

**PSYCHIATRIC MORBIDITY AMONG HIV INFECTED CHILDREN  
AND ADOLESCENTS AGED BETWEEN 6 TO 18 YEARS  
ATTENDING A COMPREHENSIVE CARE CLINIC FOR HIV /AIDS IN  
A RESOURCE POOR URBAN KENYAN COMMUNITY**

**A DISSERTATION SUBMITTED IN PART FULFILLMENT OF THE  
REQUIRMENTS FOR THE AWARD OF THE DEGREE OF MASTER  
OF MEDICINE IN PSYCHIATRY, UNIVERSITY OF NAIROBI**

**DR. JUDY KAMAU, M.B.Ch.B. (Nbi)**

**DEPARTMENT OF PSYCHIATRY**

**UNIVERSITY OF NAIROBI**

**JULY 2010**

University of NAIROBI Library



0407155 1

**UNIVERSITY OF NAIROBI  
MEDICAL LIBRARY**

## DECLARATION

I, Dr Judy Kamau do hereby declare that this dissertation is my original work carried out in part fulfillment of the requirements for the award of the degree in of Master in Psychiatry (M.Med. Psychiatry) of the University of Nairobi, I have not submitted the same to any other university or for the award of any other degree or diploma

 23/7/10

Dr. Judy W. Kamau.

## SUPERVISORS' APPROVAL

The following supervisors were involved in the conceptualization and final production of this dissertation

1. Dr Wangari Kuria

Signature Wangari Date 6/8/10

M.B.Ch.B., M.Med. Psych., Ph.D. Psych. (Nbi)

Lecturer in Psychiatry, University of Nairobi

2. Dr Muthoni Mathai

Signature M. Mathai Date 18-10-10

M.B.Ch.B., M.Med. Psych. (Nbi), Ph.D. Social Work (Kassel)

Lecturer in Psychiatry, University of Nairobi

3. Dr Rachael Kangethe

Signature R. Kangethe Date 5/8/2010

M.B.Ch.B., M.Med. Psych. (Nbi)

Lecturer in Psychiatry, University of Nairobi

4. Dr Lukoye Atwoli

Signature: Atwoli Date: 29 July 2010

M.B.Ch.B., M.Med. Psych. (Nbi)

Lecturer in: Department of Mental Health, Moi University School of Medicine

## ACKNOWLEDGEMENT

I express my deepest gratitude to the following people for their assistance during the preparation and execution of this study

- My supervisors from the Department of Psychiatry, University of Nairobi, Drs R. Kangethe, M. Mathai and W. Kuria for their contribution and support during the conceptualization and drafting of the proposal, up to the end of the study
- Dr Lukoye Atwoli (Consultant psychiatrist and lecturer, department of mental health, Moi University school of Medicine) for his constructive criticism.
- The board of directors of the Nyumbani Children's Home for granting the permission to carry out the study at one of their Lea Toto clinics
- The staff of the Lea Toto Kariobangi clinic for their assistance and cooperation during data collection
- The parents, guardians and children at the Lea Toto Kariobangi clinic without whom this study would not have been possible

## DEDICATION

I dedicate this dissertation to the children living with HIV/ AIDS

# TABLE OF CONTENTS

DECLARATION .....	i
SUPERVISORS' APPROVAL.....	ii
ACKNOWLEDGEMENT.....	iii
DEDICATION.....	iv
TABLE OF CONTENTS.....	v
LIST OF ABBREVIATIONS .....	vii
ABSTRACT.....	viii
1.0: INTRODUCTION .....	1
1.1: Background information.....	1
1.2: Statement of the problem .....	4
1.3: Justification of the study.....	5
1.4: Objectives.....	5
1.5: Hypothesis.....	6
2.0: LITERATURE REVIEW.....	7
2.1: International studies .....	7
2.2: Regional studies .....	8
2.3: Local studies .....	9
3.0: STUDY METHOD .....	10
3.1: Study Design .....	10
3.2: Study Site .....	10
3.3: Study Population .....	11
3.4: Sampling method .....	12
3.5: Study Instrument .....	12

3.6: Data Collection procedure .....	13
3.7: Data Management .....	14
3.8: Flow chart of the study .....	15
3.9: Ethical considerations .....	16
4.0: RESULTS.....	17
5.0: DISCUSSION.....	26
6.0: CONCLUSION AND RECOMMENDATIONS.....	30
REFERENCES .....	31
APPENDICES.....	34
Appendix A: CONSENT .....	34
A1: Informed consent explanation .....	34
A2: Consent form .....	35
Appendix B: QUESTIONNAIRES .....	36
B1: Socio-Demographic and Health Questionnaire .....	36
B2: M.I.N.I. Kid (Parent Version).....	38

## ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ARV	Anti Retro-Viral
HAART	Highly Active Antiretroviral Therapy
DSM IV	Diagnostic Statistical Manual, 4 <sup>th</sup> Edition
HIV	Human Immunodeficiency Virus (The virus that causes AIDS)
CNS	Central Nervous System
KDHS	Kenya Demographic and Health Survey
M.I.N.I. Kid	Mini International Neuropsychiatric Interview for Children / adolescents
SPSS	Statistical Package for Social Scientists
USAID	United States Agency for International Development
UON	University Of Nairobi
WHO	World Health Organization
ADHD	Attention Deficit Hyperactivity Disorder



## ABSTRACT

### Title

Psychiatric morbidity among HIV infected children aged between 6-18 years attending a Comprehensive Care Clinic for HIV/AIDS in a resource poor urban Kenyan community.

### Background

With the advent of Anti Retroviral Therapy for HIV/AIDS, the illness has been transformed from an acute condition in children to a chronic one.

While studies have been done to demonstrate cognitive impairment in children infected with HIV, there is a dearth of studies done to establish the prevalence of psychiatric morbidity in children infected with this virus.

Patients suffering from chronic conditions have been shown to have a higher prevalence of psychiatric morbidity than the general population.

HIV as an illness comes with other unique psycho-social factors that would increase further the risk of developing a psychiatric disorder, such as bereavement, stigma that comes with the illness and financial losses due to disability.

### Objectives

To determine the prevalence and pattern of psychiatric morbidity in children and adolescents between 6 and 18 years of age who are infected with HIV and are on follow up and receiving care for the illness.

To determine the relationship between psychiatric morbidity and the socio-demographic factors and immune suppression.

### Study design

This was a cross sectional descriptive study to determine the psychiatric morbidity prevalence and pattern in children and adolescents infected with HIV in Kenya and the associated socio-demographic and immunity factors.

## Method

The study was conducted at The Lea Toto Program Comprehensive Care Clinics at Kariobangi in Nairobi, in the months of February, March and April 2010. These clinics provide care and follow up to children coming from the surrounding resource poor community who are infected with HIV, aged between 0 and 18 years. A hundred and sixty two HIV infected children and adolescents aged between 6 and 18 years were enrolled into the study. The M.I.N.I. Kid questionnaires and the researcher designed socio-demographic and health questionnaire were the instruments used to collect data from the study subjects. The collected data was analyzed using SPSS.

## Results

There were more males (51.9%) than females enrolled in this study, giving a female: male ratio of 1: 1.1. The ages of the subjects ranged between 6 and 18 years, with a mean age of 9.7 years at a standard deviation of 2.8 years. Fifty six percent of the children enrolled in the study were on ARV drugs. Thirty four percent of the children had been orphaned due to HIV/ AIDS, and 39.5% were living with a non parental guardian. Only 49 (30.2%) of the children knew their status in this study, with the mean age of disclosure being 10 years.

Seventy nine (48.8%) of the study subjects were found to have psychiatric morbidity. The DSM-IV TR psychiatric disorders found in descending frequency were: Major depression, (17.8%) Social phobia(12.8%), Oppositional Defiant Disorder (12.1%), Attention Deficit Hyperactivity Disorder(12.1%), Specific phobia(7.0%), Bipolar disorders (6.4%), Panic disorder(5.7%), Conduct disorder(4.5%), Agoraphobia(2.5%), Separation anxiety disorder(2.5%), Dysthymia(2.5%), Psychotic disorder(1.9%), Post Traumatic Stress Disorder(1.3%) and Pervasive developmental disorders(0.6%). Twenty five percent of the study subjects had more than one psychiatric disorder.

Major depression was significantly associated with male gender ( $p=0.035$ ) and a low immune state ( $p=0.04$ ), while specific phobia was significantly associated to female gender ( $p=0.028$ ). There was a statistically significant association ( $p=0.04$ ) between knowledge of HIV status and Social Phobia There was no association between psychiatric morbidity and the type of guardian and ARV medication.

## Conclusions and Recommendations

There is indeed psychiatric morbidity in HIV infected children, and at a higher prevalence than the children in the general population. Major depression was linked to low immune status, while social phobia was significantly linked to knowledge of one's HIV status in the current

study. The current study was carried out in a resource poor setting, and other issues such as nutrition and poverty may have contributed to the presence of psychiatric morbidity.

There is need to integrate psychiatric services into the routine care of HIV infected children. Further studies need to be carried out on other stressors and their influence on the wellbeing of a HIV infected child.

# CHAPTER I

## 1.0: INTRODUCTION

An estimated 2.1 million children worldwide were living with HIV (Human Immunodeficiency Virus) at the end of the year 2007. Two million of them were in Sub Sahara Africa. A thousand children were infected with HIV per day worldwide in 2007. Most of them acquired the infection from their HIV infected mothers during pregnancy, birth and breast feeding (2). The Kenya Demographic and Health Survey, 2003 (KDHS) estimated 7% of Kenyan adults to be infected with HIV. The HIV prevalence rate among women aged 20-24 years is over three times of men in the same age group, 9% and 2% respectively, and this is the peak fertility age in Kenya (3).

UNAIDS Epidemiological fact sheet on HIV and AIDS 2008 estimates the number of people infected with HIV in Kenya to be 1.6 to 1.9 million. Children living with HIV are estimated to be between 130000 -180000 (4).

HIV, the virus that causes AIDS (Acquired Immunodeficiency Syndrome) once carried a gloomy prognosis for the children infected by it. Twenty to twenty five percent of children infected prenatally used to progress to AIDS or death within the first year of life. This was before the introduction of Highly Active Anti-Retroviral Therapy (HAART)

However with the introduction of HAART, the course of HIV infection has been converted from an acute to a chronic one, and more and more children are surviving to ages once thought impossible. Due to its now chronic course, people infected with HIV like other patients suffering from a chronic illness may suffer from one form of psychiatric illness or another (5).

### 1.1: Back ground information

#### 1.1.1: HIV

HIV, the virus that causes AIDS is a member of the Retrovirus family. AIDS is a condition that causes the body's immune system to fail, leaving it vulnerable to opportunistic infections. (These are diseases that are caused by pathogens that usually don't cause disease in healthy people)

HIV is transmitted through transfer of bodily fluids such as blood, semen, pre-ejaculate, vaginal fluids and breast milk. The major routes of transmission therefore include unsafe sex, breast milk, transmission from an infected mother to her baby at birth (vertical transmission) and contaminated needles.

It primarily infects cells of the immune system that include T Helper cells (CD<sub>4</sub> T cells), dendritic cells and macrophages. HIV infection results in low levels of CD<sub>4</sub> T cells. As the CD<sub>4</sub> levels drop, the body becomes more susceptible to opportunistic infections.

Accurate diagnosis of pediatric HIV infection depends on lab tests that can be:

Antibody tests, those include HIV ELISA, rapid tests, Western Blot

Virologic tests, those include HIV RNA assays, HIV DNA PCR, viral culture

Passive transfer of maternal antibodies across the placenta means that children born to HIV infected women have circulating antibodies in their system up to the age of 18 months. For children under the age of 18 months, virologic tests have to be done to detect the virus directly and distinguish the baby's HIV infection status from the mother's. Children over 18 months of age and adults can be diagnosed using the antibody tests (6).

The progression of the HIV infection is usually assessed by staging. This is important in making treatment decisions. Clinical and lab parameters are used to stage HIV disease progression. The WHO pediatric clinical staging that divides HIV infected children into four categories depending on the symptoms as well as the CDC clinical staging system are widely used to classify severity of HIV infection in children. Immunological staging is based on levels of CD<sub>4</sub> count by age.

Anti retroviral (ARV) drugs are used in the treatment of infections caused by retroviruses. HAART (Highly Active Anti Retroviral Therapy) means several ARV drugs taken in combination. The aim of ARV drug treatment is to decrease viral load to undetectable levels and maintain it as such. Treatment with HAART increases the life expectancy of people infected with HIV, by decreasing the morbidity and mortality caused by HIV infection.

When it comes to ARV drugs, adherence is of real importance because even the slightest deviation from a given regimen could result in viral resistance and loss of efficacy.

### **1.1.2: Psychiatric morbidity and HIV**

Behavioral and emotional disorders occur frequently in the general population of children. Epidemiological studies from developed countries indicate that 14- 20 % of children have one or more psychiatric disorders in the moderate to severe range. Although there is limited data from developing countries, it still suggests a similar picture (7).

With increased life expectancy, children infected with HIV are more prone to getting psychiatric symptoms or syndromes common to children suffering from a chronic disorder(8).

HIV is an illness that requires long term care and treatment, and as mentioned above, adherence is important in successful management of HIV. Psychiatric co-morbidity has been shown to impair adherence and could therefore lead to resistance.

There are also other factors unique to HIV that would predispose a child infected with HIV to psychiatric disorders. These include:

#### **1.1.2.1: Biological factors:**

HIV affects most organs of the body, and of particular interest is the Central Nervous System (CNS). The virus enters the CNS early in the infection through macrophages. The impact of HIV on the developing nervous system of children is more significant than on the developed adult brain.

HIV affects the sub-cortical regions of the brain and has therefore been thought to cause symptoms related to mood disorders and psychosis.

HIV type 1 in the CNS leads to widespread deficits of dopamine in the different regions of the brain. These deficits may be the cause of some of the neuro-psychiatrist symptoms that may arise with HIV infection (9).

Neuropsychiatric side effects of Anti-Retroviral Drugs (ARVs) such as Zidovudine known to cause insomnia, mania and depression as well as of other drugs used to treat opportunistic infections may contribute to psychiatric disorder manifestations.

Opportunistic infections of the CNS are mainly seen in cases of severe immune suppression. Infections such as herpes simplex viral encephalitis, and HIV associated CNS malignancies have been associated with altered levels of consciousness and personality changes.

Physical pain from the various opportunistic infections, drug side effects negatively affects their quality of life and sleep patterns.

HIV infection may result in physically altering manifestations leading to low self esteem.

#### **1.1.2.2: Psychological factors:**

Opportunistic infections may result in repeated and at times long hospitalizations leading to child isolation from peers. This would have a detrimental effect on the child's social, cognitive and language development.

Disclosure of the illness to the infected child can be met with various responses. Some may take the illness as a punishment from the parents, and react with hostility and defiance and this

would even affect adherence. This would even be more likely if the child has other siblings who are not infected with the virus.

### **1.1.2.3: Social factors:**

Parental health plays a major role in the mental well being of the child. When a parent is ill, they may even end up neglecting to provide the basic needs to the child as a result of the illness, and in other instances, the child ends up having to care for the sick guardian.

Bereavement of parent or sibling is a stress contributor to the child. Fear of dying and anticipated loss becomes a large part of these patient's lives. Negative stressful life events such as bereavement, hospitalization of a family member, loss of or change in housing have been shown to increase the incidence of immune suppression (10).

Stigma is also a factor that is still unique to this disease. Stigmatization may come from the various aspects of the child's life. It may come from school, relatives and even siblings who are not infected. This may lead to low self esteem in the child. Not talking openly about HIV even to close family members contributes to isolation and feelings of shame in the child.

## **1.2: Statement of the problem**

HIV/AIDS has affected family roles and functioning in Kenya. HIV/AIDS related morbidity of one or both parents has a big impact on family structure, income, food security and the quality of care provided to the children. The parental ability to cope with the sick child's demands may be greatly challenged especially if the parent is in poor health. Parenting may be disrupted by direct effects of HIV and associated illnesses or by secondary factors such as separation, multiple hospitalizations (of the child or of the parent) and environmental stresses such as stigma. This will lead to disruption of bonding experiences critical to the child's early development.

Stigma associated with the illness leads to isolation from the extended family which is particularly important in the African setting.

Children and adolescents who are as well infected with HIV end up bearing the burden of having to care for the parent during terminal illness, and end up being unable to cope with school and home care giving.

These children need to be placed under alternative care when a parent dies, leading to a disruption of family structure, giving rise to child headed and grandparent headed households.

