors: the widespread conception that all people with mental disorder are a danger to the public; the general intolerance of many societies to difficult or disturbing behavior; the failure to promote treatment, care, and rehabilitation, and above all, the lack of, or poor access to, mental health services in many countries. Many of these disorders may be present before admission to prison, and may be further exacerbated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a consequence of prevailing conditions and also possibly due to torture or other human rights violations (WHO, 2001).

Epidemiological studies agreed that the prevalence of serious personality disorders, drug and alcohol dependence, suicidal and self-harming behavior, and all forms of mental illness (both psychotic and neurotic) is alarmingly much higher in prisons than in the general population (WHO, 2006).

There are factors in many prisons that have negative effects on mental health, including: overcrowding, various forms of violence, enforced solitude or conversely, lack of privacy, lack of meaningful activity, isolation from social networks, insecurity about future prospects (work, relationships, etc), and inadequate health services, especially mental health services, in prisons. The increased risk of suicide in prisons (often related to depression) is, unfortunately, one common manifestation of the cumulative effects of these factors.

Mental health disorders prevalent among the prison population have been identified by previous researchers. Common mental health problems include depression, loneliness, nervousness, and anxiety. Of the mental health problems, depression is the most prevalent in prisons. Depression levels detected by researchers have been shown to be more than twice the levels found in the general population. Severe psychotic symptoms are also present. The prevalence rates of major depressive episodes, manic episodes, and schizophrenia are significantly higher in prison inmates than in the general population (Lindquist and Lindquist, 1997

A recently published systematic review of 62 surveys on serious mental disorders among 23,000 prisoners gives some insight into the extent of the problem that exists in prisons in Western countries today. This review suggests that typically about one in seven prisoners have psychotic illnesses or major depression, and about half of all male prisoners and one in five women prisoners have antisocial personality disorder. These rates, which are considerably higher than those found in comparable community samples, reflect a substantial level of treatment need (Fazel and Danesh, 2002).

Butler et al conducted a study on the prevalence of mental disorders among Australian prisoners: a comparison with a community sample. They examined whether excess psychiatric morbidity exists in prisoners compared to the general community. Mental health diagnoses were obtained using the CIDI. They reported that the 12-month prevalence of any psychiatric illness was 80% in prisoners and 31% in the community. Substantially more psychiatric morbidity was detected among prisoners than the community group (Butler et al, 2006). Butler et al also had conducted another study to determine the prevalence of mental disorders among prisoners in New South Wales, Australia, using the same instrument (CIDI). It was reported that overall, 43% of those screened had at least one of the following diagnoses: psychosis, anxiety disorders, or affective. The 12-month prevalence of psychosis was 9%, 20% had suffered from at least one type of mood disorders and 36% had experience anxiety disorders (Butler et al, 2005).

Fazel and Danesh (2002) did a systematic review of 62 surveys from 12 Western countries on serious mental disorders (psychosis, major depression, and antisocial personality disorders) in a general prison population. The 62 surveys from 12 countries include 22,790 prisoners (18,530 males and 4260 females). The results of the review indicated that 3.7% of men had psychotic illness, 10% major depression, and 65% a personality disorder, including 47% with antisocial personality disorder. Four percent (4%) of women had psychotic illness, 12% major depression, and 42% a personality disorder, including 21% with antisocial personality disorder. Prisoners were several times more likely to have psychosis and major depression than the general population (Fazel and Danesh, 2002).

2.1.2 Prevalence of Mental Disorders in Ethiopia

Although earlier studies done to estimate prevalence of mental disorders in developing countries were few, recent studies have consistently shown a prevalence rate as high as those of the developed. However, there is little information to be found about the prevalence of specific mental disorders in developing countries and Ethiopia is no exception (Rashid, 1993). Until recently, studies on the prevalence of psychiatric conditions in the country have been scarce. The few earlier studies were done mostly by foreigners. Most of these earlier studies were done using clinical samples from attendees of out-patient clinics. Two studies, one by Giel and Van Luijk (1968) and the other by Kortman (1985) reported on community surveys.

Giel and Van Luijk conducted few studies by using Kessel's methods, which is a four point classification of psychological disorders. They found a 18.5% prevalence in out patient attendants of a teaching hospital in Addis Ababa and a 19% prevalence in out-patient attendants of Bonga health center in South Western Ethiopia in 1967 (Solomon ,1989). Jacobson using the same method, found 18% prevalence of psychiatric morbidity in patients attending Nekemt hospital (Mulugeta, 1996). Using kessel's method of classification, Giel and Van Luijk found a prevalence rate of 8.6% in a community survey they did in Bonga town in 1968 (Mulugeta, 1996). Kortman carried out an urban community study in Addis Ababa and found a prevalence of 12% using the Self reporting Questionnaire (SRQ) in 1985 (Kortman,1988).

The late 80's and the 90's have shown changes in psychiatric research in the country. More Ethiopians have been involved in studying mental health problems locally. Also, these later researches are done using standard instruments sponsored by the World Health Organization (WHO) [SRQ], and the WHO and the US Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) [CIDI] to assess psychiatric conditions in different cultures and which are supposed to be consistent in picking out cases despite cultural variations amongst nations. The other difference between the earlier and later studies is that the later use community samples. In spite of using different methods, the results of the various studies showed closer figures of prevalence rates. Moreover, these results were also similar to findings in other parts of Africa and developing countries elsewhere (Harding et al, 1980; Joup et al, 1986).

Araya et al (1993), in summary of the studies done in Ethiopia, reported prevalence rates ranging from 18-27% in the out-patient departments at a rural hospital. They further analyzed records from 1986 to 1990, at two out-patient departments in Addis Ababa, Amanuel and St. Paul's hospitals and came up with the finding that the most prevalent diagnoses were psychoses (31.2%) and neurosis (51.1%) (Mulugeta, 1996).

A study conducted in1993 in an inner-city community in Addis Ababa by Rashid et al reported an aggregated prevalence of specific disorders of 13.1%, excluding organic brain syndrome and alcohol and substance use related disorders. In that study, the Amharic version of the Composite International Diagnostic Interview (CIDI) was used to estimate specific psychiatric morbidity. The following prevalence rates were reported: severe organic brain syndrome (4.4%), schizophrenia (0.2%), mood disorders (1.2%), alcohol dependence (1.0%), nicotine dependence (0.4%), phobic disorders (8.2%), dysthymia (3%), generalized anxiety disorder (1.8%) and somatoform pain disorder (2%) (Mulugeta,1996). Another study by Kebede et al (1994) was conducted in Addis Ababa to estimate the prevalence of mental distress using the Self Reporting Questionnaire (SRQ). In this study, a ct-off level of at least 6 out of 20 items was considered. They reported that 11.7% of the study population, (a representative sample of 10,203), was categorized as having mental distress (Kebede, et al, 1994). Using the same instrument, Alem et al conducted a cross-sectional survey on 10,468 rural and semi-urban adults in Ethiopian district to detect the prevalence of mental distress. Those experiencing 11 or more symptoms out of the 20 SRQ items were considered as having mental distress. Accordingly, the prevalence of mental distress was 17% (Alem et al, 1999).

Using the Amharic version of the CIDI, a survey was conducted by Kebede et al (1999) in Addis Ababa to estimate the life-time and point (1-month) prevalence of phobic anxiety, dissociative, other anxiety and somatoform disorders. In this study, it was reported that phobic anxiety disorders were found to be the most common of all anxiety disorders, with life-time prevalence of 4.8%. The life-time prevalence of dissociatvie disorders 0.8% and for other anxiety disorders it was 2.7%. The prevalence of somatoform disorders was 3.1%. Moreover, it was reported that the life-time prevalence for all the above neurotic and somatoform disorders was 10.8%. Point prevalence estimates (percent) for disorders were as follows: phobic anxiety disorders, 4.4; other

anxiety disorders, 1.2; dissociative disorders, 0.4; and somatoform disorders, 2.5 (Kebede et al, 1999).

Moreover, a community survey was conducted in Butajira, Southern Ethiopia, by Awas et al (1999) estimate the prevalence of specific mental disorders in the rural population according to the ICD-10 mental disorders using the translated Amharic version of the CIDI. It was reported that the weighted aggregate life-time prevalence of psychiatric morbidity was 31.8% (26.7% when substance abuse is not included). The most frequent specific diagnoses reported were: dissociative disorders (6.3%), mood disorders (6.2%), somatoform disorders (5.9%), and anxiety disorders (5.7%).

More recently, a study was conducted by Leekassa et al (2004) to estimate the prevalence of mental distress among people attending specialized Leprosy and Dermatology Hospital, ALERT, Addis Ababa, using the SRQ. The study population consisted of 786 people. Of these, 60% had leprosy and the remainder had other skin diseases. It was reported that 34.6% over all mental distress.

In summary, from what has been reported in studies done in the country and from worldwide statistics, the Ethiopian Public Health Association (EPHA) expert group in its report on Mental Health in Ethiopia (2006) conservatively estimated that 12% of Ethiopians suffer from mental disorders. That is, out of a population of 73 million, 8,760,000 currently have some sort of psychiatric disturbance. Of these 1,460,000 or 2% of the total population are suffering from the severest form of mental illness or psychosis whereas 7,300,000 or 10% are suffering from milder disorders or neurotic conditions. The average prevalence of mental disorders in Ethiopia is 15% for adults and 11% for children (WHO, 2007).

2.2 Diagnosing Mental Disorders

Mental disorders are identified and diagnosed using clinical methods that are similar to those used for physical disorders. Those methods include a careful and detailed collection of historical information from the individual and others, including the family; a systematic clinical

examination for mental status; and specialized tests and interventions, as needed. Advances have been made during recent decades in standardizing clinical assessment and improving the reliability of diagnosis. Structured interview schedules, uniform definition of symptoms and signs, and standardized diagnostic criteria have now made it possible to achieve a high degree of reliability and validity in the diagnosis of mental disorders. Structured interview schedules and diagnostic symptom/sign checklists allow mental health professionals to collect information using standard questions and pre-coded responses. The symptoms and signs have been defined in detail to allow for uniform application. Finally, diagnostic criteria for disorders have been standardized internationally. Mental disorders can now be diagnosed as reliably and accurately as most of the common physical disorders. Concordance between two experts in the diagnosis of mental disorders averages 0.7 to 0.9 (WHO, 2001).

2.2.1. The Diagnostic Criteria

Case definition: Case definition is the delineation of criteria for regarding an individual as suffering from mental disorder (Ward et al, 1962). Considering case definition, it is said that it has been the single largest source of variability in prevalence rates reported in psychiatric epidemiology studies as it is a function of contrasting concepts of what constitutes a "case" (WHO, 1960). To emphasize the problem Williams in 1980 had put it as "the question is not so much as he got it? as how much of it has he got ? ...psychiatry epidemiology faces an even more fundamental problem, namely deciding what "it is" (William et al, 1980) and this is largely a matter of a psychiatrist's opinion since there is no observable and measurable physical representation of mental illness (Birtchnell,1974).

The WHO expert committee suggested that "case be defined as a manifest disturbance of mental functioning specific enough in clinical character to be constantly recognizable as conforming to a clearly defined standard pattern and sever enough to cause loss of working or social capacity or both, to a degree which can be specified in terms of absence from work or the taking of legal or other social action" (WHO, 1960).

In a general response to this problem, two classifications which used explicit criteria were developed. The first is the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the second is the International Classification of Diseases (ICD).

2.2.1.1 The International Classification of Diseases, Tenth Revised Edition (ICD-10)

ICD-10 was endorsed by the forty-third World Health Assembly in May 1990 and came into use in WHO Member States as from 1994. The classification is the latest in a series which has its origins in the 1950s. The ICD has become the international standard diagnostic classification for general epidemiological and many health management purposes. These include the analysis of the general health situation of population groups and monitoring of the incidence and prevalence of diseases and other health problems in relation to other variables such as the characteristics and circumstances of the individuals affected (WHO, 1990).

2.2.1.2. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)

The Diagnostic and Statistical Manual of Mental Disorders (DSM) was first developed jointly by the American Psychiatrist Association and the United States Public Health Service in 1952 (APA, 1952) and is now in its fourth edition (APA,1994).

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard classification of mental disorders used by mental health professionals in the United States. It is intended to be applicable in a wide array of contexts and used by clinicians and researchers of many different orientations (e.g., biological, psychodynamic, cognitive, behavioral, interpersonal, family/systems). DSM-IV has been designed for use across settings, inpatient, outpatient, partial hospital, consultation-liaison, clinic, private practice, and primary care, and with community populations and by psychiatrists, psychologists, social workers, nurses, occupational and rehabilitation therapists, counselors, and other health and mental health professionals. It is also a necessary tool for collecting and communicating accurate public health statistics. The DSM consists of three major components: the diagnostic classification, the diagnostic criteria sets, and the descriptive text.

The diagnostic classification is the list of the mental disorders that are officially part of the DSM system. "Making a DSM diagnosis" consists of selecting those disorders from the classification

that best reflect the signs and symptoms that are afflicting the individual being evaluated. Associated with each diagnostic label is a diagnostic code, which is typically used by institutions and agencies for data collection and billing purposes. These diagnostic codes are derived from the coding system used by all health care professionals in the United States, known as the ICD-9-CM.

For each disorder included in the DSM, a set of diagnostic criteria that indicate what symptoms must be present (and for how long) in order to qualify for a diagnosis (called inclusion criteria) as well as those symptoms that must not be present (called exclusion criteria) in order for an individual to qualify for a particular diagnosis. Many users of the DSM find these diagnostic criteria particularly useful because they provide a compact encapsulated description of each disorder. Furthermore, use of diagnostic criteria has been shown to increase diagnostic reliability (i.e., likelihood that different users will assign the same diagnosis). However, it is important to remember that these criteria are meant to be used a guidelines to be informed by clinical judgment and are not meant to be used in a cookbook fashion.

Finally, the third component of the DSM is the descriptive text that accompanies each disorder. The text of DSM-IV systematically describes each disorder under the following headings: "Diagnostic Features"; "Subtypes and/or Specifiers"; "Recording Procedures"; "Associated Features and Disorders"; "Specific Culture, Age, and Gender Features"; "Prevalence"; "Course"; "Familial Pattern"; and "Differential Diagnosis."

DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition), published in 1994 was the last major revision of the DSM. The purpose of DSM-IV (Diagnostic and Statistical Manual for Mental Disorders, fourth revised edition) is to provide clear descriptions of diagnostic categories in order to enable clinicians and investigators to diagnose, communicate about, study, and treat people with various mental disorders. The specified diagnostic criteria for each mental disorder are offered as guidelines for making diagnosis, because it has been demonstrated that the use of such criteria enhances agreement among clinicians and investigators (APA, 1994).

2.2.2 Major DSM-IV Mental Disorders Covered in the Study

Mental and behavioral disorders present a varied and heterogeneous picture. Some disorders are mild while others are severe. Some last just a few weeks while others may last a lifetime. Some are not even discernible except by detailed scrutiny while others are impossible to hide even from a casual observer. The following section briefly describes the major mental disorders classified in the DSM-IV to provide background to the discussion of available interventions (in Chapter 3).

I. Schizophrenia

Schizophrenia is a severe disorder that typically begins in late adolescence or early adulthood. It is characterized by fundamental distortions in thinking and perception, and by inappropriate emotions. The disturbance involves the most basic functions that give the normal person a feeling of individuality, uniqueness and self-direction. Schizophrenia is a chronic, severe, and disabling brain disorder that affects about one percent of people all over the world.

Individuals with schizophrenia experience delusions and hallucinations. Delusions are beliefs that are clearly implausible but that are compelling and central to an individual's life experience. Persons with this disorder may be suspicious or paranoid in nature. For example, a patient may believe that he or she is a historical figure or that someone has placed a transmitter in his or her brain. Hallucinations are perceptions without an objective basis. They most commonly take the form of voices or, less frequently, visions, bodily sensations, tastes, or smells. The voices appear to originate from an external source. They tend to be highly personal and may direct the patient to do some act, sometimes commanding self-mutilation or other violent behavior.

Another prominent feature of schizophrenia is impairment of emotional responsiveness. There is a dulling of emotions or an inappropriateness of emotional response. Many individuals with schizophrenia exhibit a "wooden" personality, displaying traits of diminished drive, curiosity, or spontaneity. Schizophrenia may also lead to a disturbance of movement. Patients may grimace involuntarily, walk awkwardly, or suffer impairment of a broad range of subtle movements.

II. Mood (Affective) disorders

Affective disorders are disturbances of mood and include **depression**, **dysthymia** and **mania**. It is normal for a person's mood to fluctuate with 'highs' and 'lows'. When a high or low mood persists and affects functioning at home, work or socially then the person has a mood disorder.

Depressive disorder is a mood disturbance that is persistently and markedly low or sad, as compared to normal. It persists for at least two weeks, and affects the person's appetite, sleeping patterns, concentration, motivation, drive and energy levels.

Major Depression

A person who suffers from a major depressive disorder must either have a depressed mood or a loss of interest or pleasure in daily activities consistently for at **least a 2 week period**. This mood must represent a change from the person's normal mood; social, occupational, educational or other important functioning must also be negatively impaired by the change in mood. A depressed mood caused by substances (such as drugs, alcohol, medications) is not considered a major depressive disorder, nor is one which is caused by a general medical condition. Major depressive disorder cannot be diagnosed if a person has a history of manic, hypomanic, or mixed episodes (e.g., a bipolar disorder) or if the depressed mood is better accounted for by schizoaffective disorder and is not superimposed on schizophrenia, a delusion or psychotic disorder.

Dysthymic Disorder

Dysthymia is a longstanding lower grade mood disturbance than depression that has persisted for years. It is distinguished from depression by its long-term presence with relatively less severe disturbance in functioning. Dysthymic disorder is characterized by chronic depression, but with less severity than a major depression. The essential symptom for dysthymic disorder is an almost daily depressed mood for at least two years, but without the necessary criteria for a major depression. Low energy, sleep or appetite disturbances and low self-esteem are usually part of the clinical picture as well. The diagnostic criteria are as follows:

Manic Depressive episode

Mania is an elevated mood persisting for at least one week and can affect appetite, sleeping patterns, concentration, motivation, drive and energy levels in an opposite way to depression. It can occur alone or can alternate with low moods in patterns of extreme highs and lows and is often known as ***Manic Depression*** **or** ***Bipolar Disorder.*** Bipolar disorder causes dramatic mood swings from overly "high" and/or irritable to sad and hopeless, and then back again, often with periods of normal mood in between. Severe changes in energy and behavior go along with these changes in mood. The periods of highs and lows are called episodes of mania and depression.

III. Neurotic, stress-related and somatoform disorders

Neurotic disorders are a collection of psychiatric disorders without psychotic symptoms and lacking the intense psychopathology of, say, hypomania or major depression. Neurotic disorders are a major source of suffering to individuals, their families and to society.

Anxiety Disorders

Anxiety is a normal reaction to stress. It helps one deal with a tense situation in the office, study harder for an exam, and keep focused on an important speech. In general, it helps one cope. But when anxiety becomes an excessive, irrational dread of everyday situations, it has become a disabling disorder.

Five major types of anxiety disorders are:

- Generalized Anxiety Disorder (GAD)
- Obsessive-Compulsive Disorder (OCD)
- Panic Disorder
- Post-Traumatic Stress Disorder (PTSD)
- Phobic Anxiety Disorders

Generalized Anxiety Disorder (GAD): Generalized Anxiety Disorder, GAD, is an anxiety disorder characterized by chronic anxiety, exaggerated worry and tension, even when there is

little or nothing to provoke it. People with generalized anxiety disorder can't seem to shake their concerns. Their worries are accompanied by physical symptoms, especially fatigue, headaches, muscle tension, muscle aches, difficulty swallowing, trembling, twitching, irritability, sweating, and hot flashes.

