COMORBID DEPRESSIVE & ANXIETY DISORDERS AMONG HIV INFECTED MOTHERS AND IMPLICATIONS ON CHILDREN'S SOCIO-EMOTIONAL DEVELOPMENT IN KIBRA SLUMS

By Sylvia Raywe Sijenyi
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DECLARATION

I declare that this research dissertation is my original work and has not been submitted for examination in any university.

Sylvia Raywe Sijenyi

Reg. No: H547/84222/2012

Signature _____

Date_____

APPROVAL

The research dissertation has been submitted for examination with our approval as University supervisors.

Prof. A. Obondo- B. A.
(Hons) Sociology,MSW, PDip. PSW, PhD
Associate Professor
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

Signature…………………………..   Date……………………….

Prof. Caleb Othieno
MB, ChB; M Med (Psych)
Associate Professor
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

Signature…………………………..   Date…………………………….

DEDICATION

First, I thank God for giving me the strength and courage to finish this thesis and my Masters course in general. I especially dedicate this work to my Late loving Ma, Mary Akinyi Sijenyi; who encouraged me to undertake my Masters in Clinical Psychology and stood by me in everything I did. She had immeasurable faith in me!

I want to thank my Dad, William R. Sijenyi and brothers; Clement Rapudo, Charles Luche and Arton Khainga who have supported me throughout my studies.

Finally, I dedicate this to my children Terrence Nasiyo, Trysten Ralak and Alexandria Kia Mukungu; who inspire me to work hard every day!

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LIST OF ABBREVIATIONS

BAI   Brief Anxiety Inventory

BDI   Brief Depression Inventory

BITSEA   Brief Infant and Toddler Socio-Emotional Assessment

KNH/UON ERC   Kenyatta National Hospital/ University of Nairobi Ethics Research

                                    Committee

HIV   Human Immunodeficiency Virus

WHO   World Health Organization

OPERATIONAL DEFINITIONS

Anxiety

A common symptom in all anxiety disorders is fear. This fear could be generalized towards a number of things or it could be specific. This fear is usually accompanied by a number of physical and psychological features for example cold sweats, faster heart rate, wobbliness of extremities etc. these symptoms are generalized to one term which is anxiety.

Comorbidity

In clinical psychology, comorbidity basically refers to the diagnosis of two psychiatric illnesses at the same time. Normally there is the predominant one of which the second one is normally attributed.

Depressive Disorder

A depressive disorder is a mood disorder that is characterized by lack of interest in anything that were formerly enjoyable, complete lack of self appreciation and feelings of worthlessness. It affects the vegetative symptoms of the individual where by eating and sleeping patterns are interfered with. Once diagnosed it is treated with antidepressants and psychotherapy.

ABSTRACT

Introduction: Mental health and HIV/AIDS have been closely interlinked; this is with regards to the attribution of mental disorders to the increase in the prevalence of HIV infections and HIV infections being associated with the increase in the prevalence of mental disorders. Some of the neurological or mental disorders that are commonly linked to HIV/AIDS globally are depression and anxiety and their comorbidity. This comorbidity which is more prevalent among women can consequently impact the relationship between a mother and her child especially with regards to the social-emotional development of the child which is linked to general well being and adaptive adjustment in adulthood. Unfortunately, studies looking into the impact of this comorbidity, particularly, in HIV- infected mothers, on children's socio-emotional development is scarce.

Study objective: Hence this study aims to assess the prevalence of co- morbid depression and anxiety disorder in HIV- positive mothers and its implication on child's socio-emotional development

Research Design: The study adopted a descriptive cross-sectional research design

Study Site: The research was carried out at the Kibra South clinic.

Target Population: The study targeted HIV positive mothers with children between the age of 24 and 36 months.

Sample size: Systematic random sampling was used to get 185 respondents.

Research Instruments: A researcher- designed questionnaire was used to determine the respondents' socio-demographic factors; short version BDI and BAI was used to determine the prevalence of depression and comorbid anxiety and Brief Infant and Toddler Social Emotional Assessment for 0 and 36months was used to identify children with emotional and social difficulties.

