

**PATTERN OF PSYCHIATRIC MORBIDITIES AND GAPS IN
DIAGNOSIS AMONG PATIENTS AT THE SIERRA LEONE
PSYCHIATRIC HOSPITAL, FREETOWN**

BY

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DECLARATION

The researcher declare that this is his original work and has not been presented in any other university or institution for an award of a degree or any academic credit. No part of this work may be reproduced or transmitted in any form without prior permission from the author or University of Nairobi.

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DEDICATION

I would like to dedicate this work to God who has made it possible for me to be who I am today, through the help of my parent, wife, and numerous other persons, who have in one way or other, helped me realize my true potential.

I am forever grateful.

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LIST OF ABBREVIATIONS

APA	American Psychiatric Association
AUD	Alcohol Use Disorders
CIDI	Composite International Diagnostic Interview
DALY	Disability Adjusted Life Years
D. I. P.	Drug Induced Psychosis
DSM	Diagnostic and Statistical Manual of Mental Disorders
GAD	General Anxiety Disorder
GBD	Global Burden of Disease
GDP	Gross Domestic Product
IBM	International Business Machine
ICD	International Classification of Disease
IDP	Internally Displaced Persons
LMIC	Low and Middle Income Countries
MDD	Major Depressive Disorder
MHLAP	Mental Health Leadership and Advocacy Program
M. I. N. I	Mini International Neuropsychiatric Interview
MOHS	Ministry of Health and Sanitation
NGO	Non-Governmental organization
OCD	Obsessive Compulsive Disorder
Pro MIND	Profile on Mental Health in Development
PTSD	Post Traumatic Stress Disorder
SCAN	Schedules for Clinical Assessment in Neuropsychiatry
SCID	Structural Clinical Interview DSM
SLPH	Sierra Leone Psychiatric Hospital
SPSS	Statistical Package for Social Sciences
WHO	World health organization
YLD	Years Lived with Disability

DEFINITION OF TERMS

DSM-IV: Diagnostic and Statistical Manual of Mental Disorders fourth edition

Mini plus: Mini-International Neuropsychiatric Interview is a short structured diagnostic interview for diagnosis of DSM-IV and ICD-10 psychiatric disorders. The Mini-International Neuropsychiatric Interview (**M.I.N.I.**): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. (Sheehan et al., 1998)

Schizophrenia: Is a psychotic disorder characterized by a disturbance of thinking, perception, and emotions characterized by hallucinations, disorganized speech, grossly disorganized or catatonic behavior, with the ability to cause lifelong disabilities (APA, 2008).

Schizophreniform disorder: Is a mental disorder characterized by a disturbance of thinking, perception and is similar to schizophrenia except duration which in most cases is usually at least between one to 6 months (APA, 2008).

Delusional disorder: Is a mental disorder condition with manifestations of non-bizarre delusions lasting for at least a month (APA, 2008)

Brief psychotic disorder: Disorder characterized by sudden onset of, hallucinations, disorganized speech or catatonic behavior lasting for a day or more, but no longer than one month. (APA, 2008).

Bipolar disorder: Is a type of psychosis with one or more manic or mixed episodes, accompanied by depressive episodes characterized by mood-congruent psychotic symptoms mostly leading to hospitalizations for treatment (APA, 2008).

Substance-induced psychotic disorder: These are diseases resulting from the abuse of substances such as alcohol and are characterized by hallucinations due to the direct physiological effects of a substance (APA, 2008).

Psychiatric disorder due to the general medical condition: These are mental disorders which result from direct physiological effects of a medical condition such as temporal lobe epilepsy, brain and central nervous system infections (APA, 2008).

ABSTRACT

Background: Mental health is an essential and integral component of health. Sierra Leone, which emerged from decade-long civil war and recently suffered from the worst outbreak of Ebola virus, left many citizens of the nation mentally traumatized with high incidences of undiagnosed mental disorders. Timely and accurate diagnosis of mental health problems is essential in the management of these diseases. The pattern of psychiatric conditions in the hospital is not well known with little available data derived from WHO estimates.

Aim: The study was designed to determine the pattern of psychiatric morbidities and gaps in diagnosis among patients at the Sierra Leone Psychiatric Hospital, Freetown.

Study Design: The study employed a hospital based descriptive cross-sectional survey.

Method: 385 patients were screened for eligibility and approached for informed consent/assent. Patients working diagnosis was abstracted from patient charts and interviewed using M.I.N.I. Plus and researcher designed socio-demographic questionnaire. Comparisons made between working and M.I.N.I. Plus diagnosis.

Results: A total of 385 patients interviewed. Over two-thirds (66%) were males and 34% females. The majority was in the 15 to 19 years (19%) and 20 to 24 years (20%) age groups with 41% had Family History of Mental Illness and 45% on their first admission. Drug Induced Psychosis, SUD, and Psychotic disorder were mainly the diagnosis on patient's charts with a substantial proportion (17.7%) undefined. M.I.N.I. Plus diagnosed all patients with the psychotic disorder the most common (74%), followed by Alcohol used disorder (AUD), Substance used disorder (SUD) and Post-traumatic stress disorder (PTSD). It was observed that 91% had more than one psychiatric morbidities and variation between diagnosis in patient's charts and diagnosis by MINI Plus with 23.1% SUD, 22.8% psychotic disorder, 9.5% major depression, 3.8% AUD and 0.5% of mania accurately diagnosed.

Conclusion: The M.I.N.I. Plus revealed different types and patterns of psychiatric morbidities, comorbidities with a majority having more than psychiatric morbidities and observed significant discrepancies between working and M.I.N.I. Plus diagnosis with a majority of patients inaccurately diagnosed and substantial proportion with an undefined diagnosis.

Recommendations: These results call for the training of all mental health workers on the routine use of screening and diagnostic tools to help in improving patient management.

CHAPTER ONE

1.0 INTRODUCTION

Mental health is an essential and integral component of health as defined by the World Health Organization (WHO) and is an issue of major concern in both the developed and developing countries with a lifetime risk of more than 25% for any psychiatric disorder (WHO, 2011).

Most people are either directly or indirectly affected by mental illness, and about 14 % of global burden of disease is attributed to mental illness, a proportion that is projected to rise in many African countries (WHO, 2011).

Proper and accurate diagnosis of mental illness with the ability to recognize specific disorders and comorbidities by health practitioners is essential in the management of ailment. Availability of specific prevalence rates of various forms of mental illness is important for planning mental health programs, where poor management would lead to both physical and psychological deterioration of mental condition (Jorm et al., 1997).

The mean age of onset for most mental disorders was estimated at 14 years. With the advancing age, it has been observed that most onsets of psychiatric ailments are comorbid, with a 50.8% chance at the age of over 70 years as compared with comorbidities of 46.4% for mean lifetime prevalence (Kessler et al., 2005).

Various studies conducted have given variations of mental disorders. In Europe 100 million people are estimated to suffer from anxiety and depressive disorders at any one time with over 21 million people expected to suffer from alcohol use disorders, 4 million from schizophrenia; 4 million from bipolar affective disorder; and 4 million from panic disorders (Alonso et al., 2014).

In America, lifetime prevalence estimates have been documented with anxiety disorders at 28.8%; mood disorders at 20.8%; impulse-control disorders at 24.8%; substance use disorders at 14.6%; unspecified disorder at 46.4% (Kessler et al., 2005).

Many of African states continue to experience civil strife which has significantly contributed to some form of mental disorder with Post Traumatic Stress disorder accounting for more than a third of mental disorders of 1.5 million refugees in Africa (WHO, 2005).

Sierra Leone, coming from a decade civil war, shares same challenges as most other developing nations in the management of mental patients. It estimated that of 715,000 people

suffering from mental disorders only about 2,000 received treatment within the country's limited resources for mental health care service. The rate of relapse among treated individuals further worsened by limited in scope and trained personnel (Alemu et al., 2012).

The country has one mental referral hospital and only one non-resident psychiatrist. It suffers from an acute shortage of adequately trained mental health care workers. With limited human resource for mental health, most patients are attended to by non-formal health care providers who are unable to manage psychiatric cases, referring the patients to formal mental health institutions when their conditions deteriorate (P. Alonso et al., 2012).

This study aimed to determine the pattern of psychiatric morbidities and gaps in diagnosis in patients at the Sierra Leone psychiatric hospital, their social demographic characteristics and sources of referral to inform practice and policy on psychiatric care at the national referral hospital with the aim of increasing capacity building and resources for mental health.

1.1 Problem Statement

There is a lifetime risk of more than 25% for any psychiatric disorder both in the developed and developing World (WHO, 2005). In Sierra Leone, neuropsychiatric disorders are estimated to contribute to 4.1% of the global burden of disease (WHO, 2011).

There is only one mental hospital serving a population of 6.5 million Sierra Leoneans (WHO, 2012). In 2012, it was estimated that over 715,000 people were suffering from mental disorders, and only 2,000 receiving treatment within the country's limited resources for mental health care service worsened by limited trained personnel (Alemu et al., 2012).

Sierra Leone, a post-conflict country is still facing scars of the 11 year civil war. Coupled with the recent outbreak of Ebola virus disease there will presumably be an increase in use of specialized services to manage psychiatric patients, hence, the nation will experience challenges in the management of mentally ill patients.

1.2 Study Rationale

Without well-defined, documented and known patterns of psychiatric morbidities, comorbidities, social demographic information of psychiatric patients presenting for care in Sierra Leone (WHO 2008), little information on psychiatric disorders patterns, precursors of mental illness and patient characteristics is available for use in management, decision, and policy formulation for health purposes at the SLPH.

Sierra Leone from a post-conflict era and with the advent of the recent Ebola outbreak which further weakened the fragile societal social structures and health systems, this study will, therefore, focus to determine the pattern of psychiatric morbidities and gap in diagnosis at Sierra Leone mental hospital which derives its patients from the whole country.

Findings from this study will inform mental health care practitioners and policy makers on patterns and trends of psychiatric morbidities and comorbidities with inferred causative factors of mental disorders across cultural dimensions as observed at the Sierra Leone psychiatric hospital with the aim of designing facility and society based approaches for management of mental illness in Sierra Leone.

These study findings will further inform on adequate priority investments in mental health services in Sierra Leone, particularly in the post-war conflict and Ebola epidemic both at the national level and at the peripheral primary units of health care level in Sierra Leone. The results of this study will also serve as a reference for further studies conducted at the SLPH.1.3

1.3 Research Question

What is the pattern of psychiatric morbidity and gaps in diagnosis among patients at the Sierra Leone Psychiatric hospital?

1.4 Research Objectives

1.4.1 Broad Objective

The primary purpose of this study will be to determine the pattern of psychiatric morbidities and the gaps in diagnosis among patients at the Sierra Leone Psychiatric Hospital in Freetown Sierra Leone.

1.4.2 Specific Objectives

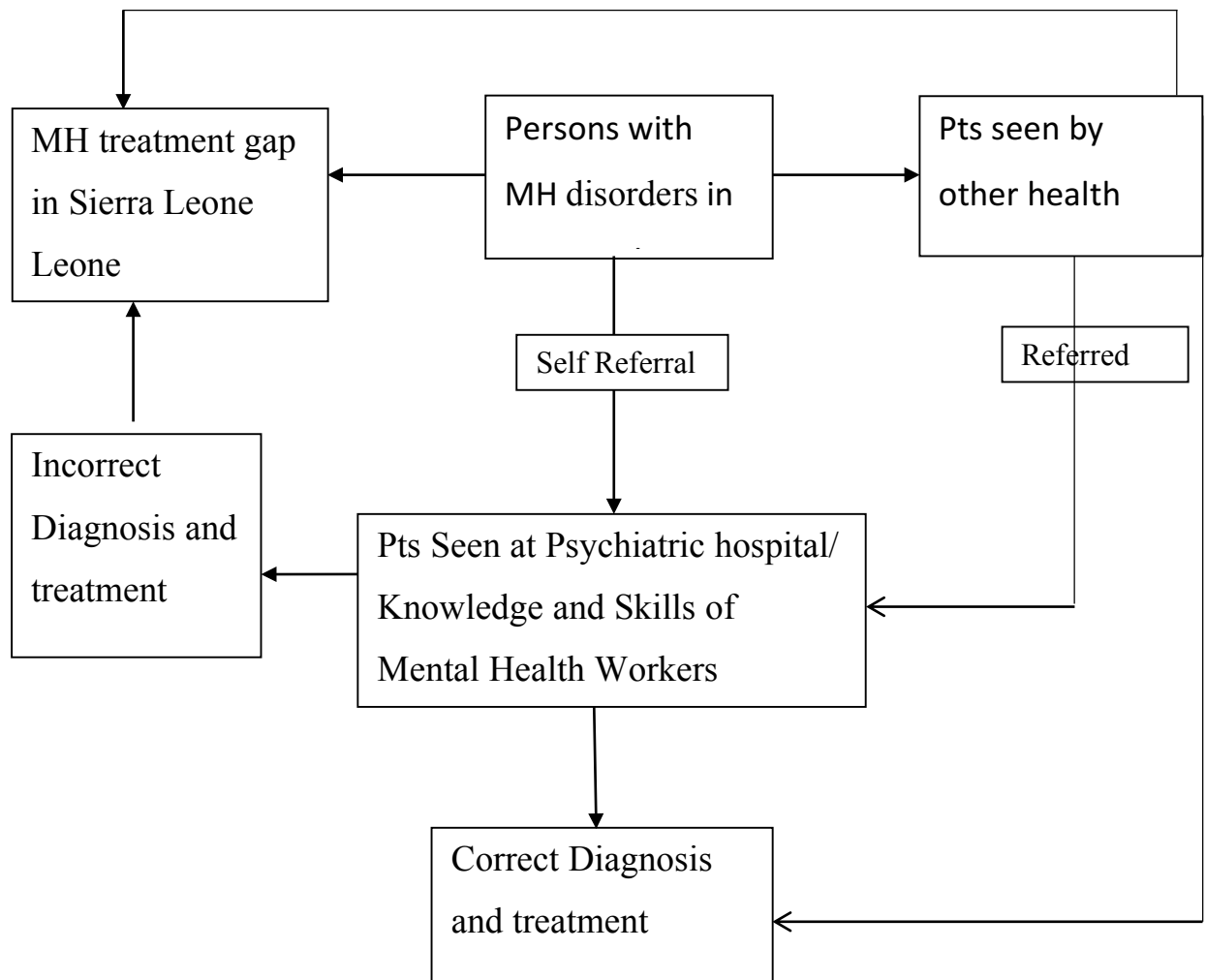
1. To determine the type and patterns of specific psychiatric disorders among patients at Sierra Leone Psychiatric Hospital.
2. To determine the patterns of co-morbidities of psychiatric disorders among patients at the Sierra Leone psychiatric Hospital.
3. To determine the gaps in diagnosis between working diagnosis and diagnosis based on MINI Plus

4. To determine the sources of referral of psychiatric patients to the Sierra Leone Psychiatric Hospital.
5. To determine patient socio-demographic characteristics associated with psychiatric morbidities at the Sierra Leone Psychiatric Hospital.

1.5 Hypothesis

This study is a baseline cross-sectional descriptive study which is not hypothetically oriented thus no theory formulated

Figure 1: Mental Health Diagnosis and Referral Conceptual framework



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Types and patterns of specific psychiatric disorders

There are different types of psychiatric disorders, and their classification currently based on two widely use systems of classification, the International Classification of Diseases (ICD), produced by the WHO and the Diagnostic and Statistical Manual of Mental Disorders (DSM) generated by the American Psychiatric Association (APA, 2008).

Timely and accurate diagnosis of psychiatric cases is important in establishing the pattern of various psychiatric morbidities and comorbidities which form an integral component in the management of psychiatric patients. The model of psychiatric disorders focuses on distributions of mental illnesses by age, gender, region, marital status, ethnicity and occupational status (Woodward, 1999).

Mental disorders account for 13% of the total global burden of disease. In 2010 global mental health predicted high prevalence and disabilities from mental health problems as well as from substance use disorders accounted for 183.9 million of all DALYs worldwide (WHO, 2012) with the highest proportion of total DALYs occurring in people aged 10–29 years. (Harvey et al., 2013).

Global coverage and data for mental health are inadequate because mental disorders remains a low priority (Amanda et al., 2013) with the general assumption of the lifetime prevalence of schizophrenia at less than 1% throughout the world.

Few general population studies of psychotic disorders conducted with schizophrenia and bipolar I disorders being the most common psychotic disorders in England often with the ability to cause lifelong disability and increased physical morbidity with shortened life expectancy. In a prospective cohort study in Zurich, Switzerland from a population of 1979, it was observed that the weighted prevalence rates of psychiatric disorder were 48.6% with no significant gender differences (Angst et al., 2005).

Similarly, in population studies conducted in metropolitan China the lifetime prevalence of any DSM-IV psychotic disorder was 7.0% with major depressive disorders at 2% %. (Kessler et al., 2006).

In a household survey of 4351 adults in South Africa and by use of (CIDI) to generate diagnoses. It was observed that lifetime prevalence of anxiety disorders to be 15.8%, mood disorders 9.8%, and any disease 30.3% (Dan J. Stein et al., 2008).

In a household survey study conducted in Yoruba speaking parts of Nigeria by the use of CIDI among the 4984 respondents, 12.1% had a lifetime rate of at least one DSM–IV disorder and 5.8% with anxiety disorders at 5.7% (Gureje et al., 2006).

Data from WHO and Ministry of Health and Sanitation showed that more than 100,000 Sierra Leoneans of over 12 years of age were severely depressed with an additional 50,000 to be psychotic and another 200,000 reporting some form of substance abuse (MHLAP, 2012).

In Sierra Leone, there is limited information on the prevalence of mental illness to inform on mental health practice. In a 2002 post-conflict study conducted by Ministry of Health, psychiatric prevalence rates were higher than the global prevalence of 3%. With 2% for psychosis at 2%, 4% for severe depression; 4% for severe substance abuse; 1% for mental retardation and 1% for epilepsy (WHO, 2012).

In a cross-sectional descriptive study conducted at the King George Hospital, Andhra Medical College Visakhapatnam in India and diagnosis guidelines done as per ICD-10 among 78 patients it was observed that of the 23% of the patients were diagnosed with psychosis (G. Kumar, et al. 2015).

In a study to determine the underlying Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV) disorders among 138 patients with a working diagnosis of “psychosis” at Mathari Psychiatric Hospital in Kenya. It was found that schizophrenic disorders were at 52.9% and Bipolar disorders at 47.8% (Ndetei et al., 2007).

In a study to describe the results of a free outpatient mental health program delivered by non-specialist health workers in Makeni, Sierra Leone through assessment of 549 patients, 53.7% (n=295) were diagnosed as suffering from psychotic disorders (P. Alonso et al., 2014)

2.1.1 Schizophrenia

Schizophrenia is a severe form of a psychiatric disorder characterized by a disturbance of thinking, perception, and emotions, disorganized speech, grossly disorganized or catatonic behavior. This disorder affects 0.7% of the world’s population with the ability to cause lifelong disabilities with onset in young adults. Schizophrenia has been found to be higher in men compared with women in the ratio of 1:4 (Aleman et al., 2003).

Schizophrenia caused a high degree of disability accounting for 1.1% of total DALYs, 2.8% of YLDs and listed as the 8th leading cause of DALYs worldwide among persons of 15-44 years. (WHO, 2005).

In a cross-sectional study conducted in Kenya among inpatients admitted at the national referral hospital by use of DSM-IV, it was observed that 51% of the cases diagnosed were schizophrenia with tactile hallucinations reported at 2.8% of the cases (D. N'detei et al., 2008).

In a study conducted in seven West African countries, among 1080 respondents who met the criteria for one of DSM-IV hallucinations associated with schizophrenia were 90.8%, 53.9% for Ghana and 50.8% for Nigeria. (Neely Myers, 2011).

2.1.2 Depression

Depression is an emotional expression of a state of ego-helplessness and ego-powerlessness to live up to certain firmly maintained narcissistic aspirations with a result in elation and feeling of helplessness. (APA, 2012)

Depression is often comorbid with other chronic diseases and accounts for 40·5% of DALYs caused by mental health (WHO, 2012). Physical chronic illnesses, as well as socioeconomic factors, are the major contributing factors to depression

In a WHO Study conducted in 60 countries among adults aged 18 years and older by use of ICD-10 criteria prevalence, it was observed that an average of between 9·3% and 23·0% of participants with one or more chronic physical disease was in comorbidity with depression (Moussavi et al., 2007).

In a community-based study on the prevalence of the post-war depressive disorder in Rwanda and from a random sample of respondents by use of Hopkins symptom checklist, of the three hundred and sixty-eight respondents 15.5% had major depression. (Hebertson et al., 2013)

In Sierra Leone a study by P. Alonso et al. (2011) in identification and treatment of mental disorders it reported that depressive mood accounted for 15.8% of the 549 patients with cases which included low mood, hopelessness, helplessness, worthlessness, loss of energy, and loss of interest in pleasurable activities.

2.1.3 Post-traumatic Stress Disorder

Post-traumatic stress disorder is a disabling condition characterized by flashbacks and nightmares, avoidance and numbing, and hyper-vigilance caused by an external, traumatic event. ICD-10 describes a traumatic stressor as: ‘a stressful event or situation of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone. (Bebbington et al., 2011).

Weich et al. (2007) in an adult psychiatric morbidity survey in England observed that third (33.3%) of people reported having experienced a traumatic event since the age of 16. The experience of trauma in adulthood was higher in men (35.2%) than women (31.5%).