The classical syndrome of generalized anxiety disorder involves both psychological and somatic symptoms (Rapee, 1991). Psychological symptoms include free-floating anxiety (i.e. anxiety not attached to any particular object or event) and a fearful preoccupation with the future. Somatic symptoms include tachycardia, palpitations, essential tremor, muscular tension, hypertension, dizziness, sweating, hyperventilation, and epigastric discomfort. Anxiety is often a presenting symptom of depressive illness, and it is sometimes difficult to disentangle the two.

Brief counseling and training in problem-solving techniques may enable general practitioners to help patients with GAD without resorting to anxiolytics and apparently without increasing demands on precious GP time (Catalan et al, 1984 & Andrews, 1991).

Obsessive-Compulsive Disorder (OCD): Obsessive-Compulsive Disorder, OCD, is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive behaviors (compulsions). Repetitive behaviors such as hand washing, counting, checking, or cleaning are often performed with the hope of preventing obsessive thoughts or making them go away. Performing these so-called "rituals," however, provides only temporary relief, and not performing them markedly increases anxiety.

Obsessional ideas are thoughts that come repeatedly into a person's mind, and which have some undesirable quality as far as that person is concerned. The ideas may be nonsensical, say, or violent or obscene; such as ideas about harming a baby in a new mother or swear words repeatedly coming into the mind of a priest. Obsessional ideas are sometimes called intrusive thoughts.

Patients may describe intrusive thoughts as being like a conversation in their head. The key points to distinguish these intrusive thoughts from hallucinatory voices are that they:

- lack the real quality of a voice
- are experienced inside the sufferer's head (i.e. not experienced in external space)
- are recognized as a product of the sufferer's own mind.

The intrusive thoughts are not delusional either because although the thoughts are often incorrect the patient may volunteer how absurd the thoughts are. In other words they have insight into the nonsensical nature of the ideas.

People with OCD may be plagued by persistent, unwelcome thoughts or images, or by the urgent need to engage in certain rituals. They may be obsessed with germs or dirt, and wash their hands over and over. They may be filled with doubt and feel the need to check things repeatedly.

Panic Disorder: Panic disorder is an anxiety disorder and is characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms that may include chest pain, heart palpitations, shortness of breath, dizziness, or abdominal distress/pain.

People with panic disorder have feelings of terror that strike suddenly and repeatedly with no warning. During a panic attack, most likely your heart will pound and you may feel sweaty, weak, faint, or dizzy. Your hands may tingle or feel numb, and you might feel flushed or chilled. You may have nausea, chest pain or smothering sensations, a sense of unreality, or fear of impending doom or loss of control (Beck et al, 1992).

Phobic Anxiety Disorders: Phobias involve persistent, unrealistic, intense anxiety and fear in response to specific external situations. People who have a phobia avoid situations that trigger their anxiety and fear, or they endure them with great distress. However, they recognize that their anxiety is excessive and therefore are aware that they have a problem.

Social phobia (social anxiety disorder) is characterized by significant anxiety induced by exposure to certain social or performance situations, often resulting in avoidance. These involve the fear of meeting people, or the fear of behaving in an out of the ordinary way in company. Whereas the agoraphobic is frightened of people in the mass, the social phobic is also often afraid of one-to-one interactions with others. Alcohol or benzodiazepines are often abused to reduce

anxiety ahead of the event. Anticipatory anxiety impairs performance in the feared situation leading to a cycle of reduced confidence and increased anxiety before the next meeting and so on.

People with social phobia have a persistent, intense, and chronic fear of being watched and judged by others and being embarrassed or humiliated by their own actions. Their fear may be so severe that it interferes with work or school, and other ordinary activities. Physical symptoms often accompany the intense anxiety of social phobia and include blushing, profuse sweating, trembling, nausea, and difficulty talking.

Agoraphobia is characterized by anxiety about or avoidance of being trapped in situations or places with no way to escape easily if anxiety or panic develops. Although agoraphobia literally means "fear of the marketplace," the term more specifically describes the fear of being trapped, often in a busy place filled with people, without a graceful and easy way to leave if anxiety becomes severe. Typical situations that are difficult for people with agoraphobia include standing in line at a bank or supermarket, sitting in the middle of a long row in a theater or classroom, and riding on a bus or airplane. Some people develop agoraphobia after experiencing a panic attack in one of these situations. Other people simply feel uncomfortable in these settings and may never, or only later, develop panic attacks. Agoraphobia often interferes with daily living, sometimes so drastically that it leaves the person housebound.

Specific Phobias are characterized by fear and avoidance of heights, closed spaces, insects, snakes, animals, still water in case of harm.

- Patients may avoid or restrict activities because of fear
- Anticipatory anxiety is severe

Dissociation (conversion) disorders

Imagine the mind has many layers of awareness. In clear consciousness we are aware of our surroundings and our inner thoughts usually at all levels. In dissociation disorders we might imagine that somehow the layers are not being integrated properly, so that there are discrepancies or dissociations between the thought activities at different levels. Some people speak of a 'splitting of the stream of consciousness'. An example of this dissociation might be that some

memories are strikingly unavailable to the conscious individual. Hypnotic or trance-like states and depersonalization episodes are other examples of dissociation. The lack of integration caused by dissociation may produce a number of related disorders..

Somatisation disorder

Not all patients have the ability to formulate psychological distress in psychological or emotional terms. They may present their inner conflicts and distress as physical symptoms. At a basic level this may be 'a way in' to discussing their problems with their doctor, but at another level the patient may be quite unable to accept a psychological basis for their illness at all.

In somatization disorder a patient may take their somatic symptoms from doctor to doctor in a vain attempt to find some test, investigation or cure that has not been offered elsewhere. Many negative investigations and therapies may have been tried by past doctors to no avail. Symptoms may involve any bodily system and may include gastric pain, belching, vomiting, nausea, itching, burning, tingling, numbness and fatigue amidst others.

IV. Eating Disorders

Eating disorders involve serious disturbances in eating behavior, such as extreme and unhealthy reduction of food intake or severe overeating, as well as feelings of distress or extreme concern about body shape or weight. Eating disorders are not due to a failure of will or behavior; rather, they are real, treatable medical illnesses in which certain maladaptive patterns of eating take on a life of their own. The main types of eating disorders are anorexia nervosa and bulimia nervosa. Eating disorders frequently develop during adolescence or early adulthood, but some reports indicate their onset can occur during childhood or later in adulthood (APA, 2000).

Eating disorders frequently co-occur with other psychiatric disorders such as depression, substance abuse, and anxiety disorders. In addition, people who suffer from eating disorders can experience a wide range of physical health complications, including serious heart conditions and kidney failure which may lead to death. Recognition of eating disorders as real and treatable diseases, therefore, is critically important (APA, 2000).

Females are much more likely than males to develop an eating disorder. Only an estimated 5 to 15 percent of people with anorexia or bulimia and an estimated 35 percent of those with binge-eating disorder are male (Andersen, 1995).

Anorexia Nervosa: People with this disorder see themselves as overweight even though they are dangerously thin. The process of eating becomes an obsession. Unusual eating habits develop, such as avoiding food and meals, picking out a few foods and eating these in small quantities, or carefully weighing and portioning food. People with anorexia may repeatedly check their body weight, and many engage in other techniques to control their weight, such as intense and compulsive exercise, or purging by means of vomiting and abuse of laxatives, enemas, and diuretics. Girls with anorexia often experience a delayed onset of their first menstrual period.

Bulimia Nervosa: Because purging or other compensatory behavior follows the binge-eating episodes, people with bulimia usually weigh within the normal range for their age and height. However, like individuals with anorexia, they may fear gaining weight, desire to lose weight, and feel intensely dissatisfied with their bodies. People with bulimia often perform the behaviors in secrecy, feeling disgusted and ashamed when they binge, yet relieved once they purge.

V. Sexual dysfunctions

Female Sexual Arousal Disorder: - Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement. The disturbance causes marked distress or interpersonal difficulty.

The sexual dysfunction is not better accounted for by another mental disorder (except another sexual dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Male Erectile Disorder:-Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate erection. The disturbance causes marked distress or interpersonal difficulty.

The erectile dysfunction is not better accounted for by another mental disorder (other than a sexual dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

2.3 Instruments to Estimate Prevalence of Mental Disorders

In psychiatric epidemiology unlike in other fields of epidemiology, identification of cases to estimate prevalence is mainly dependent on interview and observation (Tsuang et al, 1980). There has been diverse use of the techniques of interviewing by different investigators throughout the world. The earlier studies prior to the Second World War (studies known as the first generation of epidemiological studies) made use of records and key informants as a technique to define "case" (Bruce and Barbara, 1982). In the following period, (called the second generation studies) after World War Second, the studies utilized greatly expanded nomenclature and were based for the most part on personal interviews by psychiatrists or groups headed by psychiatrists (Bruce and Barbara,1982). The key methodological problems those studies faced were how to conceptualize and measure mental disorders in communities. The different concepts and methods used by different investigators in the first and second generation studies led to prevalence estimation of mental disorders that ranged from under one percent in some studies to fifty percent and more in others(Bruce and Barbara,1982).

Following the two generations of epidemiological studies, there have been new and promising developments in case identification. The most important of these is the attempt that has been made to formulate comparable methods of case identification and in achieving higher level of inter-rater reliability by asking each respondent the same question, in the same order using standard interview schedules (Goldberg, 1972). These interviews were diverse in their purpose (screening/diagnostic),diagnostic criteria they use, time period they cover in making diagnosis, reliability in cross-cultural use, type of personnel required for administration, type of subjects to whom they suit(psychiatric patient/population survey), and whether they provide an input for computer diagnostic program(Endicott and Spitzer, 1978).

These interviews include the General Health Questionnaire (GHQ), the Present State Examination(PSE), the Schedule for Affective Disorder and Schizophrenia(SADS), the Iowa Structured Psychiatric Interview(ISPI), the Self Reporting Questionnaire(SRQ),the Renard diagnostic Interview(RDI), the Diagnostic Interview Schedule(DIS) and the latest of the, the Composite International Diagnostic Interview(CIDI) (Robins et al,1988). Of these interviews, DIS and CIDI are of valuable importance in epidemiological studies of specific psychiatric disorders because of their superiority over the others: (1) can be used for both life time and current prevalence estimation (2) make diagnosis according to the commonly used DSM classifications and (3) can be administered by a lay interviewers (Robins et al, 1981; Robins et al, 1988).

2.3.1. The Diagnostic Interview Schedule (DIS)

The Diagnostic Interview Schedule (DIS) is a fully structured interview which can be administered by lay person after two weeks of training. It makes diagnosis according to three diagnostic systems namely the DSM-IV-R, Feighner criteria and the Research Diagnostic Criteria. It can be administered in 45-75 minutes. The results of the interview are analyzed by means of a computer program prepared for this purpose (Robins et al, 1981).

The instrument had been used in epidemiological studies around the world, the most prominent one of which is the National Institute of Mental Health Epidemiological Catchments Aria Program (ECA) (Roger et al, 1984).

2.3.2. The Self Reporting Questionnaire (SRQ)

The self Reporting questionnaire (SRQ) is a screening instrument for the detection of psychiatric morbidity. It was originally designed by WHO collaborative studies for extending mental health care, as a research instrument in a two-stage case detecting procedure (Harding et al, 1980). The questionnaire comprises 24 short questions which allow respondents from different cultures to report the presence or absence of clearly defined symptoms by a simple 'yes' or 'no' answer (Kortman and Horn,1988).

A respondent is considered to be a potential psychiatric patient : if the total number of 'yes' answers to the first 20 questions (non-psychiatric items) reaches or surpasses a fixed value (cut-off point); if at least 'one' yes answer is given for the last four questions (psychotic items) or if both criteria are mate. The SRQ is designed to give an estimation of illness. Still the patient's psychiatric status has to be confirmed by a more extensive psychiatric interview (Kortman and Horn, 1988).

2.3.3. The Composite International Diagnostic Interview (CIDI)

The CIDI (Composite International Diagnostic Interview) is a fully structured psychiatric interview, assessing mental disorders according to the definitions and criteria of the Diagnostic and Statistical Manual (DSM) and International Classification of Diseases (ICD). It is used to determine whether or not a person is likely to suffer from a mental disorder. The development of CIDI is a component of a collaborative project between WHO and the United States Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) (Robins et al, 1991). The CIDI core version 1.0 (WHO,1990),which is used in this study ,is developed by combining the two most widely used instruments in psychiatric epidemiologic research, the Diagnostic Interview Schedule (DIS) and the Present State Examination (PSE) (Robins et al,1988).

The CIDI has been designed for use in a variety of cultures and settings. Although it is primarily intended for use in epidemiological studies of mental disorders, the CIDI can also be used for clinical and research purposes (Robins et al, 1988). The Composite International Diagnostic Interview (CIDI) is a comprehensive, fully-structured psychiatric diagnostic interview designed to be used by trained non clinician interviewers to diagnose more than 40 mental disorders among people from different cultures according to the definitions and criteria of both the International Classification of Diseases, 10th edition (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) diagnostic systems. The CIDI is available in lifetime and 12-month versions, and in both paper and pencil and computer-administered forms. The latter version is suitable for self-administration by cooperative subjects. During a CIDI interview, respondents are asked closed-ended questions about symptoms of psychiatric disorders. Positive responses to some of the symptom questions are followed by questions from

the Probe Flow Chart that determines whether the symptom is a possible psychiatric symptom (that is, it is clinically significant and is not due to medication, drugs or alcohol or to a physical illness or injury). Negative responses to symptom questions will often lead to later questions being skipped. If enough symptoms have been endorsed, and these symptoms occur in a pattern that suggests a diagnosis might be present, respondents are asked about the onset and the recency of the particular cluster of symptoms that they have endorsed (Anne et al, 1992).

The CIDI was tested and found reliable and acceptable at different settings around the world. It also surpassed DIS by enabling the comparability between transatlantic diagnostic system (DSM vs. ICD) possible (Robins et al, 1988).

The feasibility, reliability, and acceptance of the Amharic version of the CIDI (Composite International Diagnostic Interview) were tested in Addis Ababa city by Rashid using clinician and non-clinician interviewers. A total of 64 subjects from three different sources (community, psychiatric inpatient and outpatient) were interviewed. The CIDI was judged to be acceptable by most clinician and non-clinician interviewers. For specific diagnoses made with frequency of five or more time, Percent agreement and Kappa ranged from 92.5%-100% and 0.78 -0.92, respectively. It was reported that the instrument is reliable as confirmed by the statistical level of agreement of high Kappa and Percent agreement levels between clinician and non-clinician interviewers for all diagnoses (Rashid, 1993).

The CIDI interview can be administered by interviewers with no clinical background trained for five days. The average administration time is about 75 minutes. After completion interviews have to be edited for completeness and accuracy by an editor with a medical background or access to a physician to consult (WHO, 1990). Data entry is made using the CIDI data entry program and this has to be followed by computer editing and consistency check before applying the diagnostic program to it (WHO, 1990). Scoring can be done manually or by using the computerized version of the CIDI, known as CIDI-Auto which is an SPSS-based program.

2.4 Determinants of Mental Disorders

2.4.1 Determinants in Community and Hospitals

Practical systematic studies have been investigated the determinants of mental disorders both in the developed and developed countries, though most of the published research comes from the developed countries.

In Europe, a community survey was conducted by Alonso, et al on the prevalence and correlates of mood, anxiety and alcohol disorders in six countries (Belgium, France, Germany, Italy, Netherlands and Spain) using a revised version of the CIDI. It was reported that women twice as likely to suffer 12-month mood and anxiety disorders as men, while men were more likely to suffer alcohol abuse disorders. Mental disorders were frequent, more common in female, unemployed, disabled persons, or persons who were never married or previously married (Alonso et al, 2004).

A community psychiatric survey by Abou-Salah et al in the United Arab Emirates using the Self Reporting Questionnaire (SRQ) and the CIDI has revealed that mood disorders and anxiety (neurotic) disorders were more common in women and alcohol and substance use disorders were exclusively confined to men. In this study, the multivariate analysis revealed that age, sex, exposure to chronic difficulties and past history of psychiatric treatment were the most significant predictors of ICD-10 psychiatric disorders, and exposure to chronic difficulties, past history of psychiatric treatment, and educational attainment were the significant predictors of life time ever and current mental disorder (Abou-Salah et al, 2001).

Another cross-sectional community survey by Rojas et al on common mental disorders in Santiago, Chile using the Clinical Interview Schedule-Revised (CIS-R) based on the criteria for ICD-10 diagnosis revealed that low education, female gender, unemployment, separation, low social status and lone parenthood were associated with a higher prevalence(Araya et al,2001).

To identify differences among populations and factors contributing to poor mental health, CDC examined the prevalence of frequent mental disorders (FMD) among U.S. adults by race/ethnicity, socioeconomic status, and sex, by using aggregate data from Behavioral Risk Factors Surveillance System (BRFSS) surveys for 1993-2001. The report described the results of that analysis, which indicated that the prevalence of frequent mental disorders varied among racial/ethnic populations and increased substantially among whites and blacks. In addition, frequent mental disorders were reported by women and by persons with low socioeconomic status within each racial/ethnic population (Zaharan et al, 2004).

In Ethiopia, Giel et al in a small town (Bonga) in1969 found significantly more psychiatric illness among those around the age of 40 (Solomon,1989). To describe the socio-demographic correlates of bipolar disorders in Butajira, Kebede et al conducted a door-to-door survey of a predominantly rural population of close to 70,000 individuals by using the SCAN and clinical assessment. They reported that males had 80% higher risk of bipolar disorders than females. They also reported that those aged 25-34 years had 45% higher risk than those aged fewer than 25. Area of residence and educational level were not associated with the disorder (Kebede et al, 2005).

Kebede et al also conducted another study to estimate the prevalence of mental disorders in Addis Ababa using the Self Reporting Questionnaire (SRQ) (a representative sample of 10,203 selected from the entire city by a cluster sampling method) and examined the risk factors of sex, age, educational attainment, employment, family history of mental illness, marital status, ethnicity and religion. They reported that there was a statistically significant trend of increasing risk with increasing age. There was also a significant trend of reduced risk with increasing educational attainment. Employment was also inversely associated with risk. Family history of mental illness was positively associated with risk. Marital status, ethnicity and religion were not significantly associated with risk of mental disorder (Kebede et al, 1994).

Another study by Awas et al on the life time and point (one-month) prevalence and correlates of specific ICD-10 mental disorders in Butajira using the Amharic version of CIDI-10 revealed that female sex was shown to have statistically significant association with mood disorders and

somatoform disorders. Sever cognitive and mood disorders were significantly associated with being elderly, i. e. 60 or more years of age. Chat dependence was associated with being Muslim and with earning low income (Awas et al, 1999).

Epidemiologic studies of prevalence rates of patients in mental hospitals in the United States in 1950 examined the risk factors of marital status and age. They reported that point prevalence for widowed persons was substantially higher than for the other marital status group (Belayneh, 1995). Similarly, Jacobson in 1985 found that in a general Western Ethiopia hospital, married people had the lowest frequency of psychiatric morbidity and divorced women the highest. In his study there was a tendency for women to display more psychiatric morbidity than men (Solomon, 1989).

A study by Leekassa et al on the prevalence of mental disorders in the outpatient clinic of a specialized leprosy hospital, Addis Ababa, using the SRQ revealed that physical disability was also strongly associated with mental distress. The study showed that the 1-month prevalence of mental distress was significantly higher in patients with leprosy compared to patients with other dermatological conditions (Leekassa et al, 2004).