It can be expected that these children who are facing multiple losses and stressors will experience significant developmental disruptions and ultimately psychological distress and psychiatric disorder.

### **1.3: Justification of the study**

The largest fraction of children infected with HIV worldwide comes from Sub Saharan Africa.

WHO recommends that attention to the psychosocial needs of people with HIV/AIDS should be an integral part of HIV care. For children and adolescents, this includes assistance with informed decision making, coping with the illness and discrimination and the prevention and treatment of mental health problems (11). Mental health is of great importance in the well being of the patient as a whole, and a sound mind influences the patient's attitude towards the treatment offered. Psychiatric co-morbidity has been shown to contribute to increased length of hospital stay in patients suffering from general mental conditions, and impair adherence in patients in patients infected with HIV, thus leading to resistance (12, 13). Very few studies have been done to find out the prevalence and patterns of psychiatric morbidity in children infected with HIV despite the increasing number of children survivors infected with the virus.

In Kenya, there are no psychiatric treatment guidelines in place for children infected with HIV. This study would prompt primary care providers, pediatricians and even psychiatrists to be more vigilant in recognizing psychiatric disorders and symptoms associated with HIV/AIDS and therefore promptly refer or treat these disorders.

### **1.4: Objectives**

#### **1.4.1: Main objective:**

To establish the prevalence and pattern of psychiatric morbidity in HIV infected children aged between 6 and 18 years attending a comprehensive care clinic for HIV/AIDS in Nairobi, Kenya.

#### **1.4.2: Specific Objectives:**

- To determine the prevalence and distribution of psychiatric morbidity in HIV positive children aged 6-18 years.
- To describe the socio demographic profiles of these children in terms of age, sex, gender, educational backgrounds and family profiles.
- To examine the relationship between these factors and the psychiatric morbidity patterns and prevalence.
- To make the necessary recommendations in view of the results to promote prompt *referral and /or treatment of psychiatric disorders in children infected with HIV.*
- To contribute to the pediatric HIV management guidelines in Kenya



## 1.5: Hypothesis

### 1.5.1: Null Hypothesis:

HIV infected children do not have any psychiatric morbidity.

### 1.5.2: Alternate Hypothesis

HIV infected children have psychiatric morbidity.

## CHAPTER II

### 2.0: LITERATURE REVIEW

#### 2.1: International studies

A number of studies have been done outside of Africa to determine levels of the psychiatric morbidity in HIV infected children.

An American sample of 274 children aged 2-17 years of age were assessed by Nozyce et al (14) using the Conner's Parent Rating Scale, Baileys Scales for infant development and intelligence tests. It was found that 52% of them had at least one behavioral problem. Psychosomatic disorders were found in 28% of the population, learning disorders were found in 25%, hyperactivity, conduct disorders, and anxiety were found in 20%, 16% and 8% respectively of the study population. It was also noted that conduct disorders were prevalent in patients whose CD<sub>4</sub> count was less than 660 cells per mm<sup>3</sup>. In another American study, Mellins et al, (15) had also found high rates of behavioral problems in prenatally HIV infected children. Their findings were that 52% of 96 HIV infected children had at least one abnormal score in the Conner's Parent Rating Scale and 21% on two or more scales (co morbidity). Mellins et al,(16) did yet another study on 47 prenatally infected youth 9 to 16 years of age recruited from a pediatric HIV clinic, and this time used the Diagnostic Interview Schedule for Children (DISC IV) they found that 55% of the youths met a diagnosis for a psychiatric disorder, and 26% for multiple disorders. Havens et al,(17 ) in a pilot study to examine the relationship between HIV infection and psychiatric morbidity in the context of prenatal drug exposure, found higher rates of behavioral and psychiatric morbidity especially with respect to disruptive behavior in a sample of school age children with HIV infection.

Increased behavioral disorders in children infected with HIV have also been reported in Asia. Grover et al (18) did a study on behavioral disorders among 6-11 year old Indian children, and compared them to their uninfected peers from similar backgrounds using the Child Behavioral Checklist. They found behavioral problems were reported by 80.7% of the guardians to the HIV positive children compared by 18.3% for the controls. In a French study, Misdrahi et al (19) evaluated 17 HIV infected children who had psychiatric problems, of which major depression was the commonest at 47%, and ADHD was at 29%. In this study, depression was found to be significantly associated with neuroimaging and neurological abnormalities. Low CD<sub>4</sub> counts were found in 80% of the children presenting with psychiatric complications. The findings in this study led the author to speculate on whether depression could be a clinical form of encephalopathy.

The above studies demonstrate the presence of psychiatric morbidity and emotional disorders in children infected with HIV. They however cannot truly reflect the situation in Sub-Saharan Africa where there are higher rates of poverty, poor social networks and food insecurity. My study will provide a background for identifying psychiatric disorders relevant to our setting and enhancing medical care.

## **2.2: Regional Studies (Africa)**

Studies on HIV related psychiatric morbidity in the African region have mostly targeted the adult population. Olley et al (20) conducted a six month follow up study on a cohort of 65 patients with recently diagnosed HIV disease in a hospital based HIV clinic in South Africa. They found an overall high prevalence of psychiatric disorders that still remained high in the follow up period. Fifty six percent had at least one psychiatric disorder at baseline, and 48% had at least one psychiatric disorder on follow up with depression and PTSD being highest in the diagnosis. Higher rates of psychiatric morbidity were also found in a control study carried out in Nigeria. The prevalence of psychiatric disorder was 59.1% in the HIV infected population, compared to 19.5% in the HIV negative population, with significantly higher rates of affective, anxiety and psychotic disorders (21).

Most of the research done on HIV infected children in Africa has been focused on the neuro developmental effects of HIV infection, and shows consistent findings of increased significant neurological, developmental and cognitive deficits in children infected with HIV. Droter et al (22), in a Ugandan study involving 61 infants of HIV infected mothers, 234 uninfected infants of HIV infected mothers, (sero reverters) and 115 uninfected infants of HIV negative mothers, compared to sero reverters and uninfected infected infants found HIV infected infants demonstrated lower mental and motor development on Bailey scales and a greater deceleration in rate of motor development. Similar findings were found in a study done on Zairian children (23) evaluating the cognitive and motor effects of HIV infection in children. In this study, the asymptomatic HIV infected children under 2 years of age displayed social and motor development deficits on the Denver Developmental Screening test when compared to their HIV negative counterparts born to HIV positive mothers and the controls. In a second study, comparing HIV positive and HIV negative children over 2 years of age on the Kauffman Assessment Battery for children, the HIV negative children scored significantly higher than the HIV positive, therefore drawing the conclusion that HIV infection affects CNS structures mediating motor and spatial memory development even in seemingly asymptomatic children.

Despite HIV prevalence rates being highest in Sub Saharan Africa, very little research has been done towards behavioral and psychiatric morbidity in children and adolescents. Musisi et al (24) conducted a study on emotional and behavioral disorders in 82 HIV infected adolescents aged between 10-15 years who already knew their HIV status in urban Uganda. In this study, the

WHO/Self Report Questionnaire-25 (WHO/SRQ-25) was used to screen for psychiatric disorders based on the ICD-10 diagnostic criteria. Fifty one percent of the study subjects had significant psychological distress, and 17.1% had attempted suicide. The most common psychiatric diagnosis was anxiety (45.6%) and depression at 40.8%.

There is much to be learnt from research on HIV in adults, and experience with other chronic illnesses, but this may not be reflection in the situation in children.

### **2.3: Local Studies (Kenyan)**

Studies put the prevalence of psychiatric morbidity in children in the general population to be 14-20% (6). Various studies have been done locally to try and establish the prevalence and pattern of psychiatric morbidity in various populations of children. Kangethe found a psychiatric morbidity prevalence rate of 20% (21% in boys, 19% in girls) among children aged 5 to 15 years attending a primary health care facility in Kenya, while Mulupi found that 41.2% of 255 adolescents attending a primary healthcare centre in Nairobi, had an Axis I disorder, the most common being anxiety, followed by mood disorders (25,26)

Mwangi in 1996 (27) during a comparative study of psychiatric morbidity among rural and urban primary school pupils found a 26% psychiatric morbidity rate in the rural population compared to a 41.2% rate in their urban counterparts, based on the ICD 10 criteria, however there has been no studies targeting children infected with HIV.

Few local studies show increased psychiatric morbidity in adults with HIV. Otieno (28) found a psychiatric morbidity prevalence rate of 75% in HIV positive adult patients attending an STD and Skin clinic in Nairobi, Kenya and a 36% prevalence rate in the HIV negative patients, and in a study to determine psychological distress symptoms of individuals seeking HIV related psychological support in Western Kenya, Reece et al(29) found moderate levels of psychological distress with a substantial proportion of participants meeting the criteria that suggested a need for further psychiatric evaluation. While these studies may show significant psychiatric morbidity while it comes to adults, they cannot be used to reflect the situation in children since this population has its own special needs.

Ogututu et al (30), through a compilation of case studies on young care giving highlighted the plight and psychosocial burden of children and adolescents who have had to care for their guardians infected with HIV/AIDS, in Bondo, Western Kenya. This paper only highlights one of the factors that would be a precipitator of mental illness in the child, and does not shed light on the various mental illnesses that you would expect in this child population.

## CHAPTER III

### 3.0: STUDY METHOD

#### 3.1: Study design

The study was a cross sectional descriptive study investigating psychiatric morbidity and behavioral disorder patterns and prevalence in children living with HIV/AIDS.

#### 3.2: Study site

The Lea Toto Comprehensive Care Clinic for paediatric HIV management at Kariobangi in Eastlands, Nairobi was the study site. This clinic is an initiative of the Nyumbani Children's home.

The Lea Toto Program is a Nyumbani Community Outreach home based care program that was first established in 1998. The program started initially as a mobile outreach initiative in an effort to reach out to HIV positive children living in families within the resource poor communities in Nairobi.

It has grown to currently operating in six centers. These centers are Kangemi, Kawangware, Kibera, Mukuru, Dandora and Kariobangi and provide care to 3000 children currently.

The project is funded mainly by the USAID, in partnership with the World Food Program and Concern World Wide. It also relies on well wishers, volunteers and community organizations.

The Lea Toto Project purpose is to mitigate the impact of HIV/AIDS and decrease the risk of HIV transmission by facilitating the implementation of a comprehensive home based care package. The program interventions include:

1. Provision of care, support and counseling
2. Social support
3. Organizational capacity building
4. Prevention activities

Health workers trained in the provision of ARV drugs provide care to the children. They include clinical officers, nurses, counselors and social workers.

Patients are received from low social economic backgrounds. They are provided with free HAART, medical treatment of opportunistic infections and other medical conditions arising due to HIV infection. Nutritional support is also given for the malnourished children.

#### 3.3: Study population

The study targeted HIV positive children aged between 6 and 18 years on follow up at the Lea Toto program in the Kariobangi clinic. This study site was picked due to its close proximity to Mathari hospital, the Psychiatry teaching and referral Hospital.

### 3.3.1: Sample size

Sample size was calculated using the following formula (31):

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where

$n_0$  = sample size

Z= standard deviation corresponding to 95% confidence interval, usually set at 1.96

p= hypothesized prevalence level from other prevalence studies set at 52% (25, 26)

q= 1-p

e= desired level of precision set at 5% (0.05)

On substitution of the values

$$n_0 = \frac{1.96^2 \times 0.52(1 - 0.52)}{0.05^2}$$

$$n_0 = 384$$

The sample size was then adjusted to the Kariobangi clinic population using the following formula for finite population correction

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where

n= sample size

N= study population (which was 280 at the Kariobangi clinic)

$$n = \frac{384}{1 + \frac{384 - 1}{280}}$$

$$n = 162$$

The sample size used was 162

### **3.4: Sampling method**

The purposive sampling technique was used until the desired number was reached.

#### **3.4.1: Inclusion criteria**

1. HIV positive children aged between 6 and 18 years on follow up at the Lea Toto program in Kariobangi.
2. Children whose guardians give consent.
3. Assent from the child older than 11 years.

#### **3.4.2: Exclusion criteria**

1. Patients or guardians who do not understand English.
2. Children whose guardians do not give consent.
3. Children older than 11 years who do not give assent.
4. Not a patient at the Lea Toto program.

### **3.5: Study instruments**

#### **3.5.1: Researcher designed social demographic and health questionnaire.**

This questionnaire was designed to capture data such as age, gender, educational background, knowledge of HIV status and age at disclosure.

It also had a section on the current immunity status (recent CD4 Count and Viral Load where applicable)

This questionnaire was only directed towards the guardian.

#### **3.5.2: M.I.N.I. Kid**

The Mini International Neuropsychiatric Interview for children and adolescents is a short structured psychiatry diagnostic instrument that was developed by Sheehan et al (32).

It is a short inexpensive easy to administer tool that is useful in clinical psychiatry and clinical settings.

It captures up to 27 child and adolescent psychiatry diagnosis mapped to DSM IV as well as the risk of suicide. These disorders include: Major depressive disorder, Dysthymia, the various Bipolar disorders, Panic disorder, Separation anxiety disorder, Social phobia, Generalized anxiety disorder, Obsession-compulsive disorder, Psychosis, Alcohol abuse and dependence, Drug(other than alcohol) abuse and dependence, Anorexia nervosa, Bulimia, Touretts, the various types of ADHD, Conduct disorder, Oppositional defiant disorder, Adjustment disorder and Pervasive developmental disorder (33).

It comes in two versions:

- M.I.N.I. Kid Parent version for children aged 6-10 years
- M.I.N.I. Kid Youth self report for those aged between 11 and 18 years.

Both versions were used in the study, depending on the age of the child.

Despite its limitations in picking up some diagnosis such as Acute Stress disorder and Somatoform disorders, this stool also had its strengths in picking up Mood and Substance related disorders among others.

### **3.6: Data collection procedure**

*The data was collected over a period of three months, (February, March and April 2010).*

Data collection took place in the morning hours, as that was the time when most clients presented to the clinic for care. As the clients and their guardians were waiting in the waiting bay to access clinical services, they were informed that there was a researcher who wanted to talk to the guardians of children 6years and above, and were then ushered one by one into the researcher's room. For those found eligible for the study and were willing to participate, consent was explained to them. After the guardian signed the consent form, the researcher designed questionnaire was then administered to him/her, and the child who had been in the waiting bay was then allowed into the researcher's room. Assent was acquired from the children and adolescents more than 11 years of age. The age of the child determined the version of the M.I.N.I. Kid questionnaire administered. Administration of both questionnaires took about 15 to 30 minutes, although for a few clients it took 45 minutes. This process was repeated every morning the researcher went to collect data at the clinic.

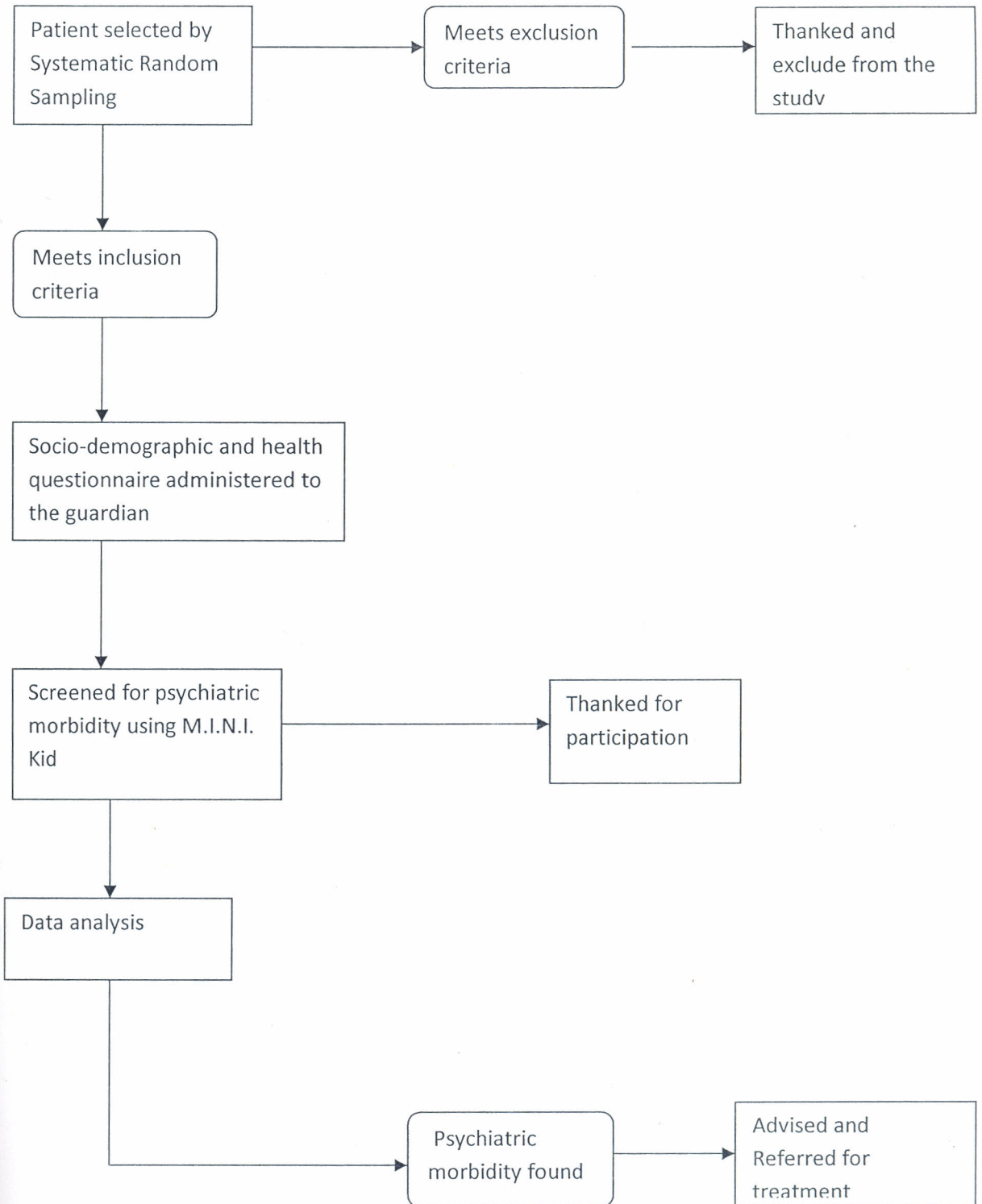


The presence of the guardian was required during the administration of the Youth self report version of the M.I.N.I. Kid to children between 11 and 13 years of age.