In a cross-sectional descriptive study in Kenya, to establish the prevalence of PTSD among one hundred and eighty-one Mau Mau survivors using the SCID and the IES-R, it was observed by DSM-IV-TR diagnosis that PTSD accounted for 65.7% cases among the survivors who associated with higher IES-R scores and older age, lower income. (Atwoli et al., 2006).

A survey study conducted in Liberia by the American Medical Association among the general population it was reported that 44% of adults exhibited symptoms of PTSD with the likelihood of mental care as only 15% of patients in the country accessed mental health care (M. Dovi, 2013). Whereas, in a study by Okulate et al. (2006) in Nigeria on hospitalized military men the prevalence rate for PTSD was found to be 22%.

A study by Betancourt et al., (2013) on the risk and protective factors associated with PTSD symptom change among 243 former child soldiers in Sierra Leone. It noted that symptoms of PTSD significantly related to war experiences ($P < 0.01$) and post-conflict family abuse ($P < 0.001$) with worsening symptoms of PTSD related to the death of a parent ($P < 0.05$).

2.1.4 Anxiety disorders

Anxiety is normal human emotion, and a disease occurs when the condition impedes personal ability to lead a normal life. Anxiety consists of wide range of different mental conditions as defined by DSM-IV, ICD-10 ranging from panic disorders, and generalized anxiety disorders including phobias and social phobia and agoraphobia.

Global burden of stress is not well known. In a study by Baxter et al. (2014) by use of Bayesian regression, it was observed that anxiety was the sixth leading cause of YLDS both low, middle. High-Income Countries were accounting for 390 DALYS per 100,000 persons in 2010 with an onset at 15-24 years with females accounting for 65%.

Panic disorders are characterized panic attacks with spontaneous occurrence associated with subsequent enduring expectations and is estimated to have 3-5% world monthly prevalence (Andin et al., 2005).

Herman et al. 2009 in a population-based study of common mental disorders by use of CIDI from a sample of 4351 South African adults. The lifetime prevalence of any disorder was at 30% with anxiety disorders at 15.8%. Of the various forms of disorders panic disorders were

at 1.2%, agoraphobia and panic disorder at 9.8% social phobia at 2.8%, generalized anxiety disorder at 2.7% and any anxiety disorder at 15.8%.

Gureje et al. (2006) in a large-scale community study of household face to face interview by use of WHM- CIDI among 4984 respondents, anxiety observed as the most common disorder at 5.7% lifetime prevalence and 4.1% for 12-month prevalence.

In a cross-sectional study by Betancourt et al. (2011) in Sierra Leone on war-affected youth and 260 former child soldiers, it was observed that females demonstrated significantly higher scores of depression and anxiety than boys 80% vs. 52% of males.

2.1.5 Substance Use Disorder

Substance-induced psychotic disorders are hallucinations or delusions that are judged to be due to the direct physiological effects of a substance through drug of abuse, medication, or a toxin exposure (J. Peralla, 2013).

Substance use disorders accounted for 17.4% of all DALYs in 2010 globally and the leading cause of YLDs with reported 10.9%, from illicit drug use disorders and 9.6% from alcohol use disorders (WHO, 2010).

In a population survey study in South Africa, it was observed that lifetime prevalence of substance use disorders among adults was (13.4%) with the median age among adults at 21 across all ethnic groups (Dan J. Stein et al., 2009).

In yet another study by Agbahowe et al. (1998) on psychiatric morbidities among convicted inmates in Nigeria, it was noted that twenty-five inmates had past histories of drug abuse before incarceration, including cannabis (11%) and alcohol (13%).

Data from the Ministry of Health and WHO showed that more than 100,000 Sierra Leoneans over 12 years of age were severely depressed with an additional 50,000 psychotics, and 200,000 reported some form of substance abuse out of a population slightly above six million.

Similar studies have revealed that there is a high rate of both production and consumption of alcohol and illicit drugs in Sierra Leone among the young population with an estimated 90% of admissions to the Sierra Leone psychiatric hospital being drug-related (WHO, 2012).

A survey conducted in some communities and prisons in Sierra Leone revealed that 79% of the respondents used cannabis, 28% used cocaine, 26% used heroin and some used multiple drugs (Mh LAP 2012).

Another study conducted in Makeni Sierra Leone from a total of 549 patients it was reported that 33.1% had drug use disorder with the most abused drug being nicotine, alcohol or cannabis (P. Alonso et al., 2011).

In a WHO Country Cooperation Strategy, 2008–2013 survey conducted in some communities and prisons in Sierra Leone revealed that 79% of the respondents used cannabis, 28% used cocaine, 26% used heroin and some used multiple drugs. The study further showed that some children aged 7-8 years were also taking drugs. Substances that are not under international control such as alcohol, tobacco, sedatives and hard drinks are also widely used.

2.2 Patterns of co-morbidities of psychiatric disorders

Psychiatric comorbidity refers to cases in which a distinct additional clinical entity' occurred during the clinical course of a patient having an index disease. It also involves cases in which a patient receives both a psychiatric and a general medical diagnosis and also cases in which a patient receives two or more psychiatric diagnoses (Feinstein, 1970).

In a cross-sectional psychiatric epidemiological study in Europe by use of Composite International Diagnostic Interview (WMH-CIDI) on 21 425 respondents, there were associations between anxiety and mood disorders and between phobia and alcohol abuse (J. Alonso et al., 2004).

In a face-to-face household survey in the United States by use of CIDI, it was observed that lifetime psychiatric cases 72.1% had comorbid disorders, with MDD (Ronald C et al., 2003)

In a similar study in 12-month face survey among 43,000 adults in the United States by use of 13 DSM-IV, major depressive disorder (MDD) was 5.28% at 95% CI. Both current and lifetime MDD significantly associated with other specific psychiatric disorders, notably substance dependence, panic and generalized anxiety disorder, and several personality disorders (Hasin Ds et al., 2005).

In South Africa, in a prospective descriptive study conducted to examine the prevalence of substance use disorder among 298 adult psychiatric inpatients at Stikland Hospital in the Western Cape, co-morbid substance abuse disorder was diagnosed in 51% of patients (Pienaar et al., 2009).

In a clinical epidemiology study on patients admitted at the Mathari Hospital by the use of SCID-1, the number of DSM-IV diagnosis exceed the total number of patients indicating high co-morbidity of psychiatric disorders (Ndetei et al., 2008).

In Nigeria, Y. Armiya'u (2013) conducted a study in Jos prison by use of CIDI. Depression, and generalized anxiety disorder found in 48.7% among subjects who reported substance abuse which was found similar to study conducted in South Africa in which substance use disorder and depression with anxiety disorder found in 42.0% and 23.3% of the subjects respectively

2.3 Gaps in diagnosis of mental disorders

Mental health literacy has the knowledge and ability to identify a mental disorder correctly by medical professionals on risk factors and causes of mental illness (Soo Gim Yeo et al., 2001) especially in the identification of vignettes of depression, schizophrenia, and mania which determines the subsequent preferred treatment.

Recognition of mental illness is an important determinant of treatment seeking behavior with failure to identify comorbidities in psychiatric care attributed to lack of knowledge by health care workers on the different types and subtypes of mental illnesses (P. Alonso et al., 2011).

In a study conducted in Singapore psychiatric hospital by two groups of trained nurses, it was observed that the groups were less accurate in diagnosing depression and mania (Soo Gim Yeo et al., 2001).

In a study by G. Kumar et al. (2007) among the inpatients referred for psychiatric consultation from other departments of King George Hospital over a period of one year. It observed that 48.72% of the 78 cases did not have a working diagnosis.

In a South Africa study conducted in the Western Province, it was found that over 94% of nurses and social workers were not able to correctly diagnose and manage disorders associated with schizophrenia (P. Alonso et al., 2004).

In a retrospective review of the clinical charts in Kenya, among 240 bipolar outpatients with psychotic symptoms. More than half of the patients (61.5%) received a different diagnosis at first contact with a higher number of manic recurrences ($F=5.25$, $p=0.023$), and depressive recurrences ($F=7.13$, $p=0.008$) (Ndetei et al., 2008).

In a similar cross-sectional study carried out at Mathari Mental Hospital in Kenya (Ndetei et al., 2008) established that DSM-IV result showed that 33.3% had multiple traumatic events, yet only 7.4 initially diagnosed with PTSD.

2.4 Diagnostic tools in Psychiatry

Diagnostic tools are instruments used by mental health care professionals for understanding and describing clinical syndromes.

Psychiatric diagnoses are categorized by Diagnostic Statistical Manual (DSM) with various editions I to V (DSM I-V) which cover all mental health disorders for both adults and children listing causes of the disorders regarding onset, gender, and prognosis. DSM provided a standardized classification for diagnosis of mental health disorders and linked to International Classification of Disease (ICD) (APA, 2000).

DSM has been used to measure reliability and a standard cut-off score of 5 for classification and 4 for accuracy (Kessler et al., 1998).

The World Mental Health WMH-CIDI is a fully structured interview used by trained mental health professional or interviewer for assessment of mental disorders as per the ICD and DSM definitions allowing for measurement of prevalence, severity, burden of disease and gaps in treatment outcomes. The accuracy of CIDI ranges from low of 93% for major depressive episodes to 99% for generalized anxiety disorders (Kessler et al., 1998).

The Mini international neuropsychiatric interview (Mini Plus) is a short structured interview which enables researchers to make a diagnosis according to DSM-IV and ICD 10 used for short time administration of between 15-20 minutes. It is widely used, though accuracy, and clinical utility in the diagnosis of cognitive ailments is not entirely known. The tool offers modest accuracy with the best value for ruling out a diagnosis of dementia in primary care. A meta-analysis study of 34 dementias and five cognitive impairments, the mini plus, had a pooled sensitivity of 79.8% specificity of 81.3%, positive predictive value of 86.3% and a negative predictive value of 73% (Sheehan et al., 1998).

2.5 Source of referral for psychiatric patients

These are requests made by a person, organization other parties or patients to a health care provider of the facility to provide health service (Miller-Keane, 1997).

2.5.1 Cultural and faith healers

Cultural and religious beliefs significantly contribute in furnishing mental health need. Many mentally ill patients are not taken to seek medical attention. In Oman, a study conducted among adolescents and youth using DSM-IV classification for a mental disorder. Lifetime cases of making treatment contacts were 5.2% with males significantly associated with less likelihood of making treatment contact when suffering Bipolar Disorder ($p = 0.000$) with Females 13.5 times more likely to avail treatment (Al Riyami et al., 2009).

In a European study on 21425 non-institutionalized individuals aged 18 years and over on patterns of use of mental health services, it observed 6.4% consulted formal health services in

the previous 12 months. With the conclusion that the use of health services is limited to individuals with mental disorders (J. Alonso et al., 2004).

In India a study in a private psychiatric hospital in North India on socio-demographic of patients who sought the psychiatric consultation of the 2880 respondents admitted at the hospital, a majority of the patients 88% had visited faith healers with only 2.12% of the patients reporting improvement after receiving treatment from a faith healer. (Bathla et al., 2015). In another study in India by Mishra et al. (2011) of two hundred new patients visiting an outpatient psychiatric service at a tertiary care hospital interviewed, it was reported that Psychiatrists were the first choice in point care at 45% of the cases followed by no psychiatric physicians and religious faith healers.

D. Bhugra (2003) conducted a study to determine experiences of spiritual healing among 198 psychiatric patients attending a hospital in Tamil Nadu, South India. 45% of respondents had sought between 1 and 15 sessions from either Hindu, Muslim or Christian healers. Majority 91% had discontinued such treatment at the time of their hospital attendance.

In South Africa, a similar study was conducted on 3651 patients who had visited traditional and faith healers. They reported to had spent more time and resources consulting a traditional healer than Western conventional health practitioner. The mean duration of 43 minutes for a consultation with a traditional healer, and 32 minutes for a Western medical practitioner and average costs of R321 and R318 for consulting a traditional healer and Western health practitioner per year respectively. (Katherine Sorsdahl et al., 2009).

In a prospective study conducted at Muhimbili National Hospital in Tanzania to examine the medical referral patterns among 11,412 patients, 72.5% were self-referrals with those formally referred from other health services with 96.3% citing lack of expertise and equipment (Simba et al., 2008). A Clinical Interview Schedule to determine the prevalence of mental disorders in 178 patients from Primary Health Clinics and 176 from Traditional Healers Centers in Tanzania, it was observed that the prevalence of common mental disorders among traditional healers' centers was at 48% double that of primary health centers at 24%. (M. Charua et al., 2003).

OA Abiodun (1995) observed that over 95% of 238 patients who were interviewed in a study to determine the source of referral in a Nigeria study to have at one point contacted traditional and or religious healers on the onset of their mental illness.

In Sierra Leone, a survey study conducted among 389 psychiatric patients (70.8%) reported having visited a traditional healer before contacting the mental health program. The

percentage was significantly higher among women at 77.1% than men $\chi^2=8.2$, $p<0.01$ (P. Alonso et al., 2004) Similarly, Gesler and Nahim (1984) found that 35.5% of inpatients and 65.2% of outpatients attending the Kissy Mental Hospital had previously contacted a traditional healer.

2.5.2 Department of Medicine and other hospitals

In a cross-sectional descriptive study, conducted at King George Hospital, Andhra Medical College Visakhapatnam from a total of 78 patients was referred for psychiatric consultation. It was observed that majority of the psychiatric referrals (84%) were from the department of medicine (G. Kumar et al., 2015)

2.5.3 Police referrals

A study conducted in California USA Watson et al. (1993), on the appropriateness of police referrals to psychiatric emergency services observed that 186 of patients referred by police and hospitalized were more dangerous to others and more likely to have a criminal record. Currier (2003) conducted a study on 379 patients in the psychiatric emergency service to determine patient sources. It observed that 26% of the patients were brought by police under mental health arrest the rest of the 74 percent referred by other health care providers, the patients themselves, or other sources.

2.5.4 Homeless persons and street urchins

Studies conducted have established have a high prevalence of mental disorders among homeless individuals and street urchin with severe cases of substance use. In a study carried out among urban homeless populations in urban Brazilian cities about 50% had one form of mental disorders and were referred by others to psychiatric hospital (Lovisi et al., 2003).

2.5.5 Family/ Relative referrals

In a study conducted among 238 patients who attended mental health services in Ilorin, Nigeria to determine the routes they took to psychiatric care, family members played important roles in patients' decisions about the type of practitioner to consult (Abiodun, 1995).

2.5.6 Prisons and jails

In a study of 193 prisoners in Durban South Africa, it was observed that 23.3% of inmates diagnosed with current psychotic, bipolar, depressive and anxiety disorders not treated in prison but referrals preferred to psychiatric hospitals (Naidoo & Mkize, 2012).

In a comparative study among prisoners in Nigeria prison who made up more than 35% of the source of referral, it was observed that that over one-third of inmates sampled had a mental disorder (Agbahowe et al., 1998).

2.6. Socio-demographic characteristics associated with psychiatric morbidities

Studies dating have shown that mental conditions in the general population were related to age, level of income, unemployment, educational underachievement, cultural aspects and marital status (Agerbo, 2002).

2.6.1. Age

Global burden of disease (2010) indicates that many older adults are at risk of developing mental disorders, neurological disorders or substance use problems as well as physical illness or disability with Over 20% of adults aged 60 and over suffer from a mental or neurological disorder.

The first onset of many mental disorders usually occurs in childhood or adolescence in population-based epidemiologic studies to estimate the rates and patterns of major depression and bipolar disorder based on cross-national epidemiologic surveys it observed that the mean onset age ranging from 24.8-34.8 years with rates of major depression higher in women than in men. (Weissman et al., 1996).

In Canada, community health study by use of CIDI observed that the peak of lifetime prevalence of major depressive episode was between 15 to 25 years. With the prevalence of major depressions more in women than in men and was not related to the level of education. But medical condition, unemployment income and marital status (Moussavi et al., 2007)

A study by Kramer et al. (1985) in the USA in an extensive analysis of the prevalence of morbidities by age observed that mental morbidities among older and younger groups differed within different types of conditions. Among the older group of 65 to 74 years, alcohol use disorder was 2.1% and 6.5% among those below 64 years.

Psychiatric comorbidities existed in general populations (J. Alonso et al., 2004) and associated with gender age and occupation. Younger people were at greater risk for comorbidity of alcohol disorder with mood, anxiety disorders or both.

War-related violence, as well as cultural practices such as genital mutilation in many resource-deprived countries in Africa, expose minors to more posttraumatic stress disorders depression and trauma (Benjet Corina, 2010).

In South Africa, through a household survey by use of (CIDI) to generate diagnoses among 4351 adult respondents; it observed that the median age at onset of substance use disorder was earlier than the average for anxiety disorders or mood disorders (Stein et al., 2008).

In a descriptive analysis study at the Amuel Psychiatric Hospital in Ethiopia, it was observed that nearly three-quarters were men, and aged 30 years and younger (A. Fekadu, 2007)

A study by Hugh C, (2001) conducted in two communities aged 65 and over among Yoruba in Ibadan Nigeria and African Americans in Indianapolis it observed that the prevalence rates of dementia and Alzheimer's disease increased consistently with advancing age in both study groups.

P. Alonso et al. (2014) study, to describe the results of a free outpatient mental health program delivered by non-specialist health workers in Makeni, Sierra Leone; observed the mean age at onset of the mental disorder in years was at 24.3 for males and 31.5 for females.

2.6.2. Gender

Sex has been shown to be a determinant feature in different kinds of mental health where men and women experience different types of mental disorders with the ladies exceeding men in internalizing disorders such as depression and anxiety while men exhibit more externalizing disorders such as substance abuse (Rosenfield, 2012).

In a cohort-country survey among 72 933 studies to evaluate variation in gender differences in lifetime mental illness across cohorts in 15 countries, it was observed that women had more anxiety and mood disorders than men, and men had more externalizing and substance disorders than women (Kessler et al., 2009).

Bebbington et al. (2011) in an adult household psychiatric morbidity survey in England observed that women were more likely than men to have a mental disorder at 19.7% and 12.5% respectively with the rates more pronounced in women among 45-54-year-olds and men at 25-54-year-olds.

Lépine, et al. (2010) in a transversal survey carried out between 2001 and 2003 of non-institutionalized subjects aged 18 or over in the general population of six European countries using the WMH-CIDI observed that the comorbidity of mood and anxiety disorders was more frequent in women, younger subjects and those living alone.

P. Alonso et al. (2004) in a study of psychiatric patients in Makeni Sierra Leone of on the primary psychiatric diagnoses observed that psychotic and substance use disorders were significantly more common among men, whereas women presented significantly higher rates of affective episodes and dementia.

2.6.3 Level of Education

Access to education is an essential building block for human and economic development. Globally, only 5% of children with physical or mental disabilities complete primary school with the situation being worse in developing countries where 98% of children with disabilities not enrolled in school, and 99% of girls with disabilities are illiterate (Richler, 2004).

Kua et al. (2007) among 100 Chinese psychiatric patients in a psychiatric unit in Singapore it was patients reported that their illnesses were due to spirit possession but not related to an educational status where sex and educational status not associated with the tendency to seek help from the traditional healer.

Ndeti et al. (2009) in a cross-sectional survey conducted in 10 health facilities in Kenya among admitted psychiatry patients, observed that 31.6% of psychiatric patients had attained primary level education with only 4.8% having acquired a university education.

In Sierra Leone in 2010, the percentage of illiterate persons of above 15 years old among males was between 48.3 and 71.1 (WHO, 2012).

P. Alonso et al. (2004), describe the results of a free outpatient mental health program delivered by non-specialist health workers in Makeni among 549 patients. It observed 14.3% of patients had no education, a majority of the patients had at least primary and secondary education with 26.6% and 62% of men attaining primary and secondary schooling respectively while 26.1% and 42.7% of female achieving primary and high school respectively.

2.6.4 Economic aspects

Unemployment is one of the most important causes of social exclusion among adults of working age often associated with low income, social isolation, and low self-esteem.

There is a documented relationship between unemployment and poor health. The unemployed in the United States of America tend to have higher levels of impaired mental health with higher levels of depression being as a direct result of unemployment (Pharr et al., 2012).

The meta-analysis effect of unemployment on mental health in a cross-sectional study by Moser et al. (2009) unemployed persons showed more distress than employed individuals with the average number of persons with psychological problems among the unemployed at 34%, compared to 16% among employed individuals.

The level of youth unemployment in Sierra Leone was estimated at 46%, being among the highest in the West African sub-region. People living in poverty may have fewer educational and employment opportunities and may be exposed to adverse living conditions, thus placing them at higher risk of psychological stress (WHO, 2012).

2.6.5 Social cultural

Culture is a set of norms, meanings, and values or reference points utilized by members of a particular society to construct their unique view of the world and ascertain their identity. Which contains some variables such as language, traditions, values, religious beliefs, moral thoughts and practices, gender and sexual orientation, and socio-economic status (Alarcon et al., 2009).

Many communities' belief that evil spirits cause most mental illnesses and as such require spiritual intervention. A qualitative survey in Malaysia it found that psychiatric patients who believed in supernatural causes were more likely to make use of traditional healers and were less willing to comply with medication (Al Riyami et al., 2009).

Cross-cultural and geographical variation has been shown to have relation with depressive disorders, Copeland et al. (1999) from thirty-four comparative studies conducted it observed that major depression was relatively rare among the elderly with a prevalence of 1.8% and depression high among women and older people living under adverse socio-economic circumstances.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study design

The study was a hospital based cross-sectional descriptive design to determine the pattern of psychiatric morbidity and gaps in diagnosis among patients at the Sierra Leone Psychiatric Hospital.