In summary, according to this review of literature, age, gender, marital status, educational attainment, employment, socio-economic status, family history of mental illness, past history of psychiatric treatment, exposure to chronic difficulties, ethnicity, and physical disability were found to be determinants of mental disorders in the community, hospitals and outpatient clinics.

2.4.2 Determinants of Mental Disorders in Prisons

Mental health problems are not distributed randomly among prison inmates. Systematic differences exist depending on important socio-demographic factors. Socio-demographic items: age, gender, marital status, educational level, the nature of offence committed by a prisoner, previous sentence and duration of incarceration (length of stay in prison) are included in most inmate studies (Lindquist and Lindquist, 1997). Empirical research findings on the correlates of mental disorders to these socio-demographic factors are revised under.

Gender

Gender is an important factor which influences the degree to which stressors are perceived and experienced in penal institutions. The few studies conducted on female inmates have found that stressors confronting women include many similar to those faced by men, such as loss of freedom, lack of opportunity for heterosexual activities, loss of support from family and friends, depersonalizing experiences, loss of autonomy, and lack of privacy and security. However, female inmates face serious sources of stress unique to their role as mothers: separation from their children. In fact, the majority of women in prisons are not only mothers, but they are also single heads of household (Lindquist and Lindquist, 1997).

It has been found that women prisoners are more likely to have histories of psychiatric treatment and are more disposed to self-injury than men (Adams, 1992). Separation from children has been shown to be one of the most stressful conditions of incarceration for women and is associated with feelings of guilt, anxiety, and fear of loosing mother-child attachment (Lindquist and Lindquist, 1997).

Other research on gender differences and stressors found that women report more environmental stressors. Paulus and Dzindolet (1993), in one of the few studies comparing male and female inmates, found that females rated their housing more negatively than did males. I addition, women were more bothered by the stressors of prison life and rated the physical problems of prison more negatively than males (Paulus and Dzindolet, 1993).

Butler et al (2005), in their study to determine the prevalence of mental disorders among prisoners in New South Wales, Australia, reported that women had higher levels of psychiatric morbidity than men (61% vs.39%) (Butler et al, 2005). A systematic review of 62 surveys from 12 Western countries on serious mental disorders in general prison population by Fazel and Danesh indicated that women had higher levels of psychiatric illness and major depression (psychotic illness; 4% females,3.7% males; major depression; 12% females, 10% males) (Fazel and Danesh,2002).

Age

The age of an inmate also appears to determine mental health. Although the general pattern is that mental distress decreases with age, after the age of 45 the pattern reverses, with the lowest level of mental distress found among those aged 80 and older (Adams, 1992). Younger inmates aged 25 or below, are initially more resistant to the prison structure which makes them more likely to be the targets of victimization in comparison to older inmates who assume passive avoidance roles in prison hence, increasing psychological effects imprisonment. However, it has been suggested that after the initial shock of imprisonment, younger inmates tend to demonstrate increasing levels of conformity over time (Paulus and Dzindolet, 1993).

Marital Status

Marital status is also consistently related to mental disorders. Studies have shown that married prisoners experience lower level of mental disorders. Adams (1992), in his study on adjustment to prison life, reported that inmates who require mental health assistance are more likely to be unmarried and to be living alone around the time of the offense for which they are incarcerated (Adams,1992). Lone parenthood is associated with higher prevalence of common mental disorders (Araya et al, 2001). Opposite to these findings is the one reported by Lindquist. The study explored the impact of social integration (both inside and outside of the prison) on mental well-being among 198 male and female inmates. It was reported that, specifically, married inmates reported higher levels of depression and anxiety (Lindquist, 2000).

Duration of Imprisonment

A number of studies find that inmate emotional problems are more inclined to surface in the early stages of incarceration. The findings are very consistent and have been replicated for psychiatric hospitalization, self-injury, symptom rates, and stress levels (Adams, 1992). A study of Swiss prisoners found a significant drop in symptomatology and cognitive stress levels over the first two months of imprisonment (Harding and Zimmermann, 1989). Likewise, Gunn et al (1978) reported that rates of anxiety and depression among British prisoners are highest during the beginning phase of imprisonment, declining significantly within six months of prison entry.

Similar patterns have been observed in studies of jail settings, Gibbs (1987), after interviewing 339 newly arrived jail inmates , found higher rates of psychopathology during the first three days of confinement when compared to retrospective accounts of symptoms on the street. He also found that symptom rates declined over the next five days, although the drop was less substantial for inmates with a history of psychiatric hospitalization (Gibbs, 1987).

While depression is a widespread problem among offenders, longitudinal cohort analyses show that the incidence of depression declines over the course of the prison term. Zamble and Porporino (1988) found that 37% of the inmates they studied showed signs of serious depression around the times prison entry, with 29% classified as moderately depressed and 85% as severely depressed (Zamble and Porporino, 1988). The findings indicate that prison entry makes a critical period of adjustment, and this information allows us to channel resources into periods when inmate problems are greatest. Also, it is encouraging to find that for a majority of inmates their adjustment difficulties are relatively short-lived and that many turbulent situations eventually pass into quiescence (Adams, 1992).

Nature of the Offense Committed

The nature of the offense committed by a prisoner can either add to an inmate's psychological state or decreases it. The reason being that typically in prisons, there exists a social hierarchy which is determined by the type of crimes that a prisoner has committed. For instance, offenders who have been convicted for their robbery's or theft are considered to be at the top of the hierarchy, particularly if the crimes committed required a lot of skill. Whereas, at the other extreme, offenders convicted of rape, murder, and assault are placed at the bottom of the hierarchy and are looked down upon and harassed by their fellow inmates due to the nature of the crime that they committed (Lindquist, 2000). Compared to other inmates, those who require psychiatric hospitalization are more likely to stand convicted of rape, murder, and assault (Adams, 1992).

2.5. Summary of the Related Literature Review

From the above review of previous research findings, it can be concluded that the following points could be important in line of the purpose of this study.

Mental health problems exist world-wide and are increasing both in the developed and developing countries. Today, as a result of lack of access to any kind of effective mental care, over 450 million people are estimated to be suffering from mental disorders in the world (Leekassa et al, 2004).

Numerous studies have been conducted in the world by different researchers to estimate prevalence of mental disorders in community, hospitals and prisons. Prevalence of mental disorders refers to the number of individuals in a statistical population that at a given point in time (point prevalence) or over a period of time (period prevalence) experienced mental disorder(s). Prevalence data provide an indication of a condition and may have implications to the provision of services needed in a community or institution (Friis and Seller, 1999).

Mental disorders are identified and diagnosed using methods that are similar to those used for physical disorders. These methods include a careful and detailed collection of historical information from the individual and others, including the family; a systematic examination for mental status; and specialized tests and interventions, as needed. Advances have been made during recent decades in standardizing clinical assessment and improving the reliability of diagnosis. Structured interview schedules, uniform definition of symptoms and signs, and standardized diagnostic criteria have now made it possible to achieve a high degree of reliability and validity in the diagnosis of mental disorders. Structured interview schedules and diagnostic symptom/sign checklists allow mental health professionals to collect information using standard questions and pre-coded responses. The symptoms and signs have been defined in detail to allow for uniform application. Finally, diagnostic criteria for disorders have been standardized internationally. Mental disorders can now be diagnosed as reliably and accurately as most of the common physical disorders (WHO, 2001).

Two classifications of mental disorders which used explicit criteria were developed. The first is the Diagnostic and Statistical Manual of mental Disorders (DSM) and the second is the International Classification of Diseases (ICD). The DSM is now in its fourth revised edition and is the standard classification of mental disorders used by mental health professionals. DSM-IV has been designed for use across settings, inpatient, outpatient, partial hospital, consultation-liaison, clinic, private practice, and primary care, and with community populations and by psychiatrists, psychologists, social workers, nurses, occupational and rehabilitation therapists, counselors, and other health and mental health professionals (WHO, 1990). Major DSM-IV disorders covered in this study are explained in the literature review.

Identification of cases to estimate prevalence of mental disorders is mainly dependent on interview and observation (Tsuang et al, 1980). These interviews include the General Health Questionnaire (GHQ), the Present State Examination(PSE), the Schedule for Affective Disorder and Schizophrenia(SADS), the Iowa Structured Psychiatric Interview(ISPI), the Self Reporting Questionnaire(SRQ),the Renard diagnostic Interview(RDI), the Diagnostic Interview Schedule(DIS) and the latest of the, the Composite International Diagnostic Interview(CIDI) (Robins et al,1988). Of these interviews, DIS and CIDI are of valuable importance in epidemiological studies of specific psychiatric disorders because of their superiority over the others: (1) can be used for both life time and current prevalence estimation (2) make diagnosis according to the commonly used DSM classifications and (3) can be administered by lay interviewers (Robins et al, 1981; Robins et al, 1988).

The Composite International Diagnostic Interview (CIDI) is a comprehensive, fully-structured diagnostic interview designed to be used by trained non clinician interviewers to diagnose more than 40 mental disorders among people from different cultures according to the definitions and criteria of both the International Classification of Diseases, 10th edition (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) diagnostic systems. The CIDI is available in lifetime and 12-month versions. The CIDI was tested and found reliable and acceptable at different settings around the world. It also surpassed DIS by enabling the comparability between transatlantic diagnostic system (DSM vs. ICD) possible (Robins et al, 1988).

The feasibility, reliability, and acceptance of the Amharic version of the CIDI (Composite International Diagnostic Interview) were tested in Addis Ababa city by Rashid using clinician and non-clinician interviewers. A total of 64 subjects from three different sources (community, psychiatric inpatient and outpatient) were interviewed. The CIDI was judged to be acceptable by most clinician and non-clinician interviewers. For specific diagnoses made with frequency of five or more time, Percent agreement and Kappa ranged from 92.5%-100% and 0.78 -0.92, respectively. It was reported that the instrument is reliable as confirmed by the statistical level of agreement of high Kappa and Percent agreement levels between clinician and non-clinician interviewers for all diagnoses (Rashid, 1993).

All over the world, a number of studies have been conducted to estimate the prevalence of mental disorders using different instruments and different diagnostic criteria. Most of these studies were community while others were done in hospitals and prisons. The results of these studies indicated that mental disorders are alarmingly increasing both in developed and developing countries. Although earlier studies done to estimate prevalence of mental disorders in developing countries were few, recent studies have consistently shown a prevalence rate as high as those of the developed.

Research findings from different countries indicated that mental disorders are especially prevalent in prison population. The prevalence of serious personality disorders, drug and alcohol dependence, suicidal and self-harming behavior and all forms of mental disorders (both psychotic and neurotic) are alarmingly much higher in prisons than in the general population (WHO, 2006). Many of the disorders may be present before admission to prison, and may be further exacerbated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a consequence of prevailing conditions and also possibly due to torture or other human rights violations (WHO, 2001).

Several factors that have negative effects on mental health in many prisons have been identified by researchers. These factors include: overcrowding, various forms of violence, enforced solitude or conversely, lack of privacy, lack of meaningful activity, isolation from social networks,

insecurity about future prospects (work, relationships, etc), and inadequate health services, especially mental health services, in prisons.

Previous research findings indicated that mental disorders are not distributed randomly among individuals in a population. Systematic differences exist depending on important factors. According to this review of literature, age, gender, marital status, educational attainment, employment, socio-economic status, family history of mental illness, past history of psychiatric treatment, exposure to chronic difficulties, ethnicity, and physical disability were found to be determinants of mental disorders in the community, hospitals and outpatient clinics. Moreover, prevalence of mental disorders in a prison population can be determined by socio-demographic factors and the criminal history of inmates. These include: age, gender, marital status, educational level, the nature of offence committed by a prisoner, previous sentence and duration of incarceration (length of stay in prison) are included in most inmate studies (Lindquist and Lindquist, 1997; Paulus, 1993; Fazel and Danesh, 2002; Adams, 1992; Lindquist, 2000).

In Ethiopia, most of most of the previous studies on the prevalence of mental disorders were community based surveys which attempted to determine the prevalence of mental disorders in the general population. There was also small number of studies on the magnitude of mental disorders in hospitals. These studies indicated that the determinants of mental disorders in the community and hospitals were similar to international findings. From what has been reported in studies done in the country and from worldwide statistics, the Ethiopian Public Health Association (EPHA) expert group in its report on Mental Health in Ethiopia conservatively estimated that 12% of Ethiopians suffer from mental disorders. Moreover, according to the WHO's report (2001), the average prevalence of mental disorders in Ethiopia is 15% for adults and 11% for children. However, no study to date has been reported from Ethiopia to estimate prevalence of mental disorders in prison population.

CHAPTER THREE

Methods

The procedure of selecting subjects, the measuring instrument, and the methods of data collection and analysis are presented in this section.

3.1 Study Design, Setting and Ethics

This was a cross-sectional quantitative study exploring the prevalence of mental disorders and associations with certain socio-demographic factors in a prison population using the Composite International Diagnostic Interview (CIDI). Data were collected between March 1, 2007 and March 22, 2007 from a prison found in Debremarkos town, Amhara region, which housed 520 (48 female and 472 male) inmates in mid- January, 2007. All participants were informed that the study was confidential and anonymous and that participation was voluntary.

3.2 Source of Data

Primary data sources were used for the study. Primary data were obtained through face-to-face interview with sample prisoners.

3.3 Population and Sampling

3.3.1 Population

The latest statistics on the prison population which was used in designing the sample for the study were those for the mid of January 2007, which showed an overall prison population of 520 (472 males and 48 females).

3.3.2 Determining the Required Sample Size

The required sample size was determined by taking 20% of the population, recommended by Huck (2004). Hence, the required sample size was 104 (i.e. 520×0.20=104).

3.3.3. Sampling Technique

As a result of previous studies in other countries in the world, it was expected that the prevalence rate for many mental disorders would show considerable variation between males and females. Hence, a requirement of the study was to provide separate prevalence estimates for these groups. To achieve this and allow meaningful comparison between the groups, it was necessary to have a similar number of subjects from each of the groups. The number of females was very small compared to the number of males. Thus, all the female inmates (48) were purposively taken as a sample. The rest 56 male prisoners were selected using systematic random sampling technique.

3.4. Variables

3.4.1 Dependent variables

The dependent variables are mental disorders which are included in the Composite International Diagnostic Interview. These include: major depression, dysthymic disorder/recurrent depressive episode, manic depressive/bipolar disorder, anxiety disorders, phobic disorders, dissociative amnesia, somatoform disorders, schizophrenia, eating disorders, sexual disorders, alcohol dependence, and tobacco dependence.

3.4.2 Independent variables

The independent variables are certain selected socio-demographic variables and criminal histories of prisoners. These include: sex, age (four levels), marital status (four levels), level of education (four levels), length of time served in prison in years (four levels), type of offence (four levels), and previous prison sentence (three levels).

3.5 Instruments of Data Collection

1. The Composite International Diagnostic Interview (CIDI)

The Amharic version of the Composite International Diagnostic Interview (CIDI) Core 1.0 lifetime version was used in this study for the assessment of mental disorders according to the definitions and criteria of DSM-IV (Diagnostic and Statistical Manual for Mental Disorders

Fourth Edition). The CIDI is used to determine whether or not a person is likely to suffer from a mental disorder. The development of CIDI is a component of a collaborative project between WHO and the United States Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) (Robins et al, 1991). The CIDI core version 1.0 (WHO, 1990), which is used in this study, contains closed-ended questions about symptoms of mental disorders whether or not subjects have encountered such symptoms at some point in their life up to assessment.

The CIDI instrument used for this study was obtained from the Department of Community Health, Faculty of Medicine, Addis Ababa University with permission. The instrument was first purchased from the University of Washington, Seattle Washington. The CIDI English was translated into Amharic by mental health professionals whose first language is Amharic (Mulugeta, 1996).

Symptoms of mental disorders were based on criteria specified in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) to allocate the subject to one or more DSM-IV categories or to a category of diagnosis absent. The diagnostic classification is the list of the mental disorders that are officially part of the DSM system. "Making a DSM diagnosis" consists of selecting those disorders from the classification that best reflect the signs and symptoms that are afflicting the individual being evaluated. The diagnostic criteria indicate what symptoms must be present (and for how long) in order to qualify for a diagnosis (called inclusion criteria) as well as those symptoms that must not be present (called exclusion criteria) in order for an individual to qualify for a particular diagnosis (APA, 1994).

Standardization of the CIDI

The CIDI was tested and found reliable and acceptable at different settings around the world (Robins et al, 1988). The feasibility, reliability, and acceptance of the Amharic version of the CIDI (Composite International Diagnostic Interview) were tested in Addis Ababa city by Eskindir Rashid using clinician and non-clinician interviewers. A total of 64 subjects from three different sources (community, psychiatric inpatient and outpatient) were interviewed. The CIDI was judged to be acceptable by most clinician and non-clinician interviewers. For specific diagnoses made with frequency of five or more time, Percent agreement and Kappa ranged from

92.5%-100% and 0.78 -0.92, respectively. It was reported that the instrument is reliable as confirmed by the statistical level of agreement of high Kappa and Percent agreement levels between clinician and non-clinician interviewers for all diagnoses (Eskindir, 1993). For the purpose of this study, items related to the criminological history of inmates were added to the demographic questions.

2. Interview Presented to the Prison Administration Officer

Although it was not the major purpose of this study, an attempt was made to assess the availability of professional mental health treatment services in the prison. To do so, a structured interview was prepared and presented to the prison administration officer (See appendix).

3.6 Data Collection Procedure

The CIDI was administered by third year nursing students recruited from a private health college in Debremarkos town. Ten interviewers (6 males and 4 females) were recruited to serve as interviewers using a number of criteria believed to be relevant for CIDI interview (WHO, 1990). These criteria were:

1. Ability to read the language (Amharic) smoothly and conversely.
2. Good clerical skills needed for accurate coding and legible entry of responses.
3. Empathy and skill at listening carefully to determine whether questions were correctly understood, and
4. Willingness to follow instructions precisely.

Information was collected by a face-to-face interview with inmates after obtaining informed consent and interview was conducted in private. The average administration time was about 55 minutes. After completion, interviews were edited for completeness and accuracy.

3.7 Data Analysis

Data collected through the Composite International Diagnostic Interview (CIDI) were coded and entered to the computer for analysis. Data analysis was done using Statistical Package for the

Social Sciences, SPSS version 12.0. The specific methods of data analysis involved were the following:

1. To summarize the raw data, to express proportions of certain socio-demographic characteristics, and to examine the prevalence of mental disorders, descriptive statistics such as means, frequency, and percentages were employed.
2. One-way ANOVA, pair wise comparisons (Scheffe's multiple comparisons) and Independent-Samples T-Test were used to explain the contribution of independent variables to the dependent variables.

CHAPTER FOUR

Results

In this chapter, the data obtained using the Composite International Diagnostic Interview (CIDI) was analyzed, presented in tables and interpreted. Since the CIDI measures lifetime prevalence rates of mental disorders, all prevalence rates presented in this study are lifetime. During a CIDI interview, respondents were asked closed-ended questions about symptoms of mental disorders to determine whether or not respondents have encountered such symptoms at some point in their life up to assessment. Hence, prevalence estimates were computed as: the total number of cases in the sample population divided by the total sample.

Attempts were made to describe demographic information of the study subjects, estimate overall prevalence of mental disorders, estimate the prevalence rates of specific mental disorders and indicate their rank order, examine the association of specific mental disorders with some socio-demographic factors and criminal history of inmates, and assess the extent of availability of mental health treatment services in the prison.

4.1. Demographic and Criminological Characteristics

Table 1: Demographic and Criminological Characteristics of the Sample, Prisoners at Debremarkos Town, Amhara Region, 2007.