### **3.7: Data management:**

The collected data was entered into a computer and analyzed using SPSS (Statistical Package for Social Scientists) by a qualified statistician. Raw data on psychiatric disorders was banded into fewer categories for purposes of analysis and correlation. Results were considered to be statistically significant when  $p < 0.05$ . The results were then presented in form of narrative, tables, charts and graphs.

### 3.8: Flow chart of the study



### **3.9: Ethical considerations**

#### **3.9.1: Clearance to carry out study**

The approval to carry out the research was obtained from the department of psychiatry of the University of Nairobi, and clearance was then sought from the Ethics and Research committee of Kenyatta National Hospital.

A formal request was then made by the researcher to the Director of the Nyumbani Children's Lea Toto Program after getting clearance from the K.N.H. Ethics and Research committee. The Board of Nyumbani children's home granted permission to conduct the study after reviewing the dissertation proposal.

#### **3.9.2: Consent**

Informed written consent was sought from the guardians of the study subjects after careful explanation of the study in a language that they understood.

No samples were being taken from the study subjects, but their most recent CD4 count / percentage or Viral Load was recorded. CD4 count was routinely done for care purposes at the clinic every six months.

It was made clear to the guardians that participation was purely voluntary and the acquired information was only to be used for research purposes, and there was no material gain to them from the study, and the benefit to the participant was the prompt referral for treatment of any psychiatric disorder found during the study.

#### **3.9.3: Confidentiality**

The study subjects and their guardians were assured of anonymity and confidentiality. Their names did not appear anywhere on the data collection documents. The data was only accessed by the researcher and the statistician.

## CHAPTER IV

### 4.0: RESULTS

#### 4.1: Social demographic Characteristics

A total of 162 HIV positive children whose ages ranged between 6 and 18 years were enrolled into the study. The mean age was 9.7 (SD: 2.8) years. Eighty four (51.9%) were male, giving a female to male ratio of 1:1.1. Table 1 illustrates the demographic characteristics of the study participants.

Table 1: Socio demographic characteristics of the 162 patients in the study

Demographic characteristic	n (%)
Mean age (SD)	9.7 (2.8)
Ages	
<10 yrs	109(67.2)
11-15 yrs	45(27.8)
>15yrs	8(5)
Sex	
Male	84 (51.9)
Female	78 (48.1)
Attending school	
Yes	159 (98.1)
No	3 (1.9)
Age appropriate	
Yes	81 (50.3)
No	80 (49.7)
Primary guardian	
Biological parent	98(60.5)
Adult relative	54 (33.3)
Non relative adult	10(6.2)
Parental status	
Both parents alive	45 (27.8)
Single Mother	53 (32.7)
Single Father	9(5.5)
Orphan	55(34)
ARV	
Yes	90 (55.6)
No	72 (44.4)
Immune suppressed	
Yes	22 (13.6)
No	140 (86.4)

There were 55(34%) subjects who had been orphaned due to HIV/AIDS, of the rest, only 45(27.8%) had both their parents alive. Ninety eight (60.5%) of the enrolled children had a biological parent as a primary guardian, 54 (33.3%) a relative other than the parent, and 10 (6.2%) had a non relative as a primary guardian. One may notice an overlap, expecting that 107 (66%) as the non orphans would have a parent as a primary guardian. This is because some of the parents abandoned their children, and others could not look after their children due to health reasons, and as a result, the child was taken up by another guardian while the parent was still alive. Illustrated in Table 2 is the distribution of persons who were guardians (non parents) to the children in this study.

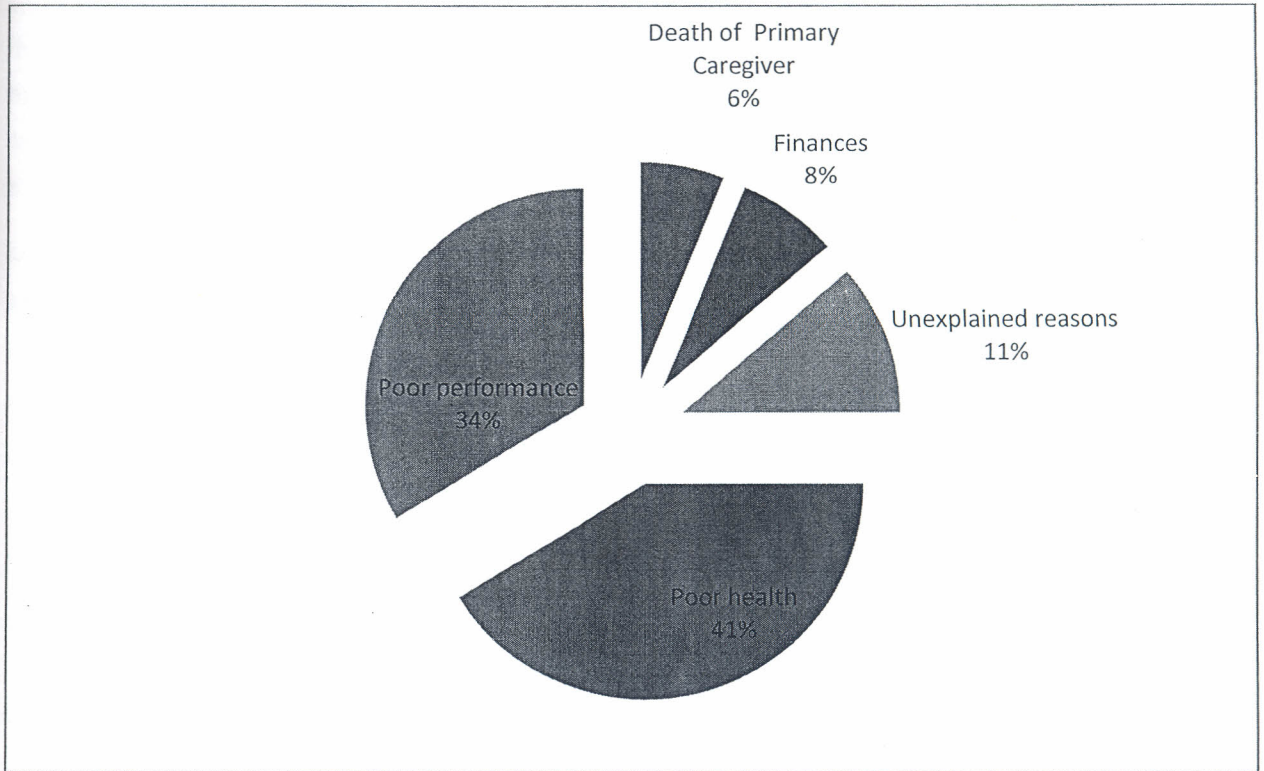
**Table 2: The distribution of non- parental guardians in this study**

	Frequency	%
Aunt	23	35.9
Brother	2	3.1
Care taker	1	1.6
Children's Home	5	7.8
Cousin	3	4.7
Family friend	2	3.1
Grand mother	16	25
Neighbour	1	1.6
Sister	6	9.4
Sister in Law	1	1.6
Step Mother	1	1.6
Uncle	3	4.6
	64	100

Eighty one (50.3%) were in a class appropriate to their age, while 80 (49.7%) were two classes lower than the age appropriate grade. Poor health (41%) was the main reason given for not being in an age appropriate class, followed by poor performance (34%). Other reasons given included death of a primary care giver (6%), due to delay in the placement of the child and lack of finances (8%). Twelve (11%) of the children (grouped as others) were in an age inappropriate class due to a variety of reasons such as post election violence, neglect by initial care giver, hearing related problems, truancy, and others just started late for undisclosed reasons.

Figure 1 below illustrates the school going characteristics.

Figure 1: Reasons for not being in an age appropriate class (at least 2 grades lower than expected for age)



Out of all the 162 children in the study, only 49 (30.2%) knew their HIV status. The median age of disclosure was 10 years.

The latest WHO guidelines recommend that antiretroviral drugs be started at a CD4 count of 350 cells /mm<sup>3</sup>. The Lea Toto Program (study site) was already following these guidelines. This CD4 level was also the cut off used in this study to determine immune suppression. Subjects with a CD4 count below 350cells/mm<sup>3</sup> were considered immune suppressed in this study. Ninety (55%) of the study subjects had been started on antiretroviral drugs, and 22(13.6%) of the children enrolled into the study were immune suppressed. (Table 1)

#### 4.2: Psychiatric morbidity

Out of the 162 children enrolled into the study, seventy nine (48.8%) of the children and adolescents in the study had at least one diagnosis of a psychiatric disorder or suicidality. Out of these seventy nine with a psychiatric morbidity, 42 of them met the diagnostic criteria of more than one psychiatric disorder. This gave a co-morbidity prevalence rate of 25.9%. The diagnoses were elicited using the M.I.N.I. KID questionnaire that follows the DSM-IV criteria, and also assesses suicide risk.

Anxiety disorders (social phobia, specific phobia, panic disorder, agoraphobia separation anxiety, post traumatic stress disorder) were the most common diagnosis 50(32.2%), followed by major depression 28(17.8%).

Sixteen (18%) had suicidal risk, with three (1.8%) having had suicidal ideation as recently as the preceding month. None of the children and adolescents in the study admitted to any suicidal attempts or plans.

Oppositional Defiant Disorder and Attention Deficit Hyperactivity Disorder (ADHD) were at an equal prevalence rate of 12.2% each, with the Inattentive type of ADHD being the most common of the ADHD diagnoses at 16(84%) The prevalence and distribution of psychiatric morbidity is summarized in table 3 below in order of decreasing frequency.

Disorders screened by M.I.N.I. Kid but whose diagnostic criteria was not met in this study were: Obsessive Compulsive Disorder, Alcohol dependence and abuse, Substance (non alcohol) dependence and abuse, Tic disorders, Anorexia Nervosa, Bulimia Nervosa and Adjustment disorder.

**Table 3: Prevalence and Distribution of psychiatric morbidity**

Psychiatric morbidity	Number	Percentage
Major Depression	27	17.3%
Social phobia	20	12.8%
ADHD	19	12.2%
Opposition defiance disorder	19	12.2%
Suicidality	16	10.3%
Specific phobia	11	7.1%
Bipolar disorders	10	6.4%
Panic disorders	9	5.8%
Conduct disorder	7	4.5%
Agoraphobia	4	2.6%
Dysthymia	4	2.6%
Separation anxiety disorder	4	2.6%
Psychotic disorders	3	1.9%
Post traumatic stress disorder	2	1.3%
Pervasive development disorder	1	0.6%

**4.3: Comparison of psychiatric morbidity between children under 11 years and those above.**

Two versions of the M.I.N.I. Kid questionnaire were used in this study. The parent version for those aged 6-10 years, and the youth self report for those aged between 11 and 18 years.

One hundred and twenty three children were below 11 years, and the psychiatric morbidity prevalence rate was 45% in this age group, while 39 youths were above 11 years, with a psychiatric morbidity prevalence rate of 59 %, as summarized in table 4 below. This difference was not found to be statistically significant.



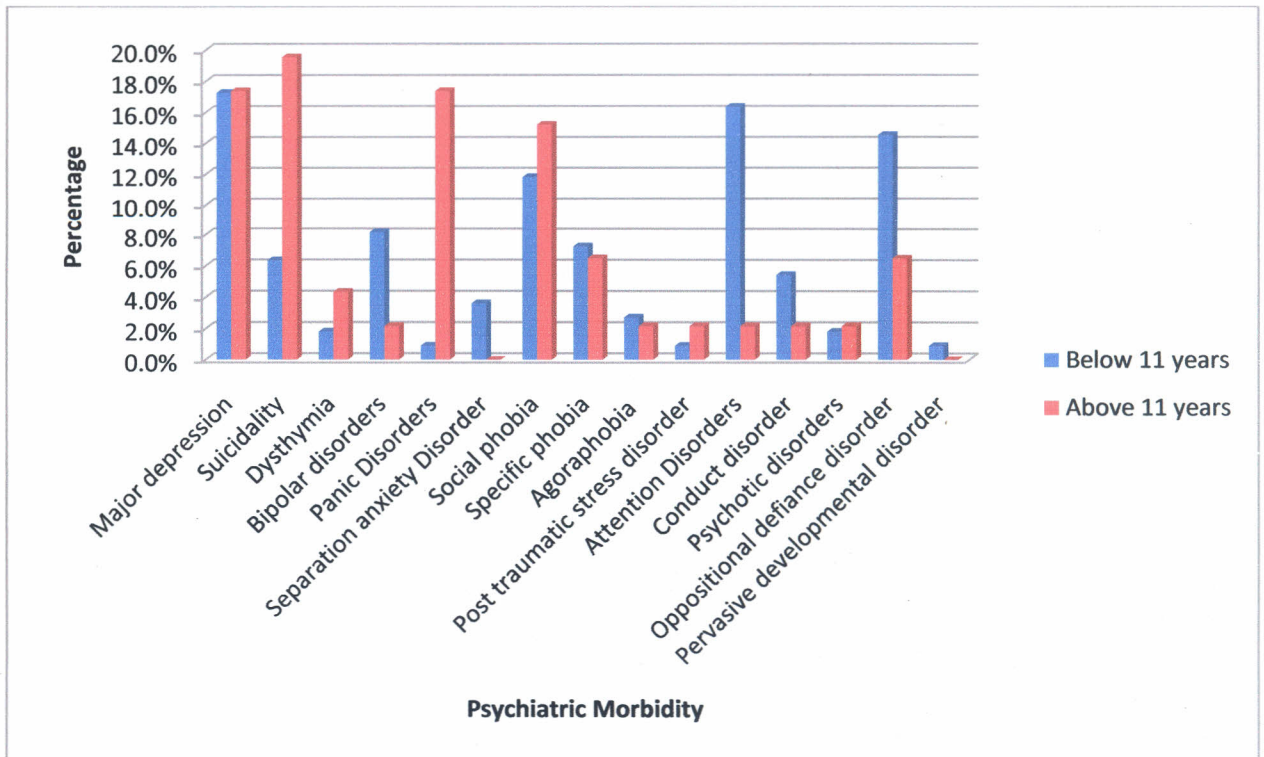
**Table 4: Prevalence of psychiatric morbidity in children <11 years, compared to those above 11 years.**

		Frequency	Percent
Below 11 years	Morbidity	56	45.5
	No Morbidity	67	54.5
	Total	123	100.0
Above 11 years	Morbidity	23	59.0
	No Morbidity	16	41.0
	Total	39	100.0

The most common diagnosis remained anxiety disorders for both groups; however, the prevalence was higher in the older group. Attention disorders were more common in the younger age group than in the older group.