3.2 Study Site description

The study was conducted at the Sierra Leone Psychiatric Hospital, formerly Kissy mental hospital in Freetown. It is Sierra Leone's only premier psychiatric hospital since 1820, which also serves as a training center for medical, clinical and nursing officer interns.

The facility is a 400 bed capacity with ten wards (three female and seven male wards) and offers both inpatient and outpatient services for the mentally challenged with an average annual patient turnover of 1,184 (Hospital Management Records, 2015).

Services provided at the hospital are based on the medical care model which does not include services such as rehabilitation and occupational therapy. The hospital serves a total of 155 inpatients and over 400 outpatients at any one give time and admit patients aged 15 years and above.

3.4 Study population

The study population was patients receiving psychiatric care in Sierra Leone.

3.5 Target or sample population

The target population consisted of both in and outpatients receiving care at the Sierra Leone Psychiatric Hospital.

3.6 Eligibility criteria

3.6.1 Inclusion Criteria

Psychiatric in and outpatients aged 15 years and above- the lowest age of admission.

Patients who communicated in English

Patients who gave informed consent

Patients under 18years who gave assent and whose parents/guardians gave consent

3.6.2 Exclusion criteria

Patients below the age of 15 years

Refusal to participate in the study.

Patients unable to communicate

3.7 Sample size and sample determination

The study sample was drawn from the target population which comprised of 385 study subjects as derived from (Fishers et al., 1998) in sample size determination as shown below

$$n = \frac{Z^2 \times P(1-P)}{d^2}$$

Where;

n = desired sample size

Z = Standard normal distribution set at 1.96 which correspond with 95% confidence level.

P = estimated proportion of an attribute that is present in the population (0.05)

d= desired level of precision at 0.05 or 5%

Substituting in the formula,

n = 385

3.8 Sampling method

Inpatients admitted during the study period were recruited through convenience sampling and outpatients on follow-up at the clinic were recruited through a systematic random sampling of every 2nd patient in the outpatient clinic queue. Recruitment continued until the desired sample size achieved.

3.9 Data collection

Data was collected using clinician-administered interview

3.10 Data collection instruments

3.10.1 Researcher designed sociodemographic questionnaire

This questionnaire was used for collection of data on the different variables under study which included age, sex, education, occupation, nationality, income, duration of illness, duration of admission, the source of referral, past psychiatric history and family history.

3.10.2 Mini International Neuropsychiatric Interview (M.I.N.I.) Plus

Primary data for the study used a short diagnostic structured interview (DSI) called Mini plus (Appendix 3) for the collection of quantitative data on type and prevalence of psychiatric disorders. The MINI-International Neuropsychiatric Interview (M.I.N.I. (-Plus)), is a structured diagnostic interview tool. It was developed to assess the diagnoses of psychiatric patients according to DSM-IV and ICD-10 criteria in less time than other diagnostic interviews such as the Structured Clinical Interview for DSM-IV Disorders (SCID), the Composite International Diagnostic Interview (CIDI) or the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) tend to take. The good psychometric characteristics of the MINI (-Plus) make it an excellent choice for research purposes. Because of its brevity (20-30 minutes) the interview seems to be especially convenient for diagnosing psychiatric patients in everyday clinical practice. It demonstrates excellent sensitivity, specificity, validity and reliability in the assessment of mental disorders (D.V. Sheehan et al., 1998). It picks disorders in DSM IV and ICD 10 as shown in Appendix 3.

3.11 Recruitment procedures

Recruitment of study participants was from two different populations in and outpatients seeking psychiatric care at the Sierra Leone Psychiatric Hospital, who met the inclusion criteria. All consenting inpatients meeting inclusion criteria were recruited from the admission wards as well as consenting outpatients on follow-up who visited the Sierra Leone Psychiatric Hospital on Mondays, Wednesdays, and Fridays using a systematic sampling method where every second patient selected for the interview.

The purpose of the study explained to participants by the researcher.

Study participants willing to take part in the study were given a consent document to read, comment or allowed to asked question after which they proceeded to voluntarily signed the informed consent or assent form. Those that declined to sign the consent/assent form were excluded from the study and asked to continue treatment at the Sierra Leone Psychiatric Hospital. Also, those that opted to withdraw after signing the consent/assent form continued to have access to treatment at the hospital.

The researcher proceeded to administer the questionnaire and screened the participants using the MINI plus assessment tool.

3.12 Data collection procedures

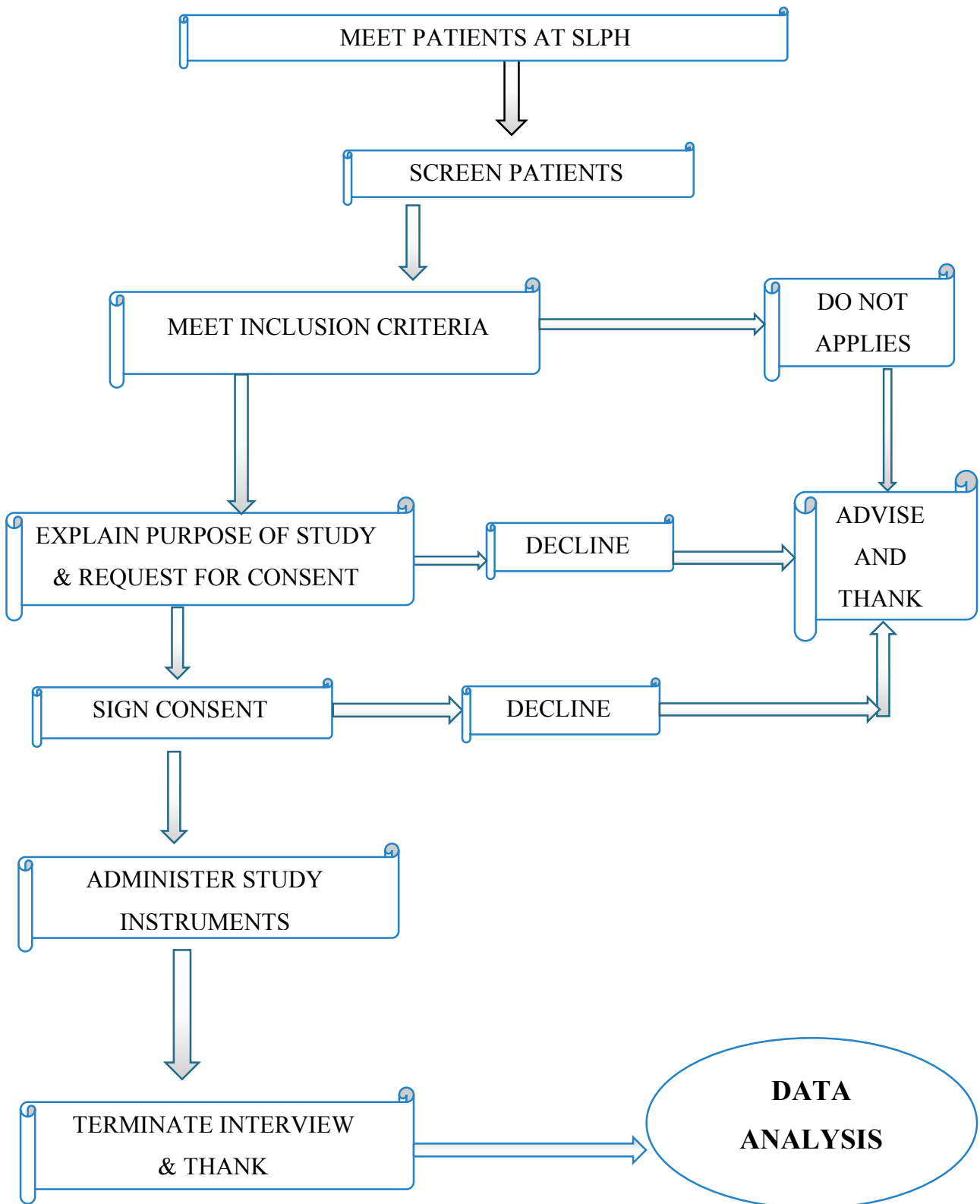
Data collection for this study commenced in December 2015 and ended in March 2016. A total of 10 participants were interviewed and screened for psychiatric morbidity per day. The staff at the Sierra Leone Psychiatric Hospital informed of the study and its purpose.

The researcher administered a researcher designed questionnaires to obtain sociodemographic characteristics and the Mini plus to screened for psychiatric morbidities among patients. Hospital files were used to obtained patients' diagnoses to determined any discrepancies with diagnosis using the MINI plus screening tool.

Serial numbers were used to protect patients' identity. Before the end of every interview completeness of the questionnaires was assayed after which patients were thank and the interview terminated.

Questions from the standardized tool were read out in English up to a maximum of three times to the participant, and if they didn't understand, the question was skipped. The process lasted for 30 minutes. There were eight (8) refusals.

Figure 2: Flowchart



3.13 Study quality assurance

In this study data quality assurance was achieved by ensuring assessments done by the researcher himself. Double data entry was done to ensure the quality of data entered, and a qualified statistician was engaged to support the researcher analyzed the data.

During collection and entry of data, a validation process to check on outliers, which were extreme values for a variable lying outside the statistical model and with the ability to tilt data findings identified and narratives given to explained occurrence of valid outliers.

Entries checked for any missing values by sorting out data fields for discrepancies by editing, cleaning, verifying, cross-checking as well as double-checking of questionnaire codes.

During data entry and digitization, data entry screens were set to pick out anomalies, choice list in the questionnaire and the Mini Plus limited the amount of data typed.

Random samples of digital data were verified against the original data to check for completeness, this entailed use of a collaborator other than the principle investigator to enter the data.

3.14 Data management and analysis

Data was collected using a researcher-designed socio-demographic questionnaire and a standardized MINI plus diagnostic tool.

There were quick checks of completed questionnaires to ensure the correct flow of data collection process. The initial set of data fed into data analysis tools for a quick preview of projected information. Data quality backchecks done on the research tools to authenticate that actual interview process was done by the investigator as well as for clarification of missing data from the respondent as appeared in the questionnaires.

Data collected from questionnaires was coded. Entry and analysis of data were done using SPSS version 22 which further helped in detecting errors and anomalies and stored into a password protected Microsoft Access Database.

Descriptive statistics was carried out for continuous variables and frequency tables generated for categorical variables. Inferential was at 95% confidence intervals to determine the statistical significance of the relations between the dependent variable and the independent variables.

Information from questionnaires presented in tables and charts for interpretation and discussion.

3.15 Study finding dissemination plan

Findings of this study shared with different structures which will facilitate wholly or in part of the survey undertakings, for mental health policy development in Kenya and Sierra Leone. The research report will be shared with the Department of the Psychiatry University of Nairobi, Ministry of Health and Sanitation Sierra Leone for policy framework of mental health.

Findings of the study will also be share and publications made available to the University of Nairobi and the College of Medicine and Allied Health Sciences Library, University of Sierra Leone.

Research report findings will be disseminated to the Ministry of Health and Sanitation through Sierra Leone Psychiatric Hospital for improvement of mental health services at the facility as well as to the community from which the health institution derives its patients.

3.16 Ethical Considerations

Approvals to undertake this study obtained from University of Nairobi/Kenyatta National Hospital Ethics Review Committee and the Sierra Leone Ethics and Scientific Research Committee as well an acknowledgment from Medical Superintendent Sierra Leone Psychiatric Hospital.

All respondents voluntarily participated. Information regarding the purpose of study and nature of the survey given to participants before their involvement in the study. A written consent/assent was given and translated to the respondents who were encouraged to asked questions about the study.

Respondents in the survey assured of the confidentiality of their information to the research as serial numbers were used on the questionnaires instead of names and coded hard copies of questionnaires and Mini Plus locked in cabinets which will only be accessible to the researcher. The information obtained will also be available to the supervisors via password protection.

For completeness and accuracy of data collection, all questionnaires were checked to ensure all data had been collected and recorded accordingly. There were no voice or video recording of study participants.

Only those who accepted to participate in the study willingly and met the inclusion criteria were interviewed and screened for psychiatric morbidities as per the ethical guidelines. Their

participation in the study was voluntary, and any information given was guarded as be private and confidential.

The hospital staff informed about the research, dates for data collection communicated to them for their full cooperation and ethical standards maintained throughout the process. There was no financial inducement to any respondent and no discrimination of those interviewed.

3.17 Potential benefits

This study will fill the knowledge gap in psychiatric care by disseminating information on the prevalence of various psychiatric disorders at the National Mental referral hospital. These findings will further help in the formulation of policies in regards to psychiatric care in Sierra Leone and other countries with similar challenges. Participants in the study will benefit from improved clinical diagnosis of mental conditions. The study by employing the use of WHO certified Mini plus diagnostic tool, will be able to diagnose accurately presenting cases which will enable appropriate management of psychiatric conditions as observed in patients.

3.18 Potential risks

There will be no harmful physical effects on the participants but by use of research instruments, the study will have the potential to evoke emotions of participants by recalling traumatic experiences in the past during screening for mental disorders especially victims of the civil war and the Ebola outbreak. Participants will be assured of confidentiality and referred for counseling if needed.

3.19 Study limitations

The study design was a hospital based cross sectional limited itself to the representative sample of psychiatric patients at the SLPH, which didn't represent the entire population of mental cases in Freetown Sierra Leone, as some of the psychiatric patients with different social demographic aspect would choose to seek treatment at privately owned facilities. This limitation led to selection bias in sampling.

The study being a cross-sectional design, it was unable to address confounding factors that may cause/influence similar psychiatric disorder presentation e.g. Organic disorders.

This study involved administration of questionnaires. Some respondents didn't respond to all questions, and about eight (8) respondents opted out of the study. Also, the illiteracy level in Sierra Leone limited this study and also pose the risk of selection bias.

CHAPTER FOUR

4.0 RESULTS

This chapter presents descriptive summary of findings relevant to the study objectives. It covers socio-demographic characteristics, prevalence and types of psychiatric morbidity, psychiatric comorbidities among study participants, comparison between working and M.I.N.I. Plus diagnoses and participants source of referral. The results also attempt to explore socio-demographic characteristic of participants in relation to specific psychiatric morbidity. These findings were obtained with the help of socio-demographic questionnaire and M.I.N.I. Plus.

Table 1: Demographic characteristics of participants

Variable	Categories	Frequency N=385	Percentage (%)
Gender	Female	132	65.7
	Male	253	34.3
Age	15-19	74	19.2
	20-24	79	20.5
	25-29	56	14.5
	30-34	60	15.6
	35-39	39	10.1
	40-44	42	10.9
	≥45	35	9.1
Marital status	Single	218	56.6
	Married	94	24.4
	Divorced	14	3.6
	Cohabiting	26	6.8
	Separated	16	4.2
	Widow/widower	17	4.4
Level of education	Never been to school	51	13.2
	Primary	134	34.8
	Secondary	145	37.7
	Tertiary	51	13.2
	Postgraduate	4	1.0
Employment status	Student	91	23.6
	Unemployed	79	20.5
	Informal	38	9.9
	Formal	54	14.0
	Business	95	24.7
	More than one category	28	7.3
Monthly income (USD)	< 50	247	64.2

	50-150	81	21.0
	151-250	38	9.9
	25-350	10	2.6
	351-450	5	1.3
	451-550	2	0.5
	> 550	2	0.5
Religion	Christian	188	48.6
	Islam	197	51.4
Province of Origin	Eastern	115	29.9
	Northern	86	22.3
	Southern	55	14.3
	Western	129	33.5

Note: This study interviewed 385 patients in a psychiatric hospital; 65.7% were males and almost evenly distributed across age groups with the majority in the 15 to 19 years (19.2%) and 20 to 24 years (20.5%) age groups. Primary and secondary level of education was more common in the patients reported by 34.8% and 37.7% respectively. Unemployment rate was at 20.5% while 9.9% and 14% were in informal and formal employment respectively. Majority (56.6%) were single and more than a half (51.4%) Muslims. The main sources of the patients were the Eastern (29.9%) and Western (33.5%) provinces. About two-thirds (64.2%) earned below 50USD.

Table 2: Family history of mental illness and No. of admission

Variable	Frequency	%
Mental illness		
Yes	158	41.0
No	227	59.0
Previous admissions		
First	174	45.2
Second	121	31.4
Third	44	11.4
>3	46	11.9

Mental illness in the family was reported among 41% of the patients. Majority (54.7%) of the participants had more than one admissions.

Table 3: Source of referral

Source	Frequency (N=385)	Percentage (%)
Medical doctor	9	2.3
Faith healer	27	7.0
Family	311	80.8
Prison	35	9.1
Local Chiefs	1	0.3
Others (Police)	2	0.5

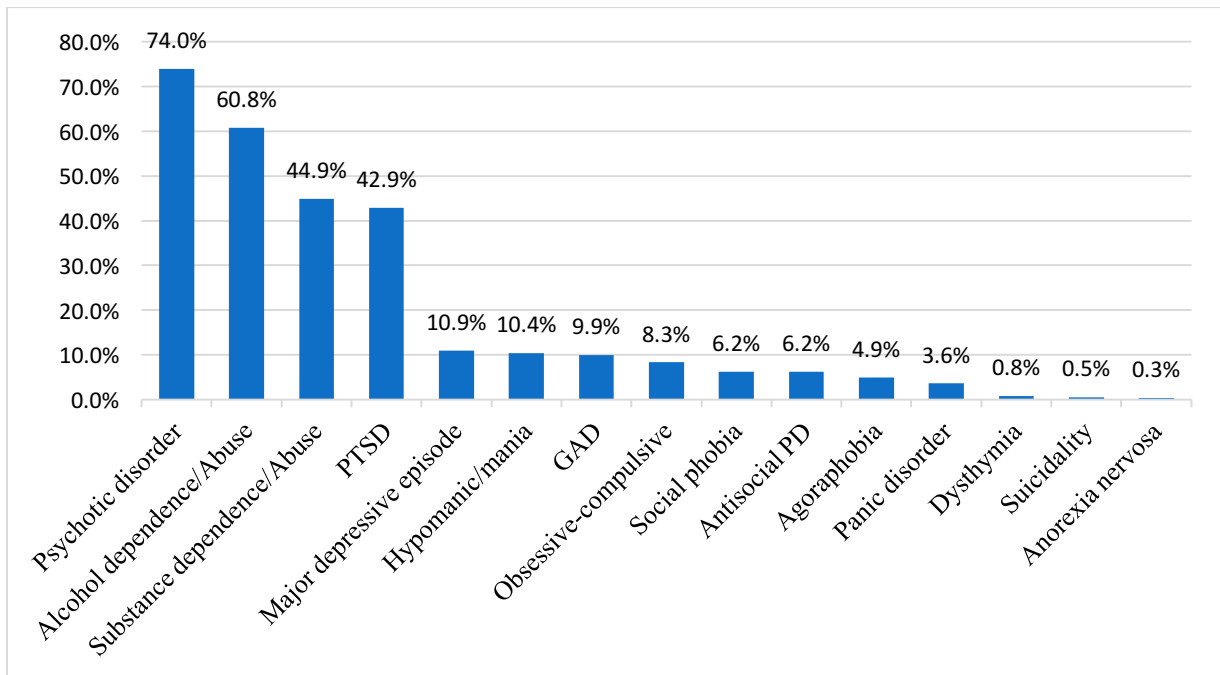
Majority (80.8%) of participants were referred to the hospital by a family member.

Table 4: Assigned working diagnosis

Working diagnosis	Frequency (N=385)	Percentage (%)
Alcohol used disorder (AUD)	13	3.4
Substance used disorder (SUD)	63	16.4
Post traumatic stress disorder (PTSD)	9	2.3
Mania	14	3.6
Major depression	10	2.6
Psychotic disorder	101	26.2
Not defined	68	17.7
Delirium	2	0.5
Epilepsy	2	0.5
Drug induced psychosis (DIP)	103	26.8

Note: Diagnosis in the file was mainly DIP reported in 26.8% of the patients. Other diagnoses which were common included SUD (16.4%) and Psychotic disorders (26.2%). A substantial proportion (17.7%) had undefined diagnosis in the files.