Characteristic		Number	(percent)
Sex:	Male	56	(51.9)
	Female	48	(44.8)
Age :	19-24	39	(36.1)
	25-44	31	(28.7)
	45-55	28	(24.1)
	> 55	8	(7.4)
Marital status:	Married	64	(59.3)
	Single	18	(16.7)
	Divorced/separated	8	(7.4)
	Widowed	14	(13.0)
Education:	No formal education	25	(23.1)
	1-6 grades	38	(35.2)
	7-11 grades	19	(17.6)
	12 grade and above	22	(20.4)
Time served in prison (years)			
	< 1	38	(35.2)
	1-5	42	(38.9)
	6-11	14	(13.5)
	12-17	10	(9.6)
Type of offence:	Assault	32	(29.6)
	Murder	44	(40.7)
	Abduction & rape	19	(17.6)
	Armed robbery	9	(8.3)
Previous prison sentence			
	None	61	(56.5)
	Once	24	(22.2)
	Twice and above	19	(17.6)

A total of 104 sentenced prisoners aged 19-59 were interviewed using the Amharic version of the CIDI 2.0 lifetime version. Descriptive analysis was carried out for all the demographic variables collected. Table one, above, sets out the socio-demographic and criminological characteristics of the sample. Fifty-six (51.9%) were males and 48 (44.4%) were females. With respect to marital status 64 (59.3%) were married, 14(13%) widowed, 8(7.4%) divorced/separated and 18(16.7%) were single (never married). As for education, 25 (23.1%) had no formal education, 38 (35.2%)

had primary (grade 1-6) level education, 19 (17.6%) had 7-11 grade level education and the rest 22 (20.4%) were12 grade complete.

4.2 Prevalence Estimates of Mental Disorders

Descriptive analyses were carried out for all the specific mental disorders that resulted from the CIDI. Table 2, below, shows the observed CIDI prevalence of specific mental disorders. Overall, 46.6% of subjects were found to have had any DSM-IV diagnosis, including substance dependence. When rates for substance dependence were excluded, the prevalence of mental disorders was 41.9%. The overall prevalence estimate of any mental disorder was greater among females than males (60.1% vs. 37.9%). Except for tobacco dependence (5.3%) and somatoform disorders (3.5%) where males were frequently affected, other disorders were predominantly seen among female.

Table 2: Life-time DSM-IV Prevalence Estimates of Mental disorders by Gender Obtained using the Amharic Version of CIDI, Prisoners at Debremarkos, Amhara Region, 2007.

DSM-IV Diagnoses	Total (n=104)	Male (n =56)		Female (n =48)	
	N (%)	Frequency	%	Frequency	%
Any DSM-IV Diagnosis (with No substance dependence)	45 (41.9)	17	30.8	28	58.1
Any DSM-IV diagnosis	**50 (46.6)**	**21**	**37.9**	**29**	**60.1**
Substance dependence	**5 (4.7)**	**4**	**7.1**	**1**	**2.0**
Alcohol dependence	2 (1.9)	1	1.7	1	2.0
Tobacco dependence	3 (2.8)	3	5.3	0	0.0
Mood (Affective) disorders	**17 (15.8)**	**6**	**10.7**	**11**	**22.9**
Major depression	8 (7.4)	3	5.3	5	10.4
Dysthymic disorder	6 (5.6)	3	5.3	3	6.2
Manic depression(bipolar disorder)	3 (2.8)	0	0.0	3	6.2
Neuroses and somatoform disorders	**23 (21.4)**	**9**	**16.7**	**14**	**29.1**
Phobia [1]	2 (1.9)	1	1.7	1	2.0
Anxiety disorders [2]	10 (9.3)	4	7.1	6	12.5
Dissociative amnesia	8 (7.4)	2	3.5	6	12.5
Somatoform disorders	3 (2.8)	2	3.5	1	2.0
Schizophrenia	**2 (1.9)**	**1**	**1.7**	**1**	**2.0**
Paranoid type	2 (1.9)	1	1.7	1	2.0
Behavioral syndromes associated with physiological disturbances and physical factors	3 **(2.8)**	**1**	**1.7**	**2**	**4.1**
Eating disorders					
Bulimia nervosa	3 (2.8)	1	1.7	2	4.1
Sexual disorders	0 (0.0)	0	0.0	0	0.0

[1]Includes specific phobia and agoraphobia
[2]Includes panic and generalized anxiety

4.3. Rank Order of Specific Mental Disorders

Table 3: Rank Order of Specific Mental Disorders Based on Prevalence Rates.

No.	Mental disorders	Frequency	Percent	Rank
1	Major depression	8	7.4	2
2	Dysthymic disorder	6	5.6	3
3	Manic depressive (Bipolar disorder)	3	2.8	4
4	Anxiety disorders	10	9.3	1
5	Phobic disorders	2	1.9	5
6	Dissociative amnesia	8	7.4	2
7	Somatoform disorders	3	2.8	4
8	Alcohol dependence disorders	2	1.9	5
9	Tobacco dependence disorders	3	2.8	4
10	Schizophrenia (Paranoid type)	2	1.9	5
11	Eating disorders (bulimia nervosa)	3	2.8	4
12	Sexual disorders	-	-	-

As it can be observed in Table 3, above, specific mental disorders are assigned ranks based on their prevalence rates. Accordingly, anxiety disorders (9.3 percent) ranked first; major depression and dissociative amnesia (7.4 percent each) ranked second; dysthymic disorder (5.6 percent) ranked third; manic depression, somatoform disorders, tobacco dependence, and eating disorders (bulimia nervosa) (2.8 percent each) ranked fourth; phobic disorders, schizophrenia, and alcohol dependence (1.9 percent each) ranked fifth. No cases of sexual disorders were detected in this study.

4.4. Correlates of Mental Disorders

Associations between the socio-demographic variables and prevalence of specific mental disorders were examined with one way analyses of variance. When the relationship was found to be significant, comparison of group mean difference was taken to identify the group to which the dependent variable was highly related and to assess significant mean differences among the groups. To do this, one-way ANOVA Post Hoc test (Scheffe's) was computed. When sex was

found to have significant association with mental disorders, t-test was computed to assess significant mean differences between the groups i.e. the male and female groups. The results are presented below.

Table 4: One Way Analysis of Variance for the Relationship of **Major Depression** with Socio-demographic Factors

Source	SS	df	MS	F
Age				
Between groups	9.76	3	22.60	3.378*
Within groups	6.70	100	6.70	
Marital status				
Between groups	4.80	3	16.20	2.804*
Within groups	6.89	100	6.90	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Tables 4, above, shows the association of major depression, with certain socio-demographic variables. The result of ANOVA on major depression showed that lifetime diagnosis of major depression disorder was significantly associated with age (F=3.378, P<0.05) and marital status (F=2.804, P<0.05). Following this result, comparison of group means (Scheffe's) was taken to identify the most prevalent group. This is shown in table 5 bellow.

Table 5: Multiple Group Comparisons for Significant Mean Differences (Scheffe's) on **Major Depression**

Group		Mean difference	Std. Error
Age			
19-24	25-44	17.94*	6.2
	45-55	14.10	6.5
	>55	17.94	7.5
25-44	19-24	-17.94*	6.2
	45-55	-3.84	6.8
	>55	0.00	0.0
45-55	19-24	-14.10	6.5
	25-44	3.84	6.8
	>55	3.84	10.4
>55	19-24	-17.94	10.0
	25-44	0.00	10.2
	45-55	3.84	10.4
Marital status			
Married	Single	-22.22*	7.0
	Divorced	4.68	9.8
	Widowed	-2.45	7.7
Singe	Married	22.22*	7.0
	Divorced	17.53	11.1
	Widowed	15.07	9.3
Divorced	Married	-4.68	9.8
	Single	-22.22	11.1
	Widowed	-7.14	11.6
Widowed	Married	2.45	7.7
	Single	-15.07	9.3
	Divorced	7.14	11.6

* The mean difference is significant at the 0.05 level

As it is presented in table 5, above, Scheffe test revealed that the mean of inmates in the age group of 19-24 was the highest and it was significantly greater when compared to the age group of 25-44 (Mean difference =17.94, $P<0.05$). The test also indicated that the mean of single/unmarried inmates was the highest and it was significantly greater when compared to the married ones (Mean difference =22.22, $P<0.05$). This implies that major depression disorder is significantly associated with younger inmates (19-24 age group) and single/unmarried inmates

while the least association found with the middle age group (25-44 age group) and married ones. Major depression disorder was found to have no significant association with the rest of the variables.

Table 6: One Way Analysis of Variance for the Relationship of **Dysthymic Disorder (Recurrent Depressive Episode)** with Socio-demographic Factors

Source	SS	df	MS	F
Marital status				
Between groups	12.95	3	43.20	9.920*
Within groups	4.35	100	4.40	
Previous sentence				
Between groups	15.30	2	25.10	4.926*
Within groups	5.15	101	5.10	
Sex				
Between groups	37.20	1	37.20	6.763*
Within groups	5.65	102	5.50	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 6, above, shows the association of dysthymic disorder (Recurrent depressive episode) with some demographic factors. Analysis of variance on dysthymic disorder indicated that lifetime diagnosis of dysthymic disorder was significantly associated with sex (F=2.826, P<0.05), marital status (F=9.920, P<0.05), and previous prison sentence (F=4.926, P<0.05). To assess significant mean differences among the groups, Post Hoc test (Scheffe) was computed for the two factors i.e. marital status and previous prison sentence. The result is presented in table 7 below.

Table 7: Multiple Group Comparisons for Significant Mean Differences (Scheffe's) on **Dysthymic Disorder (Recurrent depressive Episode).**

Marital status		Mean difference	Std. Error
Married	Single	0.00	5.5
	Divorce	-25.00	7.8
	Widowed	-28.57*	6.1
Single	Married	0.00	5.5
	Divorced	-25.00	8.8
	Widowed	-28.57*	7.4
Divorced	Married	25.00	7.8
	Single	25.00	8.8
	Widowed	-3.57	9.2
Widowed	Married	28.57*	6.1
	Single	28.57*	7.4
	Divorced	3.57	9.2
Previous prison sentence			
None	Once	-12.50	5.4
	Twice & above	-15.78*	5.9
Once	None	12.50	5.4
	Twice & above	-3.28	6.9
Twice & above	None	15.78*	5.9
	Once	3.28	6.9

* The mean difference is significant at the 0.05 level

As indicated in table 7, above, widowed inmates had the highest mean score and it was significantly different when compared to the mean score of married inmates (Mean difference =28.57, $P<0.05$) and single inmates (Mean difference=28.57, $P<0.05$). Moreover, the mean score of inmates who have served previous prison sentence of two and more years was the highest of the groups and it was significantly different when compared to the mean of those inmates who have had no previous prison sentences (Mean difference = 15.78, $P<0.05$). This indicates that

dysthymic disorder is more prevalent among widowed marital status and inmates who have had previous multiple prison sentences (twice and more) while it was less prevalent among inmates with no history of previous prison sentence and with married and single inmates.

Moreover, t-test was computed to assess significant mean differences between the male and female groups. This is shown in table 8 below.

Table 8: Independent Samples t-Test for Significant Sex Difference on Prevalence of **Dysthymic Disorder (Recurrent Depressive Episode)**

Variable	Group	N	Mean	Std. Deviation	t
Sex	Male	56	5.36	22.70	
	Female	48	10.25	34.46	-2.10*

*P<0.05

In the table 8, above, the computed t-value (2.10) was greater than the table t-value (1.98) at α = 0.05, df = 102. The result of the t-test for significant mean difference between the two sexes revealed that the mean score of females was significantly greater than those of males. This implies dysthymic disorder was more prevalent among the female sex.

In general, the results of Post hoc tests, Scheffe, (Table 7) and t-test (Table 8) indicated that dysthymic disorder (recurrent depressive episode) was significantly associated with the female sex, widowed marital status and inmates with history of multiple previous prison sentences twice and more. Dysthymic disorder was found to have no significant association with the rest of the factors considered in this study.

Table 9: One Way Analysis of Variance for the Relationship of **Manic Depression (Bipolar Disorder)** with Socio-Demographic Factors

Source	SS	df	MS	F
Sex				
Between groups	10.10	1	10.10	3.962*
Within groups	28.13	102	2.80	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 10: Independent Sample t-Test for Significant Sex Difference on Prevalence of **Manic Depression (Bipolar Disorder).**

Variable	Group	N	Mean	Std. Deviation	t
Sex	Male	56	0.00	0.00	-2.94*
	Female	48	6.25	24.46	

* P<0.05

Analysis of variance (Table 9) shows that manic depression/bipolar disorder was significantly associated with sex (F=3.962, P<0.05). To assess which sex was specifically associated with manic depression, t-test was computed and the result was presented in Table 10, above. Accordingly, the computed t-value (2.94) is greater than the table t-value (1.98) at α=0.05, df= 102. This confirmed that the mean score of the female sex was significantly greater than the mean score of the male sex indicating bipolar disorder was prevalent among female inmates. Manic depression/bipolar disorder was found to have no significant association with the rest of the factors considered.

Table 11: One Way Analysis of Variance for the Relationship of **Anxiety Disorders (Panic and Generalized Anxiety)** with Socio-demographic Factors.

Source	SS	df	MS	F
Age				
Between groups	7.50	3	2.50	3.017*
Within groups	8.28	100	8.30	
Time served in prison				
Between groups	3.17	3	2.00	3.210*
Within groups	8.72	100	8.70	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 11, above, shows the association of anxiety disorders (panic and generalized anxiety disorders) with the socio-demographic variables of the study subjects. Analysis of variance showed that anxiety disorders were significantly associated with age (F=3.017, P<0.05) and the length of time served in prison (F=3.210, P<0.05). Following the results of ANOVA, multiple group mean comparison (Scheffe's) was computed to assess the group to which the disorders were specifically related. The results are presented in table 12, below.

Table 12: Multiple Group Comparisons for Significant Mean Differences (Scheffe's) on **Anxiety Disorders (Panic and Generalized Anxiety).**

Group		Mean difference	Std. Error
Age group			
19-24	25-44	20.51*	6.9
	45-55	16.66	7.2
	>55	17.28	11.1
25-44	19-24	-20.51*	6.9
	45-55	-0.62	7.6
	>55	3.22	11.4
45-55	19-24	-16.66	7.2
	25-44	0.62	7.6
	>55	3.84	11.6
>55	19-24	-17.28	11.1
	25-44	-3.22	11.4
	45-55	-3.84	11.6
Time served in prison			
<1 year	1-5 years	10.52	10.4
	6-11 years	10.52	9.2
	12-17 years	14.24*	8.2
1-5	<1 years	-10.52	10.4
	6-11 years	14.28	9.1
	12-17 years	3.75	6.6
6-11	<1 year	-10.52	10.4
	1-5 years	-14.28	9.1
	12-17 years	0.00	12.2
12-17	<1 year	-14.28*	8.2
	1-5 years	-3.75	6.6
	6-11 years	0.00	12.2

* The mean difference is significant at the 0.05 level

As it is depicted in table 12, above, Scheffe's mean difference test showed that the mean score of inmates in the age group of 19-24 was the highest and this was significantly different when compared to the mean score of the age group of 25-44 (Mean difference = 20.51, $P<0.05$). Moreover, the mean score of inmates who stayed in prison for less than a year was the highest and was significantly different from those of imprisoned for 12-17 years (Mean difference= 14.28, $P<0.05$). The results indicate that the highest prevalence of anxiety disorders was found among younger inmates (19-24 age group) and the lowest among those in the middle age (25-44 age group). Moreover, anxiety disorders were highly prevalent among inmates who are in their

beginning phase of imprisonment (imprisoned for less than a year) with the lowest prevalence found among those imprisoned for longer periods (12-17 years). Anxiety disorders were found to have no statistically significant association with the rest of the factors considered.

Table 13: One Way Analysis of Variance for the Relationship of **Dissociative Amnesia** with Socio-demographic Factors.

Source	SS	df	MS	F
Age				
Between groups	3.54	3	1.10	1.890*
Within groups	7.03	100	7.00	
Sex				
Between groups	2.06	1	2.00	2.928*
Within groups	7.17	102	7.00	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 13, above, shows the association of dissociative amnesia with the socio-demographic variables of the study subjects. The results of ANOVA indicated that dissociative amnesia was significantly associated with sex (F=2.928, P<0.05) and age (F=1.890, P<0.05). Following these results, multiple group mean comparison was computed for the age groups and t-test was computed to compare the means of the two genders. The results are presented in Table 14, bellow.

Table 14: Multiple Group Comparisons for Significant Mean Differences (Scheffe's) on **Dissociative Amnesia.**

Group		Mean difference	Std. Error
Age group			
19-24	25-44	-7.11	6.3
	45-55	-5.12	6.7
	>55	-22.43*	7.2
25-44	19-24	7.11	6.3
	45-55	1.98	7.0
	>55	-15.32	10.5
45-55	19-24	5.12	6.7
	25-44	-1.98	7.0
	>55	-17.3	10.7
>55	19-24	22.43*	7.2
	25-44	15.32	10.5
	45-55	17.30	10.7

*The mean difference is significant at the 0.05 level

Table 15: Independent Sample t-Test for Significant Sex Difference on Prevalence of **Dissociative Amnesia.**

Variable	Group	N	Mean	Std. deviation	t
Sex	Male	56	3.57	18.72	-2.71*
	Female	48	12.50	33.42	

*P<0.05

Multiple group mean comparison among the age groups Table 14, above, showed that the mean score of the elderly (above 55 years old) was the highest and it was significantly different when compared to the mean score of the younger inmates (19-24 years old) (Mean difference=22.43, P<0.05). Moreover, as presented in Table 15, above, the computed t-value (2.71) is greater than

the table t-value (1.98) at $\alpha = 0.05$, df =102. This means there is significant difference in mean scores and hence the mean score of females was significantly greater than that of males. This implies that dissociative amnesia was more frequently seen among the female inmates. The results of the Scheffe's test and t-test indicated that dissociative amnesia was highly prevalent among females and among the elderly (above 55 years old) with the lowest found among the younger group (19-24 age group).

Table 16: One Way Analysis of Variance for the Relationship of **Somatoform Disorders** with Demographic Factors.

Source	SS	df	MS	F
Age				
Between groups	1.92	3	6.40	2.356*
Within groups	2.72	100	2.70	
Level of education				
Between groups	2.73	3	6.40	3.453*
Within groups	2.64	100	2.70	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 16, above, shows the association of somatoform disorders with the socio-demographic variables. Somatoform disorders were significantly associated with age (F=2.356, P<0.05) and the level of educational (F=3.453, P<0.05).

Moreover, group mean difference tests using Scheffe's pair wise multiple comparison Table 17, below, showed that inmates older than 55 years have the highest mean score which is statistically different when compared to the mean score of the age group of 19-24 (Mean difference= 12.5, P=0.04). As for the status of formal education, inmates who have not attended formal education had the highest mean score and this was significantly different when compared to the mean score of inmates in the 1-6 grade level (Mean difference=12.00, P=0.04). This indicates that somatoform disorders were highly prevalent among the elderly (above 55 years old) with the lowest found among the younger inmates (19-24 age group). Moreover, inmates with no

formal education were predominantly affected by somatoform disorders. Somatoform disorders were found to have no significant association with the rest of the factors considered.