The distribution of psychiatric disorder between the two groups is shown in figure 2 below

**Figure 2: Comparison graph of psychiatric morbidity in children below 11years and youth above 11 years.**



#### 4.4: Psychiatric morbidity and social demographic characteristics

Pearson Chi Square test was applied to determine association between the demographic characteristics and psychiatric morbidity. Table 5 below summarizes the social demographic characteristics of the group that has psychiatric morbidity compared to that without any morbidity. There was statistically significant association found between psychiatric morbidity as a whole and the social demographic characteristics

**Table 5: social demographic characteristics of the population with psychiatric morbidity vs. without psychiatric morbidity**

Demographic characteristic	Psychiatric morbidity Yes n (%)	Psychiatric morbidity No n (%)	p-value
Sex			0.991
Male	41 (48.8)	43(51.2)	
Female	38(48.7)	40(51.3)	
Attending school			0.114
Yes	76(47.8)	83(52.2)	
No	3(100)	0	
Age appropriate			0.479
Yes	37(45.7)	44(54.3)	
No	41(51.3)	39(48.7)	
Primary guardian			>0.999
Biological parent	48(49)	50(51)	
Adult relative	26(48.1)	28(51.9)	
Non relative adult	5(50)	5(50)	
Parental status			0.407
Both parents alive	18(40)	27(60)	
Single Mother	30(56.6)	23(43.4)	
Single Father	5(55.6)	4(44.4)	
Orphan	26(47.3)	29(52.7)	
ARV			0.219
Yes	40(44.4)	50(55.6)	
No	39(54.2)	3(45.8)	
Immune suppressed			0.901
Yes	11(50)	11(50)	
No	68(48.6)	72(51.4)	
Age group			0.143
<11 years	56(45.5)	67(54.5)	
>11 years	23(59)	16(41)	

#### 4.5: Relating various diagnoses and social demographic characteristics

There was a statistically significant association between gender and MDD ( $p=0.035$ ), and Specific phobia ( $p=0.028$ ) as demonstrated in table 6 below. There was however no significant association between the other mental disorders and gender of the children with HIV.

**Table 6: Association between gender and psychiatric morbidity**

	Male n=84 (%)	Female n=78 (%)	p-value
Major depression	19 (22.6)	8(10.25)	<b>0.035*</b>
Suicidality	10(11.9)	6(7.6)	0.356
Bipolar Disorders	6(7.1)	4 (5.12)	0.748‡
Social phobia	13 (15.4)	7(9)	0.209
Specific phobia	2 (2.4)	9(11.5)	<b>0.028‡*</b>
ADHD	10(11.9)	9(11.5)	0.949
Oppositional defiance disorder	12(10.1)	7(8.97)	0.294

Notes: ‡ = Fishers exact test.

\* statistically significant difference ( $p<0.05$ )

For purposes of analysis, the ages of the study subjects were split into three groups as follows: less than ten years, between eleven and fourteen years and those above fifteen years. Table 7 below shows that only Suicidality was significantly related to age group ( $p=0.006$ )

**Table 7: Association between age groups and psychiatric morbidity**

	<10 yrs n=109(%)	10-15 yrs n= 45(%)	>15 yrs n=8 (%)	p-value
Major depression	15(13.8)	8(17.7)	3(37.5)	0.161
Suicidality	5(4.6)	8(17.7)	2(25)	<b>0.006**</b>
Bipolar Disorders	8 (7.3)	2(4.44)	0	0.837
Social phobia	10(9.17)	8 (17.7)	2(25)	0.186
Specific phobia	5(4.6)	5(11.1)	1(12.5)	0.191
ADHD	16(14.7)	3(6.7)	0	0.326
Oppositional defiance disorder	13 (11.9)	5 (11.1)	1(12.5)	>0.099

\*\* Very significant statistical difference. ( $p<0.01$ )

In relation to CD4 count, Major depression was significantly associated with immune suppression (CD4 count < 350 cells/mm<sup>3</sup>) Table 8 below demonstrates this relationship.

**Table 8: Association between immune suppression and psychiatric morbidity**

	Immune suppressed n=22 (%)	Not Immune suppressed n=140 (%)	p-value
Major depression	7 (31.8)	20 (14.2)	<b>0.04*</b>
Suicidality	3 (13.6)	13 (9.28)	0.462
Bipolar Disorders	1 (4.5)	9 (6.42)	>0.999
Social phobia	5 (22.7)	15 (10.7)	0.111
Specific phobia	0	11 (7.9)	0.363
ADHD	1 (4.5)	18 (12.9)	0.475
Oppositional defiance disorder	4 (18.1)	15 (10.7)	0.296

\*statistically significant difference (P<0.05)

Knowledge of HIV status was shown to be significantly associated with social phobia in the children infected with HIV (p=0.04) as shown in table 9 below.

**Table 9: Association between psychiatric morbidity and knowledge of HIV status**

	Knowledge n=49 (%)	No knowledge n=113 (%)	p-value
Major depression	11 (22.4)	16 (14.1)	0.193
Suicidality	8 (16.3)	8 (7.0)	0.073
Bipolar Disorders	2 (4.1)	8 (7.0)	0.725
Social phobia	10 (20.4)	10 (8.8)	<b>0.04*</b>
Specific phobia	5 (10.2)	6 (5.3)	0.255
ADHD	6 (12.2)	13 (11.5)	0.893
Oppositional defiance disorder	8 (16.3)	11 (9.7)	0.231

\*statistically significant difference (p<0.05)

There was no association found between psychiatric morbidity and the type of primary guardian, parental status (whether single mother, orphaned, both parents alive) or ARV administration.

## CHAPTER V

### 5.0: DISCUSSION

#### 5.1: Socio-demographic profile

The socio-demographic characteristics of this population mainly highlighted the burden of HIV/AIDS on the community or individual. All the children enrolled in this study were infected perinatally.

Fifty five (34%) of the children in this study were orphaned due HIV/AIDS and ended up being looked after by their relatives, and others by non relatives. Twenty five percent of the children were living with their grandparents, who at this point in their lives would not be expected to be raising young children, who need special care. This would mean putting the child's needs first at a time when their own health needs special care, and at risk of neglecting their own health. (34, 35)

Eighty (49%) of the study subjects were at least two grades lower than expected for their age. The main reason given for this was poor health (41%) due to the various opportunistic infections resulting in either starting class late or missing several valuable school days due to illness. Failure to start antiretroviral therapy early enough may be contributory to this finding, since some guardians only present their children to receive ARV therapy when they become physically ill.

Poor performance (34%) followed in the reasons for not being in an age appropriate class. Various studies have focused on cognitive and learning difficulties in HIV positive children. Nozyce et al (14) found that overall IQ scores were lower than the norm in HIV infected children than in the general population. Other studies done on HIV infected children (22, 23) also show higher cognitive deficits in this group than in the normal population. Since no cognitive or intelligence tests were carried out in this study, one can only speculate as to whether the poor performance in this study is due to cognitive deficits related to HIV infection.

#### 5.2: Psychiatric Morbidity

There was indeed psychiatric morbidity in children infected with HIV in the current study and a prevalence rate of 48%. This is even much higher than that found in the general population according to local studies (25, 7) at 20%.

Similar studies elsewhere found an even higher prevalence of behavioural and psychiatric disorders in children infected with HIV (14, 16, 24). This study used the M.I.N.I. Kid as the diagnostic tool. This tool had inclusive and exclusive criteria structured towards DSM IV

psychiatric diagnosis. The other studies that had similar population groups used tools that reported behavioural problems with no exclusive criteria. Nocyze et al(14) using Connors Parent Rating scale found a 52% prevalence rate of behavioural problems, while Grover et al(18)found an even higher prevalence of 81% using the Child Behavioural Checklist (18).

The most common psychiatric disorders in the current study were anxiety disorders 50(32.2%) and major depression 27(17.3%). Anxiety disorders were also most prevalent in other similar studies on HIV infected children and adolescents (16, 24).

In the current study, youths older than 11 years were directly interviewed, while the parents were interviewed when it came to the younger children regarding psychiatric morbidity. The older children had a higher prevalence of psychiatric disorders (59%) than those children below 11 years of age (45.5%). This difference could be accounted for by the fact that the adolescents were a more self expressive group with more insight on what was going on in their lives. One also has to keep in mind that data collection on children is dependent on the guardian's observation. This would be affected by the guardian's vigilance, mood and ongoing life events, and some guardians can deliberately withhold information.

Anxiety disorders were the most prevalent disorders in both groups, however, adolescents were found to have much higher rates than the younger children. Similar findings were found in a study by Nocyze et al (14). Some studies however found a predominance of hyperactivity disorders (14, 17). In the current study, ADHD was significantly ( $p=0.046$ ) more common in children under 11 years (18.6%) than in the older children (2.6%). This would probably be due to gross under reporting by the older children of ADHD symptoms, especially because the screening question on ADHD in the M.I.N.I. Kid questionnaire asked whether anyone had complained about the youth's behavior. However, it is possible that ADHD symptoms remit as the child grows older.

### **5.3: Psychiatric morbidity and social demographic characteristics**

There was almost equal prevalence rate of psychiatric morbidity in males 41(48.8%) and in females 38(48.7%). Similar findings have been found in other studies (14).

It was surprising to find that major depression was significantly related to male gender in this study. This finding has not been duplicated in other studies, is in fact in contrast to many other studies that found depression more prevalent in females (36, 37). Perhaps the males in the current study were exposed to more negative life events, more conflicts in the home setting or felt the brunt of stigma more than their female counterparts. These factors were not investigated in the current study and can therefore only be speculated upon.

It was however not surprising to find that specific phobia was significantly related to female gender in the current study because similar findings have been found in several other studies (38, 39).

The type of primary guardian not significantly related to psychiatric morbidity in the current study. Mellins et al(15) in a comparative study however, found that the high rates of behavioural problems in prenatally infected children were not linked to HIV disease, but rather to the caregiver characteristics such as education, and the type of caregiver, and also the number of changes in the living situation such as changing care from one relative to another. Caregiver characteristics such as level of education and mental illness were not investigated in this study, and this would have shed more light as to the significance of these findings.

Low CD4 count ( $<350$  cells/mm<sup>3</sup>) was significantly linked to major depression ( $p=0.04$ ) in the current study. Nozyce et al (14) related a CD4 count less than 650cells/mm<sup>3</sup> to conduct disorder, while Misdrahi et al (19) found that more than 80% of his study population with psychiatric complications had low CD4 counts. Howland et al(10), in a follow up study found that negative stressful life events increase the risk of children with HIV infection having impaired immune function. Data derived from adult studies show mental health problems as being significant barriers to adherence to ARV therapy (40). These studies may reflect a causal interrelationship: negative life events together with other causal factors result in predisposition to depression, and as a result poor adherence leading to immune suppression. However, there is evidence that stress may be related to decrease in functional immune status through neuro-endocrine mechanisms (41) and therefore depression would have a direct causal relationship with immune suppression.

Suicidality was noted to increase with age, given that the prevalence was lowest (4.6%) in the youngest age group and highest (25%) in the oldest age group. The mean age of disclosure in this study was 10 years, and perhaps the individual is just coming to terms with the new diagnosis and all the different things that come along with a diagnosis of HIV/AIDS such as stigma, ill health and dying (42) and matters pertaining to their own sexuality. A statistically significant relationship ( $p=0.04$ ) was found between knowledge of HIV status and Social Phobia. This could reflect the fact that the individuals view themselves as different in other people's eyes once they know the status. The role of stigma is brought into play.

There was no association between any of the psychiatric diagnosis and ARV therapy in the current study.

This study was carried out in a resource poor setting, and other issues such as nutrition and poverty may have contributed to the presence of psychiatric morbidity.

#### 5.4: Study Limitations

There is a dearth of studies done on children infected with HIV. This led to comparison challenges, and the same studies being quoted over and over for the various variables.

This study was conducted using the researcher's own limited funding.



## CHAPTER VI

### 6.0: CONCLUSIONS AND RECOMMENDATIONS

#### 6.1: Conclusions

There is indeed psychiatric morbidity in HIV infected children, and at a higher prevalence than the children in the general population with anxiety disorders being the most common diagnosis found in this study.

Major depression was linked to low immune status, while social phobia was significantly linked to knowledge of one's HIV status in the current study. Upon disclosure of the HIV status, the clinician ought to be even more vigilant about suicidal ideation in the child as was found in the current study.

The current study was carried out in a resource poor setting, and other issues such as nutrition and poverty may have contributed to the presence of psychiatric morbidity.

Other factors that were not investigated in this study such as negative life events, mental illness in the family and caregiver education would have contributed further to this study.

#### 6.2: Recommendations

- There is need to integrate psychiatric services into the routine care of HIV infected children.
- There should be focus on early intervention campaigns to ease the burden brought about by HIV/AIDS and increase productivity. ARV therapy needs to be started as early as possible to decrease the opportunistic infection rates that result in missing school and poor performance.
- Care giver needs, especially of the elderly guardian should be addressed to facilitate even better care of the HIV infected children
- Further studies on other stressors and their influence on the wellbeing of a HIV infected child need to be carried out.

## REFERENCES

1. Lewis, S.Y., Halken, H. J., Hoyt, L.G. Living beyond the odds: A psychosocial perspective on long term survivors of pediatric HIV infection. *Journal of Developmental and Behavioral Pediatrics* 1997; **15**: s12-s17.
2. WHO website: [www.who.int/hiv/topics/plhiv](http://www.who.int/hiv/topics/plhiv) (People living with HIV)
3. Kenya Health and Demographic Survey report, 2003.
4. UNAIDS Factsheet 2008: <http://dataunaids.org/pub./Factsheet/2008>.
5. Wells, K. B., Golding, J.M. and Burnam, M. A. Psychiatric disorders in a sample of general population with and without a general medical condition. *American Journal of Psychiatry* 1988; **145**: 976-81.
6. The African Network for the Care of Children Affected by AIDS. Diagnosis and Clinical Staging of HIV Infection. In: Handbook on Paediatric AIDS in Africa. Ed.: Tindyebwa, D., Kayita, J., Musoke, P. et al. Family Health International, Kampala 3<sup>rd</sup> Edition 2004: 75-90.
7. Szabo, C.P. Child Psychiatry: An Overview. In: The African Textbook of Clinical Psychiatry and Mental Health. Ed.: Ndetei, D.M., Szabo, C.P., Okasha, T. et al. English Press, Nairobi 2006: 204
8. Gortmarker, S. L., Walker, D. K., Wertzman, M. et al. Chronic conditions, socioeconomic risks and behavioral problems in children and adolescents. *Pediatrics* 1990; **85**: 267- 276.
9. Kumar, A.M., Fernandez, J.B., Singer, E.J., et al. HIV type I in the central nervous system leads to decreased dopamine in different regions of post mortem brains. *Journal of Neurovirology* 2009; **15**: 257-274.
10. Howland, L.C., Gortmarker, S.L., Mofenson, L.M. et al. Effects of negative life events on immunosuppression in children and youth infected with HIV I. *Pediatrics* 2000; **106**: 540-546.
11. WHO Psychosocial support, 2005.  
<http://www.who.int/hiv/topics/psychosocial/support>.
12. Saravay, S. M., Pollack, S., Steinberg, M.D. et al. Four year follow up on the influence of psychological co morbidity on medical rehospitalization. *American Journal of Psychiatry* 1996; **153**: 397-403.
13. Williams, P.L., Storm, D., Montepiecha, G., et al. Predictors of adherence to ARV medication in children and adolescents with HIV infection. *Pediatrics* 2006; **6**: e1745-1757.
14. Nozyce, M.L., Lee, S.S., Wiznia, A. et al. A behavioral and cognitive profile of clinically stable HIV infected children. *Pediatrics* Mar2006; **117**: 763-770.