Figure 3: MINI Plus psychiatric disorders



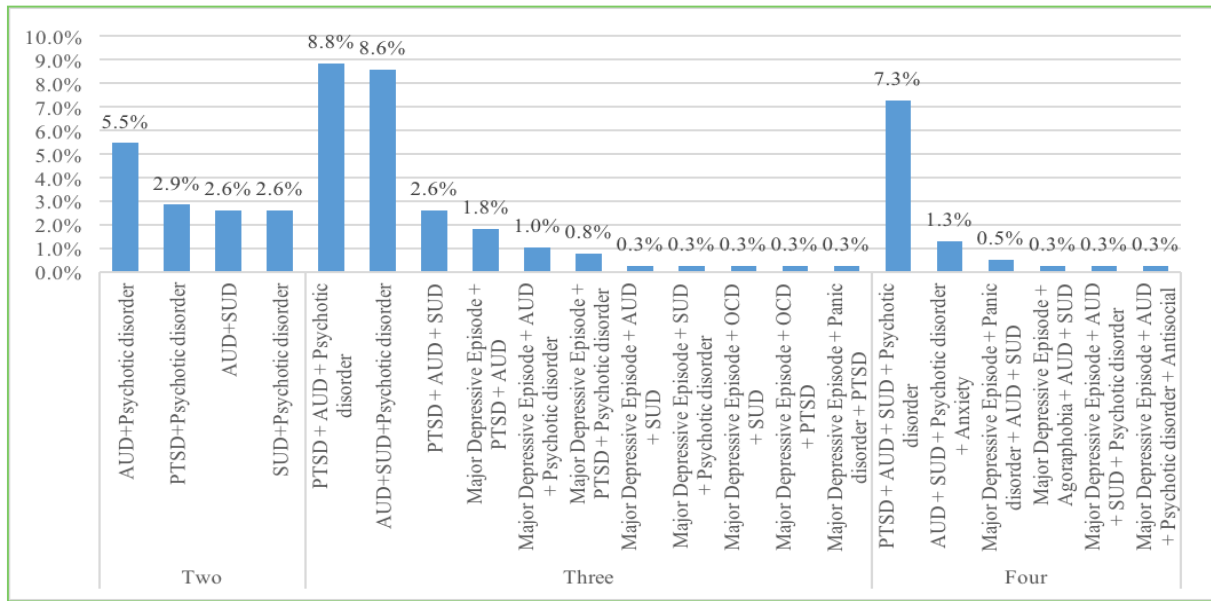
In figure 3, 74% of the patients had psychotic disorder, 60.8% were alcohol dependence or abuse, 44.9% were substance dependence or abuse and 42.9% had PTSD. Patients with major depressive episodes made up 10.9% of the population; 10.4% had hypomania/mania. Other psychiatric morbidities which were diagnosed in less than 10% of the patients were as shown in figure 5.

Table 5: Psychiatric comorbidities

Variable	Frequency (N=385)	Percentage (%)
Disorders		
1	34	8.8
2	91	23.6
3	160	41.6
4	100	26.0

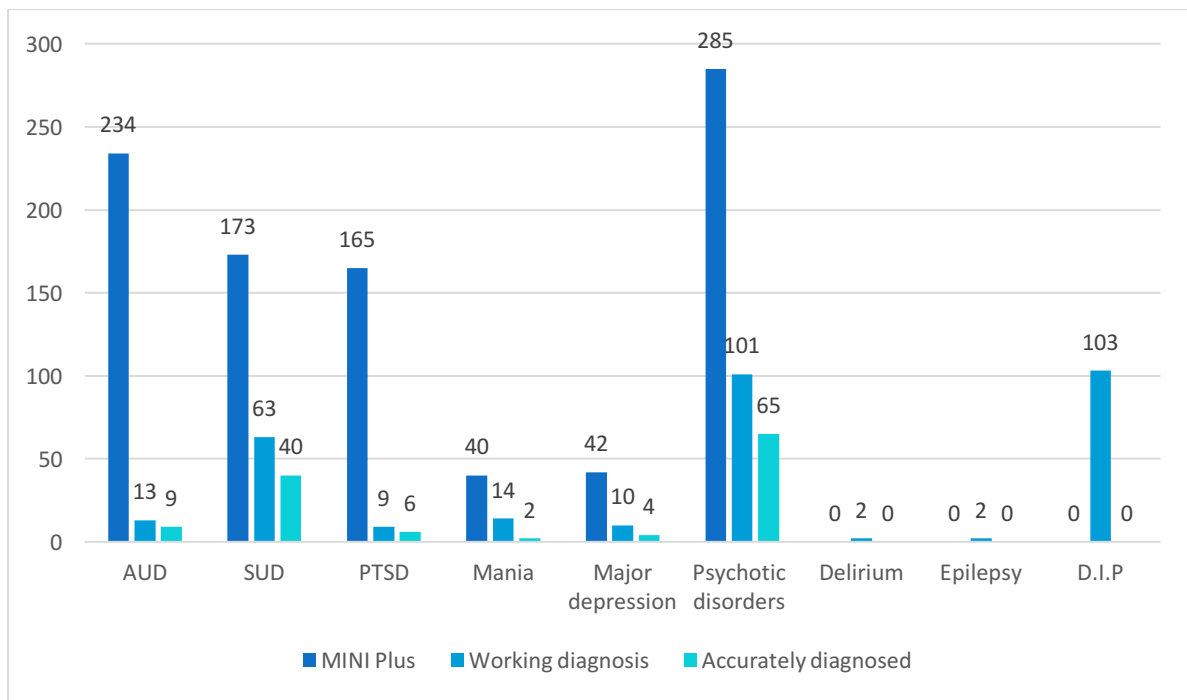
Majority (91.2%) of the patients had more than 1 diagnoses. Patients with a combination of 2 disorders were 23.6%, 41.6% had 3 disorders and 26% had 4 disorders.

Figure 4: Pattern of psychiatric comorbidities



In figure 4, PTSD, AUD and psychotic disorder was the most common psychiatric comorbidity at 8.8%.

Figure 5: Comparison between working and MINI plus diagnoses



There was variation as MINI Plus diagnosis picked 23.1% SUD, 22.8% psychotic disorder, 9.5% Major depression, 3.8% of AUD, 3.6% PTSD 0.5% of mania accurately diagnosed.

Table 6a: Sociodemographic factors associated with psychiatric morbidity

Variable	N	Psychotic disorder			Alcohol used disorder			Substance used disorder		
		n (%)	OR (95% CI)	P value	n (%)	OR (95% CI)	P value	n (%)	OR (95% CI)	P value
Age										
15-19	74	51 (68.9)	0.8 (0.3-1.9)	0.566	40 (54.1)	0.8 (0.4-1.8)	0.560	39 (52.7)	5.4 (2.0-15)	0.001
20-24	79	66 (83.5)	1.8 (0.7-4.6)	0.251	48 (60.8)	1.0 (0.5-2.3)	0.939	43 (54.4)	5.8 (2.2-16)	<0.001
25-29	56	35 (61.4)	0.6 (0.2-1.4)	0.207	40 (70.2)	1.6 (0.7-3.8)	0.318	34 (59.6)	7.2 (2.6-20)	<0.001
30-34	60	46 (76.7)	1.1 (0.4-3.0)	0.794	35 (58.3)	0.9 (0.4-2.2)	0.873	23 (39.7)	3.2 (1.1-8.9)	0.027
35-39	39	32 (82.1)	1.6 (0.5-4.8)	0.420	24 (61.5)	1.1 (0.4-2.7)	0.892	10 (25.6)	1.7 (0.5-5.2)	0.378
40-44	42	29 (70.7)	0.8 (0.3-2.3)	0.730	26 (63.4)	1.2 (0.5-2.9)	0.760	18 (43.9)	3.8 (1.3-11)	0.015
≥45	35	26 (74.3)	1.0		21 (60.0)	1.0		6 (17.1)	1.0	
Marital status										
Married	94	65 (69.1)	1.0		58 (61.7)	1.0		39 (41.5)	1.0	
Single	218	168 (77.1)	1.5 (0.9-2.6)	0.141	130 (59.6)	0.9 (0.6-1.5)	0.732	103 (47.7)	1.3 (0.8-2.1)	0.315
Divorced	14	13 (86.7)	2.9 (0.6-14)	0.179	7 (46.7)	0.5 (0.2-1.6)	0.275	5 (33.3)	0.7 (0.2-2.2)	0.551
Cohabiting	26	16 (64.0)	0.8 (0.3-2.0)	0.624	17 (68.0)	1.3 (0.5-3.4)	0.563	13 (52.0)	1.5 (0.6-3.7)	0.348
Separated	16	10 (62.5)	0.7 (0.3-2.2)	0.598	10 (62.5)	1.0 (0.4-3.1)	0.952	6 (37.5)	0.9 (0.3-2.5)	0.764
Widowed	17	13 (76.5)	1.5 (0.4-4.8)	0.545	12 (70.6)	1.5 (0.5-4.6)	0.487	7 (41.2)	1.0 (0.4-2.8)	0.981
Occupation										
Student	91	80 (77.7)	2.0 (0.9-4.6)	0.098	60 (58.3)	1.5 (0.8-2.9)	0.172	49 (47.6)	1.4 (0.8-2.6)	0.430
Unemployed	79	62 (78.5)	1.0		44 (55.7)	1.0		36 (45.6)	1.0	
Informal empl.	38	26 (68.4)	0.6 (0.2-1.4)	0.237	19 (50.0)	0.8 (0.4-1.7)	0.563	16 (42.1)	0.9 (0.4-1.9)	0.724
Formal empl.	54	37 (67.3)	0.6 (0.3-1.3)	0.196	40 (72.7)	2.3 (1.1-4.8)	0.031	28 (52.8)	1.3 (0.6-2.6)	0.476
Business	95	59 (72.0)	0.4 (0.2-0.8)	0.019	57 (69.5)	1.2 (0.7-2.2)	0.567	32 (39.0)	0.6 (0.3-1.1)	0.110
More than one	28	21 (75.0)	0.8 (0.3-2.3)	0.704	14 (50.0)	0.8 (0.3-1.9)	0.603	12 (42.9)	0.9 (0.4-2.1)	0.804

Note: As compared to unemployed patients, those who were in formal employment were more likely to have AUD, OR 2.3 (95% CI 1.1-4.8), P = 0.031 (statistically significant).

SUD was more likely among the younger patients as seen in 15-19 years [OR 5.4 (95% CI 2.0-15.0)], 20-24 years [OR 5.8 (95% CI 2.2-16)], 25-29 years [OR 7.2 (95% CI 2.6-20.0)], 30-34 years [OR 3.2 (95% CI 1.1-8.9)] and 40-49 years [OR 3.8 (95% CI 1.3-11.0)] age groups. Hawkers/Peddlers were less likely to have psychotic disorders compared to the unemployed, OR 0.4 (95% CI 0.2-0.8), P = 0.019 (statistically significant).

Table 6b: Sociodemographic factors associated with psychiatric morbidities

Variable	N	PTSD			Hypomania		
		n (%)	OR (95% CI)	P value	n (%)	OR (95% CI)	P value
Age							
15-19	74	29 (39.2)	0.8 (0.3-1.7)	0.519	10 (13.5)	5.3 (0.7-43.3)	0.119
20-24	79	32 (40.5)	0.8 (0.4-1.8)	0.604	9 (11.4)	3.3 (0.5-35.9)	0.170
25-29	56	26 (45.6)	1.0 (0.4-2.3)	0.993	6 (10.5)	4.0 (0.5-34.7)	0.209
30-34	60	23 (38.3)	0.7 (0.3-1.7)	0.481	8 (13.3)	5.2 (0.6-43.7)	0.127
35-39	39	20 (51.3)	1.3 (0.5-3.1)	0.633	3 (7.7)	2.8 (0.3-28.6)	0.377
40-44	42	19 (46.3)	1.0 (0.4-2.5)	0.956	3 (7.3)	2.7 (0.3-27.0)	0.402
≥45	35	16 (45.7)	1.0		1 (2.9)	1.0	
Marital status							
Married	94	41 (43.6)	1.0		10 (10.6)	1.0	
Single	218	86 (39.4)	0.8 (0.5-1.4)	0.492	20 (9.2)	0.9 (0.4-1.9)	0.688
Divorced	14	5 (33.3)	0.7 (0.2-2.0)	0.456	1 (6.7)	0.6 (0.1-5.1)	0.639
Cohabiting	26	17 (68.0)	2.8 (1.1-7.0)	0.034	3 (12.0)	1.2 (0.3-4.5)	0.846
Separated	16	9 (56.3)	1.7 (0.6-4.8)	0.351	1 (6.3)	0.6 (0.1-4.7)	0.593
Widowed	17	7 (41.2)	0.9 (0.3-2.6)	0.852	5 (29.4)	3.5 (1.0-12.0)	0.046
Occupation							
Student	91	43 (41.7)	1.8 (1.0-3.3)	0.067	11 (10.7)	0.9 (0.4-2.4)	0.910
Unemployed	79	25 (31.6)	1.0		10 (12.7)	1.0	
Informal empl.	38	16 (42.1)	1.6 (0.7-3.5)	0.267	3 (7.9)	0.6 (0.2-2.3)	0.443
Formal empl.	54	25 (45.5)	1.9 (0.9-3.8)	0.867	5 (9.1)	0.7 (0.2-2.2)	0.543
Business	95	43 (52.4)	1.8 (1.0-3.3)	0.067	8 (9.8)	0.6 (0.2-1.7)	0.361
More than one	28	13 (46.4)	1.9 (0.8-4.5)	0.160	3 (10.7)	0.8 (0.2-3.3)	0.787

Note: As compared to the patients who were married, patients who were cohabiting were more likely to report PTSD (43.6% versus 68% respectively), OR 2.8 (95% CI 1.1-7.0), P=0.034 (statistically significant). Widowed patients were likely to be hypo/manic (29.6%) compared to those who were married (10.6%), OR 3.5 (95% CI 29.4%-10.6%), P=0.046 (statistically significant).

CHAPTER FIVE

5.0 DISCUSSION

5.1 Socio-demographic characteristics of study population

Male patients accounted for the majority of study participants in this study as was also reported in other similar previous studies (P. Alonso et al. 2014; Ndetei et al., 2008 & Fekadu et al., 2007) but in contrast to a Bebbington et al. (2011). There are more males with psychiatric disorders, and this could be attributed to their aggressive behaviour which cannot be tolerated in communities. Hence, easy identification and referral to prevent the destruction of properties and lives. The fewer number of females as compared to males referred for psychiatric care would also imply that there more women in the community who have not been reached.

This study finding observed that majority (70.8%) of patients were young adults. This result reflects the youthful population of Sierra Leone (DHS, 2013) and similar to previous studies (Ndetei et al., 2008 & Fekadu et al., 2007).

In this study, SUD was more likely among the younger patients. This finding concurred to the narrative by Agerbo (2002) that was an association between psychiatric conditions and age. This finding could be as a result of hopelessness due to unemployment and victims of the eleven-year civil war where psychoactive drugs were the instruments for committing atrocities.

This study observed that all participants subscribed to a religious belief with over half (51.4%) Muslims. This result was a reflection of the patterns within the general population (DHS, 2013)

In this study majority (33.5%) of patients were from Western Area where the capital Freetown is situated which is similar to study conducted by Fekadu et al. (2007). This finding could possibly be as a result of increased migration from the provinces to the Capital, raising awareness of mental disorders in communities, cultural beliefs and easy accessibility to the psychiatric hospital.

The study observed that 56.6% of patients were single, this was similar to study findings by Ndetei et al. (2008). It was noted in this study that, PTSD is associated to cohabiting. While this association is not clear, the research speculates that this may be associated to experiences

of domestic and sexual violence especially on suspicion of cheating. This finding was contrary to study carried out by Atwoli et al. (2006). This finding calls for further exploration on the subject.

5.2 Types and pattern of specific psychiatric morbidities among patients at the SLPH

The most prevalent psychiatric disorder among the study participants was psychotic disorder at 74.0% (n=285). This result is higher than findings from studies carried out by Ndetei et al. (2008) in Kenya, G. Kumar et al. (2015) in India and P. Alonso et al. (2014) in Sierra Leone. These differences could be attributed to the type of diagnostic tool used to conduct these studies and the targeted population. Also, it could be associated with challenges that are faced in a Sierra Leone compared to Kenya and India such as lack of awareness, limited trained mental health workers, lack of psychiatric care facilities, poverty leading to increased burden and demand in the SLPH. The researcher in this study considered both in and outpatients.

Diagnosis based on the MINI plus recorded that 42.9% of the cases, were diagnosed with PTSD. This finding was noted to be similar to results obtained from a survey study conducted among the general population in Liberia by M. Dovi (2013). Although this study was a hospital-based, it contrasts with a cross-section descriptive study conducted by Atwoli et al. (2006) in Kenya among Mau Mau survivors using the SCID. However, it is to be noted that Atwoli conducted his study in the community decades after the traumatic events. The high levels of PTSD in this study can be attributed to the eleven-year civil war and the recent Ebola Virus Disease epidemic in Sierra Leone. In these traumatic events, Sierra Leoneans experienced very stressful events, which is likely to cause pervasive distress in almost anyone (Bebbington et al., 2007).

Prevalence of PTSD in this study was also higher than in studies by Okulate et al. (2006) in Nigeria of hospitalised military men with PTSD at 22%, and conclusions derived from an article review meta-regression study by Stein et al. (2008) with 30.6% PTSD. Findings variation could be attributed to the increased burden of patients at the SLPH where both civil, and military personnel are admitted.

In this study, it was observed that major depressive episode accounted for 10% of all the cases assessed by used of MINI plus diagnostic tool. This is in agreement to a survey carried out by Moussavi et al. (2007), but contrasts studies done at Mathari hospital in Kenya by use of SCID-I, P by Ndetei et al (2008), Alonso et al (2011) in South Africa and Hebertson et al

(2013) in Rwanda, by use of Hopkins's symptom tool. They found higher prevalences. The findings of this study could be attributed to the study design (hospital-based study) as most patients are not referred to the hospital earlier for assessment unless when they become unbearable to their families and communities, and probably there was a higher prevalence in a post-war study due to the obvious stressors associated with war.

It was observed in this study that 44.9% of the patients had a substance use disorder, and the commonly used psychoactive drugs were Cannabis, Brown Brown, Diezee (Diazepam), Blue boat (LSD), a mixture of alcohol and tramadol, Cocaine and heroine. This finding was noted to be much lower than a WHO Country survey conducted between 2008–2013 in some prisons in Sierra Leone with 79% substance abuse. However, the findings of this study are much higher than the study carried out by Agbahowe et al. among convicted inmates in Nigeria with Substance Use Disorder at 11%. This lower prevalence in other communities could probably be that patients with SUD are only referred for psychiatric care when they became severely psychotic with behavioural symptoms such as aggression and violent with the destruction of lives and properties. This study result was similar to a study conducted at the Sierra Leone Psychiatric Hospital with an estimated 90% of admissions being drug related (WHO, 2012).

It was observed in this study that general anxiety disorders accounted for 9.9% of cases assessed; this was noted to be similar to study conducted by G. Kumar et al. (2015).

5.3 Patterns of co-morbidities of psychiatric disorders among patients at the SLPH.

In this study, it was observed that 91% of patients exhibited more than one form of psychiatric disorder. It was also observed in this study that, AUD was comorbid with PTSD and psychotic disorder. The findings were in agreement with previous studies (Ronald et al., 2003; Hasin et al., 2005 & Pienaar et al., 2009).

Findings of the study also concurred to studies conducted in Nigeria by Y. Armiya'u et al. (2013) with the use of CIDI, and Ndetei et al. (2008) in Kenya Mathari Referral and Teaching Hospital by used of SCID-1 in which the no. of cases exceed the total no. of patients suggesting comorbidities.

5.4 Determination of gaps in diagnosis between working diagnosis and diagnosis based on MINI Plus

This study observed that substantial proportion (17.7%) cases were not well defined during diagnosis by "working diagnosis." Although this finding was noted to be lower than an observation made in previous studies by G. Kumar et al. (2007) in India and P. Alonso et al. (2004) in South Africa, they all agreed to the fact that health care providers were not able to correctly diagnose and manage disorders. Probably, a majority of past admissions at the SLPH are not done by Psychiatrists but by other allied mental health workers such as Mental Health Attendants.

In this study, it was observed that there was a difference between working diagnosis and diagnosis by use of Mini Plus. Findings from this study were similar to findings from studies conducted in Kenya by Ndetei et al. (2007 & 2008). The bottom-line was that this study concurred to the fact that there is a knowledge gap in mental health care workers to assess psychiatric patients at the SLPH, which is essential for the management of these mental disorders.

5.5 Sources of referral of psychiatric patients to the Sierra Leone Psychiatric Hospital.

In this study 2.3% of referrals were from medical doctors, this was much lower than from a survey carried out by G. Kumar et al. (2015) in India from a total of 78 patients 84% referred from the department of medicine.

It was observed in this study that 7% referrals were from faith healers. This finding was much lower compared to a survey conducted by P. Alonso et al. (2014) in Sierra Leone among 389 psychiatric patients of whom 70.8% had reported having visited a traditional healer before contacting the mental health program. Similarly, the observation was lower than finding from a study by Gesler and Nahim (1984), which observed that 35.5% of inpatients and 65.2% of outpatients attending the Kissy Mental Hospital had previously contacted a traditional healer. Findings of the study were lower than observations made in a study in Nigeria by Abiodun (1995) which observed that over 95% of 238 patients have contacted traditional and or religious healers on the onset of their mental illness.

A majority (80.8%) of the patients were referred to the SLPH by a family member. This finding concurred to a survey carried out by Abiodun in Ilorin, which observed that family

members played a significant role in patients' decisions about the type of practitioner to consult.

In this study, 0.5% of referrals were from the police. This finding contrasts to a study in the USA by Currier et al. (2003), which observed 26% of police referrals.

This study established that 9.1% of referrals were from Prisons and jails, this was found to be lower than an observation made in a study by Naido and Mkize (2012) in South Africa.

Similarly, the finding was much lower than results from a comparative study by Agbahowe et al. (1998) among prisoners in Nigeria prison. This difference in findings could be attributed to increased awareness of mental disorders and number of Forensic Psychiatrists in those countries with Sierra Leone having none. Hence, patients are referred appropriately and timely.

These findings call for effective community awareness campaign in Sierra Leone on the need for timely referral of psychiatric patients for proper management.

CHAPTER SIX

6.0 CONCLUSIONS, RECOMMENDATIONS AND STUDY LIMITATIONS

6.1 Conclusion

The MINI Plus revealed different types and patterns of psychiatric disorders, with the most common being a psychotic disorder of all the cases assessed.