Table 17: Multiple Group Comparisons for Significant Mean Differences (Scheffe's) on **Somatoform Disorders**

Group		Mean difference	Std. Error
Age			
19-24	25-44	0.00	3.9
	45-55	-7.69	4.1
	>55	-12.50*	5.4
25-44	19-24	0.00	3.9
	45-55	-7.69	4.3
	>55	-12.50	6.5
45-55	19-24	7.69	4.1
	5-44	7.69	4.4
	>55	-4.80	6.6
>55	19-24	12.50*	5.5
	25-44	12.50	6.5
	45-55	4.80	6.6
Educational level			
No edu.	1-6 grade	12.00*	4.1
	7-11 grades	12.00	4.9
	12 & above	12.00	7.4
1-6 grade	No edu.	-12.00*	4.1
	7-11 grades	0.00	4.5
	12 & above	0.00	4.3
7-11 grades	No edu.	-12.00	4.9
	1-6 grades	0.00	4.5
	12 & above	0.00	5.0
12 & above	No edu.	-12.00	4.7
	1-6 grade	0.00	4.3
	7-11 grades	0.00	5.0

* The mean difference is significant at the 0.05 level

Table 18: One Way Analysis of Variance for the Relationship of **Tobacco Dependence** with Demographic Factors.

Source	SS	df	MS	F
Age				
Between groups	4.80	3	1.60	2.772*
Within groups	2.86	100	2.90	
Sex				
Between groups	7.40	1	7.40	2.665*
Within groups	2.84	102	2.80	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

Table 18, above, shows the association of tobacco dependence with the demographic variables. Tobacco dependence was significantly associated with sex (F=2.665, P<0.05) and age (F=2.772, P<0.05).

Regarding the age of inmates, comparison of group mean difference (Table 19, below) showed that the mean score on tobacco dependence was high among inmates in the age level of 19-24 and this mean was significantly different when compared to the mean score of inmates in the age level of 45-55 (Mean difference=7.12, P<0.05). This indicates that tobacco dependence was significantly associated with the younger inmates (19-24 age group) with the lowest prevalence rate found among the middle age group (45-55 years old).

Table 19: Multiple Group Comparisons for Significant Mean Differences (Scheffe) on **Tobacco Dependence.**

Group		Mean difference	Std. Error
19-24	25-44	1.90	4.0
	45-55	7.12*	4.2
	>55	5.12	6.5
25-44	19-24	-1.90	4.0
	45-55	3.22	4.5
	>55	3.22	6.7
45-55	19-24	-7.12*	4.2
	5-44	-3.22	4.5
	>55	0.00	8.0
>55	19-24	-5.12	6.5
	25-44	-3.22	6.7
	45-55	0.00	6.8

*The mean difference is significant at the 0.05 level

Table 20: Independent Sample t-Test for Significant Sex Difference on Prevalence of **Tobacco Dependence**.

Variable	Group	N	Mean	Std. Deviation	t
Sex	Male	56	5.36	22.72	2.63*
	Female	48	0.00	0.00	

*P<0.05

The t-test to assess significant mean difference between the two genders (Table 20, above) revealed that the computed t-value (2.63) is greater than the critical table t-value (1.98) at α = 0.05, df=102. This means there is significant mean score difference between the two sexes. Hence, it can be said that the mean score on tobacco dependence was significantly greater among

the male sex than the female. This implies that males were predominantly affected by tobacco dependence.

Table 21: One Way Analysis of Variance for the Relationship of **Alcohol Dependence** with Demographic Factors.

Source	SS	df	MS	F
Marital status				
Between groups	14.20	3	4.70	2.603*
Within groups	18.19	100	1.80	

Note: SS= Sum of Squares, df= degree of freedom, MS= Mean Square, *P<0.05

The result of analysis of variance performed on alcohol dependence as presented in Table 21,above, showed that alcohol dependence was significantly associated with marital status (F=2.603, P<0.05). Following the result, comparison of group mean difference is presented in Table 22, below.

Table 22: Multiple Group Comparisons for Mean Differences (Scheffe's) on **Alcohol Dependence.**

Marital status		Mean difference	Std. Error
Married	Single	-5.55	3.5
	Divorce	-12.50*	2.3
	Widowed	0.00	3.9
Single	Married	5.55	3.5
	Divorced	-6.94	5.7
	Widowed	5.55	4.8
Divorced	Married	12.50*	2.3
	Single	6.94	5.7
	Widowed	12.50	5.9
Widowed	Married	0.00	3.9
	Single	-5.55	4.8
	Divorced	-12.50	5.9

* The mean difference is significant at the 0.05 level

As it is presented in Table 22, above, the mean score of inmates with divorced marital status was the highest and it significantly differs when compared with the mean score of married inmates (Mean difference= 12.50, $P<0.05$). This shows that alcohol dependence was highly prevalent among inmates with divorced marital status and it was less prevalent among the married inmates.

Phobic disorders, eating disorders (bulimia nervosa), and schizophrenia (paranoid type) were found to have no statistically significant association with any of the socio-demographic variables considered in this study.

4.5. Availability of Mental Health Treatment Services

Although it was not the major objective of this study, an attempt was made to assess the availability of professional mental health treatment services in the prison. To do so, a structured interview was prepared and presented to the prison administration officer (See appendix). Accordingly, it was found that the services available in the prison were education (up to 6^{th} grade level), medication, and handicrafts.

CHAPTER FIVE

Discussion

In this section, implications of the results obtained and consistency and inconsistency of the results in the present study with previous studies are discussed in line with the specific objectives stated earlier. The discussion is made under the following headings:

5.1 Overall prevalence estimates of mental disorders
5.2 The rank order of specific mental disorders
5.3 Comparison with the community-based studies in Ethiopia
5.4 Correlates of mental disorders
5.5 Availability of mental health treatment services

5.1 The Overall Prevalence Estimate

This study is the first to estimate the prevalence of specific mental disorders in a prison population in Ethiopia using the Amharic version of the Composite International Diagnostic Interview (CIDI).

The aggregate prevalence estimate of any DSM-IV diagnoses was 46.6%. The result shows that 46.6% of the sample had had at least one lifetime DSM-IV disorder and that there is considerable mental health problem among prisoners. The aggregate prevalence of mental disorders found in this study (46.6%) approximates that of studies in other countries using the same instrument (CIDI). These include the research findings reported by Butler et.al. (2006) among Australian prisoners (46%), Butler et.al. (2005) among prisoners in New South Wales, Australia, (43%), Fazel and Danesh (2002) a systematic review of 62 surveys from 12 Western countries in a general prison population (48.23%).

The overall prevalence estimate of mental disorders found in this study was greater among females than males (60.1% vs. 37.9%). This is consistent with the results of studies done using the same instrument in other countries. To mention few of them, Butler et.al. (2005), in their study to determine the prevalence of mental disorders among prisoners in New South Wales, Australia, reported that women had higher levels of mental distress than men (61% vs.39%) and a systematic review of 62 surveys from 12 Western countries on serious mental disorders in general prison population by Fazel and Danesh (2002) indicated that women had higher levels of mental illness and major depression (psychotic illness; 4% females,3.7% males; major depression; 12% females, 10% males). This suggests that gender is an important factor which influences the degree to which stressors are perceived and experienced in penal institutions.

5.2 The Rank Order of Specific Mental Disorders

In this study, the specific mental disorders were ranked based on their prevalence rates. Accordingly, anxiety disorders (9.3 percent) ranked first indicating that they were the most frequent mental disorders. Since anxiety disorder is the result of an excessive reaction to stress, the high prevalence rate of anxiety disorders found in this study could be related to the stressful nature of the prison environment. The second most frequent mental disorders were major depression and dissociative disorders (7.4 percent each). The least frequent mental disorders were schizophrenia and disorders due to use of alcohol (1.9 percent each).

The high prevalence rate of anxiety disorders found in this study was consistent with some international findings reported from prisoner-based studies (Alonso et.al, 2004 in six European countries; Abou-Salah, 2001 in the United Arab Emirates). However, the lower prevalence rate of schizophrenia is inconsistent with these findings.

5.3 Comparison of the Result with Community-Based Studies in Ethiopia

In Ethiopia, although no study to date has been reported to estimate the prevalence of mental disorders in prison population, there are prevalence estimates in the general population and in

hospitals. These previous study reports on the prevalence of specific mental disorders using the Amharic version of the CIDI are summarized in the table below.

Table 23: Community-Based Prevalence Rates of Mental Disorders in Ethiopia, Using CIDI.

Source	Year	Sample	Aggregate prevalence
Eskindir Rashid	1993	n=502 Addis Ababa	39.9% Lifetime
Kebede Dereje et.al.	1994	n=1420 Addis Ababa	10.8% Lifetime
Mulugeta Awas	1996	n=510 Butajira,rural population	31.8% Lifetime & one month
Mulugeta Awas et.al.	1999	N=501 Butajira, rural	32.6 Lifetime
Atalay Alem et.al.	2004	N=1854 Borena,semi-nomadic community	21.6% Lifetime

The overall lifetime prevalence of mental disorders including substance dependence found in this study (46.6%) is higher than the findings reported in the community surveys in Ethiopia using the same instrument which are presented in Table 23, above. The aggregate lifetime prevalence estimate of this study (46.6%) is about four times that of the prevalence estimate in Addis Ababa (10.8%) reported by Kebede et al (1994) and about two times that of the prevalence estimate in Borena (21.6%) reported by Atalay Alem, et.al. (2004). Moreover, the prevalence estimate of the present study is much higher than the prevalence estimates in Addis Ababa (39.9%) reported by Eskindir Rashid (1993), in Butajira (31.8%) reported by Mulugeta Awass (1996), and in Butajira (32.6%) reported by Mulugeta et.al (1999).

Other prevalence studies in the general population and in hospitals in Ethiopia using different instruments and methods have found a rate far lower than the finding of the present study. Giel and Van (1968) in Bonga, small town in the western part of Ethiopia, reported a prevalence of 8.6%, Kortman (1985) using the Self Reporting Questionnaire (SRQ) in an urban community in Addis Ababa reported a prevalence of 12%, Teferi et.al. (1988) using SRQ in a rural community

of Hadiya-Kimbata reported a prevalence rate of 17.2%, and Samuel (1989) using the SRQ in Jimma reported a prevalence rate of 12.3%.

In general, the prevalence estimate of any DSM-IV diagnoses (46.6%) reported in this study is higher than any other community and hospital based prevalence estimates in Ethiopia using the CIDI and other instruments. This supports the WHO's report in 2001 that mental disorders are especially prevalent in prison population. Many of these disorders may be present before admission to prison, and may be further exacerbated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a consequence of prevailing conditions.

The greater prevalence rate in the prison population reported in this study is consistent with study reports in other countries in the world. To mention few, Butler et al (2006) in Australia reported that mental disorders are more prevalent among prisoners than community groups (80% in prisoners and 31% in the community); a systematic review of 62 surveys from 12 Western countries by Fazel and Danesh (2002) revealed that prisoners were several times more likely to have mental disorders than the general population.

5.4 Correlates of Specific Mental Disorders

The results of this study indicated that mental disorders are not distributed randomly among prison inmates. Systematic differences exist depending on important socio-demographic factors and criminological history of inmates. These were: age, gender, marital status, level of education, length of time served in prison and previous prison sentence. The type of offence committed by prisoners was found to have no significant association with any of the mental disorders considered in this study.

Age

In this study, the age of inmates was found to be the major determinant of the prevalence of mental disorders. It was found to have statistically significant association with major depression, anxiety disorders (panic and generalized anxiety), dissociative amnesia, somatoform disorder,

and tobacco dependence (Table 3, Table 10, Table 12, Table 15, and Table 17 respectively). Except for dissociative amnesia and somatoform disorders where the elderly (above 55 years old) were frequently affected, major depression, anxiety disorders and tobacco dependence were specifically prevalent among the youngest inmates (19-24 age group). This is in line with research findings reported from other countries in the world. The explanation for this was that younger inmates aged 25 or below are initially more resistant to the prison structure which makes them more likely to be the targets of victimization in comparison to the elderly who assume passive avoidance roles in prison hence, increasing psychological effects imprisonment. However, it has been suggested that after the initial shock of imprisonment, younger inmates tend to demonstrate increasing levels of conformity over time (Paulus and Dzindolet, 1993; Adams, 1992; Araya, 2006). But it contrasts with other studies that have reported a higher prevalence of mental disorders in the 25-40 age groups (Butler et al, 2006; Fazel and Danesh, 2002; and Lindquist, 2000).

Sex

The sex of inmates was the second major determinant of prevalence of specific mental disorders. It was significantly associated with dysthymic disorder (recurrent depressive episode), dissociative amnesia, bipolar (manic depressive) disorder and tobacco dependence. Except tobacco dependence, the rest (dysthymic, bipolar and dissociative) disorders were specifically associated with the female sex. This indicates that mood disorders (dysthymic and bipolar) were the most prevalent disorders among female inmates. The strong association of mental disorders with females could be because female inmates face serious sources of stress unique to their role as mothers: separation from their children, although few of them were not mothers. Separation from children has been shown to be one of the most stressful conditions of imprisonment for women and is associated with feelings of guilt and fear of loosing mother-child attachment (Lindquist and Lindquist, 1997). The strong association of mental disorders with females is consistent with research findings reported from other countries reviewed in the literature (Butler et.al, 2005; Fazel and Danesh, 2002; Harding and Zimmermann, 1989; Zamble and Porporino, 1988).

Marital Status

The result of this study also revealed that marital status was associated with the prevalence of mental disorders. It was found to have statistically significant association with major depression, dysthymic disorder, and alcohol dependence (Table 3,Table 5, and Table 20 respectively). Multiple group mean comparison showed that major depression was highly prevalent among unmarried/single inmates and less prevalent among married ones, dysthymic disorder was highly prevalent among widowed inmates and less prevalent among married inmates and alcohol dependence was highly prevalent among divorced/separated inmates and less prevalent among married inmates. This indicates that married prisoners experience lower level of mental disorders. This finding is in line with most of other research findings in other countries. To mention few, Adams (1992), in his study of adjustment to prison life reported that inmates who require mental health assistance are more likely to be unmarried and to be living alone around the time of the offense for which they were imprisoned. Moreover, Butler et al, (2006); Fazel and Danesh, (2002); Lindquist and Lindquist, (1997); and Paulus and Dzindolet, (1993) reported that married inmates experience lower levels of mental disorders. Opposite to the findings of the present study is the one reported by Lindquist (2000). It was reported that, specifically, married inmates reported higher levels of mental disorders.

Level of Education

The prisoners' educational level was found to have a statistically significant association with somatoform disorders (Table 16). Inmates with no educational background were predominantly affected by somatoform disorders. Somatoform disorders were significantly more prevalent among inmates who had never attended education compared to those in the 1-6 grade level (Mean difference=12, P=0.04).

Length of Time Served in Prison

The length of time stayed in prison was significantly associated with anxiety disorders (panic and generalized anxiety) (Table 10). Comparison of group means (Table 11) indicated that anxiety disorders were more prevalent among inmates who spent less than a year being in prison and the

disorders were less prevalent among those who stayed 12-17 years in prison (Mean difference=14.24, P=0.04).

The result of this study is consistent with some study reports from other countries using the same instrument. To mention few, a study of Swiss prisoners by Harding and Zimmermann (1989) revealed that long-term inmates demonstrate more effective and productive copping strategies than other inmates. Long-term inmates tend to be older and consequently more mature. They actively avoid trouble and try to use their time in prison fruitfully. These desires often get reflected in a greater degree of program participation and in the more serious cultivation of hobbies and other types of informal activities directed at learning and self-improvement. These findings have been confirmed recently for Canadian inmates (Zamble, 1992). Likewise, Gunn et al (1978) reported that rates of anxiety and depression among British prisoners are high during the beginning phase of imprisonment, declining significantly within six months of prison entry. Similar patterns have been observed in studies of prison settings, Gibbs (1987), after interviewing 339 newly arrived inmates, found high rates of prevalence of mental disorders during the beginning phase of confinement when compared to later periods.

The findings indicate that prison entry makes a critical period of adjustment, and this information allows us to channel resources into periods when inmate problems are greatest.

Previous Prison Sentence

Inmates who have history of multiple previous prison sentences were frequently affected by dysthymic disorder (Table 5). Comparison of group mean difference (Table 6) indicated that those who previously encountered multiple prison sentences (twice and more) were more likely to be affected by dysthymic disorder than those who have never been in prison previously (Mean difference=15.78, P<0.05).

5.5 Availability of Treatment Methods for Mental Disorders

The goals of treatment are to reduce symptoms of mental disorders; improve personal and social functioning; develop and strengthen coping skills; and promote behaviors that make a person's

life better. Psychotherapy, rehabilitation, and behavior therapy are basic approaches to treatment that may help prisoners overcome mental health problems (Zamble and Porporino, 1988).

The information obtained through interviewing the prison administration officer revealed that elementary school education (up to 6^{th} grade level), medication and handicrafts were available to inmates. It was found that rehabilitation services which are being provided to inmates are limited in variety. Moreover, there are two health professionals in the prison (a clinical nurse and an assistant druggist). But there is no psychologist.

It is impossible to provide professional psychotherapy and behavioral therapy treatment services helping professionals (such as psychiatrists, psychologists, and psychiatric nurses). Thus the high prevalence rate of mental disorders (46.6 percent) reported in this study could be attributed to the absence of these basic treatment approaches which are essential to improve the mental well-being of inmates.

CHAPTER SIX

Summary, Conclusion and Recommendation

6.1 Summary

The major purpose of this study was to provide data on the overall and specific lifetime prevalence estimates of mental disorders and their associations with socio-demographic factors among prisoners at Debremarkos town using the Amharic version of the Composite International Diagnostic Interview (CIDI) according to the definitions and criteria of DSM-IV (Diagnostic and Statistical Manual for Mental Disorders Fourth Edition).

The latest statistics on the prison population which was used in designing the sample for the study were those for the mid of January 2007, which showed an overall prison population of 520 (472 males and 48 females). All the 48 female prisoners were purposively taken as sample subjects. To allow meaningful comparison between the groups, it was necessary to have a similar number of sample subjects within each of the groups. Hence, out of the 472 male prisoners, 56 were taken as sample subjects using simple random sampling technique. Finally the total sample size became 104 prisoners (56 males and 48 females).

The Amharic version of the CIDI was administered by third year nursing students recruited from a private health college in Debremarkos town. Ten interviewers (6 males and 4 females) were recruited to serve as interviewers using a number of criteria believed to be relevant for CIDI interview (WHO, 1990). These criteria were:

1. Ability to read the language (Amharic) smoothly and conversely.
2. Good clerical skills needed for accurate coding and legible entry of responses.
3. Empathy and skill at listening carefully to determine whether questions were correctly understood, and
4. Willingness to follow instructions precisely.

Information was collected by visiting inmates after obtaining informed consent and interview was conducted in private. The average administration time was about 55 minutes. After completion, interviews were edited for completeness and accuracy.

The collected data were entered and analyzed using the Statistical Package for the Social Sciences, SPSS version 12.0.

Analysis of the data resulted in the following key findings:

- The result showed that 46.6% of prisoners have experienced at least one DSM-IV mental disorder at some point in their life up to the time of assessment. Female prisoners have a higher lifetime prevalence of mental disorders than male prisoners (60.1 percent vs. 37.9 percent). Except for tobacco dependence (5.6%) and somatoform disorders (3.5%) where males were frequently affected, other disorders were predominantly seen among the female prisoners.
- Based on their prevalence rates, the specific mental disorders were found to have the following rank orders:
    1. Anxiety disorders (9.3 percent)
    2. Major depression (7.4 percent) and dissociative amnesia (7.4 percent)
    3. Dysthymic disorder/recurrent depressive episode (5.6 percent)
    4. Manic depression, tobacco dependence, eating disorders, and somatoform disorders (2.8 percent each).
    5. Phobic disorders, schizophrenia, and alcohol dependence (1.9 percent each).