15. Mellins, C.A., Smith, R., Driscoll, P.Q. et al. High rates of behavioural problems in perinatally HIV infected children are not linked to HIV disease. *Pediatrics* 2003; **111**: 384-363
16. Mellins, C.A., Brackis, C.E., Dolezal, C. and Abrams, E.J. Psychiatric disorders in youth with perinatally acquired HIV infection. *The pediatric Infectious Disease Journal* 2006; **25**: 432-437
17. Havens, J.F., Whitaker, A.H., Feldman, J.F. and Ehrhardt, A. Psychiatric morbidity in school age children with congenital HIV infection. *Journal of Developmental and Behavioral Pediatrics* 1994; **15**: s18-25
18. Grover, G., Pensi, T. and Banerjee, T. Behavioural disorders in 6-11 year old HIV infected Indian children. *Annals of Tropical Pediatrics* 2007; **27**: 215-24
19. Misdrahi, D., Vila, G., Funk-Brentano, I., Tardieu, M. et al. DSM IV mental disorders and neurological complications in children and adolescents with HIV type I. *European Psychiatry* 2004; **19**: 182-184
20. Olley, B.O., Seedat, S. and Skin, J. D. Prevalence of psychiatric disorders in a cohort of HIV/AIDS patients in South Africa. A six month follow up. *Journal of Psychosomatic Research* 2006; **61**: 479-484.
21. Adewuya, A. O., Ofolabi, F.O., Ola, B.A. et al. Psychiatric disorders among the HIV positive population in Nigeria. A control study. *Journal of Psychosomatic Research* 2007; **63**: 203-206.
22. Droter, D., Karen, O., Wiznitzer, M. et al. Neurodevelopmental outcomes of Ugandan infants with HIV infection. An application of growth curve analysis. *Health Psychology* 1999; **18**: 114-121
23. Boivin, M.J., Green, S.D., Davies, A.G. et al. A preliminary evaluation of cognitive and motor effects of paediatric HIV infection in Zairian children. *Health Psychology* 1995; **14**: 13-21
24. Musisi, S. and Kinyanda, E. Emotional and behavioural disorders in HIV seropositive adolescents in urban Uganda. *East African Medical Journal* 2009; **86**: 16-24
25. Kangethe R.N. The frequency, pattern and recognition of childhood psychiatric morbidity among children attending Kawangware Health Centre in Nairobi. 1988 M.Med. dissertation, UON.
26. Mulupi Paul. Psychiatric morbidity among adolescents attending a primary health care centre in a high population density urban community in Nairobi. 2006 M.Med. dissertation, UON.
27. Mwangi N.A. A comparative study of Psychiatric Morbidity among rural and urban primary school pupils. 1996 M.Med. dissertation, UON.
28. Margaret A Otieno. Psychiatric morbidity among patients attending a skin and sexual transmitted disease clinic in Nairobi.

29. Reece, M., Shacharn, E., Monahan, P. et al. Psychosocial distress symptoms of individuals seeking HIV related psychosocial support in Western Kenya. *AIDS Care* 2007; **19**: 1994-1200.
30. Skovdal, M. and Ogutu, V.O. "I washed and fed my mother before going to school": Understanding the psychosocial well being of children providing chronic care for adults affected by HIV/AIDS in Kenya. *Globalization and Health* 2009; **5**: 8
31. Cochran, 1964: <http://edis.ifas.ufl.edu/PD006>
32. Sheehan, D.V., Lecrubier, Y., Sheehan, K.H., et al *Journal of Clinical Psychiatry* 1998; **59**: 22-33
33. Sheehan, D.V. and Janavs, J. M.I.N.I. Kid: [http://www.fadaa.org/services/resource\\_centre/PD/webEx/mini\\_kid.pdf](http://www.fadaa.org/services/resource_centre/PD/webEx/mini_kid.pdf)
34. Potterton, J., Stewart, A. and Cooper, P. Parenting stress of caregivers of young children who are HIV positive. *African Journal of Psychiatry* 2007; **10**: 210-214
35. Musil, C. Health, Stress, Coping and Social support in grandmother caregivers. *Health Care Women International* 1998; **19**: 441-455.
36. Rutter, M. and Graham, P. Adolescent Turmoil: Fact or fiction? *Journal of child psychology and psychiatry* 1976; **17**: 35-56.
37. Hankin, B.L., Abramson, L.Y., Moffit, T.E., et al. development of depression from pre adolescent to young adulthood: Emerging gender differences in a 10 year longitudinal study. *Journal of abnormal psychology* 1998; **107**: 128-140
38. Bourdon, K.H., Boyd, J.K., Rae, D.S. et al. Gender differences in phobias: Results of the ECA community survey. *Journal of Anxiety disorders* 1988; **2**: 227-241
39. Boyd, J.K., Rae, D.S., Thomsom, J.W. et al. Phobia: Prevalence and risk factors. *Social Psychiatry and Psychiatric Epidemiology* 1990; **25**: 314-323
40. Uldall, K.K., Palmer, N.B., Whellen, K. and Mellins, C. Adherence in people living with HIV/AIDS, mental illness and chemical dependency: A review of the literature. *AIDS Care* 2004; **16**: 71-96.
41. Bennet, T. and Cohen, S. Stress and Immunity in humans: A meta-analytic review. *Psychosomatic Medicine* 1993; **55**: 364-379
42. Dorrell, J., Earle, S., Katz, J., and Reveley, S. Growing up with HIV-The experiences of young people living with HIV since birth in the UK. In: *Death and Dying: A Reader*. Ed.: Earl, S., Kamaromy, C. and Bartholomew, C. Sage, UK 2008: 237-244

## APPENDICES

### APPENDIX A: CONSENT

#### A1: INFORMED CONSENT EXPLANATION

My name is Dr. Judy Kamau, a master in psychiatry student at the University of Nairobi. I am doing a study to find out the prevalence and patterns of psychiatric disorders in children infected with HIV and on follow up and I have selected your clinic to be my area of study.

Because your child is not yet 18 years of age, I am asking for your permission as the guardian to allow me to ask questions mainly regarding your child's behavior at home and at school.

I will assess your child's behavior using a questionnaire that contains a series of questions that will take about 30 minutes to administer.

If your child is below 11 years of age, I will be directing the questions about his /her behavior to you, and if the child is above 11 years of age, I will be directing the questions to him/her with his/her permission.

Other than the information about your child, there will be no other procedures carried out, such as drawing of blood or performing other tests, but I will need to document your child's most recent CD4 Count and Viral load.

The information obtained from you will be treated confidentially, and your identity or that of your child will not be recorded anywhere.

There will be no financial gain to you during this study. If you do decide to enlist in the study, then answer the questions asked to the best of your ability, and hopefully this study will help in the better management of children infected with HIV.

Should your child be found to have a psychiatric disorder, he/she will be promptly referred for treatment.

Participation is voluntary and one is free to withdraw if they so wish in the course of the interview, and will not have any dire consequences to your management at this facility.

For any queries or clarifications you can contact me on 0722489273 or one of my supervisors, Dr. Kangethe at the University of Nairobi.

**A2: CONSENT FORM**

As a Parent/ Guardian to a child attending this clinic, I hereby volunteer to participate in this study whose nature and purpose has been fully explained to me.

Guardian's signature: \_\_\_\_\_ Date \_\_\_\_\_

Witnessed by:

Signature \_\_\_\_\_ Date \_\_\_\_\_

**UNIVERSITY OF NAIROBI  
MEDICAL LIBRARY**

## APPENDIX B: QUESTIONNAIRES

### B1: RESEARCHER DESIGNED SOCIO-DEMOGRAPHIC AND HEALTH QUESTIONNAIRE

Date \_\_\_\_\_

Client number \_\_\_\_\_

1. Age \_\_\_\_\_

2. Gender: Male  Female

3a. Attending school: Yes  No

3b. Grade in school \_\_\_\_\_ Age Appropriate Yes  No

4. Residence \_\_\_\_\_

5. Primary guardian:

Biological parent

Relative adult

Non Relative adult

Self

Other (specify) \_\_\_\_\_

Specify relationship \_\_\_\_\_

Specify \_\_\_\_\_

6. Parental status:

Both parents alive

Single parent

Orphan

Mother

Father

7. Number of other infected children in the family \_\_\_\_\_

8. Disclosure :

Knowledge of status    Yes                          No   

If yes, what was the age at disclosure? \_\_\_\_\_

9. CD<sub>4</sub> Count within the last 6 months \_\_\_\_\_



Please note that the the M.I.N.I. Kid parent version and the Youth self report versions are similar. The main difference is in the wording, whereby in the parent version, the questions are directed to the parent, while in the Youth self report, the question is directed to the client aged above 11 years.

Only a sample of the M.I.N.I. Kid Parent version will be attached due to the bulk of the M.I.N.I. Kid questionnaire.

**B2: M.I.N.I. Kid (Parent version)**

**A. MAJOR DEPRESSIVE EPISODE**

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

**In the past two weeks:**

A1 Has (s)he felt sad or depressed? Felt down or empty? Felt grouchy or annoyed?

IF YES TO ANY, CONTINUE. IF NO TO ALL, CODE NO.

Has (s)he felt this way, most of the day, nearly every day, for the past 2 weeks? NO YES

A2 Has (s)he been bored a lot or much less interested in things (Like playing his/her favorite games)?

Has (s)he felt that him/her couldn't enjoy things?

IF YES TO ANY, CONTINUE. IF NO TO ALL, CODE NO.

Has (s)he felt this way, most of the day, nearly every day, for the past 2 weeks? NO YES

IS A1 OR A2 CODED YES?

NO

YES

A3 In the past two weeks, when him/her felt depressed / grouchy / uninterested:

a Were him/her less hungry or more hungry most days? Did him/her lose or gain weight without trying? [i.e., by  $\pm$  5% of body weight in the past month]?

NO

YES

IF YES TO EITHER, CODE YES

b Did him/her have trouble sleeping almost every night ("trouble sleeping" means trouble falling asleep, waking up in the middle of the night, waking up too early or sleeping too much)?

NO

YES

c Did him/her talk or move slower than usual? Were him/her fidgety, restless or couldn't sit still?

NO

YES

IF YES TO EITHER, CODE YES

d Did him/her feel tired most of the time?

NO

YES

e Did him/her feel bad about his/herself most of the time? Did him/her feel guilty most of the time?

NO

YES

IF YES TO EITHER, CODE YES

f Did him/her have trouble concentrating or did him/her have trouble making up his/her mind?

NO

YES

IF YES TO EITHER, CODE YES

g Did him/her feel so bad that him/her wished that him/her were dead? Did him/her think about hurting his/herself? Did him/her have thoughts of death? Did him/her think about killing his/herself? NO

IF YES TO ANY, CODE YES

ARE 5 OR MORE ANSWERS (A1, A2 AND A3a-g) CODED YES?

NO	YES
----	-----

IF PATIENT HAS CURRENT MAJOR DEPRESSIVE EPISODE CONTINUE TO A4,

OTHERWISE MOVE TO MODULE B:

A4 a Did him/her ever have other times of two weeks or more when him/her felt depressed or not interested in most things, and had most of the problems we just talked about? NO YES

b In between his/her times of depression, were him/her completely free of depression for of at least 2 months?

NO	YES
<i>MAJOR DEPRESSIVE EPISODE, RECURRENT</i>	

## B. SUICIDALITY

( \ MEANS : GO TO THE SUICIDE RISK CURRENT BOX, CIRCLE NO IN THAT BOX, AND MOVE TO THE NEXT MODULE)

Poir

- |    |   |   |    |     |
|----|---|---|----|-----|
| B1 | a | Has (s)he ever felt so bad that him/her wished him/her were dead? | NO | YES |
|    | b | Has (s)he ever tried to hurt or to injure his/herself?            | NO | YES |
|    | c | Has (s)he ever tried to kill his/herself?                         | NO | YES |

IF YES TO ANY, CODE YES

( <table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">NO</td> <td style="padding: 0 10px;">YES</td> </tr> </table>	NO	YES
NO	YES	

In the past month did him/her:

- |     |   |    |     |
|-----|---|----|-----|
| B2  | Have any accident?                                      | NO | YES |
|     | IF NO TO B2, SKIP TO B3: IF YES, ASK B2a,:              |    |     |
| B2a | Plan or intend to hurt his/herself in that accident?    |    |     |
|     | INCLUDE PASSIVE OR ACTIVE INTENT IN HIS/HER RATING      | NO | YES |
|     | IF NO TO B2a, SKIP TO B3: IF YES, ASK B2b:              |    |     |
| B2b | Did him/her intend to die as a result of this accident? | NO | YES |
| B3  | Feel hopeless?  | NO | YES |

B4	Think him/her would be better off dead or wish him/her were dead?	NO	YES
B5	Want to hurt his/herself?	NO	YES
B6	Think about killing his/herself?	NO	YES

IF YES, ASK ABOUT THE INTENSITY AND FREQUENCY OF THE SUICIDAL IDEATION:

Frequency

Intensity

Occasionally	$\pi$	Mild	$\pi$
Often	$\pi$	Moderate	$\pi$
Very often	$\pi$	Severe	$\pi$

Can him/her state that him/her will not act on them while in this program? NO

B7	Feel unable to control these impulses?	NO	YES
B8	Have a plan to kill his/herself?	NO	YES
B9	Take active steps to prepare to hurt his/herself or to prepare to kill his/herself and expect to die as a result?	NO	YES
B10	Try to deliberately hurt his/herself without intending to kill his/herself?	NO	YES
B11	Try to kill his/herself	NO	YES

Hoped to be rescued / survive π

Expected / intended to die π

IS AT LEAST 1 OF THE ABOVE (EXCEPT B2) CODED YES?

IF YES, ADD THE TOTAL NUMBER OF POINTS FOR THE ANSWERS (B1-B11)

CHECKED 'YES' AND SPECIFY THE LEVEL OF SUICIDE RISK AS INDICATED IN THE DIAGNOSTIC BOX:

MAKE ANY ADDITIONAL COMMENTS ABOUT HIS/HER ASSESSMENT

NO	YES
<i>SUICIDE RISK CURRENT</i>	
1-8 points	Low π
9-16 points	Moderate π

## C. DYSTHYMIA

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

IF PATIENT'S SYMPTOMS MEET CRITERIA FOR MAJOR DEPRESSIVE EPISODE IN THE PAST YEAR, DO NOT EXPLORE THIS MODULE.

C1	Has (s)he felt sad or depressed, or felt down or empty, or felt grouchy or annoyed, most of the time, for the past year?	( )	NO	YES
----	--	-----	----	-----

C2	In the past year, Has (s)he felt OK for two months or more in a row?	( )	NO	YES
----	--	-----	----	-----

OK MEANS NOT ALWAYS BEING GROUCHY OR FREE OF DEPRESSION.

C3	During the past year, most of the time:			
a	Were him/her less hungry than him/her used to be? Were him/her more hungry than him/her used to be?		NO	YES

IF YES TO EITHER, CODE YES

b	Did him/her have trouble sleeping ("trouble sleeping" means trouble falling asleep, waking up in the middle of the night, waking up too early or sleeping too much)?		NO	YES
---	--	--	----	-----

c Did him/her feel more tired than him/her used to? NO YES

d Did him/her feel less confident of his/herself? Did him/her feel bad about his/herself? NO YES

IF YES TO EITHER, CODE YES

e Did him/her have trouble paying attention? Did him/her have trouble making up his/her mind? NO YES

IF YES TO EITHER, CODE YES

f Did him/her feel that things would never get better? NO YES

ARE 2 OR MORE C3 ITEMS CODED YES?

NO YES

C4 Did these feelings of being depressed / grouchy / uninterested upset him/her a lot? Did they cause him/her problems at home? At school? With friends?

IF YES TO ANY, CODE YES

NO

DVSTHVM



## D. (HYPO) MANIC EPISODE

( MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE **NO** TO THE RELEVANT TIME FRAME IN THE DIAGNOSTIC BOXES AND THEN MOVE TO THE NEXT MODULE)

Does (s)he have anyone in his/her family who had manic depressive illness or bipolar disorder or a family member who had mood swings treated with a medication like

lithium, sodium valproate (Depakote or Valproate), lamotrigine (Lamictal)?  
YES

NO

THIS QUESTION IS NOT A CRITERION FOR BIPOLAR DISORDER BUT IS ASKED

TO INCREASE THE CLINICIAN'S VIGILANCE ABOUT RISK FOR BIPOLAR DISORDER.

IF YES, PLEASE SPECIFY WHO: \_\_\_\_\_

D1 a Has there **ever** been a time when him/her were so happy that him/her felt 'up' or 'high' or 'hyper'?

NO

By 'up' or 'high' or 'hyper' I mean feeling really good; full of energy; needing less sleep; having racing thoughts or being full of ideas.

DO NOT CONSIDER TIMES WHEN THE PATIENT WAS INTOXICATED ON DRUGS OR ALCOHOL

OR DURING SITUATIONS THAT NORMALLY OVER STIMULATE AND MAKE CHILDREN VERY

EXCITED LIKE CHRISTMAS, BIRTHDAYS, ETC.

IF PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT HIM/HER 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 or working excessively or spending more money.

IF NO TO ALL, CODE NO TO D1b: IF YES TO ANY, ASK:

b Are him/her currently feeling 'up' or 'high' or 'hyper' or full of energy? NO YES

D2 a Has there **ever** been a time when him/her were so grouchy or annoyed, that him/her yelled or started fights with people outside his/her family? Has (s)he or others noticed that him/her have been more grouchy than other kids, even when him/her thought him/her were right to act this way? NO YES

DO NOT CONSIDER TIMES WHEN THE PATIENT WAS INTOXICATED ON DRUGS OR ALCOHOL.