MINI Plus observed comorbid with majority having more than one comorbidities

This study found significant discrepancies in diagnosis between working diagnosis and MINI Plus diagnosis as a majority of patients inaccurately diagnosed and substantial proportion with an undefined diagnosis.

6.2 Recommendations

An enhanced need for accurate clinical diagnosis through training of health care providers and increased recruitment of mental health care workers.

The creation of algorithms on screening and assessment with the use of psychiatric diagnostic tool to improve clinical practice, management, and documentation.

There should be strengthened community outreach referral mechanisms to identify patients, especially females through an awareness campaign.

Establishment of psychiatric liaison consultation and community mental health services at the primary, secondary and tertiary levels of health care service.

6.3 Study limitations

The study design was a hospital based cross sectional limited itself to the representative sample of psychiatric patients at the SLPH, which didn't represent the entire population of mental health patients in Freetown Sierra Leone, as some of the psychiatric patients with different social demographic aspect would choose to seek treatment at privately owned facilities. This limitation led to selection bias in sampling.

The study being a cross-sectional design, it was unable to address confounding factors that may cause/influence similar psychiatric disorder presentation e.g. Organic disorders.

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APPENDIX 1

INFORMATION AND CONSENT/ASSENT FORM FOR STUDY PARTICIPANTS

FORM NUMBER _____

DATE OF INTERVIEW _____

Title of Study: "The pattern of psychiatric morbidities and gaps in diagnosis among patients at the Sierra Leone Psychiatric Hospital, Freetown."

Investigator: Dr. Abdul Jalloh

University of Nairobi, School of Medicine

Kenya

Tel: 0735476973

Email: abdulpjalloh@yahoo.co.uk

Supervisors: Professor David M. Ndetei

Dr. Muthoni Mathai

Investigator's Statement

My name is Dr. Abdul Jalloh, and I am the principal investigator conducting the above study partly to fulfil requirements for my Masters in Psychiatry Degree at the University of Nairobi, Kenya.

Purpose of the study

You are invited to take part in this study whose purpose is to determine the pattern of psychiatric morbidities and the gaps in diagnosis among patients at the Sierra Leone Psychiatric Hospital in Freetown Sierra Leone.

Procedures

In the interview, I will ask you some questions, and you are free to answer or decline to answer any of the questions. The interview shall last for 30 minutes. I will ask you some personal questions.

Who will participate in the study?

Participants for the interview will be patients aged above 15 years admitted or receiving psychiatric care at Sierra Leone Psychiatric Hospital

Possible Risks and discomforts

By you participating in this research we do not expect that our questions some of which may personally affect your emotions to put you in any risk or cause you any discomfort. We shall kindly request you to respond honestly and to the best of your knowledge to questions clear

to you. You may choose not to answer to any matter which may cause you discomfort or issues you do not well understand.

Possible Benefits

The information that you shall provide will help this institution and the country to know more about the patterns of various psychiatric disorders, gaps in diagnosis of the disorders, source of referral of psychiatric patients as well as sociodemographic characteristics associated with psychiatric patients.

The information will assist in focusing on areas of improvement for the benefit of the community served by this facility and the country as a whole.

You as a participating individual will not receive any monetary benefit by your participation. However, the results from this study which you will be part of will be used to formulate plans to improve on quality of service of mental health care for your benefit.

Confidentiality

This study will at all cost protect all the information you share with us. Your name will not be used in any report nor inform anyone about your participation in the study. Your responses to questions in the interview will solely remain for the purpose of this study, and no one will be informed of them. Your responses will not be discussed nor reported to anyone. Your participation in this interview will not affect your relationship with staff or other persons in this hospital. You will be allowed to participate in the study by answering the questions on your volition, and any diagnosed mental disorder will be known to any participant, and necessary assistance rendered.

Study Approval

This study has been approved by the University of Nairobi/Kenyatta National Hospital Research and Ethics Committee, the Sierra Leone Ethics and Scientific Research Committee, the Medical Superintendent of the hospital and is being carried out by Dr. Abdul Jalloh, who is a medical doctor and a student at the Department of Psychiatry University of Nairobi.

Rights to Refuse

Participation in this study is voluntary. You may prefer to participate or not participate in this interview. If you may decide not to participate, this will not be reported to anyone and this does not affect your services at the Sierra Leone psychiatric hospital.

Compensation

There will be no financial inducement to participant in this study. However, free treatment will be available for any diagnosed disorder in this study.

Additional Information

If you have any questions about the research or your participation in the study, you may contact the Investigator on the mobile number and email address given above.

If you have any questions about your rights as a participant, you may contact following:

Kenyatta National Hospital/U.O.N. Ethics & Research Committee

P. O. Box: 20723 code 00202, KNH/UON-ERC

Tel: 726300-9

Fax: 725272.

Email: uonknherc@uonbi.ac.ke

University of Nairobi

P. O. Box 19676 code 00202

College of Health Sciences

Tel:(254-020)-2726300

Ext 44355.

Sierra Leone Ethics and Scientific Review Committee

Directorate of Training, Non-Communicable Diseases, and Research

Ministry of Health and Sanitation

Connaught Hospital, Freetown.

Sierra Leone.

Email: hgmorg2007@yahoo.com / williettav@yahoo.com

PARTICIPANT AGREEMENT

I have read the study information / the study information known to me and willing to participate voluntary in the study. I shall take part and accord maximum cooperation for as long as the binding promise on my rights honored, failure to which I may discontinue the process at any point.

I at this moment consent to take part in the study.

Name of participant: _____

Signature of participant: _____

Date: _____

Witnessed by- Person Obtaining Consent

Name, please print: _____

Signature of witness: _____

Date: _____

INVESTIGATOR DECLARATION

I can confirm that I have explained the information in this study to the above participant and encouraged them to ask questions which I took time to answered satisfactory. I am convinced that the participant adequately understands the study and I will fully abide to the content of this consent.

Name of Investigator: _____

Signature: _____

Date: _____

PEPA WE PIPUL GO SAYN FỌ SHO SE DɛN DỌN GRI FỌ TEK PAT PAN DI STỌDI

FỌm nỌmba.....

Det fỌ kwestiỌn tem.....

Nem of stỌdi: Di kayn we tin kin bi to sik pipul we de na kres yad Ọspitul ɛn di smỌl smỌl mistek den we kin de pan wetin de cỌz di sik

Nem of pỌsin we de fen Ọt: Dr. Abdul Jalloh

University of Nairobi, School of Medicine

Kenya

Tel: 0735476973

Email: abdulpjalloh@yahoo.co.uk

SupavisỌ den: Professor David M. N'detei

Dr. Muthoni Maathai

WỌd frỌm pỌsin we de fen Ọt

Mi nem na Dr. Abdul Jalloh ɛn a de fen Ọt bỌt dis stỌdi fỌ ɛp mi get mi seken digri fỌ men kres man dem na di University of Nairobi, Kenya

Wetin di stỌdi de bỌt

Wi de ask yu fỌ tek pat pan dis stỌdi so dat wi go no Ọl di kayn tin we kin bi to sik pipul den we de na kres yad Ọspitul ɛn di smol smol mistek den we kin de pan wetin de cỌz di sik

Wetin di pỌsin we de tek pat pan di stỌdi fỌ du

Insay di kwestiọn tem a go ask yu plenti tin ɛn yu fỌ fil fri fỌ ansa Ọ nỌ fỌ ansa di kwestiỌn dem. Di kwestiỌn tem go de fỌ tati (30) minit. A go ask yu sỌm Ọda pasỌnal kwestiỌn den bak

Udat go tek pat pan dis stỌdi

Di wan den we go tek pat pan dis stỌdi go bi sik pipul den we ol from fiftin iya te go ɛn we admit Ọ we den de men na di kres yad Ọspitul na Salon

Tin den we go mek di posin we de tek pat nỌ fil fri fỌ tok

We yu de tek pat pan dis stodi so, wi nỌ de fos yu fỌ ansa kwestiỌn we yu nỌ wan ansa Ọ we go mek yu nỌ fil fri. Wi de beg padin mek yu ansa tru ɛn fri wan to Ọl di kwestiỌn den we yu ebul ansa. If ɛni kwestiỌn de we u nỌ Ọndastand fayn, nỌtỌ bay fos fỌ ansa am.

Wetin go apin we di stỌdi dỌn

Wetin yu go tɛl wi pan dis stodi go ɛp wi no bỌt di sik pipul den wahala den na di Ọspitul ɛn aw wi go tray fỌ ɛp we go benifit di pipul we tap na di kỌmyuniti ɛn di kỌntri sef. Yu we de

tek pat pan dis stodi nɔ go get mɔni bɔt yu go ep fɔ mek den fen we fo bil pan di wok na di kres yad ospitul we u sef go fil fayn biKɔs u tek pat.

Tin den we u go tɔk insay dis stodi go bi fɔ wi yes nɔmɔ

Dis stodi go kip ɔl di tin den we yu get fɔ tel wi. Wi nɔ go kɔl yu nem ɔ tel pɔsin se yu tek pat pan di stodi. Di ansa den we yu gi wi pan di stodi go bi fɔ di stodi nɔmɔ en wi nɔ go tɔk am to nɔbɔdi. We yu de tek pat pan dis stodi so, i nɔ go ambɔg yu biznes wit pipul den na di ospitul at ɔl.

Pipul we gri fɔ di Stodi

Di big alejo den na di University of Nairobi, Kenyatta National Hospital, Research and Ethics Committee, Sierra Leone Ethics and Scientific research committee, di dɔkta na di stodi ospitul den ɔl dɔn gri fɔ mek dis stodi keri ɔn en na Dr. Jalloh de du di stodi ɔnda di Department of Psychiatry, University of Nairobi

Rayt ɔf di pɔsin we de tek pat pan di stodi

Fɔ gri f tɔ tek pat pan dis stodi lef to yu. Yu kin gri fɔ tek pat ɔ yu nɔ kin gri. If yu nɔ want fɔ tek pat nɔbɔdi nɔ go no se yu nɔ bin tek pat en i nɔ go ambɔg yu biznes na di kres yad ospitul

Wetin di pɔsin we de tek pat pan di stodi go gen

Wi nɔ de gi mɔni fɔ dis stodi bɔt wi go men pɔsin we sik insay di stodi fɔ fri

ɔda tin dem

If yu get eni kwestiɔn bɔt di stodi ɔ bɔt yu we de tek pat pan di stodi yu kin kɔl di nɔmba we de ɔp. If yu get eni kwestiɔn bɔt yu rayt as pɔsin we get fɔ tek pat pan dis stodi na fɔ sɛn mesej to dis adres:

Kenyatta National Hospital/U.O.N Ethics & Research Committee

P.O. Box 20723 code 00202, KNH/UON-ERC

Sierra Leone Ethics and Scientific Review Committee

Connaught Hospital, Freetown.

Sierra Leone.

Email: hgmorg2007@yahoo.com / williettav@yahoo.com

Wɔd frɔm di pɔsin we de tek pat pan dis stodi

A dɔn rid wetin di stodi de bɔt/ den dɔn rid wetin di stodi de bɔt to mi en a de gri fɔ tek pat pan di stodi. A go tek pat frɔm we di stodi begin te i dɔn wans ɔl wetin wi gri pan nɔ chenj, if i chenj a kin lef di stodi eni tem.

A dOn gri fO tek pat pan di stOdi

Nem of pOsin we de tek pat.....

Sayn.....

Det.....

Witnes bay- Di posin we de fen Ot bOt di stOdi

Nem.....

Witnes fO sayn.....

Det.....

WOd frOm di pOsin we de fen Ot

A dOn tek tEm explen to di pOsin we get fO tek pat pan di stOdi en dOn tel am fo fil fri fO ask eni kayn kwestiOn. A biliv se dis pOsin we get fO tek pat don Ondastand en i go du Ol wetin i don gri fO du insay di stOdi

Nem Of pOsin we de fen Ot.....

Sayn.....

Det.....

APPENDIX 2

SOCIO- DEMOGRAPHIC QUESTIONNAIRE

TOPIC: THE PATTERN OF PSYCHIATRIC MORBIDITIES AND GAPS IN DIAGNOSIS AMONG PATIENTS AT THE SIERRA LEONE PSYCHIATRIC HOSPITAL, FREETOWN.

(Instructions – Kindly put a tick at the text box as per your respective answer)

Questionnaire Serial Number.....

A.1. What is your gender? Male Female

A.2. What is your age in years as of last birthday?

15 – 20

21-25

26 – 30

31-35

36-40

41-44

Above 45

A.3. What is your level of education?

Never been to school

Primary Education

Secondary Education

Tertiary Education

Postgraduate Education

A.4. What is your occupation?

Student	<input type="text"/>
Unemployed	<input type="text"/>
Informal employment	<input type="text"/>
Formal employment	<input type="text"/>
Business person	<input type="text"/>
More than one category	<input type="text"/>
No response	<input type="text"/>

A.5. What is your marital status?

Single	<input type="text"/>
Married	<input type="text"/>
Divorced	<input type="text"/>
Cohabiting	<input type="text"/>
Separated	<input type="text"/>
Widow / Widower	<input type="text"/>
No response	<input type="text"/>

A.6. What is your religion?

Christian	<input type="text"/>
Islam	<input type="text"/>
If a Christian which denomination	
Catholic	<input type="text"/>
Methodist	<input type="text"/>
Seventh day Adventist	<input type="text"/>
Baptist	<input type="text"/>
Protestant	<input type="text"/>
Other (Specify)	
No response	<input type="text"/>

A.7. Any history of mental illness in your family?

Yes	<input type="text"/>
No	<input type="text"/>

A.8. Number of previous admissions?

Never admitted this being the first

Second

Third

More than 3

A.9. Which province are you from?

Eastern Province

Northern Province

Southern Province

Western Area

A.10. What is your monthly income (in USD)?

Below 50 USD

50-150 USD

151-250 USD

251-350 USD

351-450 USD

451-550 USD

Over 551 USD

A.11. What is your source of referral?

Medical Doctor

Faith Healers

Families

Prisons/Police

Local Chiefs

Traditional Healers

Others (specify)

A.12. What is your assigned working diagnosis?

.....
.....
.....

APPENDIX 3

MINI INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW

M.I.N.I.

MINI INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW

English Version 6.0.0

DSM-IV

USA: **D. Sheehan¹, J. Janavs, K. Harnett-Sheehan, M. Sheehan, C. Gray.**

¹University of South Florida College of Medicine- Tampa, USA

EU: **Y. Lecrubier², E. Weiller, T. Hergueta, C. Allgulander, N. Kadri, D. Baldwin, C. Even.**

²Centre Hospitalier Sainte-Anne – Paris, France

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DISCLAIMER

Our aim is to assist in the assessment and tracking of patients with greater efficiency and accuracy. Before action is taken on any data collected and processed by this program, it should be reviewed and interpreted by a licensed clinician.

This program is not designed or intended to be used in the place of a full medical and psychiatric evaluation by a qualified licensed physician – psychiatrist. It is intended only as a tool to facilitate accurate data collection and processing of symptoms elicited by trained personnel.

M.I.N.I. 6.0.0 (October 10, 2010) (10/10/10)

Patient Name:	_____	Patient Number:	_____
Date of Birth:	_____	Time Interview Began:	_____
Interviewer's Name:	_____	Time Interview Ended:	_____
Date of Interview:	_____	Total Time:	_____

MODULES	TIME FRAME	MEETS CRITERIA	DSM-IV-TR	ICD-10	PRIMARY DIAGNOSIS
A MAJOR DEPRESSIVE EPISODE	Current (2 weeks)	<input type="checkbox"/>			
	Past	<input type="checkbox"/>			
	Recurrent	<input type="checkbox"/>			
MAJOR DEPRESSIVE DISORDER	Current (2 weeks)	<input type="checkbox"/>	296.20-296.26 Single	F32.x	<input type="checkbox"/>
	Past	<input type="checkbox"/>	296.20-296.26 Single	F32.x	<input type="checkbox"/>
	Recurrent	<input type="checkbox"/>	296.30-296.36 Recurrent	F33.x	<input type="checkbox"/>
B SUICIDALITY	Current (Past Month)	<input type="checkbox"/>			
	<input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High				
C MANIC EPISODE	Current	<input type="checkbox"/>			
	Past	<input type="checkbox"/>			
HYPOMANIC EPISODE	Current	<input type="checkbox"/>			
	Past	<input type="checkbox"/>	<input type="checkbox"/> Not Explored		
BIPOLAR I DISORDER	Current	<input type="checkbox"/>	296.0x-296.6x	F30.x- F31.9	<input type="checkbox"/>
	Past	<input type="checkbox"/>	296.0x-296.6x	F30.x- F31.9	<input type="checkbox"/>
BIPOLAR II DISORDER	Current	<input type="checkbox"/>	296.89	F31.8	<input type="checkbox"/>
	Past	<input type="checkbox"/>	296.89	F31.8	<input type="checkbox"/>
BIPOLAR DISORDER NOS	Current	<input type="checkbox"/>	296.80	F31.9	<input type="checkbox"/>
	Past	<input type="checkbox"/>	296.80	F31.9	<input type="checkbox"/>
D PANIC DISORDER	Current (Past Month)	<input type="checkbox"/>	300.01/300.21	F40.01-F41.0	<input type="checkbox"/>
	Lifetime	<input type="checkbox"/>			
E AGORAPHOBIA	Current	<input type="checkbox"/>	300.22	F40.00	<input type="checkbox"/>
F SOCIAL PHOBIA (Social Anxiety Disorder)	Current (Past Month)	<input type="checkbox"/>			
	Generalized	<input type="checkbox"/>	300.23	F40.1	<input type="checkbox"/>
	Non-Generalized	<input type="checkbox"/>	300.23	F40.1	<input type="checkbox"/>
G OBSESSIVE-COMPULSIVE DISORDER	Current (Past Month)	<input type="checkbox"/>	300.3	F42.8	<input type="checkbox"/>
H POSTTRAUMATIC STRESS DISORDER	Current (Past Month)	<input type="checkbox"/>	309.81	F43.1	<input type="checkbox"/>
I ALCOHOL DEPENDENCE	Past 12 Months	<input type="checkbox"/>	303.9	F10.2x	<input type="checkbox"/>
ALCOHOL ABUSE	Past 12 Months	<input type="checkbox"/>	305.00	F10.1	<input type="checkbox"/>
J SUBSTANCE DEPENDENCE (Non-alcohol)	Past 12 Months	<input type="checkbox"/>	304.00-.90/305.20-.90	F11.2X-F19.2X	<input type="checkbox"/>
SUBSTANCE ABUSE (Non-alcohol)	Past 12 Months	<input type="checkbox"/>	304.00-.90/305.20-.90	F11.1-F19.1	<input type="checkbox"/>
K PSYCHOTIC DISORDERS	Lifetime	<input type="checkbox"/>	295.10-295.90/297.1/ 297.3/293.81/293.82/	F20.xx-F29 293.89/298.8/298.9	<input type="checkbox"/>
	Current	<input type="checkbox"/>			
MOOD DISORDER WITH PSYCHOTIC FEATURES	Lifetime	<input type="checkbox"/>	296.24/296.34/296.44	F32.3/F33.3/ F30.2/F31.2/F31.5	<input type="checkbox"/>
	Current	<input type="checkbox"/>	296.24/296.34/296.44	F31.8/F31.9/F39	<input type="checkbox"/>
L ANOREXIA NERVOSA	Current (Past 3 Months)	<input type="checkbox"/>	307.1	F50.0	<input type="checkbox"/>
M BULIMIA NERVOSA	Current (Past 3 Months)	<input type="checkbox"/>	307.51	F50.2	<input type="checkbox"/>
ANOREXIA NERVOSA, BINGE EATING/PURGING TYPE	Current	<input type="checkbox"/>	307.1	F50.0	<input type="checkbox"/>
N GENERALIZED ANXIETY DISORDER	Current (Past 6 Months)	<input type="checkbox"/>	300.02	F41.1	<input type="checkbox"/>
O MEDICAL, ORGANIC, DRUG CAUSE RULED OUT		<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Uncertain			
P ANTISOCIAL PERSONALITY DISORDER	Lifetime	<input type="checkbox"/>	301.7	F60.2	<input type="checkbox"/>

IDENTIFY THE PRIMARY DIAGNOSIS BY CHECKING THE APPROPRIATE CHECK BOX.
(Which problem troubles you the most or dominates the others or came first in the natural history?) _____ ↑

The translation from DSM-IV-TR to ICD-10 coding is not always exact. For more information on this topic see Schulte-Markwort. Crosswalks ICD-10/DSM-IV-TR. Hogrefe & Huber Publishers 2006.

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GENERAL INSTRUCTIONS

The M.I.N.I. was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P for DSM-III-R and the CIDI (a structured interview developed by the World Health Organization). The results of these studies show that the M.I.N.I. has similar reliability and validity properties, but can be administered in a much shorter period of time (mean 18.7 ± 11.6 minutes, median 15 minutes) than the above referenced instruments. It can be used by clinicians, after a brief training session. Lay interviewers require more extensive training.

INTERVIEW:

In order to keep the interview as brief as possible, inform the patient that you will conduct a clinical interview that is more structured than usual, with very precise questions about psychological problems which require a yes or no answer.

GENERAL FORMAT:

The M.I.N.I. is divided into **modules** identified by letters, each corresponding to a diagnostic category.

- At the beginning of each diagnostic module (except for psychotic disorders module), screening question(s) corresponding to the main criteria of the disorder are presented in a **gray box**.
- At the end of each module, diagnostic box(es) permit the clinician to indicate whether diagnostic criteria are met.