    No cases for sexual disorders were detected in this study.
- Analysis of variance showed that except the type of offense committed by prisoners, all other factors considered in this study i.e. sex, age, marital status, educational level, length of time served in prison, and previous prison sentence were associated with specific mental disorder.
- After performing t-test for significant mean differences, female sex was shown to have a statistically significant association with dysthymic disorder ($t=2.10$, $P<0.05$), manic depression/bipolar disorder ($t=2.94$, $P<0.05$), and dissociative amnesia ($t=2.71$, $P<0.05$) whereas the male sex was significantly associated with tobacco dependence ($t=2.63$,

P<0.05). Multiple group mean comparison (Scheffe) showed that anxiety disorders were strongly associated with the younger age group (19-24) and less associated with the middle age group (25-44) (Mean difference=20.51, P<0.05). Moreover, anxiety disorders were associated with inmates who are in their beginning phase of imprisonment and the least association found among those inmates who stayed for longer periods in prison (Mean difference=14.28, P<0.05). Major depression was strongly associated with the younger age group and the single/unmarried prisoners. Alcohol dependence was found to have statistically significant association with the divorced and was less associated with the married (Mean difference=12.50, P<0.05).

Phobic disorders, eating disorders (bulimia nervosa), and schizophrenia (paranoid type) were found to have no statistically significant association with any of the socio-demographic variables considered in this study.

- The information obtained through interviewing the prison administration officer revealed that elementary school education (up to 6th grade level) handicrafts and medication services were available to inmates. It was found that rehabilitation services which are being provided to inmates are limited in variety.

6.2. Conclusions

From these findings, the following conclusions were drawn:

1. The aggregate prevalence rate of mental disorders (46.6 percent) in the Debremarkos prisoner population is substantial and is within ranges of prevalence in prisons reported from other countries reviewed in the literature. But it is higher than the community- based prevalence reports in Ethiopia. Female prisoners were more frequently affected by mental disorders than males.

2. Anxiety disorders (9.3 percent), major depression (7.4 percent), dissociative amnesia (7.4 percent), and dysthymic disorder (5.6 percent) were the most common mental problems whereas phobic disorders, alcohol dependence, and schizophrenia were the least frequent mental disorders (1.9 percent each).

3. Sex, age, marital status, educational level, history of previous prison sentence, and the length of period served in prison are significant correlates of mental disorders in prisoner population. Mental disorders were predominantly associated with the female gender, low education, the divorced and widowed, the elderly (55 years old and above), the young (19-24 years old), multiple previous sentences, and being in the beginning phase of imprisonment (less than a year).

   Phobic disorders, eating disorders (bulimia nervosa), and schizophrenia, were not significantly associated with any of the variables. The result indicated that except phobic disorders, eating disorders, and schizophrenia, the rest of mental disorders are not distributed randomly among prison inmates. Systematic differences exist depending on important socio-demographic factors and criminological characteristics of prisoners.

4. Except primary level education, handicrafts and medication services, there were no psychotherapeutic treatment services by helping professionals like psychologists and psychiatrists for inmates with mental health problems. Thus the large prevalence rate of mental disorders (46.6 percent) reported in this study could be attributed to the absence of these basic psychotherapeutic treatment approaches which are essential to improve the mental well-being of inmates.

6.3 Recommendations

On the basis of the findings, the following recommendations are forwarded:

1. There is evidence from this study that the prevalence of specific mental disorders is substantial that there is a need to make interventions. Thus, establishing mental health service program in prison is of paramount importance to prevent and reduce mental disorders. This involves employing helping professionals such as psychologists and psychiatric nurses and applying the specific treatment methods that may be used alone or in various combinations. These treatment approaches may include:

(a) Psychotherapy: - this can be accomplished through a series of face-to-face discussions in which a psychologist or psychiatrist helps prisoners to talk about, define, and resolve problems that are troubling.

(b) Behavioral therapy: - can be accomplished using learning principles to change troublesome thinking patterns and behaviors systematically. Behavioral therapy may include an array of methods such as stress management and relaxation therapy.

(c) Expanding the rehabilitation services: - expanding the level of the existing education and vocational service and offering a variety of activities can assist prisoners in learning skills that will help them to live and work independently and productively in the prison or in the community after release.

2. Given the high prevalence of mental disorders identified by this study, it is essential that mental health services be adequately resourced to address the demand. Quality mental health services cannot be provided without sufficient number of qualified staff with different areas of expertise (from occupational therapists to psychiatrists). Thus, qualified mental health professionals can be attracted by creating employment incentives and introducing competitive pay rates comparable to those offered in other institutions and community mental health services.
3. The association of mental disorders with socio-demographic variables and criminal histories of prisoners can be used as valuable information to channel resources where inmate mental health problems are greater.
4. Other studies in prisoner population with better design and large sample size are beneficial to compare results and for the promotion of future research.

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Appendix A

CONTENTS[1]

[1]CIDI is structured in sections from A (Demographics) to K (sexual disorders). Questions are identified by section letter and number.

Note: For the purpose of this study, items about the criminological characteristics of prisoners were added to the Demographics

አዲስ አበባ ዩኒቨርሲቲ

ድህረ ምረቃ ፕሮግራም

የሳይኮሎጂ ትምህርት ክፍል

በደብረ ማርቆስ ከተማ በሚገኘዉ ማረሚያ ቤት ዉስጥ ለሚገኙ ታራሚዎች የቀረበ ቃለ መጠይቅ

የተጠያቂዉ ኮድ_____

የተጀመረበት ቀን_____ያለቀበት ቀን_____ለመጨረስ የወሰደዉ ጊዜ_____

ቅድመ ቃለ መጠይቅ መመሪያዎች

1. በአካባቢዉ ባህልና ወግ መሠረት የሰላምታ መለዋወጥ አድርግ
2. እራስህንና የጥናቱን ዓላማ አስተዋዉቅ

   እኔ.....ዉልዴና እድገቱ በ.....ከተማ/ዎረዳ ሲሆን ቀበሌዬም.....ነዉ። ዛሬ እዚህ የተግኘሁት የአዕምሮ ጤናን በተመለከተ መጠየቆችን ላደርግልዎት ነዉ።
3. የሚሰጡን መረጃ በምስጢር የተጠበቀ ይሆናል
4. መጠይቁ የሚፈጀዉ ጊዜ ከአንድ ሰዓት ያልበለጠ ነዉ
5. የዚህ ጥናት ዉጤት ስለ አዕምሮ ጤንነት ሁኔታን ግንዛቤን የሚሰጥና በማረሚያ ቤቱ ለሚሰጠዉ የጤና አገልግሎት መሻሻል አስተዋፅዖ የሚያደርግ ስለሆነ የሚሰጡን መረጃ እርስዎንም ሆነ ሌሎች ታራሚዎችን የሚጠቅም መሆኑን ተገንዝበዉልን ለትክክለኛነቱ ጥንቃቄ ያድርጉልን።

ክፍል ሀ Demographics

ሀ1. የታየዉን ያታ መዝግብ ወንድ.....1 ሴት.....2

ሀ2. እድሜዎ ስንት ነዉ? _____

ሀ3. .አሁን የሚገኙት በትዳር ላይ ነዉ, ባለቤትዎ ሞተዋል, ተፋተዋል/ተለያይተዋል, ወይስ ጨርሶ እስካሁን አላገቡም?

ባለትዳር.....1

ባለቤት የሞተባቸዉ.....2

ፈት/የተለያዩ.....3

ያላገቡ.....4

ሀ4. ከዚህ በፊት ተፈርዶብዎ ማረሚያ ቤት ገብተዉ ያዉቃሉ?

የለም (ወደ "ሀ5" አለፍ).....1

አዎን.....5

ከዚህ በፊት ማረሚያ ቤት ገብተዉ የሚያዉቁ ከሆነ (ሀ4=5) ለስንት ጊዜ?

መዝግብ_____

ሀ5. አሁን ወደ ማረሚያ ቤቱ እንዲገቡ የተፈረደብዎ ምን አይነት ጥፋት አጥፍተዉ ነዉ? መዝግብ_____

ሀ6. በማረሜያ ቤቱ ዉስጥ ለምን ያህል ጊዜ ቆይተዋል? _____/_____

ሀ7. ትምህርትዎን ስንተኛ ክፍል ድረስ አጠናቀዋል? ወይም አሁን እየተማሩ ከሆነ ስንተኛ ክፍል ነዎት?

ዓመት _____

ክፍል በ Tobacco dependence

በ1. አሁን ጥቂት ሲጋራን የተመለከቱ ጥያቄዎች እጠይቅዎታለሁ።

በየዕለቱ ለአንድ ወር ወይም ከዛ ለበለጠ ጊዜ /ምርጫዎቹን አንብብ/ ያውቃሉ? በ ሀ ረድፍ ሙላ

	ረድፍ ሀ		ረድፍ ለ
	የለም	አዎን	ቁጥር/ቀን
ሲጋራ አጭሰው	1	5	--/--
ትምባሆ አጭሰው	1	5	--/--
በፒፓ ትምባሆ አጭሰው	1	5	--/--
ትምባሆ አኝከው/እንደ ሱረት ተጠቅመው/	1	5	--/--

ለአንደኛው ረድፍ የተመለሰው በሙሉ 1 ከሆነ ወደ ሰ1 እለፍ። 5 የተመለሰ ካለ ቀጥል።

በ2. ለእያንዳንዱ መልሱ 5 ለተሞላ በ፣ ሀ፣ ረድፍ ለሚገኝ ጥያቄ የሚከተሉትን እየጠየቅህ መልሱን በ በ1 ረድፍ ለ ሙላ፡

ሲጋራ በጣም ይጠቀሙ በነበረበት ወቅት ምን ያህል /ሲጋራ፣ፒፓ፣ሱረት/ በቀን ይጨርሱ ነበር?_____

በ3. ለተከታታይ ቀናት (ካቀዱት በላይ ብዙ ሲጋራ ያጨሱበት ወይንም የተጠቀሙበት) በርካታ ወቅቶች ነበሩ? የለም 1

አዎን.....5

በ4. (አጫጫስዎ/ ትምባሆ አጠቃቀምዎ) ምንም እያደረገ የትም ይሁኑ በመጠንም ሆነ በማጨሻ /በመጠቀሚያ/ ጊዜ የማይቀያየር ሆኖ ያውቃል?

የለም ----------1

አዎን ----------5

በ5. ከአንድ ጊዜ በላይ ሲ..ጋራ ለማቆም ወይም ለመቀነሰ ፈልገው ግን ሊሳካልዎት ያልቻለበት ጊዜ አለ? የለም ----------1

አዎን ----------5

በ6. ለበርካታ ጊዜ ለመቀነሰ ሞክረዋል? የለም ----------1

አዎን ----------5

በ7. ምን ያህል ጊዜ ለ 2 ሳምንት ወይም ከዛ በላይ /ሲ.ጋራ ማጨስ/መጠቀም/ ለማቆም ወይም ለመቀነሰ ሞክረዋል? ሞክረው የማያውቁ ከሆነ '00' ን ሙሉ::

የጊዘ ቁጥር ----------

አሁን ከዚህ ቀጥሎ የተዘረከሩትን ችግሮች ትምባሆ ባቆሙበት ወይም በቀነሰበት ጊዜ እንደነበረብዎት እንዲመልሱልኝ እጠይቀዎታለሁ:: ከ1-12 የተዘረዘረትን እየጠየቅህ ለእያንዳንዱ ሙላ::

	የለም	አዎን
በ8. /ሲ.ጋራ /ቶስካና /ፒፓ/እጅግ በጣም ያሰኝዎ ነበር?	1	5
በ9. በቀላሉ ይነጫነጩ ወይም ይናደዱ ነበር?	1	5
በ10. ውስጥዎ ይሸበር ነበር?	1	5
በ11. ያቅበጠብጥዎ ነበር?	1	5
በ12. ሀሳብዎን ማሰባሰብ ያስቸግሮዎት ነበር?	1	5
በ13. ራስ ምታት ነበረብዎት?	1	5
በ14. እንቅልፍ እንቅለፍ ይልዎት ነበር?	1	5
በ15. ሆድዎ ይታወክ ነበር?	1	5
በ16. የልብ ትርታዎ ፍጥነት ይቀንስ ነበር?	1	5
በ17. የምግብ ፍላጉትዎ ጨምሮ ወይም ክብደት ጨምረው ነበር?	1	5
በ18. እጅዎ ይንቀጠቀጥ ነበር?	1	5
በ19. ይደብትዎት ነበር?	1	5

ከ8-19 ላሉት 5 የተመለሰ ከሌለ ወደ በ '20 ' እለፍ

በ20. በመቀነስ ምክንያት ከመጡት ችግሮች ከሌሎች ሁሉ ለረጅም ጊዘ የቆየው ለምን ያህል ጊዘ ቆየ ወደሚቀርበው ሳምንት አጠጋጋ 1-3 ቀናት =00 4-10 ቀናት = 01

ወዘተ ... ከ4 ሳምንት በታች ከሆነና ለ3 ጊዘ ወይም ከዛ በላይ አቁሞ ከነበረ (በ7 =3+) በ' 10' ን ጠይቅ አለበለዚያ በ' 11' ን ሳምንት ----------/------

በ21. እነዚህ ችግሮች ትምባሆ ከቀነሱ በኋላ ለበርካታ ጊዜየት ነበሩብዎት? የለም ---------- 1 አዎን---------- 5

በ22. እነዚህ ችግሮች እንዳይኖሩብዎት ብለው እንደገና /ማጨስ/መጠቀም/ ጀምረው ያውቃሉ? የለም ---------- 1 አዎን ---------- 5

በ23. ሲጋራ ከማጨስ መቆጠብ አስፈላጊ የሚሆንበትና እንደሆነም በሚያውቁት ከባድ በሽታ ተይዘው /ማጨስ/መጠቀም/ ያላቆሙበት ጊዜ አለ? የለም ---------- 1 አዎን ---------- 5

በ24. ትምባሆ እንደ ሳል ከልብ ወይም ከደም ግፊት ጋር የተያያዘ ችግር ወይም የሳምባ ሕመም የመሳሰሉ የጠጤና ችግሮች አስከትሉብዎት ነበር? የለም /ወደ በ '14' እለፍ/...1 አዎን ---------- 5

ሀ. እነዚህን የጤና ችግሮች እንደሚያመጣ ካወቁ በኋላ ትምባሆ መጠቀም ቀጥለው ነበር? የለም ----------1 አዎን ----------5

በ25. ትምባሆ መጠቀም የውስጥዎን መሸበር ወይም ሌላ የተለየ የውስጥ ስሜት ወይም የአእምሮ ችግር ያስከትልብዎታል? የለም /ወደ በ '15' እለፍ/...1 አዎን ---------- 5

ሀ. ይህን እንደሚያስከትልብዎት ካወቁም በኋላ ትምባሆ መጠቀም ቀጥለው ነበር? የለም ----------1 አዎን ----------5

በ26. ትምባሆ እንደሚያስፈልግዎ ወይም አለትምባሆ መኖር እንደማይችሉ ሆኖ ተሰምተዎት ያውቃል
የለም ----------1
አዎን ----------5
እርገጠኛ አይደሉም-----3

በ27. ትምባሆ ያጨሱ ዘንድ የተውት ወይም በጣም የቀነሱት እንደ እስፖርት ሥራ ወይም ከወዳጅ ወይም ዘመድ ጋር የነበረ የቅርብ ግንኙነት ወይም አሰፈላጊ እንቅስቃሴ አለ?
የለም ----------1
አዎን----------5

.....

ክፍል ሰ Somatoform and Dissociative amnesia

.....

ሰ1. ለጥቂት ሰኮንዶች ወይም ከዚያ በላይ ሁለቱም አይኖችዎ ታውረው ምንም ነገር ማየት አቅቶዎት ነበር?
የለም ----------1
አዎን ----------5

ሰ2. በመነጽር ማስፈለግ ወይም በመነጽር ምክንያት ሳይሆን የሚያዩት ነገር ለተወሰነ ጊዜ ብዥ ያለብዎት ወቅት ነበር?
የለም ----------1
አዎ ----------5

ሰ3. ጨርሶ መስማት የተሳነዎት ወቅት አለ?
የለም ----------1
አዎ ----------5

ሰ4. መራመድ አስቸግሮዎት ያውቃል?
የለም ----------1
አዎ ----------5

ሰ5. ለረጅም ጊዜ በአንድ ዓይነት አቀማመጥ በመቀመጥ ምክንያት ሳይሆን እጅዎን ወይም እግርዎን የመደንዘዝ ስሜት ተሰምቶዎት ያውቃል?
የለም ---------- 1
አዎ ---------- 5

መልሱ የለም ከሆነ ' ሀ' ን ጠይቅ

ሀ. ሌላስ ቦታ የመደንዘዘ ስሜት ተሰምቶዎት ያውቃል ? _____

ሰ6. ሽባ ሆነው ያውቃሉ? ማለትም የሰውነትዎ ክፍል ለጥቂት ደቂቃ ጨርሶ አልታዘዝ ብሎዎት ያውቃል? የለም ---------- 1

አዎ ---------- 5

ሰ7. ለ30 ደቂቃ ወይም ከዚያ በላይ ከሽክሽክታ በላይ ለመናገር ድምጽ ማውጣት ያቃተዎት ጊዜ አለ? የለም ---------- 1

አዎ ---------- 5

ሰ8. 12 ዓመት ከሞላዎት በኋላ ራስዎን ስተው ማንፈራገጥ ወይም ማንቀጥቀጥ ኖሮዎት ያውቃል? የለም ---------- 1

አዎ ---------- 5

ሰ9. የድካም ስሜትና ማዞር ተሰምቶዎት ከዛም ራስዎን የሳቱበት ገባ /መውደቅ/ ገጥሞዎት ያውቃል የለም ---------- 1

አዎ ---------- 5

ሰ10. የሚያዩት ነገር ሁለት ሆኖ እየታየ አስቸግሮዎት ያውቃል?

የለም ---------- 1

አዎ ---------- 5

ሰ11. ከበድ ያለ እንቅስቃሴ ሳያደርጉ ትንፋሽ ማጠር ገጥምዎት የውቃል?

የለም ---------- 1

አዎ ---------- 5

ሰ12. ምቱ በደረትዎ ውስጥ እስኪሰማዎት ድረስ የልብዎ ትርታ በጣም ጨምሮ ያውቃል? / ጉልበት የሚጠይቅ ሥራ በሚሰሩበት ጊዜ ያለውን ሁኔታ ሳይጨምር/

የለም ----------1

አዎን ---------- 5

ሰ13. ራስ ማዞር አሰቸግሮዎት ያውቃል?

የለም ---------- 1

አዎ ---------- 5

ሰ14. በቀላሉ ሊያነሱት ወይም ሊያንቀሳቅሱት የሚችሉትን ነገር ማድረግ እስኪያቀትዎት ድረስ የሰውነትዎ አቅም ማነስ አስቸግሮዎት ያውቃል?

የለም ---------- 1

አዎ ---------- 5

ሰ15. የቆዳ ቀለም መቀየር ወይም መገርጣት አስቸግሮዎት ያውቃል?

የለም ----------1

አዎ ----------5

ሰ16. የመጥፎ ጣዕም ስሜት በአፍዎ ውስጥ ወይም በምላስዎ ላይ ግግር መብዛት አስቸግሮዎት ያውቃል?

የለም ----------1

አዎ ----------5

ሰ17. የመደነዘዝ ወይም የመንቀጥቀጥ ስሜት በጣም አስቸግሮዎት ያውቃል?

የለም ---------- 1

አዎ ---------- 5

ሰ18. ለበርካታ ሰዓታት ወይም ቀናት የሆነውን ነገር ልክ በቦታው እንዳልነበሩ ስለሆነው ነገር ማስተዋል አቅቶዎት /አምኔዥያ ኖሮዎት/ ያውቃል?

የለም ---------- 1

አዎ ----------5

ሰ19. ስለማስታወስ ችሎታዎ ችግር ሐኪም አማክረዉ ያዉቃሉ?