IF NO TO ALL, CODE NO TO D2b: IF YES TO ANY, ASK:

b Are him/her currently feeling grouchy or annoyed? NO YES

IS D1a or D2a CODED YES? NO YES

D3 IF D1b OR D2b = YES: EXPLORE THE CURRENT AND THE MOST SYMPTOMATIC PAST EPISODE, OTHERWISE

IF D1b AND D2b = NO: EXPLORE ONLY THE MOST SYMPTOMATIC PAST EPISODE

During the times when him/her felt high, full of energy, or irritable did him/her:

Episode	Current Episode		Past	
	NO	YES	NO	YES
a Feel that him/her could do things others couldn't do? Feel that him/her are	NO	YES	NO	YES

a very important person?

IF YES TO EITHER, CODE YES. IF YES, ASK FOR EXAMPLES.

THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA

Current Episode  No  Yes

Past Episode  No  Yes

<u>Episode</u>	<u>Current Episode</u>		<u>Past</u>	
	NO	YES	NO	YES
b Need less sleep (Did him/her feel rested after only a few hours of sleep)?	NO	YES	NO	YES
c Talk too much without stopping? Talk so fast that people couldn't understand or follow what him/her were saying?	NO	YES	NO	YES
d Have racing thoughts or too many thoughts switching quickly?	NO	YES	NO	YES
e Get distracted very easily by little things?	NO	YES	NO	YES
f Get much more involved in things than others or much more fidgety or restless?	NO	YES	NO	YES
g Want to do fun things even if him/her could get hurt doing them? Want to do things even though it could get him/her into trouble? (Like staying out late, skipping school, driving dangerously or spending too much money)?	NO	YES	NO	YES

IF YES TO ANY, CODE YES

**D3 (SUMMARY): ARE 3 OR MORE D3 ANSWERS CODED YES**

NO YES NO YES

(OR 4 OR MORE IF **D1a** IS **NO** (IN RATING PAST EPISODE) AND **D1b** IS **NO** (IN RATING CURRENT EPISODE)?)

RULE: ELATION/EXPANSIVENESS REQUIRES ONLY THREE **D3** SYMPTOMS WHILE

IRRITABLE MOOD ALONE REQUIRES 4 OF THE **D3** SYMPTOMS.

VERIFY IF THE SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD.

D4 What is the longest time these symptoms lasted?

- a) 3 days or less π π
- b) 4 to 6 days π π
- c) 7 days or more π π

Symptom Duration	No disability	Disability
1-3 days	Hypomanic Symptoms	Hypomanic Symptoms
4-6 days	Hypomanic Episode	Hypomanic Episode
7 or more days	Hypomanic Episode	Manic Episode

D5 Were him/her put in the hospital for these problems? NO YES NO YES

IF YES, STOP HERE AND CIRCLE YES !N MANIC EPISODE FOR THAT TIME FRAME.

D6 Did these symptoms cause a lot of problems at home? At school? NO YES NO YES

With friends? With other people? Or in some other important way?

IF YES TO ANY, CODE YES

ARE **D3** SUMMARY AND **D5** AND **D6** CODED YES AND EITHER **D4a** or **b** or **c** CODED YES?

OR

ARE **D3** SUMMARY AND **d4c** AND **D6** CODED YES AND IS **D5** CODED NO?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

NO	YES
<i>MANIC EPISODE</i>	
CURRENT	$\pi$
PAST	$\pi$

ARE **D3** SUMMARY AND **D5** AND **D6** CODED NO AND EITHER **D4b** OR **D4c** CODED YES?

OR

ARE **D3** SUMMARY AND **d4b** AND **D6** CODED YES AND IS **D5** CODED NO?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

NO	YES
<i>HYPOMANIC EPISODE</i>	
CURRENT	$\pi$
PAST	$\pi$

ARE D3 SUMMARY AND D4a CODED YES AND IS D5 CODED NO?

NO

YES

*HYPOMANIC SYMPT*

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

CURRENT

PAST

D7 a) IF MANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:

Did him/her have 2 or more manic episodes (D4c) in his/her lifetime (including the current episode if present)? NO YES

b) IF HYPOMANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:

Did him/her have 2 or more hypomanic EPISODES (D4b) in his/her lifetime (including the current episode)? NO YES

c) IF PAST "HYPOMANIC SYMPTOMS" IS CODED POSITIVE ASK:

Did him/her have 2 or more episodes of hypomanic SYMPTOMS (D4a) in his/her lifetime (including the current episode if present)? NO YES

## E. PANIC DISORDER

( MEANS : CIRCLE NO IN E5, E6 AND E7 SUMMARY AND SKIP TO F1)

- E1 a Has (s)he ever been really frightened or nervous for no reason;  
or Has (s)he ever been really frightened or nervous in a situation  
where most kids would not feel that way?  NO YES  
IF YES TO EITHER, CODE YES. IF NO TO ALL CODE NO.
- b Did this happen more than one time?  NO YES
- c Did this nervous feeling increase quickly over the first few minutes?  NO YES
- E2 Has this ever happened when (s)he didn't expect it?  NO YES
- E3 a After this happened, was (s)he afraid it would happen again or that something bad  
would happen as a result of these attacks? Did (s)he change what him/her did because  
of these attacks? (e.g., going out only with someone, not wanting to leave his/her house,  
going to the doctor more frequently)?  NO YES
- b Did (s)he have these worries for a month or more?  NO YES

E4 Think about the time (s)he was the most frightened or nervous for  
no good reason:

a Did his/her heart beat fast or loud? NO YES

b Did (s)he sweat? Did his/her hands sweat a lot? NO YES

IF YES TO EITHER, CODE YES

c Did his/her hands or body shake? NO YES

d Did (s)he have trouble breathing? NO YES

e Did (s)he feel like (s)he were choking? Did (s)he feel (s)he couldn't swallow? NO YES

IF YES TO EITHER, CODE YES

f Did (s)he have pain or pressure in his/her chest? NO YES

g Did (s)he feel like throwing up? Did (s)he have an upset stomach? NO YES

Did (s)he have diarrhea?

IF YES TO ANY, CODE YES

h Did (s)he feel dizzy or faint? NO YES

i Did things around him/her feel strange or like they weren't real? Did

(s)he feel or see things as if they were far away? Did (s)he feel outside of



or cut off from his/her body?

IF YES TO ANY, CODE YES

j Was (s)he afraid that (s)he was losing control of him/herself? NO YES

Were (s)he afraid that (s)he were going crazy?

IF YES TO EITHER, CODE YES

k Was (s)he afraid that (s)he was dying? NO YES

l Did parts of his/her body tingle or go numb? NO YES

m Did (s)he feel hot or cold? NO YES

E5 ARE BOTH E3 SUMMARY, AND 4 OR MORE E4 ANSWERS, CODED YES? NO YES

DISORDER

PANIC

LIFETIME

IF YES TO E5, SKIP TO E7

E6 IF E5=NO, ARE ANY E4 QUESTIONS CODED YES? NO YES

SYMPTOM

LIMITED

LIFETIME

ATTACKS

THEN SKIP TO F1.

E7 a. In the past month, did (s)he have these problems more than one time? NO YES

IF NO, CIRCLE NO TO E7 SUMMARY AND MOVE TO F1.

For the past month:

- |   |    |     |
|---|----|-----|
| b. Did (s)he worry that it would happen again?  | NO | YES |
| c. Did (s)he worry that something bad would happen because of the attack?   | NO | YES |
| d. Did anything change for him/her because of the attack?<br>(e.g., going out only with someone, not wanting to leave his/her house,<br>going to the doctor more frequently)? | NO | YES |

E7 SUMMARY: IF YES TO E7b.or E7c.or E7d., CODE YES

NO YES

DISORDER

PANIC

CURRENT

## F. AGORAPHOBIA

1 Does (s)he feel anxious, scared, or uneasy in places or situations where (s)he might become really frightened; like being in a crowd, standing in a line (queue), when (s)he is all alone, or when crossing a bridge, or traveling in a bus, train or car?

IF YES TO ANY, CODE YES

NO YES

IF F1 = NO, CIRCLE NO IN F2.

F2 Is (s)he so afraid of these things that (s)he tries to stay away from them?

NO YES

IS F2 (CURRENT AGORAPHOBIA) CODED NO

AND

NO YES

*PANIC DISORDER*

IS F2 (CURRENT AGORAPHOBIA) CODED YES

AND

NO YES

*PANIC DISORDER*

IS F2 (CURRENT AGORAPHOBIA) CODED YES

AND

NO

YES

*AGORAPHOBIA, CURRENT*

## G. SEPARATION ANXIETY DISORDER

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

- 61 a In the past month, Has (s)he been really afraid about being away from someone close to him/her; or has (s)he been really afraid that (s)he would lose somebody (s)he is close to ?

NO YES

(Like getting lost from his/her parents or having something bad happen to them)

IF YES TO EITHER, CODE YES

- b Who is (s)he afraid of losing or being away from \_\_\_\_\_ ?

- 62 a Does (s)he get upset a lot when (s)he was away from \_\_\_\_\_ ?

NO YES

Does (s)he get upset a lot when (s)he thought (s)he would be away from \_\_\_\_\_ ?

IF YES TO EITHER, CODE YES

- b Did (s)he get really worried that (s)he would lose \_\_\_\_\_ ?

NO YES

Did (s)he get really worried that something bad would happen to \_\_\_\_\_ ?

(like having a car accident or dying).

IF YES TO EITHER, CODE YES

- c Did (s)he get really worried that (s)he would be separated from \_\_\_\_\_ ?

NO YES

(Like getting lost or being kidnapped?)

- d Did (s)he refuse to go to school or other places because (s)he was afraid to be

NO YES

away from \_\_\_\_\_ ?

e Did (s)he get really afraid being at home if \_\_\_\_\_ wasn't there? NO YES

f Did (s)he not want to go to sleep unless \_\_\_\_\_ was there? NO YES

g Did (s)he have nightmares about being away from \_\_\_\_\_ ? NO YES

Did this happen more than once?

IF NO TO EITHER, CODE NO

h Did (s)he feel sick a lot (like headaches, stomach aches, nausea or vomiting, heart beating fast or feeling dizzy) when (s)he was away from \_\_\_\_\_ ? NO YES

Did (s)he feel sick a lot when (s)he thought (s)he were going to be away from \_\_\_\_\_ ?

IF YES TO EITHER, CODE YES

(

**G2 SUMMARY: ARE AT LEAST 3 OF G2a-h CODED YES?** NO YES

(

Did this last for at least 4 weeks? NO YES

Did his/her fears of being away from \_\_\_\_\_ really bother him/her a lot? (

Cause him/her a lot of problems at home? At school? With friends? NO YES

In any other way?

IF YES TO EITHER, CODE YES

ARE G1, G2 SUMMARY, G3 AND G4 CODED YES?

NO

## H. SOCIAL PHOBIA (Social Anxiety Disorder)

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

H1 In the past month, was (s)he afraid or embarrassed when others his/her age were watching him/her? NO

Was (s)he afraid of being teased? Like talking in front of the class?

Or eating or writing in front of others?

IF YES TO ANY, CODE YES

H2 Is (s)he more afraid of these things than other kids his/her age? NO YES

H3 Is (s)he so afraid of these things that (s)he tries to stay away from them? NO YES

Or (s)he can only do them if someone is with him/her? Or (s)he does them but it's really hard for him/her?

H4 Do these social fears have a big effect on his/her life? Do they cause problems when NO YES

(s)he interacts with others or in his/her relationships? Do they cause a lot of problems at school or at work? Do they cause him/her to feel upset and want to be alone?

IF YES TO ANY, CODE YES

H5 Did this social fear / social anxiety last at least 6 months?

SUBTYPES

Does (s)he 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)

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.

EXAMPLES OF SUCH SOCIAL SITUATIONSTYPICALLY 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.

NO YES

**SOCIAL PHOBIA**

*(Social Anxiety Disorder)*

**CURRENT**

GENERALIZED π

NON-GENERALIZED π



# I. SPECIFIC PHOBIA

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

1 In the past month, has (s)he been really afraid of something like: snakes or bugs?  
Dogs or other animals? High places? Storms? The dark? Or seeing blood or needles? NO YES

2 List any specific phobia(s): \_\_\_\_\_

3 Is (s)he more afraid of \_\_\_\_\_ than other kids his/her age are? NO YES

4 Is (s)he so afraid of \_\_\_\_\_ that he/she tries to stay away from  
it / them? Or (s)he can only be around it / them if someone is with him/her?  
Or can (s)he be around it / them but it's really hard for him/her?  
IF YES TO ANY, CODE YES

5 Does this fear really bother him/her a lot? Does it cause him/her problems at home  
or at school? Does it keep him/her from doing things (s)he wants to do?  
IF YES TO ANY, CODE YES

IS 15 CODED YES?

NO

YES

*SPECIFIC PHOBIA*

## J. OBSESSIVE COMPULSIVE DISORDER

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

J1 In the past month, has (s)he been bothered by bad things that come into his/her mind that (s)he couldn't get rid of? Like bad thoughts or urges? Or nasty pictures? For example, did (s)he think about hurting somebody even though it disturbs or distresses him/her? Was (s)he afraid (s)he or someone would get hurt because of some little thing (s)he did or didn't do? Did (s)he worry a lot about having dirt or germs on him/her? Did (s)he worry a lot that (s)he would give someone else germs or make them sick somehow? Or was (s)he afraid that (s)he would do something really shocking?

NO

YES

SKIP TO J4

IF YES TO ANY, CODE YES

DO NOT INCLUDE SIMPLY EXCESSIVE WORRIES ABOUT REAL LIFE PROBLEMS.

DO NOT INCLUDE OBSESSIONS DIRECTLY RELATED TO EATING DISORDERS,

SEXUAL BEHAVIOR, 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

Did they keep coming back into his/her mind even when (s)he tried to ignore or get rid of them? NO YES

SKIP TO J4

Does (s)he think that these things come from his/her own mind and that they are not from outside of his/her head? NO YES

obsessions

In the past month, did (s)he do something over and over without being able to stop doing it, like washing over and over? Straightening things up over and over? Counting something or checking on something over and over? Saying or doing something over and over? NO YES

compulsions

IF YES TO ANY, CODE YES

IS J3 OR J4 CODED YES? NO YES

Did (s)he have these thoughts or rituals we just spoke about, more than other kids his/her age? NO YES

Did these thoughts or actions cause him/her to miss out on things at home?  
At school? With friends? Did they cause a lot of problems with other people?  
Did these things take more than one hour a day? NO YES

## K. POSTTRAUMATIC STRESS DISORDER

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

K1	Has anything really awful ever happened to him/her? Like being in a flood, tornado or earthquake? Like being in a fire or a really bad accident? Like seeing someone being killed or badly hurt. Has (s)he ever been attacked by someone?	(	NO	YES
K2	Did (s)he respond with intense fear, or feel helpless or upset?	(	NO	YES
K3	<b>In the past month</b> , has this awful thing come back to him/her in some way? Like dreaming about it or having a strong memory of it or feeling it in his/her body?	(	NO	YES
K4	<b>In the past month:</b>			
a	Has (s)he tried not to think about or talk about this awful thing?		NO	YES
b	Has (s)he tried to stay away from things that might remind him/her of it?		NO	YES
c	Has (s)he had trouble remembering some important part of what happened?		NO	YES
d	Has (s)he been much less interested in his/her hobbies or his/her friends?		NO	YES

- |   |   |    |     |
|---|---|----|-----|
| e | Has (s)he felt cut off from other people?   | NO | YES |
| f | Has (s)he noticed that his/her feelings are less than before?                                       | NO | YES |
| g | Has (s)he felt that his/her life will be shortened or that (s)he will die sooner than other people? | NO | YES |

**SUMMARY OF K4: ARE 3 OR MORE K4 ANSWERS CODED YES?**

NO YES

**K5 In the past month:**

- |   |   |    |     |
|---|---|----|-----|
| a | Has (s)he had trouble sleeping?   | NO | YES |
| b | Has (s)he been moody or angry for no reason?  | NO | YES |
| c | Has (s)he had trouble paying attention?   | NO | YES |
| d | Was (s)he nervous or watching out in case something bad might happen?                                   | NO | YES |
| e | Would (s)he jump when (s)he heard noises? Or when (s)he saw something out of the corner of his/her eye? | NO | YES |

IF YES TO EITHER, CODE YES

**SUMMARY OF K5: ARE 2 OR MORE K5 ANSWERS CODED YES?**

NO YES

In the past month, have these problems upset him/her a lot? Have they caused her to have problems at school? At home? With his/her friends?