CONVENTIONS:

Sentences written in « normal font » should be read exactly as written to the patient in order to standardize the assessment of diagnostic criteria.

Sentences written in « CAPITALS » should not be read to the patient. They are instructions for the interviewer to assist in the scoring of the diagnostic algorithms.

Sentences written in « bold » indicate the time frame being investigated. The interviewer should read them as often as necessary. Only symptoms occurring during the time frame indicated should be considered in scoring the responses.

Answers with an arrow above them (➔) indicate that one of the criteria necessary for the diagnosis(es) is not met. In this case, the interviewer should go to the end of the module, circle « **NO** » in all the diagnostic boxes and move to the next module.

When terms are separated by a *slash (/)* the interviewer should read only those symptoms known to be present in the patient (for example, question G6).

Phrases in (parentheses) are clinical examples of the symptom. These may be read to the patient to clarify the question.

RATING INSTRUCTIONS:

All questions must be rated. The rating is done at the right of each question by circling either Yes or No. Clinical judgment by the rater should be used in coding the responses. Interviewers need to be sensitive to the diversity of cultural beliefs in their administration of questions and rating of responses. The rater should ask for examples when necessary, to ensure accurate coding. The patient should be encouraged to ask for clarification on any question that is not absolutely clear.

The clinician should be sure that each dimension of the question is taken into account by the patient (for example, time frame, frequency, severity, and/or alternatives).

Symptoms better accounted for by an organic cause or by the use of alcohol or drugs should not be coded positive in the M.I.N.I. The M.I.N.I. Plus has questions that investigate these issues.

For any questions, suggestions, need for a training session or information about updates of the M.I.N.I., please contact:

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A. MAJOR DEPRESSIVE EPISODE

(➔ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

A1	a	Were you <u>ever</u> depressed or down, most of the day, nearly every day, for two weeks? IF NO, CODE NO TO A1b : IF YES ASK:	NO	YES
	b	For the <u>past two weeks</u> , were you depressed or down, most of the day, nearly every day?	NO	YES
A2	a	Were you <u>ever</u> much less interested in most things or much less able to enjoy the things you used to enjoy most of the time, for two weeks? IF NO, CODE NO TO A2b : IF YES ASK:	NO	YES
	b	In the <u>past two weeks</u> , were you much less interested in most things or much less able to enjoy the things you used to enjoy, most of the time? IS A1a OR A2a CODED YES?	NO ➔ NO	YES YES

A3 IF **A1b** OR **A2b** = YES: EXPLORE THE CURRENT AND THE MOST SYMPTOMATIC **PAST** EPISODE, OTHERWISE IF **A1b** AND **A2b** = NO: EXPLORE ONLY THE MOST SYMPTOMATIC **PAST** EPISODE

Over that two week period, when you felt depressed or uninterested:

	<u>Past 2 Weeks</u>		<u>Past Episode</u>		
a					
b					
c					
d					
e					
	<small>IF YES, ASK FOR EXAMPLES. THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. Current Episode <input type="checkbox"/> No <input type="checkbox"/> Yes Past Episode <input type="checkbox"/> No <input type="checkbox"/> Yes</small>				
f					
g					
A4					
A5					

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ARE **5** OR MORE ANSWERS (**A1-A3**) CODED **YES** AND IS **A4** CODED **YES** FOR THAT TIME FRAME?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **A5** IS CODED **YES**, CODE **YES** FOR RECURRENT.

NO	YES
MAJOR DEPRESSIVE EPISODE	
CURRENT	<input type="checkbox"/>
PAST	<input type="checkbox"/>
RECURRENT	<input type="checkbox"/>

A6 a How many episodes of depression did you have in your lifetime? _____

Between each episode there must be at least 2 months without any significant depression.

B. SUICIDALITY

				Points						
In the past month did you:										
B1	Have any accident? This includes taking too much of your medication accidentally. IF NO TO B1, SKIP TO B2; IF YES, ASK B1a:	NO	YES	0						
B1a	Plan or intend to hurt yourself in any accident either actively or passively (e.g. by not avoiding a risk)? IF NO TO B1a, SKIP TO B2; IF YES, ASK B1b:	NO	YES	0						
B1b	Intend to die as a result of any accident?	NO	YES	0						
B2	Feel hopeless?	NO	YES	1						
B3	Think that you would be better off dead or wish you were dead?	NO	YES	1						
B4	Think about hurting or injuring yourself or have mental images of harming yourself, with at least some intent or awareness that you might die as a result?	NO	YES	4						
B5	Think about suicide (killing yourself)?	NO	YES	6						
IF NO TO B5, SKIP TO B7. OTHERWISE ASK:										
Frequency		Intensity								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Occasionally <input type="checkbox"/></td> <td style="width: 50%;">Mild <input type="checkbox"/></td> </tr> <tr> <td>Often <input type="checkbox"/></td> <td>Moderate <input type="checkbox"/></td> </tr> <tr> <td>Very often <input type="checkbox"/></td> <td>Severe <input type="checkbox"/></td> </tr> </table>		Occasionally <input type="checkbox"/>	Mild <input type="checkbox"/>	Often <input type="checkbox"/>	Moderate <input type="checkbox"/>	Very often <input type="checkbox"/>	Severe <input type="checkbox"/>			
Occasionally <input type="checkbox"/>	Mild <input type="checkbox"/>									
Often <input type="checkbox"/>	Moderate <input type="checkbox"/>									
Very often <input type="checkbox"/>	Severe <input type="checkbox"/>									
B6	Have difficulty restraining yourself from acting on these impulses?	NO	YES	8						
B7	Have a suicide method in mind (e.g. how)?	NO	YES	8						
B8	Have a suicide plan in mind (e.g. when or where)?	NO	YES	8						
B9	Intend to act on thoughts of killing yourself?	NO	YES	8						
B10	Intend to die as a result of a suicidal act?	NO	YES	8						
B11	Take any active steps to prepare to injure yourself or to prepare for a suicide attempt in which you expected or intended to die? This includes times when you were going to kill yourself, but were interrupted or stopped yourself, before harming yourself. IF NO TO B11, SKIP TO B12.	NO	YES	9						
B11a	Take active steps to prepare to kill yourself, but you did not start the suicide attempt?	NO	YES							
B11b	Start a suicide attempt, but then you stopped yourself before harming yourself (aborted attempt)?	NO	YES							
B11c	Start a suicide attempt, but then someone or something stopped you before harming yourself (interrupted attempt)?	NO	YES							
B12	Injure yourself on purpose without intending to kill yourself?	NO	YES	4						
B13	Attempt suicide (to kill yourself)?	NO	YES	10						
A suicide attempt means you did something where you could possibly be injured, with at least a slight intent to die.										

IF NO, SKIP TO B14:

- Hope to be rescued / survive
Expected / intended to die

In your lifetime:

B14 Did you ever make a suicide attempt (try to kill yourself)? NO YES 4

"A suicide attempt is any self injurious behavior, with at least some intent (> 0) to die as a result or if intent can be inferred, e.g. if it is clearly not an accident or the individual thinks the act could be lethal, even though denying intent." (C-CASA definition). Posner K et al. Am J Psychiatry 164:7, July 2007.

IS AT LEAST **1** OF THE ABOVE (EXCEPT B1) CODED YES?

IF YES, ADD THE TOTAL POINTS FOR THE ANSWERS (B1-B14)
CHECKED 'YES' AND SPECIFY THE SUICIDALITY SCORE AS INDICATED IN THE DIAGNOSTIC BOX:

MAKE ANY ADDITIONAL COMMENTS ABOUT YOUR ASSESSMENT OF THIS PATIENT'S CURRENT
AND NEAR FUTURE SUICIDALITY IN THE SPACE BELOW:

NO	YES
SUICIDALITY CURRENT	
1-8 points Low	<input type="checkbox"/>
9-16 points Moderate	<input type="checkbox"/>
≥ 17 points High	<input type="checkbox"/>

C. MANIC AND HYPOMANIC EPISODES

(➔ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE **NO** IN MANIC AND HYPOMANIC DIAGNOSTIC BOXES, AND MOVE TO NEXT MODULE)

Do you have any family history of manic depressive illness or bipolar disorder, or any family member who had mood swings treated with a medication like lithium, sodium valproate (Depakote) or lamotrigine (Lamictal)? NO YES
 THIS QUESTION IS NOT A CRITERION FOR BIPOLAR DISORDER, BUT IS ASKED TO INCREASE THE CLINICIAN'S VIGILANCE ABOUT THE RISK FOR BIPOLAR DISORDER .
 IF YES, PLEASE SPECIFY WHO: _____

C1	a	Have you ever had a period of time when you were feeling 'up' or 'high' or 'hyper' or so full of energy or full of yourself that you got into trouble, - or that other people thought you were not your usual self? (Do not consider times when you were intoxicated on drugs or alcohol.)	NO	YES
<p style="font-size: small;">IF PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT YOU MEAN BY 'UP' OR 'HIGH' OR 'HYPER', CLARIFY AS FOLLOWS: By 'up' or 'high' or 'hyper' I mean: having elated mood; increased energy; needing less sleep; having rapid thoughts; being full of ideas; having an increase in productivity, motivation, creativity, or impulsive behavior; phoning or working excessively or spending more money.</p> <p style="font-size: small;">IF NO, CODE NO TO C1b: IF YES ASK:</p>				
	b	Are you currently feeling 'up' or 'high' or 'hyper' or full of energy?	NO	YES
C2	a	Have you ever been persistently irritable, for several days, so that you had arguments or verbal or physical fights, or shouted at people outside your family? Have you or others noticed that you have been more irritable or over reacted, compared to other people, even in situations that you felt were justified?	NO	YES
<p style="font-size: small;">IF NO, CODE NO TO C2b: IF YES ASK:</p>				
	b	Are you currently feeling persistently irritable?	NO	YES
IS C1a OR C2a CODED YES?			➔ NO	YES

C3 IF **C1b** OR **C2b** = YES: EXPLORE THE CURRENT AND THE MOST SYMPTOMATIC PAST EPISODE, OTHERWISE IF **C1b** AND **C2b** = NO: EXPLORE ONLY THE MOST SYMPTOMATIC PAST EPISODE

During the times when you felt high, full of energy, or irritable did you:

	Current Episode		Past Episode	
a Feel that you could do things others couldn't do, or that you were an especially important person? IF YES, ASK FOR EXAMPLES. <small>THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. Current Episode <input type="checkbox"/> No <input type="checkbox"/> Yes Past Episode <input type="checkbox"/> No <input type="checkbox"/> Yes</small>	NO	YES	NO	YES
b Need less sleep (for example, feel rested after only a few hours sleep)?	NO	YES	NO	YES
c Talk too much without stopping, or so fast that people had difficulty understanding?	NO	YES	NO	YES
d Have racing thoughts?	NO	YES	NO	YES

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	<u>Current Episode</u>		<u>Past Episode</u>	
e Become easily distracted so that any little interruption could distract you?	NO	YES	NO	YES
f Have a significant increase in your activity or drive, at work, at school, socially or sexually or did you become physically or mentally restless?	NO	YES	NO	YES
g Want so much to engage in pleasurable activities that you ignored the risks or consequences (for example, spending sprees, reckless driving, or sexual indiscretions)?	NO	YES	NO	YES
C3 SUMMARY: WHEN RATING CURRENT EPISODE: IF C1b IS NO, ARE 4 OR MORE C3 ANSWERS CODED YES? IF C1b IS YES, ARE 3 OR MORE C3 ANSWERS CODED YES?	NO	YES	NO	YES
WHEN RATING PAST EPISODE: IF C1a IS NO, ARE 4 OR MORE C3 ANSWERS CODED YES? IF C1a IS YES, ARE 3 OR MORE C3 ANSWERS CODED YES?				
CODE YES ONLY IF THE ABOVE 3 OR 4 SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD.				
RULE: ELATION/EXPANSIVENESS REQUIRES ONLY THREE C3 SYMPTOMS, WHILE IRRITABLE MOOD ALONE REQUIRES 4 OF THE C3 SYMPTOMS.				
C4 What is the longest time these symptoms lasted?				
a) 3 days or less	<input type="checkbox"/>		<input type="checkbox"/>	
b) 4 to 6 days	<input type="checkbox"/>		<input type="checkbox"/>	
c) 7 days or more	<input type="checkbox"/>		<input type="checkbox"/>	
C5 Were you hospitalized for these problems?	NO	YES	NO	YES
IF YES, STOP HERE AND CIRCLE YES IN MANIC EPISODE FOR THAT TIME FRAME.				
C6 Did these symptoms cause significant problems at home, at work, socially in your relationships with others, at school or in some other important way?	NO	YES	NO	YES

ARE **C3** SUMMARY AND **C5** AND **C6** CODED YES?

OR

ARE **C3** SUMMARY AND **C4c** AND **C6** CODED YES AND IS **C5** CODED NO?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

NO	YES
MANIC EPISODE	
CURRENT	<input type="checkbox"/>
PAST	<input type="checkbox"/>

Is **C3** SUMMARY CODED **YES** AND ARE **C5** AND **C6** CODED **NO** AND IS EITHER **C4b** OR **C4c** CODED **YES**?

OR

ARE **C3** SUMMARY AND **C4b** AND **C6** CODED **YES** AND IS **C5** CODED **NO**?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **YES** TO CURRENT MANIC EPISODE, THEN CODE CURRENT HYPOMANIC EPISODE AS **NO**.

IF **YES** TO PAST MANIC EPISODE, THEN CODE PAST HYPOMANIC EPISODE AS **NOT EXPLORED**.

HYPOMANIC EPISODE

CURRENT **NO**
 YES

PAST **NO**
 YES
 NOT

EXPLORED

ARE **C3** SUMMARY AND **C4a** CODED **YES** AND IS **C5** CODED **NO**?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **YES** TO CURRENT MANIC EPISODE OR HYPOMANIC EPISODE,
THEN CODE CURRENT HYPOMANIC SYMPTOMS AS **NO**.

IF **YES** TO PAST MANIC EPISODE OR YES TO PAST HYPOMANIC EPISODE,
THEN CODE PAST HYPOMANIC SYMPTOMS AS **NOT EXPLORED**.

HYPOMANIC SYMPTOMS

CURRENT **NO**
 YES

PAST **NO**
 YES
 NOT EXPLORED

- C7 a) IF MANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:
Did you have 2 or more of these (manic) episodes lasting 7 days or more (**C4c**) in your lifetime (including the current episode if present)? NO YES
- b) IF MANIC OR HYPOMANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:
Did you have 2 or more of these (hypomanic) episodes lasting just 4 to 6 days (**C4b**) in your lifetime (including the current episode)? NO YES
- c) IF THE PAST "HYPOMANIC SYMPTOMS" CATEGORY IS CODED POSITIVE ASK:
Did you have these hypomanic symptoms lasting only 1 to 3 days (**C4a**) 2 or more times in your lifetime, (including the current episode if present)? NO YES

D. PANIC DISORDER

(➔ MEANS : CIRCLE **NO** IN D5, D6 AND D7 AND SKIP TO E1)

D1	a	Have you, on more than one occasion, had spells or attacks when you suddenly felt anxious, frightened, uncomfortable or uneasy, even in situations where most people would not feel that way?	➔ NO	YES
	b	Did the spells surge to a peak within 10 minutes of starting?	➔ NO	YES
D2		At any time in the past, did any of those spells or attacks come on unexpectedly or occur in an unpredictable or unprovoked manner?	➔ NO	YES
D3		Have you ever had one such attack followed by a month or more of persistent concern about having another attack, or worries about the consequences of the attack - or did you make a significant change in your behavior because of the attacks (e.g., shopping only with a companion, not wanting to leave your house, visiting the emergency room repeatedly, or seeing your doctor more frequently because of the symptoms)?	NO	YES
D4		During the worst attack that you can remember:		
	a	Did you have skipping, racing or pounding of your heart?	NO	YES
	b	Did you have sweating or clammy hands?	NO	YES
	c	Were you trembling or shaking?	NO	YES
	d	Did you have shortness of breath or difficulty breathing?	NO	YES
	e	Did you have a choking sensation or a lump in your throat?	NO	YES
	f	Did you have chest pain, pressure or discomfort?	NO	YES
	g	Did you have nausea, stomach problems or sudden diarrhea?	NO	YES
	h	Did you feel dizzy, unsteady, lightheaded or faint?	NO	YES
	i	Did things around you feel strange, unreal, detached or unfamiliar, or did you feel outside of or detached from part or all of your body?	NO	YES
	j	Did you fear that you were losing control or going crazy?	NO	YES
	k	Did you fear that you were dying?	NO	YES
	l	Did you have tingling or numbness in parts of your body?	NO	YES
	m	Did you have hot flushes or chills?	NO	YES
D5		ARE BOTH D3 , AND 4 OR MORE D4 ANSWERS, CODED YES ? IF YES TO D5, SKIP TO D7.	NO	YES <small>PANIC DISORDER LIFETIME</small>
D6		IF D5 = NO , ARE ANY D4 ANSWERS CODED YES ? THEN SKIP TO E1 .	NO	YES <small>LIMITED SYMPTOM ATTACKS LIFETIME</small>

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D7 In the past month, did you have such attacks repeatedly (2 or more), and did you have persistent concern about having another attack, or worry about the consequences of the attacks, or did you change your behavior in any way because of the attacks? NO YES
*PANIC DISORDER
 CURRENT*

E. AGORAPHOBIA

E1 Do you feel anxious or uneasy in places or situations where help might not be available or escape might be difficult, like being in a crowd, standing in a line (queue), when you are alone away from home or alone at home, or when crossing a bridge, or traveling in a bus, train or car or where you might have a panic attack or the panic-like symptoms we just spoke about? NO YES

IF **E1** = NO, CIRCLE NO IN **E2**.

E2 Do you fear these situations so much that you avoid them, or suffer through them, or need a companion to face them? NO YES
*AGORAPHOBIA
 CURRENT*

IS **E2** (CURRENT AGORAPHOBIA) CODED YES
 and
 IS **D7** (CURRENT PANIC DISORDER) CODED YES?

NO YES
**PANIC DISORDER
 with Agoraphobia
 CURRENT**

IS **E2** (CURRENT AGORAPHOBIA) CODED NO
 and
 IS **D7** (CURRENT PANIC DISORDER) CODED YES?

NO YES
**PANIC DISORDER
 without Agoraphobia
 CURRENT**

IS **E2** (CURRENT AGORAPHOBIA) CODED YES
 and
 IS **D5** (PANIC DISORDER LIFETIME) CODED NO?

NO YES
**AGORAPHOBIA, CURRENT
 without history of
 Panic Disorder**

F. SOCIAL PHOBIA (Social Anxiety Disorder)

(➔ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO AND MOVE TO THE NEXT MODULE)

F1	In the past month, did you have persistent fear and significant anxiety at being watched, being the focus of attention, or of being humiliated or embarrassed? This includes things like speaking in public, eating in public or with others, writing while someone watches, or being in social situations.	➔ NO	YES
----	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------	-----

F2	Is this social fear excessive or unreasonable and does it almost always make you anxious?	➔ NO	YES
----	-------------------------------------------------------------------------------------------	---------	-----

F3	Do you fear these social situations so much that you avoid them or suffer through them most of the time?	➔ NO	YES
----	----------------------------------------------------------------------------------------------------------	---------	-----

F4	Do these social fears disrupt your normal work, school or social functioning or cause you significant distress?	NO	YES
----	-----------------------------------------------------------------------------------------------------------------	----	-----

SUBTYPES

Do you fear and avoid 4 or more social situations?

If YES Generalized social phobia (social anxiety disorder)

If NO Non-generalized social phobia (social anxiety disorder)

EXAMPLES OF SUCH SOCIAL SITUATIONS TYPICALLY INCLUDE

- INITIATING OR MAINTAINING A CONVERSATION,
- PARTICIPATING IN SMALL GROUPS,
- DATING,
- SPEAKING TO AUTHORITY FIGURES,
- ATTENDING PARTIES,
- PUBLIC SPEAKING,
- EATING IN FRONT OF OTHERS,
- URINATING IN A PUBLIC WASHROOM, ETC.

NOTE TO INTERVIEWER: PLEASE ASSESS WHETHER THE SUBJECT'S FEARS ARE RESTRICTED TO NON-GENERALIZED ("ONLY 1 OR SEVERAL") SOCIAL SITUATIONS OR EXTEND TO GENERALIZED ("MOST") SOCIAL SITUATIONS. "MOST" SOCIAL SITUATIONS IS USUALLY OPERATIONALIZED TO MEAN 4 OR MORE SOCIAL SITUATIONS, ALTHOUGH THE DSM-IV DOES NOT EXPLICITLY STATE THIS.