የለም.....1

አዎን.....5

ሰ20. በሐኪሙ ምርመራ ዉጤትና ለበሽታዎ እንዲያደርጉ የነገረዎት ነገር አብዛኛውን ጊዜ አይስማሙም? የለም.....1 አልፎ አልፎ.....2 አዎን.....5

የማስታወስና የማስተዋል ችሎታን የሚያጣሩ ጥቂት ጥያቄዎችን
እጠይቅዎታለሁ፣፣/ብዙዎቹ ቀላል ናቸው፣፣/ መጀመሪያ መልስ ከዚያ ቁጥር ሙላ፣፣

		ትክክል	ስህተት
ሰ21. ያለንበት አመተምህረቱ ስንት ነዉ?	ዓ.ም.....	1	5
ሰ22. ያለነው በየትኛው የአመቱ ወቅት ነው?	ወቅት.....	1	5
ሰ23. ዛሬ ቀነን ስንት ነው?	ቀን.....	1	5
ሰ24. ዛሬ ቀኑ ምንድን ነው?	ቀን.....	1	5
ሰ25. ያለንበት ወር ምንድን ነው?	ወር.....	1	5

ሰ26. ሶስት ነገሮች እላለሁ ካልሁዋቸው በሁዋለላ እርስዎም ደግመው ይሉዋቸዋል፣፣
ከጥቂት ደቂቃዎች በሁዋላ ችንደገና እንዲሉዋቸው ስለምጠይቅዎ ላለመርሳት ይሞክሩ፣፣
'ብርቱካን' 'ጠረጴዛ' 'ሳንቲም' ሶስቱን ነገሮች ደግመው ይበሉ?

የመጀመሪያ ሙከራን ሙላ፣፣	ትክክል	ስህተት
1. ብርቱካን	1	5
2. ጠረጴዛ	1	5
3. ሳንቲም	1	5

ሰ27. ቃ/መ የእጅ ሰዓት አሳይ		ትክክል	ስህተት
ሀ. ይህ ምንድን ነው?	ሰዓት	1	5
ቃ/መ እርሳስ አሳይ			
ለ. ይህ ምንድን ነው?	እርሳስ	1	5

ሰ28. ቅድም እንዲያስታውስ የነገርሁዎት
ሶስት ነገሮች ምን ምን ናቸው?

	ትክክል	ስህተት
1. ብርቱካን	1	5
2. ጠረጴዛ	1	5
3. ሳንቲም	1	5

ክፍል ደ የመንፈስ Anxiety and Phobia

ደ1. በአብዛኛው ሰው ላይ የፍርሃት ወይም የመንፈስ ጭንቀት ሊያሳድር በማይችል ሁኔታ በድንገት የፍርሃት፣ የመንፈስ ጭንቀትና፣ አለመረጋጋት ስሜት ተሰምቶት ያውቃል?

የለም (ወደ ደ "5" አለፍ)..... 1

አዎን 5

ደ2. ይህ የሆነው የሌሎቹ ትኩረት በእርስዎ ላየ ባልነበረበት አደጋ የሚያስከትል ነገር በሌለበት ወይም ሌላ ተመሳሳይ ሁኔታ ባልነበረበት ሁኔታ ነበር? ከሆነ አንድ ገጠመኝዎን ይንገሩኝ።

የለም.....1

አዎን.....5

ምሳሌ----------

ደ4. ድንገተኛ የመፍራትና የአለመረጋጋት ስሜት በተሰማዎት ወቅት ከሚከተሉት ወስጥ የትኞቹ ችግሮች እንደነበሩ ነው ያስተዋሉት? እያንዳንዱን እያነበብክ አዎን ወይንም የለም ለእያንዳንዱ ሙላ። በዛ ወቅት የሚለውን ሃረግ እንደአስፈላጊነቱ ድገም፣፣

	የለም	አዎን
1. ትንፋሽ አጥሮዎት ነበር?	1	5
2. ልብዎ ይመታ ነበር?	1	5
3. አዙሮት ነበር?	1	5
4. ደረትዎን ወይም ጨጓራዎን የመጨበጥ ህመም ወይም ሌላ ጤናማ ያልሆነ ስሜት ተሰምቶዎት ነበር?	1	5
5. ጣቶችዎን ወይም እግርዎን የመደንዘዝ ስሜት ተሰምቶዎት ነበር?	1	5
6. አፍኖዎት ወይም መዋጥ አስቸግሮዎት ነበር?		
7. ገገባ ተሰምቶት ነበር /የመውደቅ ስሜት ተሰምቶዎት ነበር/?	1	5

8. አልቦዎት ነበር?	1	5
9. አንቀጥቅጦዎት ነበር ?	1	5
10. ሞቅታ ወርሶዎት ወይም ቅዝቃዜ ተሰምቶዎት ነበር?	1	5
11. እራስዎ ወይም አካባቢዎ ያሉ ነገሮች የውነት የሌሉ ይመስሉ ነበር?	1	5
12. እሞት ይሆን ብለው ፈርተው ነበር	1	5
13. በሰዉ ዘንድ ተቀባይነት የሌለው ተግባር እፈጽም ይሆን ብለው ፈርተው ነበር	1	5
14. አቅለሽልሾዎት ነበር?	1	5
15. የሆድ ህመም ነበረዎት?	1	5
16. ታፍነው እንደሚሞቱ ዓይነት ተሰምቶዎት ነበር?	1	5
17. አፍዎ ደርቆ ነበር?	1	5

ደ5. አሁን ቢያንስ ለ1 ወር ለሚሆን ጊዜ ይሰማዎት ስለነበረ ሃሳብና የመንፈስ ጭንቀት እጠይቆታለሁ፣፣

ለአንድ ወር ወይንም ከዚያ በላይ ለሆነ ጊዜ የለም.....1

ብዙውን ጊዜ በሐሳብና በጭንቀት ያሳለፉበት አዎን.....5

ጊዜ አለ?

ደ6. በሐሳብና በመንፈስ ጭንቀት ካሳለፉዋቸው ጊዜያት ከሁሉ ይረዝም የነበር ጊዜ ርዝመት ምን ያህል ነው? እንደማያውቅ ለሚመልሰው ይህን ጠይቅ ለ6 ወር ወይም ከዚያ በላይ ነበር? አዎን ለሚመልስ 95 የለም ለሚመልስ 01 አላውቅም ለሚል 98 መላ

የወራት ቁ...../.....

ደ7. በነዚያ የ6 ወይም ከዚያ በላይ የነበራቸው ጊዜያቶች ሊሆኑ ስለማይችሉ ነገሮች ያስቡ ነበር /ስለማይመስሉ/? የለም.....1 አዎን.....5

ደ8. ክበደት ስላልነበራቸው ጉዳዮች ብዙ ይጨነቁ ነበር? የለም.....1 አዎን.....5

ደ9. በነዚያ ጊዜያት የተለያዩ አስጨናቂ ሃሳቦች በአንድ ጊዜ ያስቸግሩዎት ነበር?

የለም.....1
አዎን.....5

ደ10. ሌሎች ሰዎች ሊያደርጉት ወይም ሊደርስባቸው ስለሚችል ነገር ይጨነቁ ነበር?

የለም.....1
አዎን.....5

ደ11. ምን ዓይነት ነገሮች ናቸው ያስጨንቁዎት የነበሩት? ስለ ግል ወይም ከመጠን በላይ

ክብደት.....1

ሌላ የተለየ.....5

ምሳሌ----------

ደ12 አሁን ሊያሳስብዎት ወይም የመንፈስ ጭንቀት ሊፈጥርብዎት ለሚችሉ አንዳንድ ችግሮች እጠይቅዎታለሁ፣፣ እነዚህን ችግሮች ሙሉ በሙሉ ከአካል በሽታ ወይም ጉዳት በተወሰደ
መድኃኒት ዕፅ ወይንም አልኮል ምክንያት ብቻ ላይሆን ይችላል የሚፈጠሩት።።

ሊያሳስብዎት ወይም የመንፈስ ጭንቀት ሊፈጥርብዎት የሚለውን እያስቀደመክ የሚከተሉትንጠይቅ	የለም	አዎን
1. በቀላሉ ይደክሙ ነበር?	1	5
2. በቀላሉ ይደነግጡ ነበር?	1	5
3. ይንቀጠቀጡ ነበር?	1	5
4. ያቅበጠበጥዎት ነበር?	1	5
5. ሃሳብዎን በሚሠሩት ነገር ላይ መሰብሰብ ያስቸግርዎት ነበር?	1	5
6. በተለይ ይነጫነጩ ነበር?	1	5
7. ብዙ አልቦዎት ያውቃል?	1	5
10. የልብዎ ምት ትርታና ምት መጨመር ታውቆዎት ነበር?	1	5
11. እጆችዎ ቀዝቅዘው ነበር?	1	5
12. ማዞር ተሰምቶዎት ነበር?	1	5

ከ1-12 ላሉት ከ 4 ያነሰ 5 ከተሞላ ወደ ደ13 እለፍ፣፣

ደ13 አነዳንድ ሰዎች ብዙ ሰው በሚሰበሰብበት ወይም በሚገኝበት ቦታ ሲገኙ ቤታቸውን ለቀው ለብቻቸው ሲሄዱ በአውቶቡስ በመከና ወይም በባቡር ሲጓዙ ወይም ድልድይ ሲሻገሩ ምክንያት የለሽ ከፍተኛ ፍርሃት ስለሚሰማቸው በጣም ይረበሻሉ አለበለዚያ እንዲህ ዓይነት ሁነታ እንዳይገጥማቸው ይሸሻሉ። እንዲህ ዓይነቱ ሁኔታ ሁልጊዜም በጣም ያስፈራዎት የነበረ ጊዜ ነበር? የለም.....1

አዎን.....5

ሀ. ይህ ምክንያት የለሽ ፍርሃት የነበረብዎት?

	የለም	አዎን
1. በተጨናነቀ ሰው መሃል ሲሆኑ ወይም ተራ ይዘው ሲሰለፉ ነበር?	1	5
2. ቤትዎን ለቀው ሲሄዱ ወይንም ለብቻዎ ከቤትዎ በራቁበት ጊዜ ነበር?	1	5
3. በሕዝብ መሰብሰቢያ ቦታ ነበር?	1	5
4. በአውቶቡስ በመከና በባቡር ወይም በአውሮፕላን ሲጓዙ ነበር?	1	5
5. ድልድይ ሲ.ሻገሩ ነበር?	1	5

5 የተሞላ ካለ ምሳሌ ጠይቅ

ምሳሌ ----------

ደ14. በጠቀሱት ዓይነት ሁኔታ በነበሩበት ጊዜ የሚከተሉት ነበረዎት?	የለም	አዎን
1. ማዞር	1	5
2. ማላብ	1	5
3. ማንቀጥቀጥ	1	5
4. አፍ መድረቅ	1	5
5.የልብ በሃይል መምታት	1	5

ደ15. በዘህ ምክንያት የለሽ ፍርሃት ምክንያት ሁኔታዎች እንዳይገጥምዎ ሸሽተው ያውቃሉ?

የለም.....1

አዎን.....5

ደ16. ከተጠቀሱት ምክንያት የለሽ ከባድ ፍርሃት/ቶች/ ለወራት ወይም ለአመታት የቀጠሉ ነበሩ? የለም.....1 አዎን.....5

ደ17. እነዚህ ፍርሀቶች ስላሉብዎት በጣም ተረብሸው ያውቃሉ?

የለም.....1

አዎን.....5

ክፍል አ Dysthymic and Major Depression

አ1. በሕይወትዎ ለሁለት ሳምንት ወይም ከዚያ በላይ በየዕለቱ የሐዘን የመከፋት የመደበት ተሰምቶዎት ያውቃል? — የለም.....1; አዎን.....5

አ2. አንዳንድ ቀቀን ጥሩ ስሜት ቢኖርዎት እንኳን በህይወትዎ ለሁለት ዓመት ወይም ከዚያ በላይ አብዛኛዎቹን ቀናት ይደብትዎት ወይም ይከፋዎት የነበረበት ጊዜ አለ? — የለም (ወደ አ7 እለፍ).....1; አወን (ሀ ን ጠይቅ).....5

አ3. በዚያ ወቅት ብዙ ጊዜ ያለቅሱ ነበር?

የለም.....1

አዎን.....5

አ4. በዚያን ገዜ በተደጋጋሚ የተስፋ መቁረጥ ስሜት ይሰማዎት ነበር? — የለም.....1; አዎን.....5

አ5 በዚያ የሁለት ዓመት ወይም የበለጠ ጊዜ ኃላፊነትዎን መወጣት ወይም የዕለት ተዕለት ተግባርዎን ማከናወን እንደማይችሉ ሆኖ ብዙ ጊዜ ይሰማዎት ነበር? — የለም.....1; አዎን.....5

አ6. በዚያን ወቅት ሕይወትዎ ሁሉ የተበላሸ እንደ ነበርና ሊሻሻል እንደማይችል ይሰማዎት ነበር? — የለም.....1; አዎን.....5

የምግብ ፍላጎት

	የለም	አዎን
አ7. ሁለት ሳምንት ወይም ከዚያ በላይ ለሆነ ጊዜ የምግብ ፍላጐትዎ የቀነሰበት ወቅት ነበር?	1	5
አ8. በተጠቀሰው ወቅት የምግብ ፍላጐትዎ ሙሉ በሙሉ ጠፍቶ ነበር?	1	5
አ9. ክብደትዎን ለመቀነስ ሳይሞክሩ ለበርካታ ሳምንት እስከ አንድ ኪሎ ወይም በጠቅላላው እስከ 4.5 ኪሎ ክብደት ቀንሰው ያውቃሉ?	1	5

አ10. በእድገት ላይ ከነበሩ ወይም በእርግዝና ወቅት ሳይሆን ቢያንስ ለሁለት ሳምንት የምግብ ፍላጐትዎ የጨመረበት ወቅት ነበር? 1 5

አ11. አበላልዎ በጣም ጨምሮ በየሳምንቱ እስከ አንድ ኪሎ ለበርካታ ሳምንታት ወይም በድምሩ 4.5 ኪሎ የጨመሩበት ጊዜ ነበር? 1 5

እንቅልፍ ማጣት

	የለም	አዎን
አ12. ለሁለት ሳምንት ወይም ከዚያ በላይ በየምሽቱ እንቅልፍ አልወስድ እያለዎት ተቸግረው ያውቃሉ?	1	5
ሀ. ለሁለት ሳምንት ወይም ከዚያ በላይ በየምሽቱ ከተኙ በኋላ ቢያንስ ለሁለት ሰዓት እንቅልፍ አልመጣ ብሎት ያውቃል	1	5
አ13. ለሁለት ሳምንት ወይም ከዛ በላይ በምሽቱ ያልተቋረጠ እንቅልፍ መተኛት እምቢ ብሎት ተቸግረው ያውቃሉ?	1	5
ሀ. ለሁለት ሳምንት ወይም ከዚያ በላይ በየምሽቱ ከእንቅልፍ ነቅተው ለአንድ ሰዓት ወይም ከዚያ በላይ እንቅልፍ አልወስድ ብሎት ያውቃል?	1	5
አ14. ለሁለት ሳምንት ወይም ከዚያ በላይ በየለሊቱ ከመንጋቱ ቀደም ብለው ከእንቅልፍዎ በመንቃት ተቸግረው ያውቃሉ?	1	5
አ15 ለሁለት ሳምንት ወይም ከዛ በላይ በየዕለቱ በጣም ብዙ ያንቀላፉበት ወቅት ነበር?	1	5

ድካም

	የለም	አዎን
አ16. ለሁለት ሳምንት ወይም ከዚያ በላይ ጉልበት አንሶዎት ወይም ከባድ ሥራ ቢሰሩም ባይሠሩም ያለማቋረጥ የድካም ስሜት ተሰምቶዎት ያዉቃል?	1	5
ሀ. ለሁለት ሳምንት ወይም ከዚያ በላይ ጉልበትዎ ሙሉ		

ለመሉ ከድቶዎት ያውቃል?	1	5
አ17. ለሁለት ሳምንት ወይም ከዚያ በላይ ጠዋት ሲነሱ በጣም መጥፎ ስሜት ይሰማዎት የነበረና ቀኑ እየረፈደ ሲሄድ ግን እየተሻለዎት የነበረበት ወቅት ነበር?	1	5

ዝግታ/መቅበዝበዝ/ ረፍት ማጣት

	የለም	አዎን
አ18. ለሁለት ሳምንት ወይም ከዛ በላይ በየዕለቱ የአነጋገርዎ ወይም የእንቅስቃሴዎ ፍጥነት ከወትሮ ቀንሶ ያውቃል?	1	5
ሀ. በዛ/በነዘያ ወቅት/ቶች/ የአነጋገርዎ ወይም የእንቅስቃሴዎ ፍጥነት መቀነሱን ያስተዋለ ሌላ ሰው ነበር?	1	5
አ19. ለሁለት ሳምንት ወይም ከዚያ በላይ ያለማቋረጥ መንቀሳቀስ የነበረብዎት ማለትም አርፎ መቀመጥ እያቃተዎት ወዲያና ወዲህ ይሄዱበት የነበረበት ወቅት ነበር?	1	5

የፍትዎት ፍላጎት ማጣት

አ20. ለበርካታ ሳምንታት ለፍትወት የነበሮት ፍላጐት ከወትሮው በጣም የቀነሰ ሆኖ ያውቃል?	1	5
ሀ. ለፍትወት ያለዎት ፍላጐት ሙሉ በሙሉ ጠፍቶ ያውቃል?	1	5
አ21. ለሁለት ሳምንታት ወይም ከዚያ በላይ እንደ ሥራ የትርፍ ጊዜ ዝንባሌና ሌላ ለሚያስደስትዎ ያደርጓቸወ የነበሩ ነገሮች ለማድረግ የነበረዎት ፍላጐትዎ ቀንሶ ያውቃል?	1	5
ሀ. እንደ ሥራ የትርፍ ጊዜ ዝንባሌና ሌላ ስለሚያስደስትዎ ነገሮች ለማድረግ የነበሮት ፍላጐት ሙሉ ለሙሉ ጠፍቶ ያውቃል?	1	5
አ22. ለሁለት ሳምንት ወይም ከዚያ በላይ እንደ ውድድር ማሸነፍ መመስገን ወይም መከበር ያሉ ጥሩ ነገሮች ሲገጥምዎት በሁኔታዎች ላይ የደስታ ስሜት ሊሰማዎት ያልቻለበት ወቅት ነበር?	1	5

ዋጋ ቢስ

አ23. ለሁለት ሳምንት ወይም ከዚያ በላይ በየዕለቱ የሚከተሉት ስሜቶች ይሰሙዎት የነበረበት ወቅት ነበር?	የለም	አዎን
1. ዋጋቢስነት	1	5
2. ኃጢያተኝነት	1	5
3. የፀፀት	1	5
ሀ. ለሳምንት ወይም ከዚያ በላይ ሙሉ ለሙሉ የዋጋ ቢስነት ስሜት ተሰምቶዎት ያውቃል?	1	5
አ24. ለሁለት ሳምንት ወይም ከዚያ በላይ እንደ ሌሎች ሰዎች ጥሩ እንዳልሆኑ ወይም የዝቅተኝነት ስሜት ተሰምቶት ያውቃል?	1	5
አ25. ለሁለት ሳምንታት ወይም ከዚያ በላይ በራስ መተማመንዎ አንሶ ምንም ዓይነትን ነገር በተመለከተ ለመወሰን መሞከር የተውበት ወቅት ነበር?	1	5

የሞት ሃሳብ	የለም	አዎን
አ26. ለሁለት ሳምንታት ወይም ከዚይ በላይ ስለ ሞት ያሰቡበት ወቅት ነበር/ ስለ ራስዎ ሞት ወይም ስለ ሌላ ሰው ሞት ባጠቃላይ ስለ ሞት?	1	5
አ27. ለሁለት ሳምንት ወይም ከዚያ በላይ ለመሞት መፈለግ ስሜት ይሰማዎት የነበረበት ወቅት ነበር?	1	5
አ28. ደስታን የሚቀንስ ስሜት ኖሮብዎት ራስዎን ለመግደል አስበው ያውቃሉ?	1	5
አ29. ራስዎን ለመግደል አስበው ያውቃሉ?	1	5

አ30. ችግሮቹ በአንድ ላይ በነበሩብዎት ወቅት ጥሩ ስሜት ነበረብዎት ወይስ ስሜትዎ ቀንሶ የሐዘን የመከፋት ስሜትና ለሁሉ ነገር ያለዎት ፍላጐት የመቀነስ ሁኔታ ነው የነበረብዎት? 1 5

ክፍል ፌ Manic depression/Bipolar disorder

ፌ1. በያንስ ሁለት ቀናት ወይም ከዛ በላይ በጣም ስለተደሰቱ ስለ ፈነጠዙ ወይም ስሜትዎ ከፍ ስላለ ችግር ላይ የወደቁበት ዘመድ ወዳጅ የተጨነቀበት በሐኪም ወፈፌ /ማኒክ/ እንደሆኑ የተነገረዎት ወቅት አለ?	የለም 1	አዎን 5
ፌ2. ለበርንታ ቀናት በጣም ነጭናጫ የሆኑበትና በዘህም ምክንያት ነገሮችን የወረወሩበት ወይም የሰበሩበት ጭቅጭቅ የጀመሩበት ሰወ ላይ የደነፉበት ወቅት አለ?	1	5
ፌ3. ከወትሮው በላይ የሰውነትዎ እንቅስቃሴ በጣም ጨምሮ ቤተሰብዎን ወይም ጓደኞዎን ያሳሰበበት ወቅት አለ?	1	5

ፌ4. መረን ያለፈ ገንዘብ አወጣጥ ያወጡበት የነበረና በዚህም ምክንያት ራስወን ወይም ቤተሰብወን የገንዘብ ችግር ዉስጥ የከተቱበት ወይም ገንዘብን በተመለከተ የሞኝነት ዉሳኔዎችን ይወስኑበት የነበረ ወቅት አለ?