NO

YES

PTSD

IF YES TO ANY CODE YES

## L. ALCOHOL ABUSE AND DEPENDENCE

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

In the past year, has (s)he had 3 or more drinks of alcohol in a day?

(  
NO YES

At those times, did (s)he have 3 or more drinks in 3 hours? Did (s)he do this  
3 or more times in the past year?

IF NO TO ANY, CODE NO

In the past year:

a Did (s)he need to drink a lot more alcohol to get the same feeling (s)he got when  
(s)he first started drinking?

NO YES

b Whenever (s)he cut down on drinking or stopped drinking, did his/her hands  
shake? Did (s)he sweat? Did (s)he feel nervous or like (s)he couldn't sit still?

NO YES

Did (s)he ever drink to keep from getting those problems?

Did (s)he drink again to keep from getting a hangover?

IF YES TO ANY, CODE YES

c When (s)he drank alcohol, did (s)he end up drinking more than (s)he had planned to?

NO YES

d Has (s)he tried to cut down or stop drinking alcohol but was not able to?

NO YES

e On days when (s)he drank, did (s)he spend more than three hours doing it? NO YES

Count the time it took him/her to get the alcohol, drink it, and get over it.

f Did (s)he spend less time on other things because of his/her drinking NO YES

(Like school, hobbies, or being with friends)?

g Did his/her drinking cause problems with his/her health or his/her mind? NO YES

Did (s)he keep on drinking even though (s)he knew that it caused these problems?

ARE 3 OR MORE L2 ANSWERS CODED YES?

<p>NO</p> <p>YES*</p>
-----------------------

\* IF YES SKIP 13 QUESTIONS. CIRCLE N/A IN THE ABUSE BOX AND

In the past year:

13 a Was (s)he drunk or hung-over more than once when (s)he had something important to do, like schoolwork or responsibilities at home? Did this cause any problems? NO YES

CODE YES ONLY IF THIS CAUSED PROBLEMS

b Was (s)he drunk more than once while doing something risky (Like riding a bike, driving a car or boat, or using machines)? NO YES

c Did (s)he have legal problems more than once because of his/her drinking (Like getting arrested or stopped by the police)? NO YES

d Did (s)he keep drinking even if his/her drinking caused problems with his/her family or with other people? NO YES

IF YES TO EITHER, CODE YES



ARE 1 OR MORE OF L3 ANSWERS CODED YES?

NO	N/A
YES	

## M. NON-ALCOHOL PSYCHOACTIVE SUBSTANCE USE DISORDERS

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

M1 a Now I am going to read him/her a list of street drugs or medicines.

(  
NO

YES

Stop me if, **in the past year**, (s)he has taken any of them more than one time to get high? To feel better or to change his/her mood?

CIRCLE EACH DRUG TAKEN:

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

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

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

**Hallucinogens:** LSD ("acid"), mescaline, peyote, PCP ("angel dust", "peace pill"), psilocybin, STP, "mushrooms",

"ecstasy", MDA, MDMA or ketamine, ("special K").

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

**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, non prescription sleep or diet pills. Cough medicine? Any others?

Specify MOST USED Drug(s): \_\_\_\_\_

WHICH DRUG(S) CAUSE THE BIGGEST PROBLEMS?: \_\_\_\_\_

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

IF PATIENT'S SYMPTOMS MEET CRITERIA FOR ABUSE /DEPENDENCE, SKIP TO NEXT MODULE. IF NOT, EXPLORE THE NEXT MOST PROBLEMATIC DRUG.

M2 Think about his/her use of (NAME THE DRUG/DRUG CLASS SELECTED) over the past year:

a Did (s)he need to take a lot more of the drug to get the same feeling (s)he got when (s)he first started taking it? NO YES

b Whenever (s)he cut down or stopped using the drug(s), did his/her body feel bad or did (s)he go into withdrawal? ("Withdrawal" might mean feeling sick, achy, shaking, running a temperature, feeling weak, having an upset stomach or diarrhea, sweating, feeling his/her heart pounding, trouble sleeping, feeling nervous, moody or like him/her can't sit still.) Did (s)he use the drug(s) again to keep from getting sick or to feel better? NO YES

IF YES TO EITHER, CODE YES

c When (s)he used (NAME THE DRUG/DRUG CLASS SELECTED), did (s)he end up taking more than (s)he had planned to? NO YES

d Has (s)he tried to cut down or stop taking (NAME THE DRUG/DRUG CLASS SELECTED)? Did (s)he find out that (s)he couldn't do it? NO YES

IF NO TO EITHER, CODE NO

e On days when him/her took (NAME THE DRUG/DRUG CLASS SELECTED), did (s)he spend more than three hours doing it? Count the time it took him/her to get (NAME

THE DRUG/DRUG CLASS SELECTED), use it and get over it.

NO YES

f Did (s)he spend less time on other things because of his/her use of (NAME THE DRUG/DRUG CLASS SELECTED)? Like school, hobbies or being with friends?

NO YES

g Did his/her use of (NAME THE DRUG/DRUG CLASS SELECTED) cause problems with his/her health or his/her mind? Did (s)he keep on using (NAME THE DRUG) even though (s)he knew it caused problems?

NO YES

ARE 3 OR MORE M2 ANSWERS CODED YES?

SPECIFY DRUG(S): \_\_\_\_\_

NO YES\*

Think about his/her use of (NAME THE DRUG/DRUG CLASS SELECTED) over the past year:

In the past year:

M3 a Was (s)he high or hung-over from the drug(s) more than once, when (s)he had something important to do? Like schoolwork or responsibilities at home? Did this happen more than one time? Did this cause any problems?

NO YES

CODE YES ONLY IF THIS CAUSED PROBLEMS

b Has (s)he been high from the drug(s) more than once while doing something risky (Like riding a bike, driving a car or boat, or using machines)?

NO YES

c Did (s)he have legal problems because of his/her use of the (NAME THE DRUG/DRUG CLASS SELECTED) more than once? (Like getting arrested or stopped by the police)?

NO YES

d Did (s)he keep using the (NAME THE DRUG/DRUG CLASS SELECTED) even though it caused problems with his/her family or with other people?

NO YES

IF YES TO EITHER, CODE YES

ARE 1 OR MORE M3 ANSWERS CODED YES?

NO N/A YES

SPECIFY DRUG(S): \_\_\_\_\_

## N. TIC DISORDERS

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

N1 a In the past month did (s)he have movements of his/her body called "Tics"? "Tics" are quick movements of some part of his/her body that are hard to control. A tic might be blinking his/her eyes over and over, twitches of his/her face, jerking his/her head, making a movement with his/her hand over and over, or squatting, or shrugging his/her shoulders over and over. NO YES

b Has (s)he ever had a tic that made him/her say something or make a sound over and over and was hard to stop? Like coughing or sniffing or clearing his/her throat over and over when (s)he did not have a cold; or grunting or snorting or barking; having to say certain words over and over, having to say bad words, or having to repeat sounds (s)he hears or words that other people say? NO YES

IF BOTH **N1A** AND **N1B** ARE CODED **NO**,  
CIRCLE **NO** IN ALL DIAGNOSTIC BOXES AND SKIP TO **O1**

N2 a Did these "tics" happen many times a day? NO YES

b Did they happen nearly every day for at least 4 weeks? NO YES

c Did they happen for a year or more? NO YES

d Did they ever go away completely for 3 months in a row during this time? NO YES

N3 Did these "tics" upset him/her a lot? Did they get in the way of school? Did they cause him/her problems at home? Did they cause him/her problems with friends? Did other kids pick on him/her because of his/her tics? NO YES

IF YES TO ANY, CODE YES

N4 Did the tics only occur when (s)he is taking Ritalin, Adderal, Cylert, Dexedrine, Provigil, Concerta or other medications for ADHD ? NO YES

N5 a ARE **N1a**+ **N1b** + **N2a** + **N2c** AND **N3** CODED YES?

<b>NO</b>	<b>YES</b>
<b>TOURETTE'S DISORDER</b>	

N5 b ARE N1a + N2a + N2c + N3 CODED YES AND IS N1b CODED NO?

NO

YES

*MOTOR TIC DISORDE*

N5 c ARE N1b + N2a + N2c + N3 CODED YES AND IS N1a CODED NO?

NO

YES

*VOCAL TIC DISORDE*

N5 d ARE N1 (a or b) AND N2a AND N2b AND N3 CODED YES, AND N2c CODED NO.?

NO

YES

*TRANSIENT TIC DISORD*

## O. ATTENTION DEFICIT/HYPERACTIVITY DISORDER

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

### SCREENING QUESTION FOR 3 DISORDERS (ADHD, CD, ODD)

Has anyone (teacher, baby sitter, friend or parent) ever complained about his/her behavior or performance in school?

NO YES

IF NO TO THIS QUESTION, ALSO CODE NO TO CONDUCT DISORDER AND OPPOSITIONAL DEFIANT DISORDER?

#### In the past six months:

a Has (s)he often not paid enough attention to details? Made careless mistakes in school?

NO YES

b Has (s)he often had trouble keeping his/her attention focused when playing or doing schoolwork?

NO YES

c Has (s)he often been told that (s)he does not listen when others talk directly to him/her?

NO YES



d Has (s)he often had trouble following through with what (s)he was told to do (Like not following through on schoolwork or chores)?

Did this happen even though (s)he understood what (s)he was supposed to do?

Did this happen even though (s)he wasn't trying to be difficult?

IF NO TO ANY, CODE NO

NO YES

e Has (s)he often had a hard time getting organized?

NO YES

f Has (s)he often tried to avoid things that make him/her concentrate or think hard (like schoolwork)? Does (s)he hate or dislike things that make him/her concentrate or think hard?

IF YES TO EITHER, CODE YES

NO YES

g Has (s)he often lost or forgotten things (s)he needed? Like homework assignments, pencils, or toys?

NO YES

h Does (s)he often get distracted easily by little things (Like sounds or things outside the room)?

NO YES

i Does (s)he often forget to do things (s)he needs to do every day (Like forget to comb his/her hair or brush his/her teeth)?

NO YES

**O2 SUMMARY: ARE 6 OR MORE O2 ANSWERS CODED YES?**

NO YES

**In the past six months:**

a Did (s)he often fidget with his/her hands or feet?

Or did (s)he squirm in his/her seat?	NO	YES
IF YES TO EITHER, CODE YES		
b Did (s)he often get out of his/her seat in class when (s)he was not supposed to?	NO	YES
c Has (s)he often run around or climbed on things when (s)he wasn't supposed to? Did (s)he want to run around or climb on things even though (s)he didn't?	NO	YES
IF YES TO EITHER, CODE YES		
d Has (s)he often had a hard time playing quietly?	NO	YES
e Was (s)he always "on the go"?	NO	YES
f Has (s)he often talked too much?	NO	YES
g Has (s)he often blurted out answers before the person or teacher has finished the question?	NO	YES
h Has (s)he often had trouble waiting his/her turn?	NO	YES
i Has (s)he often interrupted other people? Like butting in when other people are talking or busy or when they are on the phone?	NO	YES
<b>O3 SUMMARY: ARE 6 OR MORE O3 ANSWERS CODED YES?</b>	NO	YES

(

04 Did (s)he have problems paying attention, being hyper, or impulsive before (s)he was 7 years old?

NO YES

05 Did these things cause problems at school? At home? With his/her family? With his/her friends?

NO YES

CODE YES IF TWO OR MORE ARE ENDORSED YES.

IS O2 SUMMARY & O3 SUMMARY CODED YES?

NO YES

*Attention Deficit/  
Hyperactivity Disora*

IS O2 SUMMARY CODED YES AND O3 SUMMARY CODED NO?

NO YES

*Attention Deficit/  
Hyperactivity Disord*

IS O2 SUMMARY CODED NO AND O3 SUMMARY CODED YES?

NO YES

*Attention Deficit/  
Hyperactivity Disorder*

## P. CONDUCT DISORDER

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

### SCREENING QUESTION

P1 IF QUESTION O1 IN ADHD IS ANSWERED NO, CODE NO TO CONDUCT DISORDER

IF O1 WAS NOT ASKED ALREADY, ASK THE QUESTION BELOW

(Has anyone (teacher, baby sitter, friend, parent) ever complained about his/her behavior or performance in school?)

(

NO YES

P2 **In the past year:**

- |   |   |    |     |
|---|---|----|-----|
| a | Has (s)he bullied or threatened other people (excluding siblings)?                | NO | YES |
| b | Has (s)he started fights with others (excluding siblings)?                        | NO | YES |
| c | Has (s)he used a weapon to hurt someone? Like a knife, gun, bat, or other object? | NO | YES |
| d | Has (s)he hurt someone (physically) on purpose (excluding siblings)?              | NO | YES |
| e | Has (s)he hurt animals on purpose?  | NO | YES |
| f | Has (s)he stolen things using force? Like robbing someone                         | NO | YES |

using a weapon or grabbing something from someone like purse snatching?

- |   |  |    |     |
|---|--|----|-----|
| g | Has (s)he forced anyone to have sex with him/her?  | NO | YES |
| h | Has (s)he started fires on purpose in order to cause damage?   | NO | YES |
| i | Has (s)he destroyed things that belonged to other people on purpose?   | NO | YES |
| j | Has (s)he broken into someone's house or car?  | NO | YES |
| k | Has (s)he lied many times in order to get things from people or to get out of things? Tricked other people into doing what him/her wanted?<br>IF YES TO EITHER, CODE YES | NO | YES |
| l | Has (s)he stolen things that were worth money (Like shoplifting or forging a check)?   | NO | YES |
| m | Has (s)he often stayed out a lot later than his/her parents let him/her? Did this start before him/her were 13 years old?<br>IF NO TO EITHER, CODE NO                    | NO | YES |
| n | Has (s)he run away from home two times or more?  | NO | YES |
| o | Has (s)he skipped school often? Did this start before him/her were 13 years old?<br>IF NO TO EITHER, CODE NO   | NO | YES |
|   | <b>P2 SUMMARY: ARE 3 OR MORE P2 ANSWERS CODED YES WITH AT LEAST ONE PRESENT IN THE PAST 6 MONTHS?</b>  | NO | YES |

P3

Did these behaviors cause big problems at school? At home?

With his/her family? Or with his/her friends?

NO

CONDUCT DIS

## Q. OPPOSITIONAL DEFIANT DISORDER

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

ATTENTION: IF CODED POSITIVE FOR CONDUCT DISORDER, CIRCLE NO IN DIAGNOSTIC BOX AND MOVE TO THE NEXT MODULE.

### SCREENING QUESTION

Q1 IF QUESTION O1 IN ADHD IS ANSWERED NO, CODE NO TO OPPOSITIONAL DEFIANT DISORDER

IF O1 WAS NOT ASKED ALREADY, ASK THE QUESTION BELOW

(Has anyone (teacher, baby sitter, friend, parent) ever complained about his/her behavior or performance in school?) NO YES

Q2 In the past six months:

a Has (s)he often lost his/her temper? NO YES

b Has (s)he often argued with adults? NO YES

c Has (s)he often refused to do what adults tell him/her to do? Refused to follow rules? NO YES

IF YES TO EITHER, CODE YES

d Has (s)he often annoyed people on purpose? NO YES

- |   |   |    |     |
|---|---|----|-----|
| e | Has (s)he often blamed other people for his/her mistakes or for his/her bad behavior?     | NO | YES |
| f | Has (s)he often been "touchy" or easily annoyed by other people?                          | NO | YES |
| g | Has (s)he often been angry and resentful toward others?                                   | NO | YES |
| h | Has (s)he often been "spiteful" or quick to "pay back" somebody who treats him/her wrong? | NO | YES |

Q2 SUMMARY: ARE 4 OR MORE OF Q2 ANSWERS CODED YES?

NO YES

(

Q3 Did these behaviors cause problems at school? At home? With his/her family? Or with his/her friends?

NO YES

IF YES TO ANY, CODE YES

ARE Q2 SUMMARY & Q3 CODED YES?

NO YES

**OPPOSITIONAL DEFIANT**



## R. PSYCHOTIC DISORDERS AND MOOD DISORDERS WITH PSYCHOTIC FEATURES

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

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.

Now I am going to ask you about unusual experiences that some people have.

BiZ

R1 a Has (s)he ever believed that people were secretly watching him/her? NO YES Y

Has (s)he believed that someone was trying to get him/her, or hurt him/her?

IF YES TO ANY, CODE YES

NOTE: ASK FOR EXAMPLES TO RULE OUT ACTUAL STALKING

R2 a Has (s)he ever believed that someone was reading his/her mind or that NO YES Y

someone could hear his/her thoughts? Or that (s)he could actually read someone else's mind or hear what they were thinking?