NO	YES
SOCIAL PHOBIA <i>(Social Anxiety Disorder)</i> CURRENT	
GENERALIZED	<input type="checkbox"/>
NON-GENERALIZED	<input type="checkbox"/>

G. OBSESSIVE-COMPULSIVE DISORDER

(➔ MEANS: GO TO THE DIAGNOSTIC BOX, CIRCLE NO AND MOVE TO THE NEXT MODULE)

G1	In the past month, have you been bothered by recurrent thoughts, impulses, or images that were unwanted, distasteful, inappropriate, intrusive, or distressing? - (For example, the idea that you were dirty, contaminated or had germs, or fear of contaminating others, or fear of harming someone even though it disturbs or distresses you, or fear you would act on some impulse, or fear or superstitions that you would be responsible for things going wrong, or obsessions with sexual thoughts, images or impulses, or hoarding, collecting, or religious obsessions.) (DO NOT INCLUDE SIMPLY EXCESSIVE WORRIES ABOUT REAL LIFE PROBLEMS. DO NOT INCLUDE OBSESSIONS DIRECTLY RELATED TO EATING DISORDERS, SEXUAL DEVIATIONS, PATHOLOGICAL GAMBLING, OR ALCOHOL OR DRUG ABUSE BECAUSE THE PATIENT MAY DERIVE PLEASURE FROM THE ACTIVITY AND MAY WANT TO RESIST IT ONLY BECAUSE OF ITS NEGATIVE CONSEQUENCES.)	NO	YES				
		↓ SKIP TO G4					
G2	Did they keep coming back into your mind even when you tried to ignore or get rid of them?	NO	YES				
		↓ SKIP TO G4					
G3	Do you think that these obsessions are the product of your own mind and that they are not imposed from the outside?	NO	YES obsessions				
G4	In the past month, did you do something repeatedly without being able to resist doing it, like washing or cleaning excessively, counting or checking things over and over, or repeating, collecting, arranging things, or other superstitious rituals?	NO	YES compulsions				
	IS G3 OR G4 CODED YES?	➔ NO	YES				
G5	At any point, did you recognize that either these obsessive thoughts or these compulsive behaviors were excessive or unreasonable?	➔ NO	YES				
G6	In the past month, did these obsessive thoughts and/or compulsive behaviors significantly interfere with your normal routine, your work or school, your usual social activities, or relationships, or did they take more than one hour a day?	<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 10px;">NO</td> <td style="padding: 10px;">YES</td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 10px;">O.C.D. CURRENT</td> </tr> </table>		NO	YES	O.C.D. CURRENT	
NO	YES						
O.C.D. CURRENT							

H. POSTTRAUMATIC STRESS DISORDER

(➔ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

H1	Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else?	➔ NO	YES
	EXAMPLES OF TRAUMATIC EVENTS INCLUDE: SERIOUS ACCIDENTS, SEXUAL OR PHYSICAL ASSAULT, A TERRORIST ATTACK, BEING HELD HOSTAGE, KIDNAPPING, FIRE, DISCOVERING A BODY, WAR, OR NATURAL DISASTER, WITNESSING THE VIOLENT OR SUDDEN DEATH OF SOMEONE CLOSE TO YOU, OR A LIFE THREATENING ILLNESS.		
H2	Did you respond with intense fear, helplessness or horror?	➔ NO	YES
H3	During the past month, have you re-experienced the event in a distressing way (such as in dreams, intense recollections, flashbacks or physical reactions) or did you have intense distress when you were reminded about the event or exposed to a similar event?	➔ NO	YES
H4	In the past month:		
	a Have you avoided thinking about or talking about the event ?	NO	YES
	b Have you avoided activities, places or people that remind you of the event?	NO	YES
	c Have you had trouble recalling some important part of what happened?	NO	YES
	d Have you become much less interested in hobbies or social activities?	NO	YES
	e Have you felt detached or estranged from others?	NO	YES
	f Have you noticed that your feelings are numbed?	NO	YES
	g Have you felt that your life will be shortened or that you will die sooner than other people?	NO	YES
	ARE 3 OR MORE H4 ANSWERS CODED YES?	➔ NO	YES
H5	In the past month:		
	a Have you had difficulty sleeping?	NO	YES
	b Were you especially irritable or did you have outbursts of anger?	NO	YES
	c Have you had difficulty concentrating?	NO	YES
	d Were you nervous or constantly on your guard?	NO	YES
	e Were you easily startled?	NO	YES
	ARE 2 OR MORE H5 ANSWERS CODED YES?	➔ NO	YES
H6	During the past month, have these problems significantly interfered with your work, school or social activities, or caused significant distress?		

NO YES

**POSTTRAUMATIC
STRESS DISORDER
CURRENT**

I. ALCOHOL DEPENDENCE / ABUSE

(➔ MEANS: GO TO DIAGNOSTIC BOXES, CIRCLE **NO** IN BOTH AND MOVE TO THE NEXT MODULE)

I1	In the past 12 months, have you had 3 or more alcoholic drinks, - within a 3 hour period, - on 3 or more occasions?	➔ NO	YES
----	---------------------------------------------------------------------------------------------------------------------	---------	-----

I2 In the past 12 months:

- | | | | |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|
| a | Did you need to drink a lot more in order to get the same effect that you got when you first started drinking or did you get much less effect with continued use of the same amount? | NO | YES |
| b | When you cut down on drinking did your hands shake, did you sweat or feel agitated? Did you drink to avoid these symptoms (for example, "the shakes", sweating or agitation) or to avoid being hungover?
<small>IF YES TO ANY, CODE YES.</small> | NO | YES |
| c | During the times when you drank alcohol, did you end up drinking more than you planned when you started? | NO | YES |
| d | Have you tried to reduce or stop drinking alcohol but failed? | NO | YES |
| e | On the days that you drank, did you spend substantial time obtaining alcohol, drinking, or recovering from the effects of alcohol? | NO | YES |
| f | Did you spend less time working, enjoying hobbies, or being with others because of your drinking? | NO | YES |
| g | If your drinking caused you health or mental problems, did you still keep on drinking? | NO | YES |

ARE 3 OR MORE I2 ANSWERS CODED YES?

* IF YES, SKIP I3 QUESTIONS AND GO TO NEXT MODULE. "DEPENDENCE PREEMPTS ABUSE" IN DSM IV TR.

NO **YES***

**ALCOHOL DEPENDENCE
CURRENT**

I3 In the past 12 months:

- | | | | |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|
| a | Have you been intoxicated, high, or hungover more than once when you had other responsibilities at school, at work, or at home? Did this cause any problems?
<small>(CODE YES ONLY IF THIS CAUSED PROBLEMS.)</small> | NO | YES |
| b | Were you intoxicated more than once in any situation where you were physically at risk, for example, driving a car, riding a motorbike, using machinery, boating, etc.? | NO | YES |
| c | Did you have legal problems more than once because of your drinking, for example, an arrest or disorderly conduct? | NO | YES |
| d | If your drinking caused problems with your family or other people, did you still keep on drinking? | NO | YES |

ARE 1 OR MORE 13 ANSWERS CODED YES?

NO	YES
<i>ALCOHOL ABUSE CURRENT</i>	

J. SUBSTANCE DEPENDENCE / ABUSE (NON-ALCOHOL)

(➔ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

Now I am going to show you / read to you a list of street drugs or medicines.		
J1	a	In the past 12 months, did you take any of these drugs more than once, to get high, to feel elated, to get "a buzz" or to change your mood?
		➔ NO YES

CIRCLE EACH DRUG TAKEN:

Stimulants: amphetamines, "speed", crystal meth, "crank", "rush", Dexedrine, Ritalin, diet pills.

Cocaine: snorting, IV, freebase, crack, "speedball".

Narcotics: heroin, morphine, Dilaudid, opium, Demerol, methadone, Darvon, codeine, Percodan, Vicodin, OxyContin.

Hallucinogens: LSD ("acid"), mescaline, peyote, psilocybin, STP, "mushrooms", "ecstasy", MDA, MDMA.

Phencyclidine: PCP ("Angel Dust", "Peace Pill", "Tranq", "Hog"), or ketamine ("Special K").

Inhalants: "glue", ethyl chloride, "rush", nitrous oxide ("laughing gas"), amyl or butyl nitrate ("poppers").

Cannabis: marijuana, hashish ("hash"), THC, "pot", "grass", "weed", "reefer".

Tranquilizers: Quaalude, Seconal ("reds"), Valium, Xanax, Librium, Ativan, Dalmane, Halcion, barbiturates, Miltown, GHB, Roofinol, "Roofies".

Miscellaneous: steroids, nonprescription sleep or diet pills. Cough Medicine? Any others?

SPECIFY THE MOST USED DRUG(S): _____

WHICH DRUG(S) CAUSE THE BIGGEST PROBLEMS?: _____

FIRST EXPLORE THE DRUG CAUSING THE BIGGEST PROBLEMS AND MOST LIKELY TO MEET DEPENDENCE / ABUSE CRITERIA.

IF MEETS CRITERIA FOR ABUSE OR DEPENDENCE, SKIP TO THE NEXT MODULE. OTHERWISE, EXPLORE THE NEXT MOST PROBLEMATIC DRUG.

J2	Considering your use of (NAME OF DRUG / DRUG CLASS SELECTED), in the past 12 months:	
	a	Have you found that you needed to use much more (NAME OF DRUG / DRUG CLASS SELECTED) to get the same effect that you did when you first started taking it?
		NO YES
	b	When you reduced or stopped using (NAME OF DRUG / DRUG CLASS SELECTED), did you have withdrawal symptoms (aches, shaking, fever, weakness, diarrhea, nausea, sweating, heart pounding, difficulty sleeping, or feeling agitated, anxious, irritable, or depressed)? Did you use any drug(s) to keep yourself from getting sick (withdrawal symptoms) or so that you would feel better?
		NO YES
	IF YES TO EITHER, CODE YES.	
	c	Have you often found that when you used (NAME OF DRUG / DRUG CLASS SELECTED), you ended up taking more than you thought you would?
		NO YES
	d	Have you tried to reduce or stop taking (NAME OF DRUG / DRUG CLASS SELECTED) but failed?
		NO YES
	e	On the days that you used (NAME OF DRUG / DRUG CLASS SELECTED), did you spend substantial time (>2 HOURS), obtaining, using or recovering from the drug, or thinking about the drug?
		NO YES
	f	Did you spend less time working, enjoying hobbies, or being with family or friends because of your drug use?
		NO YES
	g	If (NAME OF DRUG / DRUG CLASS SELECTED) caused you health or mental problems, did you still keep on using it?
		NO YES

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ARE **3** OR MORE **J2** ANSWERS CODED YES?

SPECIFY DRUG(S): _____

* IF YES, SKIP J3 QUESTIONS, MOVE TO NEXT DISORDER.
"DEPENDENCE PREEMPTS ABUSE" IN DSM IV TR.

NO	YES *
<i>SUBSTANCE DEPENDENCE CURRENT</i>	

Considering your use of (NAME THE DRUG CLASS SELECTED), in the past 12 months:

J3 a Have you been intoxicated, high, or hungover from (NAME OF DRUG / DRUG CLASS SELECTED) more than once, when you had other responsibilities at school, at work, or at home? Did this cause any problem?

NO YES

(CODE YES ONLY IF THIS CAUSED PROBLEMS.)

b Have you been high or intoxicated from (NAME OF DRUG / DRUG CLASS SELECTED) more than once in any situation where you were physically at risk (for example, driving a car, riding a motorbike, using machinery, boating, etc.)?

NO YES

c Did you have legal problems more than once because of your drug use, for example, an arrest or disorderly conduct?

NO YES

d If (NAME OF DRUG / DRUG CLASS SELECTED) caused problems with your family or other people, did you still keep on using it?

NO YES

ARE **1** OR MORE **J3** ANSWERS CODED YES?

SPECIFY DRUG(S): _____

NO	YES
<i>SUBSTANCE ABUSE CURRENT</i>	

K. PSYCHOTIC DISORDERS AND MOOD DISORDER WITH PSYCHOTIC FEATURES

ASK FOR AN EXAMPLE OF EACH QUESTION ANSWERED POSITIVELY. CODE YES ONLY IF THE EXAMPLES CLEARLY SHOW A DISTORTION OF THOUGHT OR OF PERCEPTION OR IF THEY ARE NOT CULTURALLY APPROPRIATE. BEFORE CODING, INVESTIGATE WHETHER DELUSIONS QUALIFY AS "BIZARRE".

DELUSIONS ARE "BIZARRE" IF: CLEARLY IMPLAUSIBLE, ABSURD, NOT UNDERSTANDABLE, AND CANNOT DERIVE FROM ORDINARY LIFE EXPERIENCE.

HALLUCINATIONS ARE SCORED "BIZARRE" IF: A VOICE COMMENTS ON THE PERSON'S THOUGHTS OR BEHAVIOR, OR WHEN TWO OR MORE VOICES ARE CONVERSING WITH EACH OTHER. THE PURPOSE OF THIS MODULE IS TO EXCLUDE PATIENTS WITH PSYCHOTIC DISORDERS. THIS MODULE NEEDS EXPERIENCE.

				BIZARRE
Now I am going to ask you about unusual experiences that some people have.				
K1	a	Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you? <small>NOTE: ASK FOR EXAMPLES TO RULE OUT ACTUAL STALKING.</small>	NO YES	YES
	b	IF YES OR YES BIZARRE: do you currently believe these things?	NO YES	YES ↳K6
K2	a	Have you ever believed that someone was reading your mind or could hear your thoughts, or that you could actually read someone's mind or hear what another person was thinking?	NO YES	YES
	b	IF YES OR YES BIZARRE: do you currently believe these things?	NO YES	YES ↳K6
K3	a	Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self? Have you ever felt that you were possessed? <small>CLINICIAN: ASK FOR EXAMPLES AND DISCOUNT ANY THAT ARE NOT PSYCHOTIC.</small>	NO YES	YES
	b	IF YES OR YES BIZARRE: do you currently believe these things?	NO YES	YES ↳K6
K4	a	Have you ever believed that you were being sent special messages through the TV, radio, internet, newspapers, books, or magazines or that a person you did not personally know was particularly interested in you?	NO YES	YES
	b	IF YES OR YES BIZARRE: do you currently believe these things?	NO YES	YES ↳K6
K5	a	Have your relatives or friends ever considered any of your beliefs odd or unusual? <small>INTERVIEWER: ASK FOR EXAMPLES. ONLY CODE YES IF THE EXAMPLES ARE CLEARLY DELUSIONAL IDEAS NOT EXPLORED IN QUESTIONS K1 TO K4, FOR EXAMPLE, SOMATIC OR RELIGIOUS DELUSIONS OR DELUSIONS OF GRANDIOSITY, JEALOUSY, GUILT, RUIN OR DESTITUTION, ETC.</small>	NO YES	YES
	b	IF YES OR YES BIZARRE: do they currently consider your beliefs strange?	NO YES	YES
K6	a	Have you ever heard things other people couldn't hear, such as voices? IF YES TO VOICE HALLUCINATION: Was the voice commenting on your thoughts or behavior or did you hear two or more voices talking to each other?	NO YES NO	YES YES
	b	IF YES OR YES BIZARRE TO K6a: have you heard sounds / voices in the past month? IF YES TO VOICE HALLUCINATION: Was the voice commenting on your thoughts or behavior or did you hear two or more voices talking to each other?	NO YES NO	YES YES ↳K8b

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K7 a Have you ever had visions when you were awake or have you ever seen things other people couldn't see? NO YES

CLINICIAN: CHECK TO SEE IF THESE ARE CULTURALLY INAPPROPRIATE.

b IF YES: have you seen these things in the past month? NO YES

CLINICIAN'S JUDGMENT

K8 b IS THE PATIENT CURRENTLY EXHIBITING INCOHERENCE, DISORGANIZED SPEECH, OR MARKED LOOSENING OF ASSOCIATIONS? NO YES

K9 b IS THE PATIENT CURRENTLY EXHIBITING DISORGANIZED OR CATATONIC BEHAVIOR? NO YES

K10 b ARE NEGATIVE SYMPTOMS OF SCHIZOPHRENIA, E.G. SIGNIFICANT AFFECTIVE FLATTENING, POVERTY OF SPEECH (ALOGIA) OR AN INABILITY TO INITIATE OR PERSIST IN GOAL-DIRECTED ACTIVITIES (AVOLITION), PROMINENT DURING THE INTERVIEW? NO YES

K11 a ARE 1 OR MORE « a » QUESTIONS FROM K1a TO K7a CODED YES OR YES BIZARRE AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT, RECURRENT OR PAST)
OR
MANIC OR HYPOMANIC EPISODE, (CURRENT OR PAST) CODED YES?

NO YES
↳ K13

IF NO TO K11 a, CIRCLE NO IN BOTH 'MOOD DISORDER WITH PSYCHOTIC FEATURES' DIAGNOSTIC BOXES AND MOVE TO K13.

b You told me earlier that you had period(s) when you felt (depressed/high/persistently irritable).

Were the beliefs and experiences you just described (SYMPTOMS CODED YES FROM K1a TO K7a) restricted exclusively to times when you were feeling depressed/high/irritable?

IF THE PATIENT EVER HAD A PERIOD OF AT LEAST 2 WEEKS OF HAVING THESE BELIEFS OR EXPERIENCES (PSYCHOTIC SYMPTOMS) WHEN THEY WERE NOT DEPRESSED/HIGH/IRRITABLE, CODE NO TO THIS DISORDER.

IF THE ANSWER IS NO TO THIS DISORDER, ALSO CIRCLE NO TO K12 AND MOVE TO K13

NO	YES
MOOD DISORDER WITH PSYCHOTIC FEATURES	
LIFETIME	

K12 a ARE 1 OR MORE « b » QUESTIONS FROM K1b TO K7b CODED YES OR YES BIZARRE AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT)
OR
MANIC OR HYPOMANIC EPISODE, (CURRENT) CODED YES?

IF THE ANSWER IS YES TO THIS DISORDER (LIFETIME OR CURRENT), CIRCLE NO TO K13 AND K14 AND MOVE TO THE NEXT MODULE.

NO	YES
MOOD DISORDER WITH PSYCHOTIC FEATURES	
CURRENT	

K13 ARE 1 OR MORE « b » QUESTIONS FROM K1b TO K6b, CODED YES BIZARRE?
OR
ARE 2 OR MORE « b » QUESTIONS FROM K1b TO K10b, CODED YES (RATHER THAN YES BIZARRE)?
AND DID AT LEAST TWO OF THE PSYCHOTIC SYMPTOMS OCCUR DURING THE SAME 1 MONTH PERIOD?

NO	YES
PSYCHOTIC DISORDER CURRENT	

K14 IS K13 CODED YES
OR
ARE 1 OR MORE « a » QUESTIONS FROM K1a TO K6a, CODED YES BIZARRE?
OR
ARE 2 OR MORE « a » QUESTIONS FROM K1a TO K7a, CODED YES (RATHER THAN YES BIZARRE)
AND DID AT LEAST TWO OF THE PSYCHOTIC SYMPTOMS OCCUR DURING THE SAME 1 MONTH PERIOD?

NO	YES
PSYCHOTIC DISORDER LIFETIME	

L. ANOREXIA NERVOSA

(➔ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

L1	a How tall are you?	<input type="text"/> ft <input type="text"/> <input type="text"/> in. <input type="text"/> <input type="text"/> <input type="text"/> cm
	b. What was your lowest weight in the past 3 months?	<input type="text"/> <input type="text"/> <input type="text"/> lb <input type="text"/> <input type="text"/> <input type="text"/> kg
	c IS PATIENT'S WEIGHT EQUAL TO OR BELOW THE THRESHOLD CORRESPONDING TO HIS / HER HEIGHT? (SEE TABLE BELOW)	➔ NO YES

In the past 3 months:

L2	In spite of this low weight, have you tried not to gain weight?	➔ NO YES
L3	Have you intensely feared gaining weight or becoming fat, even though you were underweight?	➔ NO YES
L4	a Have you considered yourself too big / fat or that part of your body was too big / fat?	NO YES
	b Has your body weight or shape greatly influenced how you felt about yourself?	NO YES
	c Have you thought that your current low body weight was normal or excessive?	NO YES
L5	ARE 1 OR MORE ITEMS FROM L4 CODED YES?	➔ NO YES
L6	FOR WOMEN ONLY: During the last 3 months, did you miss all your menstrual periods when they were expected to occur (when you were not pregnant)?	➔ NO YES

FOR WOMEN: ARE L5 AND L6 CODED YES?

FOR MEN: IS L5 CODED YES?

NO	YES
ANOREXIA NERVOSA CURRENT	

HEIGHT / WEIGHT TABLE CORRESPONDING TO A BMI THRESHOLD OF 17.5 kg/m²

Height/Weight		4'9	4'10	4'11	5'0	5'1	5'2	5'3	5'4	5'5	5'6	5'7	5'8	5'9	5'10
ft/in															
lb		81	84	87	89	92	96	99	102	105	108	112	115	118	122
cm		145	147	150	152	155	158	160	163	165	168	170	173	175	178
kg		37	38	39	41	42	43	45	46	48	49	51	52	54	55

Height/Weight		5'11	6'0	6'1	6'2	6'3
ft/in						
lb		125	129	132	136	140
cm		180	183	185	188	191
kg		57	59	60	62	64

The weight thresholds above are calculated using a body mass index (BMI) equal to or below 17.5 kg/m² for the patient's height. This is the threshold guideline below which a person is deemed underweight by the DSM-IV and the ICD-10 Diagnostic Criteria for Research for Anorexia Nervosa.

M. BULIMIA NERVOSA

(➔ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE **NO** IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

M1	In the past three months, did you have eating binges or times when you ate a very large amount of food within a 2-hour period?	➔ NO	YES
M2	In the last 3 months, did you have eating binges as often as twice a week?	➔ NO	YES
M3	During these binges, did you feel that your eating was out of control?	➔ NO	YES
M4	Did you do anything to compensate for, or to prevent a weight gain from these binges, like vomiting, fasting, exercising or taking laxatives, enemas, diuretics (fluid pills), or other medications?	➔ NO	YES
M5	Does your body weight or shape greatly influence how you feel about yourself?	➔ NO	YES
M6	DO THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOREXIA NERVOSA?	NO	YES
		↓ Skip to M8	
M7	Do these binges occur only when you are under (____lb/kg)? <small>INTERVIEWER: WRITE IN THE ABOVE PARENTHESIS THE THRESHOLD WEIGHT FOR THIS PATIENT'S HEIGHT FROM THE HEIGHT / WEIGHT TABLE IN THE ANOREXIA NERVOSA MODULE.</small>	NO	YES

M8 IS **M5** CODED YES AND IS EITHER **M6** OR **M7** CODED NO?