የለም.....1 አዎን.....5

ፌ5. የፍትዎት ፍላጎትዎ ለርስዎ ከተለመደዉ በጣም የጨመረበትና በዚህም ምክንያት የግብረስጋ ግንኙነት ፍላጎትዎ ከወትሮዉ በጣም የበለጠና የበዛበት ወይም ወትሮዉን ሊያደርጉዋቸዉ ከሚፈልጉ ሰዎች ሌላ ጋር ማድረግ ያስፈልግዎት የነበረበት ጊዜ አለ?

የለም.....1

አዎን.....5

ፌ6. የንግግርዎ ፍጥነት በጣም የጨመረበትና ሰዎች ሊረዱዎት እንዳልቻሉ የገለፁበት ወይም ንግግርዎ የማያቁዋርጥና ማለቂያ የሌለዉ የሆነበት ወቅት አለ?

የለም.....1

አዎን.....5

ፌ7. ሐሳብዎችዎ በአእምርዎ ዉስጥ በጣም በፍጥነት እየተፈጠሩ ሊከጣጠሩዋቸዉ ከሚችሉት በላይ የሆኑበት ወቅት ነበረ? የለም.....1

አዎን.....5

ፈ8. ሌሎች ሊያደርጉት የማይችሉትን ነገር ማድረግ የሚያስችልዎት ልዩ ተሰጥዎ ወይም ሀይል እንዳለዎት ወይም በጣም ልዩና አስፈላጊ ሰዉ እንደሆኑ ይሰማዎት የነበረበት ወቅት አለ?

የለም.....1

አዎን.....5

ፈ9. እጅግ በጣም ጥቂት ብቻ እንቅልፍ ይወስድዎት የነበረበት ነገር ግን የድካም ስሜትም ሆነ እንቅልፍ እያስቸገርዎት የነበረበት ወቅት አለ?

የለም.....1 አዎን.....5

ፈ10. በቀላሉ ሀሳብዎ ይበታተን የነበረበትና ማነኛዉም ቀላል ነገር ከሚያስቡት ያቁዋርጥዎት የነበረበት ጊዜ አለ? የለም.....1

አዎን.....5

ፈ11. የ/ደስታ/ ፈንጠዝያ/ማኒክ/መነጫነጭ/ ተመጣጣኝ የባለቤቱ ቃል/ ና አንዲሁም በተጨማሪ እንደ /ከ ፈ3--ፈ10 ማ/ጥ 5 የተሞሉትን ዘርዝር/ ስሜቶችና ገጠመኞች እንደነበርዎት ገልፀዋል። የ/ደስታ/ ፈንጠዝያ.../ዉ ስሜት ሌሎች ከላይ ከተጠቀሱ ስሜቶች ጋር አብረዉ ኖረዉብዎት ያዉቃሉ?

የለም.....1 አዎን.....5

ፈ12. በዚህ ምክንያት ሆስፒታል ተኝተዉ /ለአንድ ሌሊት/ ያዉቃሉ?

የለም.....1

አዎን.....5

.....

ክፍል ገ Schizophrenia

.....

ገ1. አሁን የምጠይቅዎት ስለሰዎች ሊኖርዎት ስለሚችል አንዳንድ ሐሳብ ነዉ።

ሰዎች እየሰለሉኝ ነዉ ብለዉ አምነዉ ያዉቃሉ? የለም.....1

አዎን.....5

ገ2. ሰዎች እየተከታተሉኝ ነዉ ብለዉ ያመኑበት ወቅት ነበር?

የለም.....1

አዎን.....5

ገ3. የሚደልትብኝ ሊጎዳኝ የሚሞክር ወይም መርዝ ሊያረግብኝ የሚሞክር ሰዉ አለ ብለዉ አምነዉ ያዉቃሉ? የለም.....1 አዎን.....5

ገ4. የማስበዉን የሚያዉቅብኝ ሰዉ አለ ብለዉ አምነው ያውቃሉ? የለም.....1

አዎን.....5

ገ5. ሰውየው ባይናገር እንኩዋን ሌላ ሰው የሚያስበውን በእርግጥ የመስማት ችሎታ አለኝ ብለው አምነው ያውቃሉ? የለም.....1

አዎን.....5

ገ6. የማስበውን ሌሎች ሊሰሙ ይችላሉ ብለዉ አምነዉ ያዉቃሉ? የለም.....1

አዎን.....5

ገ7. በልዩ ሐይል ወይም ግፊት ቁጥጥር ስር ስለሆንሁ ድርጊቶችና ሐሳቦቼ የኔ አይደሉም ብለው አምነው ያውቃሉ? የለም.....1

አዎን.....5

ገ8. እንግዳ የሆኑ ሀሳቦች የርስዎ የራስዎ ያልሆኑ ሀሳቦች በቀጥታ በአእምሮዬ ውስጥ እንዲገቡ እየተደረገ ነው ብለዉ አምነዉ ያውቃሉ? የለም.....1

አዎን.....5

ገ9. ከአዕምሮዬ ውስጥ ሀሳቤን ሊወስድ ወይም ሊሰርቀኝ የሚችል ሰው ወይ ነገር አለ ብለው አምነው ያውቃሉ? የለም.....1

አዎን.....5

ገ10 ሙሉ ለሙሉ ንቁ በሆኑበት ወቅት በአካባቢዎ ያሉ ሰዎች ሳያዩት ለእርስዎ ብቻ የሚታይ ነገር አይተው ያውቃሉ? የለም.....1

አዎን.....5

ገ11. ከአንድ ጊዜ በላይ ለሌሎች የማይሰማ እንደ ንግግር ያለ ድምፅ ተሰምቶዎት ያውቃል?

የለም.....1

አዎን.....5

ገ12. ለሌሎች የማይሰማ ንግግር ተሰምቶዎት ያውቃል?

የለም (ወደ ገ15 እለፍ).....1

አዎን.....5

ሀ. ይህ ንግግር ከሰውነትዎ አንዱ ክፍል ነው ይሚመጣው? የለም.....1

አዎን.....5

ለ. እርስዎ በሚያረጉት ድርጊት ላይ ወይም በሚያስቡት ነገር ላይ አስተያየት የሚሰጥ ለሌሎች የማይሰማ ንግግር ተሰምቶት ያውቃል? ለም.....1

አዎን.....5

ሐ. በሁለት ወይም ከዛ በላይ ድምፆች መካከል የሚደረግ ለሌሎች የማይሰማ እርስ በርስ የሚደረግ ንግግር ተሰምቶዎት ያውቃል?

የለም 1

አዎን.....5

ገ13. እንዴት ነው ሌሎች የማይሰሙት ንግግር ሊሰማዎት የቻለው?

መዝግብ.....

ገ14. ይህ ለሌሎች የመይሰማ ለእርስዎ የሚሰማዎትን ንግግር ከጥቂት ደቂቃዎች ለበለጠ ጊዜ ሰምተዋል? የለም.....1

አዎን.....5

ገ15. ለሌሎች ሰዎች ያልሸተተ እንግዳ የሆነና ምናልባትም ከርስዎ ሰውነት ሊመጣ የሚችል መጥፎ ሽታ እየሸተትዎት አስቸግሮዎት ያውቃል?

የለም.....1 አዎን.....5

ገ16. የ/ ገ1.../ ስሜት ከተፈጠረብዎት በሁዋላ ስራዎን ከመፍጠራቸው በፊት ያከናውኑት የነበረውን ያህል ማከናወን አልቻሉም ነበር?

የለም.....1 አዎን.....5

ገ17. የ/ ገ1.../ ስሜት ከተፈጠረብዎት በሁዋላ ጉዋደኛ የማፍራት ችሎታዎ ከፊቱ ቀንሶ ወይም ማህበራዊ ግንኙነቶችዎ እንደበፊቱ አላስደስት ብሎዎት ነበር?

የለም.....1

አዎን.....5

.....

ክፍል ሐ **Eating disorders**

.....

ሐ1. አሁን የሰውነት ክብደትዎን በተመለከተ ስለነበርዎት ችግር አንዳንድ ጥያቄዎች ልጠይቅዎት እፈልጋለሁ።

የስውነትዎ ክብደት፡ የሚወስዱት የምግብ መጠን ወይም በጣም መወፈር አሳስቦዎት ያውቃል?

የለም.....1

አዎን.....5

ሐ2. በጉዋደኞችዎ ወይም በዘመዶችዎ በጣም ቀጭን ነዎት ወይም አጥንት ብቻ ይመስላሉ ተብለው ያዉቃሉ? የለም.....1

አዎን.....5

ሐ3. ክብደትዎን ለመቀነስ ወይም ለመቆጣጠር ፡

	የለም	አዎን
1. ውፍረት ከሚያመጡ ምግቦች ተቆጥበው ነበር?	1	5
2. መድሀኒት ወይም ክሊን ወስደው ነበር?	1	5
3. አውቀው ያስታውኩ ነበር?	1	5
4. የሆድ ድርቀት ወይም ሆድ የሚያጥብ መድሀኒት ወስደው ነበር?	1	5

ሐ4. ከወትሮው የተለየ በጣም የበዛ ምግብ በጥቂት ሰዓታት ውስጥ ይበሉ የነበረበት ጊዜ ነበር?

የለም (ወደ የ1 እለፍ) 1

አዎን.....5

ሐ5. እንዲህ አይነት ብዙ ወቅቶች ነበሩ? የለም (ወደ የ1 እለፍ).....1

አዎን.....5

ሐ6. ለ3 ወራት ወይም ከዛ በላይ ቢያንስ በሳምንት ሁለት ጊዜ ከወትሮው በጣም የበዛ ምግብ በአጭር ጊዜ ይበሉበት የነበረ ወቅት አለ? የለም.....1

አዎን.....5

ሐ6. ይህ ብዙ ምግብ በአጭር ጊዜ ይበሉበት የነበረውን አይነት አበላልዎን ማቆም ይሳነኝ ይሆናል ብለዉ ፈርተው ያውቃሉ? የለም.....1

አዎን.....5

.....

ክፍል የ Alcohol dependence

.....

የ1. አሁን አልኮል ስላላቸው መጠጦች አንዳንድ ጥያቄ እጠይቃለሁ።

ምን አይነት አልኮል ያለው መጠጥ ጠጥተው ያውቃሉ?

መዝግብ.....

የ2. በህይወተዎ ባለፈው አመት ያጠጡት ከነበረው መጠን የበለጠ ጠጥተው የሚያውቁበት ወቅት ነበር? የለም (ወደ የ5 እለፍ).....1

አዎን.....5

የ3. ከመቸውም ጊዜ የበለጠ ብዙ ይጠጡ በነበረበት ወቅት በየምን ያህሉ ጊዜ ይጠጡ ነበር?

በየቀኑ ግድም.....1

በሳምንት 3 ወይም 4 ቀናት.....2

በሳምንት 1 ወይም 2 ቀናት.....3

በወር ከ1 እስከ 3 ቀናት.....4

በወር ከአንዴ በታች.....5

የ4. በመጠጥ ሀይል ተገፋፍተው መጥፎ አወዳደቅ መውደቅ፤ የሰውነት መቁሰል፤ የመኪና አደጋ በራስዎ አድርሰዉ ያዉቃሉ? የለም (ወደ የ6 እለፍ).....1

አዎን.....5

ሀ. ይህን አደጋ እንዳስከተለብዎት ከተረዱ በሁዋላ እንደገና ጠጥተዋል?

የለም.....1

አዎን.....5

የ5 መጠጣትዎ ወይም በጠጡ ማግስት የሚሰማዎ ጉዳት ሰራ መስራት፤ ልጆችዎን መንከባከብ... ብዙ ጊዜ ይከለክሎዎታል? የለም.....1

አዎን.....5

የ6. አብዛኛውን ጊዜ መጠጣት ሲጀምሩ ከጠበቁት የበለጠ መጠን ወይም ካቀዱት ለረዘመ ጊዜ ይጠጣሉ? የለም.....1

አዎን.....5

የ7. መጠጥ መቀነስ ወይም ማቆም ከዚህ የሚከተሉትን አምጥቶብዎት ያውቃል?

	የለም	አዎን
1. የእጅ መንቀጥቀጥ	1	5
2. እንቅልፍ ማጣት	1	5
3.መደበት /ወይም መጨነቅ	1	5
4. ማላብ	1	5
5. የልብ ትርታ መፍጠን	1	5
6. የራስ ምታት	1	5
7. የአቅም ማነስ	1	5
8. የሌለ ነገርን ማየት ወይም መስማት	1	5

የ9. በመጠጥ ምክንያት የሚፈጠሩ በርካታ የጤና ችግሮች አሉ። ከሚከተሉት ውስጥ የትኞቹ ችግሮች በመጠጥ ምክንያት ተፈጥሮብዎት ነበር?

	የለም	አዎን
1. የጨጉዋራ ህመም ወይም ማስታወክ	1	5
2. እግርን የመጠዝጠዝ፣ የመደንዘዝ ስሜት	1	5
3. የመርሳት ችግር/ ባልጠጡበትም ጊዜ/	1	5
4. የቆሽት በሽታ	1	5

የ10. አልኮል ከዚህ የሚከተሉትን የውስጥ ሥሜት ወይም የስነልቦና ችግሮች አስከትሎብዎት ያውቃል?

	የለም	አዎን
1. በነገሮች ላይ ያለዎት ፍላጎት መቀነስ	1	5
2. የመደበት ስሜት	1	5
3. ሌሎችን የመጠርጠር ስሜት	1	5
4. ያልተለመዱ ሐሳቦች	1	5

ክፍል ከ Sexual disorders

ነ1. አሁን ፍትወትን የተመለከተ ጥያቄዎች እጠይቃለሁ፣፣ በአጠቃላይ ሲታይ ፍትወት ለእርስዎ አስፈላጊ ነበር ወየስ ቢቀርም ያለምንም ችግር መኖር ይችሉ ነበር?

አስፈላጊ ነበር.....1

ቢቀርም ያለምንም ችግር ይኖራል.....5

የፍትወት ስሜት የሌለው.....8

ነ2. ተጠያቂው የፍትወት ስሜት እንደሌላቸው ገልፀዋል?

የለም.....1

አዎን (ወደ ቃ/መ እለፍ)....5

ነ3. ተጠያቂው ፍትወትን በተመለከተ እምቢተኛ ናቸው?

የለም.....1 አዎን (ወደ ቃ/መ እለፍ)....5

ነ4. የግብረ ስጋ ግንኙነት የአካል ህመም አስከትሎብዎት ያውቃል?

የለም.....1

አዎን.....5

ነ5. በህወትዎ ለበርካታ ወራት የግብረ ስጋ ግንኙነት /የህመም ስሜት በማይፈጥርብዎት ጊዜም/ የማያስደስት ሆኖ ያውቃል? የለም.....1

አዎን.....5

ነ6. ሌላ ያልተጠቀሰ የፍትወት ችግርስ አለብዎት? / ሰወንዶች ሰምሳሌ ለሁለት ወር ወይም ከዚያ በላይ ብልት አልቆም ብሎ ማስቸገር፣፣/ ችግር የሌለባቸው.....1

ችግር ያለባቸው.....5

ቃ/መ ይህ የመጨረሻ ጥያቄ ነው፣፣ ሁሉን ሰው ጠይቅ፣፣

እንደተመለከቱ ስለ በርካታ የተለያዩ የዉስጥ ሥሜት ችግሮች እንዲሁም በሰዎች ሊኖሩ የሚችሉ ልምዶችን ተመለከቱ ጥያቄዎችን ለመጠየቅ ሞክሬያለሁ፣፣ ሆኖም ሰው ሁሉ የተለያየ ስለሆነ ምናልባት እርስዎ በጣም አስፈላጊ ነው ብለው የሚያምኑት የዘለልሁት ነገር ሊኖር ይችላል፣፣ መነሳት ሲገባቸው ያልተነሱ ሌላ ሊገልፁልኝ የሚፈልጉዋቸው ችግሮች አሉ?

ቃልበቃል መዝግብ_____

Appendix B

አዲስ በበባ ዩኒቨርሲቴ

ድህረ ምረቃ ፕሮግራም

የሳይኮሎጂ ትምህርት ክፍል

<u>ለደብረማርቆስ ማረሚያ ቤት ጽ/ቤት ኃላፊ የቀረበ ቃለ መጠይቅ</u>

1.የታራሚዎችን ጤና አጠባበቅ በተመለከተ በማረያ ቤቱ ዉስጥ አየተሰጡ ያሉ የጤና አገልግሎቶች ካሉ ምን ምን እንደሆኑ ቢገልፁልኝ?

2.ታራሚዎች የሚገጥማቸውን ማነኛውንም አይነት ችግሮች መፍታት እንዲችሉ አገዛ የሚያደርጉላቸው ባለሙያዎች በሚፈለገው መጠን ይገኛሉ? ባለሙያዎች ካሉ በምን በምን ዘርፍ የሰለጠኑ ናቸው?

3.ታራሚዎች በማረሚያ ቤቱ የቆይታ ጊዜያቸው ውስጥ ተገቢውን ትምህርትና ሙያዊ ክህሎቶችን አግኝተው ከጥገኝነት እንዲላቀቁና አራሳችውን በመቻል አምራች ዜጋ እንዲሆኑ ለማስቻል እየተደረጉ ያሉ እንቅስቃሴዎች ካሉ በዝርዝር ቢገልጹልኝ?

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

Name: Menwagaw Terefe

Signature: _____ 24/08/2007