Data Analysis: Data analysis was done using SPSS version 23 and presentation of data was done by use of frequency tables, bar charts and pie charts. Association between variables was represented through Chi square. Cramer's phi Coefficient (Cramer's V) and Pearson's Correlation (Pearson's r) statistics were used to show correlations between variables.

Results: The prevalence of Comorbid depression and anxiety among the HIV -positive mothers attending the Kibra South Clinic was 38.4%. The prevalence of socio-emotional development problems among children was also 38.9%. There was no association between comorbid depression and anxiety in HIV infected mothers and child's emotional development problems at a P=0.672. However, there was a negative linear relationship between the competence deficit component of socio-emotional development and BDI scores (depression) { $r = -.154, p =.$ 0.037}. Meaning that as severity of depression increased, the child was more likely to have competence delays or deficits.

Conclusion: Prevalence of Comorbid depression and anxiety among the HIV -positive mothers attending the Kibra South Clinic was high. Prevalence of socio- emotional development problems in the toddlers was also significantly high.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

1.1   Background Information

The relationship between Mental health and HIV/AIDS have been largely indicated to be bidirectional; this is with regards to the attribution of mental disorders to the increase in the prevalence of HIV infections and HIV infections being associated with the increase in the prevalence of mental disorders(WHO, 2008 & Meade, Bevilacqua, Key, 2014). One of the neurological or mental disorders that is commonly linked to HIV/AIDS globally is depression. According to Ownby, Jacobs,Waldrop-Valverde &Gould (2010), the prevalence of depressive disorders in this group of patients has been estimated to range from 0% to more than 33% depending on patient population and method of ascertainment. In a report released by the CDC in 2014, it was noted that depression in HIV- infected patients living in the USA was a major cause of concern because, despite availability of aggressive and effective treatment with increased life expectancy, depression was notably affecting the patient's quality of life and hastening disease progression (Do, et al., 2014). This was attributed to the non-compliance of medication by the depressed patients hence increase in viral load and deleterious effect on patient health and quality of life (Rabkin, 2008).

Undisputedly, there has been an improvement in the life expectancy in HIV patients living in Africa too and now attention is shifting to management and prevention of non-communicable diseases that seem to be comorbid with HIV such as cancer (WHO, 2013). However, mental illnesses seem to be given very little attention considering the impact that they may have on the HIV patients (WHO, 2013). In Uganda, an estimated 30% were diagnosed with depression or exhibiting depressive symptoms however it was noted that more cases may not be diagnosed

because mental illness screening is not included in the HIV treatment program (Glenn, et al., 2014). The same inadequacy has been noted in South Africa where screening of mental illness is not considered a primary need in HIV treatment programs despite the fact that depression has been noted to be higher in HIV patients (Ferrari, Charlson, & Norman, 2013). Moreover, there have been difficulties in diagnosis or unavailability of screening protocols in the HIV treatment facilities. In Kenya, the situation is not particularly different, though a number of studies have indicated that there is a burden of depression among HIV patients (Aboge,Obondo,Kathuku,Kibuule, 2014 & Seth, et al., 2014), unfortunately, there is still lack of appreciation of the impact that psychiatric disorders can have on disease progression and hence there is no inclusion of psychiatric screening tests in HIV treatment facilities or programs in Kenya.

With regards to the prevalence of anxiety disorders which are common in HIV patients, the statistics do not vary much compared to the prevalence of depression in HIV patients and the issue of undiagnosed anxiety is also a cause for concern. In a study carried out on 251 patients in Sicily, 47% were diagnosed with anxiety; many of these patients had previously not been diagnosed with anxiety and instead had been put under different lines of treatment for example 4th line or more ARTs (Celesia, et al., 2013). In Africa, the same results have been recorded in different studies. It has also been noted that patients who have been previously diagnosed with mood disorders and anxiety are most likely to suffer from recurrent anxiety attacks while on HIV treatment (Fernandez & Ruiz, 2006).