R3 a Has (s)he ever believed that someone or something put thoughts in NO YES

his/her mind that were not his/her own? Has (s)he believed that someone or something made him/her act in a way that was not his/her usual self? Has (s)he ever felt that him/her were possessed?

IF YES TO ANY, CODE YES

R4	a	Has (s)he ever believed that (s)he was being sent special messages through the TV, radio, books, magazines, newspapers or through his/her games or toys? Has (s)he ever believed that a person (s)he did not personally know was especially interested in him/her?	NO	YES	YES
----	---	--	----	-----	-----

R5	a	Have his/her family or friends ever thought that any of his/her beliefs were strange or weird? Please give me an example.	NO	YES	YES
----	---	---	----	-----	-----

INTERVIEWER: ONLY CODE YES IF THE EXAMPLES ARE CLEARLY DELUSIONAL AND ARE

R6	a	Has (s)he ever heard things other people couldn't hear, such as voices?	NO	YES	
----	---	---	----	-----	--

[HALLUCINATIONS ARE SCORED "BIZARRE" ONLY IF PATIENT ANSWERS

YES TO THE FOLLOWING]:

<b>IF YES:</b>	Did him/her hear a voice talking about him/her? Did him/her hear more than one voice talking back and forth?	NO		YES
----------------	--	----	--	-----

R7	a	Has (s)he ever had visions or has (s)he ever seen things other people couldn't see?	NO		YES
----	---	---	----	--	-----

NOTE: CHECK TO SEE IF THESE ARE CULTURALLY INAPPROPRIATE.

b	<b>IF YES:</b>	Has (s)he seen these things in the past month?	NO		YES
---	----------------	--	----	--	-----

**CLINICIAN'S JUDGMENT**

R8	b	IS THE PATIENT CURRENTLY EXHIBITING INCOHERENCE, DISORGANIZED SPEECH, OR MARKED LOOSENING OF ASSOCIATIONS?	NO		YES
----	---	--	----	--	-----

R9 b IS THE PATIENT CURRENTLY EXHIBITING DISORGANIZED OR CATATONIC BEHAVIOR? NO YES

R10 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

R11 a ARE 1 OR MORE « a » QUESTIONS FROM R1a TO R7a CODED YES OR YES BIZARRE AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT OR RECURRENT)

OR

MANIC OR HYPOMANIC EPISODE. (CURRENT OR PAST) CODED YES?

NO YES

R13

IF NO TO R11 a, CIRCLE NO IN BOTH 'MOOD DISORDER WITH PSYCHOTIC FEATURES' DIAGNOSTIC BOXES AND MOVE TO R13.

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

Did (s)he have the beliefs and experiences (s)he just described [GIVE EXAMPLES TO PATIENT FROM SYMPTOMS CODED YES FROM R1a TO R7a] only when (s)he was feeling depressed? high? very moody? very irritable?

NO YES

MOOD DISORDER WITH  
PSYCHOTIC FEATURES

R12a ARE 1 OR MORE « b » QUESTIONS FROM R1b TO R7b CODED YES OR YES BIZARRE AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT)

OR

MANIC OR HYPOMANIC EPISODE, (CURRENT) CODED YES?

NO

YES

*MOOD DISORD*

*PSYCHOTIC FE*

R13 ARE 1 OR MORE « b » QUESTIONS FROM R1b TO R6b, CODED YES BIZARRE?

OR

ARE 2 OR MORE « b » QUESTIONS FROM R1b TO R10b, CODED YES (RATHER THAN YES BIZARRE)?

AND DID AT LEAST TWO OF THE PSYCHOTIC SYMPTOMS OCCUR DURING THE SAME 1 MONTH PERIOD?

NO

*PSYCHOTIC DI*

*CURREI*

R14 IS R13 CODED YES

OR

ARE 1 OR MORE « a » QUESTIONS FROM R1a TO R6a, CODED YES BIZARRE?

OR

ARE 2 OR MORE « a » QUESTIONS FROM R1a TO R7a, 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

## S. ANOREXIA NERVOSA

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

S1	a	How tall is (s)he?	<input type="radio"/> ft
			<input type="radio"/> in
			<input type="radio"/>
			<input type="radio"/> cm.
	b.	What was his/her lowest weight in the past 3 months?	<input type="radio"/>
			<input type="radio"/> lbs.
			<input type="radio"/>
			<input type="radio"/> kgs.
c.		IS PATIENT'S WEIGHT EQUAL TO OR BELOW THE THRESHOLD CORRESPONDING TO HIS / HER HEIGHT? (SEE TABLE BELOW) (THIS IS = A BMI OF $\leq 17.5 \text{ KG/M}^2$ )	<input type="radio"/> NO <input type="radio"/> YES
d.		Has (s)he lost 5 lbs. or more (2.3 kgs. or more) in the last 3 months? YES	<input type="radio"/> NO
e.		If (s)he is less than age 14, Has (s)he failed to gain any weight in the last 3 months? YES	<input type="radio"/> NO
		IF PATIENT IS 14 OR OLDER, CODE NO.	

f Has anyone thought that (s)he lost too much weight in the last 3 months? NO  
YES

IF YES TO S1c OR d OR e OR f, CODE YES, OTHERWISE CODE NO. NO  
YES

**In the past 3 months:**

S2 Has (s)he been trying to keep his/herself from gaining any weight? NO YES

S3 Has (s)he been very afraid of gaining weight? Has (s)he been very  
afraid of getting too fat / big? NO YES

IF YES TO EITHER, CODE YES

S4 a Has (s)he seen his/herself as being too big / fat or that part of  
his/her body was too big / fat? NO YES

IF YES TO EITHER, CODE YES

b Has his/her weight strongly affected how him/her feel about his/herself?  
Has his/her body shape strongly affected how him/her feel about his/herself? NO YES

IF YES TO EITHER, CODE YES

c Did (s)he think that his/her low weight was normal or overweight ? NO YES

S5 ARE 1 OR MORE S4 ANSWERS CODED YES?

NO YES

S6 FOR POST PUBERTAL FEMALES ONLY: During the last 3 months, did she miss all her menstrual periods when they were expected to occur (when she was not pregnant)?

NO YES

FOR GIRLS : ARE S5 AND S6 CODED YES?

NO	YES
----	-----

HEIGHT / WEIGHT TABLE CORRESPONDING TO A BMI THRESHOLD OF 17.5 KG/M<sup>2</sup>

Height/Weight												
ft/in	3'0	3'1	3'2	3'3	3'4	3'5	3'6	3'7	3'8	3'9	3'10	3'11
	4'0	4'1										
lbs.	32	34	36	38	40	42	44	46	48	50	53	55
	57	60										
cm	91	94	97	99	102	104	107	109	112	114	117	119
	122	125										
kgs	15	15	16	17	18	19	20	21	22	23	24	25
	26	27										



ft/in	4'2 5'2	4'3 5'3	4'4	4'5	4'6	4'7	4'8	4'9	4'10	4'11	5'0	5'1
lbs.	62 96	65 99	67	70	72	75	78	81	84	87	89	92
cm	127 158	130 160	132	135	137	140	142	145	147	150	152	155
kgs	28 43	29 45	31	32	33	34	35	37	38	39	41	42

ft/in	5'4	5'5	5'6	5'7	5'8	5'9	5'10	5'11	6'0	6'1	6'2	6'3
lbs.	102	105	108	112	115	118	122	125	129	132	136	140
cm	163	165	168	170	173	175	178	180	183	185	188	191
kgs	46	48	49	51	52	54	55	57	59	60	62	64

The weight thresholds above are calculated using a body mass index (BMI) equal to or below 17.5 kg/m<sup>2</sup> 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.

## T. BULIMIA NERVOSA

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

In the past 3 months:

T1	Did (s)he have eating binges? An "eating binge" is when (s)he eats a very large amount of food within two hours.	(	NO	YES
T2	Did (s)he have eating binges two times a week or more?	(	NO	YES
T3	During an eating binge, did (s)he feel that him/her couldn't control him/herself?	(	NO	YES
T4	Did (s)he do anything to keep from gaining weight? Like making him/herself throw up or exercising very hard? Trying not to eat for the next day or more? Taking pills to make him/her have to go to the bathroom more? Or taking any other kinds of pills to try to keep from gaining weight? IF YES TO ANY, CODE YES	(	NO	YES
T5	Does his/her weight strongly affect how (s)he feels about him/herself? Does his/her body shape strongly affect how (s)he feel about him/herself? IF YES TO EITHER, CODE YES	(	NO	YES

T6 DO THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOREXIA NERVOSA?

NO YES

(

SKIP to

T8

T7 Do these binges occur only when him/her are under ( \_\_lbs./kgs.)?

NO YES

INTERVIEWER: WRITE IN THE ABOVE ( ), THE THRESHOLD WEIGHT FOR THIS PATIENT'S HEIGHT FROM THE HEIGHT/WEIGHT TABLE IN THE ANOREXIA NERVOSA MODULE

T8 IS T5 CODED YES AND IS EITHER T6 OR T7 CODED NO?

NO YES

T9 IS T7 CODED YES?

NO YES

**ANOREXIA NERVOSA**

## U. GENERALIZED ANXIETY DISORDER

(\ MEANS : GO TO END OF DISORDER, CIRCLE NO AND MOVE TO NEXT DISORDER)

U1 a **For the past six months**, Has (s)he worried a lot or been nervous? NO YES  
Has (s)he been worried or nervous about several things,  
(like school, his/her health, or something bad happening)?  
Has (s)he been more worried than other kids his/her age?  
IF YES TO ANY, CODE YES

b Does (s)he worry most days? NO YES  
IS THE PATIENT'S ANXIETY RESTRICTED EXCLUSIVELY TO,  
OR BETTER EXPLAINED BY, ANY DISORDER PRIOR TO THIS POINT? NO YES

U2 Does (s)he find it hard to stop worrying? Do the worries make it hard for NO YES  
him/her to pay attention to what him/her are doing?  
IF YES TO EITHER, CODE YES

U3 FOR THE FOLLOWING, CODE **NO** IF THE SYMPTOMS ARE  
CONFINED TO FEATURES OF ANY DISORDER EXPLORED  
PRIOR TO THIS POINT.

When (s)he is worried, Does (s)he, most of the time:

- |   |  |    |     |
|---|--|----|-----|
| a | Feel like (s)he can't sit still?   | NO | YES |
| b | Feel tense in his/her muscles?   | NO | YES |
| c | Feel tired, weak or exhausted easily?  | NO | YES |
| d | Have a hard time paying attention to what (s)he is doing? Does his/her mind go blank?  | NO | YES |
| e | Feel grouchy or annoyed?   | NO | YES |
| f | Have trouble sleeping ("trouble sleeping" means trouble falling asleep, waking up in the middle of the night, wakening up too early or sleeping too much)? | NO | YES |
|   | ARE 1 OR MORE U3 ANSWERS CODED YES?  | NO | YES |

U4 Do these worries or anxieties cause a lot of problems at school or with his/her friends or at home or at work or with other people?

NO YES

**GENERALIZED ANXIETY  
DISORDER**

## V. ADJUSTMENT DISORDERS

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

ONLY ASK THESE QUESTIONS IF THE PATIENT CODES NO TO ALL OTHER DISORDERS.

EVEN IF A LIFE STRESS IS PRESENT OR A STRESS PRECIPITATED THE PATIENT'S DISORDER, DO NOT USE AN ADJUSTMENT DISORDER DIAGNOSIS IF ANY OTHER PSYCHIATRIC DISORDER IS PRESENT. CIRCLE N/A IN DIAGNOSTIC BOX AND SKIP THE ADJUSTMENT DISORDER MODULE IF THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOTHER SPECIFIC AXIS I DISORDER OR ARE MERELY AN EXACERBATION OF A PREEXISTING AXIS I OR II DISORDER.

V1 Is (s)he stressed out about something? Is this making him/her upset or making his/her behavior worse? NO YES

IF NO TO EITHER, CODE NO

[Examples include anxiety/depression/physical complaints; misbehavior such as fighting, driving recklessly, skipping school, vandalism, violating the rights of others, or illegal activity].

IDENTIFIED STRESSOR: \_\_\_\_\_

DATE OF ONSET OF STRESSOR: \_\_\_\_\_

V2 Did his/her upset/behavior problems start soon after the stress began? NO YES  
[Within 3 months of the onset of the stressor]

V3 a Is (s)he more upset by this stress than other kids his/her age would be? NO YES

b Do these stresses or upsets cause him/her problems in school?

(  
NO YES

Problems at home? Problems with his/her family or with his/her friends?

IF YES TO ANY, CODE YES

V4 BEREAVEMENT IS PRESENT IF THESE EMOTIONAL/BEHAVIORAL SYMPTOMS  
ARE DUE ENTIRELY TO THE LOSS OF A LOVED ONE AND ARE SIMILAR IN

SEVERITY, LEVEL OF IMPAIRMENT AND DURATION TO WHAT  
MOST OTHERS WOULD SUFFER UNDER SIMILAR CIRCUMSTANCES

(

HAS BEREAVEMENT BEEN RULED OUT?

NO YES

V5 Have these problems gone on for 6 months or more after the stress stopped?

(  
NO YES

WHICH OF THESE EMOTIONAL / BEHAVIORAL SUBTYPES ARE PRESENT?  
**that apply**

Mark all

A Depression, tearfulness or hopelessness.

B Anxiety, nervousness, jitteriness, worry.

C Misbehavior (Like fighting, driving recklessly, skipping school, vandalism,  
violating other's rights, doing illegal things).

D School problems, physical complaints or social withdrawal.

IF MARKED:

- A only, then code as Adjustment disorder with depressed mood. 309.0
- B only, then code as Adjustment disorder with anxious mood. 309.24
- C only, then code as Adjustment disorder of conduct. 309.3
- A and B only, then code as Adjustment disorder with mixed anxiety and depressed mood. 309.28
- C and (A or B), then code as Adjustment disorder of emotions and of conduct. 309.4
- D only, then code as Adjustment Disorder unspecified. 309.9
- C and D, then code as Adjustment disorder of conduct. 309.3
- B and D, then code as Adjustment disorder with anxious mood. 309.24
- B, C and D, then code as Adjustment disorder with anxious mood and of conduct. 309.24 / 309.3
- A and D, then code as Adjustment disorder with depressed mood. 309.0
- A, C and D, then code as Adjustment disorder with depressed mood and of conduct. 309.0 / 309.3
- A, B and D, then code as Adjustment disorder with mixed anxiety and depressed mood. 309.28
- A, B and C, then code as Adjustment disorder with mixed anxiety and depressed mood, and of conduct. 309.28 / 309.3
- A, B, C and D, then code as Adjustment disorder with mixed anxiety and depressed mood, and of conduct. 309.28 / 309.3

IF V1 AND V2 AND (V3a or V3b) ARE CODED YES, AND V5 IS CODED NO, THEN CODE THE DISORDER YES WITH SUBTYPES.

NO	N/A	YES
<i>Adjustment Disorder</i>		

**W. 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:**

W1a Was (s)he taking any drugs or medicines? π No   π Yes   π Uncertain

W1b Did (s)he have any medical illness? π No   π Yes   π 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.

W2 SUMMARY: HAS AN ORGANIC CAUSE BEEN RULED OUT?

π No π Yes π

Uncertain

## X. PERVASIVE DEVELOPMENT DISORDER

- |    |  |    |     |      |
|----|--|----|-----|------|
| X1 | Since the age of 4, Has (s)he had difficulty making friends?<br>Does (s)he have problems because (s)he keeps to his/herself?<br>Is it because (s)he is shy or because (s)he doesn't fit in?<br>IF YES TO ANY, CODE YES | NO | YES | UNSU |
| X2 | Is (s)he fixated on routines and rituals or does (s)he have interests that are<br>special and interfere with other activities?   | NO | YES | UNSU |
| X3 | Do other kids think (s)he is weird or strange or awkward?  | NO | YES | UNSU |
| X4 | Does (s)he play mostly alone, rather than with other children?   | NO | YES | UNSU |

X5 ARE ALL X ANSWERS CODED YES? IF SO, CODE YES.

IF ANY X ANSWERS ARE CODED UNSURE, CODE UNSURE.

OTHERWISE CODE NO.

NO    UNSURE    YES \*

**PERVASIVE DEVELOPMENTAL  
DISORDER**

\* Pervasive Developmental Disorder is possible, but needs to be more thoroughly investigated by a board certified child psychiatrist. Based on the above responses, the diagnosis of PDD cannot be ruled out. The above screening is to rule out the diagnosis, rather than to rule it in.