NO	YES
BULIMIA NERVOSA CURRENT	

IS **M7** CODED YES?

NO	YES
ANOREXIA NERVOSA Binge Eating/Purging Type CURRENT	

N. GENERALIZED ANXIETY DISORDER

(➔ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

N1	a	Were you excessively anxious or worried about several routine things, over the past 6 months? <small>IN ENGLISH, IF THE PATIENT IS UNCLEAR ABOUT WHAT YOU MEAN, PROBE BY ASKING (Do others think that you are a “worry wart”?) AND GET EXAMPLES.</small>	➔ NO	YES
	b	Are these anxieties and worries present most days?	➔ NO	YES
		ARE THE PATIENT’S ANXIETY AND WORRIES RESTRICTED EXCLUSIVELY TO, OR BETTER EXPLAINED BY, ANY DISORDER PRIOR TO THIS POINT?	NO	➔ YES

N2	Do you find it difficult to control the worries?	➔ NO	YES
----	--------------------------------------------------	---------	-----

N3	FOR THE FOLLOWING, CODE NO IF THE SYMPTOMS ARE CONFINED TO FEATURES OF ANY DISORDER EXPLORED PRIOR TO THIS POINT. When you were anxious over the past 6 months, did you, most of the time:			
	a	Feel restless, keyed up or on edge?	NO	YES
	b	Have muscle tension?	NO	YES
	c	Feel tired, weak or exhausted easily?	NO	YES
	d	Have difficulty concentrating or find your mind going blank?	NO	YES
	e	Feel irritable?	NO	YES
	f	Have difficulty sleeping (difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively)?	NO	YES
		ARE 3 OR MORE N3 ANSWERS CODED YES?	➔ NO	YES

N4	Do these anxieties and worries disrupt your normal work, school or social functioning or cause you significant distress?		
----	--------------------------------------------------------------------------------------------------------------------------	--	--

NO	YES
GENERALIZED ANXIETY DISORDER CURRENT	

O. RULE OUT MEDICAL, ORGANIC OR DRUG CAUSES FOR ALL DISORDERS

IF THE PATIENT CODES POSITIVE FOR ANY CURRENT DISORDER ASK:

Just before these symptoms began:

O1a	Were you taking any drugs or medicines?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Uncertain
O1b	Did you have any medical illness?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Uncertain

IN THE CLINICIAN’S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT’S DISORDER?
IF NECESSARY ASK ADDITIONAL OPEN-ENDED QUESTIONS.

O2	SUMMARY: HAS AN ORGANIC CAUSE BEEN RULED OUT?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Uncertain
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P. ANTISOCIAL PERSONALITY DISORDER

(⇒ MEANS : GO TO THE DIAGNOSTIC BOX AND CIRCLE NO)

P1 Before you were 15 years old, did you:

- | | | |
|-----------------------------------------------------------|----|-----|
| a repeatedly skip school or run away from home overnight? | NO | YES |
| b repeatedly lie, cheat, "con" others, or steal? | NO | YES |
| c start fights or bully, threaten, or intimidate others? | NO | YES |
| d deliberately destroy things or start fires? | NO | YES |
| e deliberately hurt animals or people? | NO | YES |
| f force someone to have sex with you? | NO | YES |
| ARE 2 OR MORE P1 ANSWERS CODED YES? | NO | YES |

DO NOT CODE YES TO THE BEHAVIORS BELOW IF THEY ARE EXCLUSIVELY POLITICALLY OR RELIGIOUSLY MOTIVATED.

P2 Since you were 15 years old, have you:

- | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|
| a repeatedly behaved in a way that others would consider irresponsible, like failing to pay for things you owed, deliberately being impulsive or deliberately not working to support yourself? | NO | YES |
| b done things that are illegal even if you didn't get caught (for example, destroying property, shoplifting, stealing, selling drugs, or committing a felony)? | NO | YES |
| c been in physical fights repeatedly (including physical fights with your spouse or children)? | NO | YES |
| d often lied or "conned" other people to get money or pleasure, or lied just for fun? | NO | YES |
| e exposed others to danger without caring? | NO | YES |
| f felt no guilt after hurting, mistreating, lying to, or stealing from others, or after damaging property? | NO | YES |

ARE 3 OR MORE P2 QUESTIONS CODED YES?

NO YES

**ANTISOCIAL PERSONALITY
DISORDER
LIFETIME**

THIS CONCLUDES THE

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Hungarian	I. Bitter, J. Balazs
Icelandic	
Italian	I. Bonora, L. Conti, M. Piccinelli, M. Tansella, G. Cassano, Y. Lecrubier, P. Donda, E. Weiller
Japanese	

M.I.N.I. 4.6/5.0, M.I.N.I. Plus 4.6/5.0 and M.I.N.I. Screen 5.0:

O. Osman, E. Al-Radi
 H. Banerjee, A. Banerjee
 P. Amorim
 L. Carroll, Y-J. Lee, Y-S. Chen, C-C. Chen, C-Y. Liu, C-K. Wu, H-S. Tang, K-D. Juang, Yan-Ping Zheng.
 P. Svlosky
 P. Bech, T. Schütze
 I. Van Vliet, H. Leroy, H. van Megen
 D. Sheehan, R. Baker, J. Janavs, K. Harnett-Sheehan, M. Sheehan
 J. Shlik, A. Aluoja, E. Khil
 K. Khooshabi, A. Zomorodi
 M. Heikkinen, M. Lijeström, O. Tuominen
 Y. Lecrubier, E. Weiller, P. Amorim, T. Hergueta
 G. Stotz, R. Dietz-Bauer, M. Ackenheil
 T. Calligas, S. Beratis, GN Papadimitriou, T Matsoukas
 CR Soldatos
 M. Patel, B. Patel, Organon
 R. Barda, I. Levinson, A. Aviv
 C. Mittal, K. Batra, S. Gambhir, Organon
 I. Bitter, J. Balazs
 J.G. Stefansson
 L. Conti, A. Rossi, P. Donda
 T. Otsubo, H. Watanabe, H. Miyaoka, K. Kamijima, J. Shinoda, K. Tanaka, Y. Okajima

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Kannada		Organon
Korean		K.S. Oh and Korean Academy of Anxiety Disorders
Latvian	V. Janavs, J. Janavs, I. Nagobads	V. Janavs, J. Janavs
Lithuanian		A. Bacevicius
Luganda		WW. Muhweziosal, H. Agren
Malayalam		Organon
Marathi		Organon
Norwegian	G. Pedersen, S. Blomhoff	K.A. Leiknes, U. Malt, E. Malt, S. Leganger
Polish	M. Masiak, E. Jasiak	M. Masiak, E. Jasiak
Portuguese	P. Amorim	P. Amorim, T. Guterres
Punjabi		A. Gahunia, S. Gambhir
Romanian		O. Driga
Russian		A. Bystritsky, E. Selivra, M. Bystritsky, L. Shumyak, M. Klisinska.
Serbian	I. Timotijevic	I. Timotijevic
Setswana	K. Ketlogetswe	
Slovenian	M. Kocmur	
Spanish	L. Ferrando, J. Bobes-Garcia, J. Gilbert-Rahola, Y. Lecrubier	L. Ferrando, L. Franco-Alfonso, M. Soto, J. Bobes-Garcia, O. Soto, L. Franco, G. Heinze, C. Santana, R. Hidalgo
Swedish	M. Waern, S. Andersch, M. Humble	C. Allgulander, H. Agren M. Waern, A. Brimse, M. Humble.
Tamil		Organon
Telugu		Organon
Thai		P. Kittirattanapaiboon, S. Mahatnirunkul, P. Udomrat, P. Silpakit,, M. Khamwongpin, S. Srikosai.
Turkish	T. Örnek, A. Keskiner, I. Vahip	T. Örnek, A. Keskiner, A.Engeler
Urdu		S. Gambhir
Yiddish		J. Goldman, Chana Pollack, Myrna Mniewski

A validation study of this instrument was made possible, in part, by grants from SmithKline Beecham and the European Commission. The authors are grateful to Dr. Pauline Powers for her advice on the modules on Anorexia Nervosa and Bulimia.

MOOD DISORDERS: DIAGNOSTIC ALGORITHM

Consult Modules: A Major Depressive Episode
 C (Hypo)manic Episode
 K Psychotic Disorders

MODULE K:

1a	IS K11b CODED YES?	NO	YES
1b	IS K12a CODED YES?	NO	YES

MODULES A and C:

		Current	Past
2	a	CIRCLE YES IF A DELUSIONAL IDEA IS IDENTIFIED IN A3e	
	b	CIRCLE YES IF A DELUSIONAL IDEA IS IDENTIFIED IN C3a	

c Is a Major Depressive Episode coded YES (current or past)?
 and
 is Manic Episode coded NO (current and past)?
 and
 is Hypomanic Episode coded NO (current and past)?
 and
 is "Hypomanic Symptoms" coded NO (current and past)?

Specify:

- If the depressive episode is **current** or **past** or both
- **With Psychotic Features** Current: If 1b or 2a (current) = YES
 With Psychotic Features Past: If 1a or 2a (past) = YES

MAJOR DEPRESSIVE DISORDER

	current	past
MDD	<input type="checkbox"/>	<input type="checkbox"/>
With Psychotic Features		
Current	<input type="checkbox"/>	
Past	<input type="checkbox"/>	

d Is a Manic Episode coded YES (current or past)?

Specify:

- If the Bipolar I Disorder is **current** or **past** or both
- With **Single Manic Episode**: If Manic episode (current or past) = YES and MDE (current and past) = NO
- **With Psychotic Features** Current: If 1b or 2a (current) or 2b (current) = YES
With Psychotic Features Past: If 1a or 2a (past) or 2b (past) = YES
- If the **most recent episode** is manic, depressed, mixed or hypomanic or unspecified (all mutually exclusive)
- **Unspecified** if the Past Manic Episode is coded YES AND Current (C3 Summary AND C4a AND C6 AND O2) are coded YES

BIPOLAR I DISORDER		
	current	past
Bipolar I Disorder	<input type="checkbox"/>	<input type="checkbox"/>
Single Manic Episode	<input type="checkbox"/>	<input type="checkbox"/>
With Psychotic Features		
Current	<input type="checkbox"/>	
Past		<input type="checkbox"/>
Most Recent Episode		
Manic	<input type="checkbox"/>	
Depressed	<input type="checkbox"/>	
Mixed	<input type="checkbox"/>	
Hypomanic	<input type="checkbox"/>	
Unspecified	<input type="checkbox"/>	

e Is Major Depressive Episode coded YES (current or past)
and
Is Hypomanic Episode coded YES (current or past)
and
Is Manic Episode coded NO (current and past)?

Specify:

- If the Bipolar Disorder is **current** or **past** or both
- If the most recent mood episode is **hypomanic** or **depressed** (mutually exclusive)

BIPOLAR II DISORDER		
	current	past
Bipolar II Disorder	<input type="checkbox"/>	<input type="checkbox"/>
Most Recent Episode		
Hypomanic	<input type="checkbox"/>	
Depressed	<input type="checkbox"/>	

f Is MDE coded NO (current and past)
and
Is Manic Episode coded NO (current and past)
and
Is C4b coded YES for the appropriate time frame
and
Is C7b coded YES?

or

Is Manic Episode coded NO (current and past)
and
Is Hypomanic Episode coded NO (current and past)
and
Is C4a coded YES for the appropriate time frame
and
Is C7c coded YES?

Specify if the Bipolar Disorder NOS is **current** or **past** or both.

BIPOLAR DISORDER NOS		
	current	past
Bipolar Disorder NOS	<input type="checkbox"/>	<input type="checkbox"/>

M.I.N.I. PLUS

The shaded modules below are additional modules available in the MINI PLUS beyond what is available in the standard MINI. The un-shaded modules below are in the standard MINI.

These MINI PLUS modules can be inserted into or used in place of the standard MINI modules, as dictated by the specific needs of any study.

MODULES	TIME FRAME
A MAJOR DEPRESSIVE EPISODE	Current (2 weeks) Past Recurrent
MAJOR DEPRESSIVE DISORDER	Current (2 weeks) Past Recurrent
MDE WITH MELANCHOLIC FEATURES	Current (2 weeks)
MDE WITH CATATONIC FEATURES	Current (2 weeks)
MDE WITH ATYPICAL FEATURES	Current (2 weeks)
MAJOR DEPRESSIVE DISORDER WITH PSYCHOTIC FEATURES	Current Past
MINOR DEPRESSIVE DISORDER (DEPRESSIVE DISORDER NOS)	Current (2 weeks) Past Recurrent
MOOD DISORDER DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
SUBSTANCE INDUCED MOOD DISORDER	Current (2 weeks) Past
AY DYSTHYMIA	Current
B SUICIDALITY	Current (Past Month) <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High
C MANIC EPISODE	Current Past
HYPOMANIC EPISODE	Current Past
BIPOLAR I DISORDER	Current Past
BIPOLAR II DISORDER	Current Past
BIPOLAR DISORDER NOS	Current Past
BIPOLAR I DISORDER WITH PSYCHOTIC FEATURES	Current Past
MANIC EPISODE DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
HYPOMANIC EPISODE DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
SUBSTANCE INDUCED MANIC EPISODE	Current (2 weeks) Past

	SUBSTANCE INDUCED HYPOMANIC EPISODE	Current (2 weeks) Past
	MOOD DISORDER NOS	Lifetime
D	PANIC DISORDER	Current (Past Month) Lifetime
	ANXIETY DISORDER WITH PANIC ATTACKS DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED ANXIETY DISORDER WITH PANIC ATTACKS	Current
E	AGORAPHOBIA	Current
F	SOCIAL PHOBIA (Social Anxiety Disorder)	Current (Past Month) Generalized Non-Generalized
FA	SPECIFIC PHOBIA	Current
G	OBSESSIVE-COMPULSIVE DISORDER (OCD)	Current (Past Month)
	OCD DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED OCD	Current
H	POSTTRAUMATIC STRESS DISORDER	Current (Past Month)
HL	POSTTRAUMATIC STRESS DISORDER	Lifetime
I	ALCOHOL DEPENDENCE ALCOHOL ABUSE	Past 12 Months Past 12 Months
IL	ALCOHOL DEPENDENCE ALCOHOL ABUSE	Lifetime Lifetime
J	SUBSTANCE DEPENDENCE (Non-alcohol) SUBSTANCE ABUSE (Non-alcohol)	Past 12 Months Past 12 Months
JL	SUBSTANCE DEPENDENCE (Non-alcohol) SUBSTANCE ABUSE (Non-alcohol)	Lifetime Lifetime
K	PSYCHOTIC DISORDERS	Lifetime Current
	MOOD DISORDER WITH PSYCHOTIC FEATURES	Current
	MOOD DISORDER WITH PSYCHOTIC FEATURES	Lifetime
	SCHIZOPHRENIA	Current Lifetime
	SCHIZOAFFECTIVE DISORDER	Current Lifetime
	SCHIZOPHRENIFORM DISORDER	Current Lifetime
	BRIEF PSYCHOTIC DISORDER	Current Lifetime
	DELUSIONAL DISORDER	Current Lifetime
	PSYCHOTIC DISORDER DUE TO A GENERAL MEDICAL CONDITION	Current Lifetime

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	SUBSTANCE INDUCED PSYCHOTIC DISORDER	Current Lifetime
	PSYCHOTIC DISORDER NOS	Current Lifetime
L	ANOREXIA NERVOSA	Current (Past 3 Months)
M	BULIMIA NERVOSA	Current (Past 3 Months)
	BULMIA NERVOSA, PURGING TYPE	Current
	BULMIA NERVOSA, NON-PURGING TYPE	Current
	ANOREXIA NERVOSA, BINGE EATING/PURGING TYPE	Current
	ANOREXIA NERVOSA, RESTRICTING TYPE	Current
N	GENERALIZED ANXIETY DISORDER (GAD)	Current (Past 6 Months)
	GAD DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED GAD	Current
O	SOMATIZATION DISORDER	Current Lifetime
P	HYPOCHONDRIASIS	Current
Q	BODY DYSMORPHIC DISORDER	Current
R	PAIN DISORDER	Current
S	CONDUCT DISORDER	Current (past 12 months)
T	ATTENTION DEFICIT/ HYPERACTIVITY DISORDER	Current (Past 6 months) (Children /Adolescents)
	ADHD COMBINED	
	ADHD INATTENTIVE	
	ADHD HYPERACTIVE / IMPULSIVE	
TA	ATTENTION DEFICIT/ HYPERACTIVITY DISORDER	Current (Past 6 months) (Adults)
	ADHD COMBINED	
	ADHD INATTENTIVE	
	ADHD HYPERACTIVE / IMPULSIVE	
U	PREMENSTRUAL DYSPHORIC DISORDER	Current
V	MIXED ANXIETY DEPRESSIVE DISORDER	Current
W	ADJUSTMENT DISORDERS	Current
X	MEDICAL, ORGANIC, DRUG CAUSE RULED OUT	
Y	ANTISOCIAL PERSONALITY DISORDER	Lifetime



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Ref: KNH-ERC/A/477

30th November 2015

Abdul JALLOH
Reg.No.H58/70106/2013
Dept.of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

Dear Abdul

Revised research proposal: Pattern of Psychiatric Morbidities and Gas in diagnosis among patients at the Sierraleone Psychiatric Hospital, Freetown (P639/10/2015)

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH-UoN ERC) has reviewed and **approved** your above proposal. The approval periods are 30th November 2015 – 29th November 2016.

This approval is subject to compliance with the following requirements:

- a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
- b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH-UoN ERC before implementation.
- c) Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH-UoN ERC within 72 hours of notification.
- d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
- e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
- f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
- g) Submission of an *executive summary* report within 90 days upon completion of the study. This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

Protect to Discover



GOVERNMENT OF SIERRA LEONE
Office of the Sierra Leone Ethics and Scientific Review Committee
Directorate of Training and Research,
Connaught Hospital
Ministry of Health and Sanitation

1st December, 2015

To: **Dr. Abdul Jalloh (MMED PSYCH Candidate)** **Principal Investigator**
Flat 19, Doctors Quarters
Mathari Referral and Teaching Hospital
University of Nairobi, Kenya
abdulpjalloh@yahoo.co.uk

Study Title: **Pattern of Psychiatric Morbidities and Gaps in Diagnosis among Patients at the Sierra Leone Psychiatric Hospital, Freetown**

Version: 5 October, 2015

Committee Action: Expedited Review

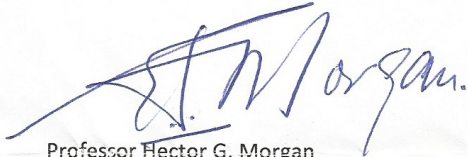
Submission Type: Initial Protocol Submitted for Review

Approval Date: 1st December, 2015

The Sierra Leone Ethics and Scientific Review Committee (SLESRC) having conducted an expedited review of the above study protocol and determined that it presents minimal risk to subjects, **hereby grants ethical and scientific approval** for it to be conducted in Sierra Leone. The approval is valid for the period, **1st December, 2015 – 30th November, 2016**. It is your responsibility to obtain re-approval for any on-going research prior to its expiration date. The request for re-approval must be supported by a progress report.

Review Comments:

- **Amendments:** Intended changes to the approved protocol such as the informed consent documents, study design, recruitment of participants and key study personnel, must be submitted for approval by the SLESRC prior to implementation.
- **Termination of the study:** When study procedures and data analyses are fully complete, please inform the SLESRC that you are terminating the study and submit a brief report covering the protocol activities. Individual identifying information should be destroyed unless there is sufficient justification to retain, approved by the SLESRC. All findings should be based on de-identified aggregate data and all published results in aggregate or group form.
- It is the responsibility of the researcher to request for extension of approval prior to expiration of the current approval. This request must be accompanied by a progress report.



Professor Hector G. Morgan
Chair



GOVERNMENT OF SIERRA LEONE
MINISTRY OF HEALTH AND SANITATION
SIERRA LEONE PSYCHIATRIC HOSPITAL
(KISSY MENTAL HOSPITAL)

MOBILE: 232 76 612 636

232 79 546 789

232 30 150 883

email: atmuana@gmail.com

20 November 2015

TO: The Hospital Matron
Ward Supervisors
Ward In/Charges
Head, Medical Records Unit

RE: CERTIFICATE OF CLEARANCE

This is to certify that Dr Abdul Jalloh from the University of Nairobi, School of Medicine has been cleared by my office to undertake Research activities in Psychiatry/Mental Health at the Sierra Leone Psychiatric Hospital with effect from 7 December 2015 – 7 March 2016.

Kindly accord him the necessary support.

Kindest Regards,

A handwritten signature in blue ink that reads 'Andrew Muana'.

Dr Andrew Muana, MD
Medical Superintendent & Focal Point for MH and Substance Abuse,
MOHS

CC: Chief Medical Officer, MOHS
Director, Hospital and Laboratory Services, MOHS

MAP OF SIERRA LEONE