Despite depressive disorders being classified as a distinct group of illness in the DSM -V, studies done in the early 1990's to date have documented frequent co-occurrence with anxiety disorders which are also another distinct group of disorders (Lepine, Wittchen, & Essau, 1993, Murray &

Lopez, 1996, Pollack, 2005). The study done by Murray and Lopez (1996) gave an estimated projection of how disabling the comorbidity would be by the year 2020 and the researchers concluded that it would be second to Ischemic heart disease in most debilitating disease worldwide. The other studies provide evidence of a common biological substrate and shared vulnerability making depression and anxiety the most common comorbid disorders. The studies basically imply that the high rate of comorbidity indicates that the simple occurrence of one disease state should be considered a predisposing factor for the development of the other. In fact considering depression and anxiety symptoms together in a "mixed anxiety-depressive disorder" diagnosis was suggested (Pollack, 2005) but the importance of diagnosing each disorder independently was deemed critical and this was to ensure that appropriate treatment is issued for each disorder .

In HIV- infected patients, comorbidity contributes significantly to the burden of disability caused by psychological disorders and hence patients with comorbid depression and anxiety appear to have a significantly greater burden of illness. These patients also have worse response to medication or therapy and a more chronic course of illness than patients with depression alone. Some of the anxiety disorders that are present in HIV- infected patients include panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder (Vitiello, Burnam, Bing, & al, 2003)

Unfortunately just like HIV, which is said to be more prevalent in women who accounted for 21% of the new infection in the year 2014 (NASCOP & NACC, 2014); women are also said to be more prone to suffering from depressive disorders. Statistics also show that girls develop anxiety disorders earlier and at a faster rate than boys (Hankin & Abramson, 2001). Anxiety has been largely and functionally linked to depressive thoughts that affect women and adolescent

girls and these facts, therefore, make comorbid depression and anxiety also common in women worldwide; therefore a global problem. Basically; women are generally said to be more vulnerable to depressive disorders than men (National Institute of Mental Health, 2004) and since anxiety disorders go hand in hand with depressive disorders; they also are more prone to suffer from the comorbidity. The effect of this comorbidity in women has far- reaching implication and this is because it can have serious negative consequences to the relationship between a mother and her child and hence poor socio-emotional development of the child(Page, Page, & Page, 2007).

The importance of socio-emotional well-being of a child cannot be underestimated because it is linked to general well- being in children and adaptive adjustment as they become adults (Page, Page, & Page, 2007). Basically, a child's socio-emotional well being which is established through a nurturing relationship is important to their overall health, development and well being (AIHW 2012). It has been established that children who have high levels of socio-emotional well-being grow into caring, emotionally healthy adults. There are also more capable of negotiating challenges which might be physical, intellectual or social during their childhood and adolescence stages of development (Yates, et al., 2008). A child's ability to understand emotions, initiate and maintaining secure relationships are very integral aspects of early socio-emotional functioning. It is important to note that emotional learning begins very early in life and this is because children start to encounter and deal with many different emotions as they grow. Actually, early socio-emotional development is defined as the ability of young children to form close and secure adult and peer relationships, experience, regulate and express emotions in socially and culturally appropriate ways; it also involves their ability to explore the environment and learn; all in the context of the community and culture (Yates, et al., 2008). Every stage of a

child's development entails different socio-emotional developmental milestones and skills (Saarni, 2011). Some of these skills which are commonly referred to as foundational social and emotional skills and characteristics are emotion expression and management, perspective taking, empathy, inhibitory control, self confidence and the ability to develop and support relationship with others (Yoder, 2014).

Summary of Social Emotional development Milestones in Stages

Table 1 shows expected emotional development in children in different stages in relation to children's social interactions according to Saarni, C (2000).

Table 1: Summary of Socio-Emotional Development In Stages

Age Period	Regulation/Coping	Expressive Behavior	Relationship-Building
Infancy: 0 - 12 months	Self-soothing and learning to modulate reactivity. Regulation of attention in service of coordinated action. Reliance on caregivers for supportive "scaffolding" during stressful circumstances.	Behavior synchrony with others in some expressive channels. Increasing discrimination of others' expressions. Increasing expressive responsiveness to stimuli under contingent control. Increasing coordination of expressive behaviors with emotion-eliciting circumstances.	Social games and turn-taking (e.g., "peek-a-boo"). Social referencing. A child might also develop skills for gaining attention for example crying with no reason to gain attention which is referred to as Social instrumental signal use
Toddlerhood: 12 mos.-2½ years	The child becomes more aware of how the respond emotionally Irritability that signifies the need to expand autonomy by exploring and hence reduction of limitation is necessary	At this stage a child gets more expressive and he/she evaluates self and is very self aware. They freely express their joy, pride and shame. There is more verbal comprehension and talking especially to express the above feelings	Anticipation of different feelings toward different people. Increasing discrimination of others' emotions and their meaningfulness. Early forms of empathy and pro-social action.

Source: (Saarni C. , Emotional Competence:A developmental Perspective, 2000)

It has been suggested that parent -child attachment, parent-child conversation and parenting style in general, all have an effect on a child's emotional understanding, their self concept development, temperament, self confidence and self esteem. Theories such as functionalist and dynamical system theories have been suggested to explain this phenomenon. Bowlby's and Ainsworth theories of secure attachments have also been promulgated to explain the relationship between a mother and child and more importantly its implication on a child socio-emotional development (Bowlby, 1988 & Ainsworth, et al., 1978). These theories are explored in the theoretical framework section of this dissertation. Nevertheless, it has been postulated that maladjustment in the social and emotional domain may derail or impede children's ability to function in family, school or other contexts in contrast to children with good social emotional development hence having greater self control (part of self regulation) are generally more likely to grow into adults with better health, better socio-economic status and fewer forensic concerns (Moffitt, et al., 2011).

The assumption for this study would be that in cases where the mother is HIV -infected and suffering from comorbid depressive and anxiety disorder; the socio-emotional development in early childhood would be adversely affected. This is disconcerting because the child's ability to develop socio-emotional competence will be affected hence they may not develop effective affect-oriented cognitive, behavioral and regulatory skills that are expected to emerge as they grow. Therefore, this study mainly aims to establish the link between comorbid depression and anxiety and negative emotional development in children with HIV- infected mothers. Due to the paucity of data in this area from Kenya, this study also attempts to fill that gap in research in Kenya.

1.2   Problem Statement

Today, research has linked HIV to poor mental health and particularly depression and comorbid anxiety has been largely associated with the HIV sero-posivitity among the women (Bradley, et al., 2012). A study conducted by WHO (2008) indicated that a significant number of mothers who are HIV infected in developing countries may suffer from depression but it may go unnoticed, partly due to shared symptoms with HIV. In addition to depression, it can be expected that these mothers will also suffer or have previously suffered from some kind of anxiety disorders. Besides the fact that the comorbidity has been consistently associated with negative HIV-related behaviors, particularly poor ART adherence (Ironson, O'Cleirigh, Fletcher et al., 2005), it has also been associated with dire psychiatric outcomes such AIDS related psychosis. Poor maternal mental health, on the other, hand has been found to be a risk factor for poor socio-emotional development among infants (Rahman, Patel, Maselko& Kirkwood, 2008) especially with regards to the development of insecure attachment which affects others aspects of a child's well -being as they develop. However, studies looking into the impact of this comorbidity in HIV- infected mothers on children's emotional development is scarce. This study, therefore, sought to investigate the implication of co- morbid depression and anxiety among HIV- positive mothers on children's socio-emotional development.

1.3   Broad Objective of the Study:

To assess the prevalence of co- morbid depression and anxiety in HIV- positive mothers and its implication on child's socio-emotional development

1.4 Specific Objectives

1. To assess the prevalence of depression and anxiety among the HIV -positive mothers attending the Kibra South Clinic

2. To establish the prevalence of socio-emotional development problems among the children attending the Kibra South Clinic

3. To find out if there is a relationship between a mother's psychiatric morbidity (comorbid depression and anxiety) and child's emotional development problems.

1.5 Research Questions

1. What is the prevalence of co- morbid depression and anxiety among the HIV- positive mothers at attending the Kibra South Clinic?

2. What is the prevalence of socio-emotional development problems among the children attending the Kibra South Clinic?

3. Is there a relationship between a mother's morbidity (comorbid depression and anxiety) and socio-emotional development problems in children

1.6 Conceptual Framework

The conceptual framework below shows the relationship between variables. The independent variables in this study are the mother's psychiatric morbidity and their HIV status. The dependent variable is the socio-emotional development of the children. The moderating factors are the socio-demographic factors because they determine how strong the effect of independent variable will be on the dependent variable.
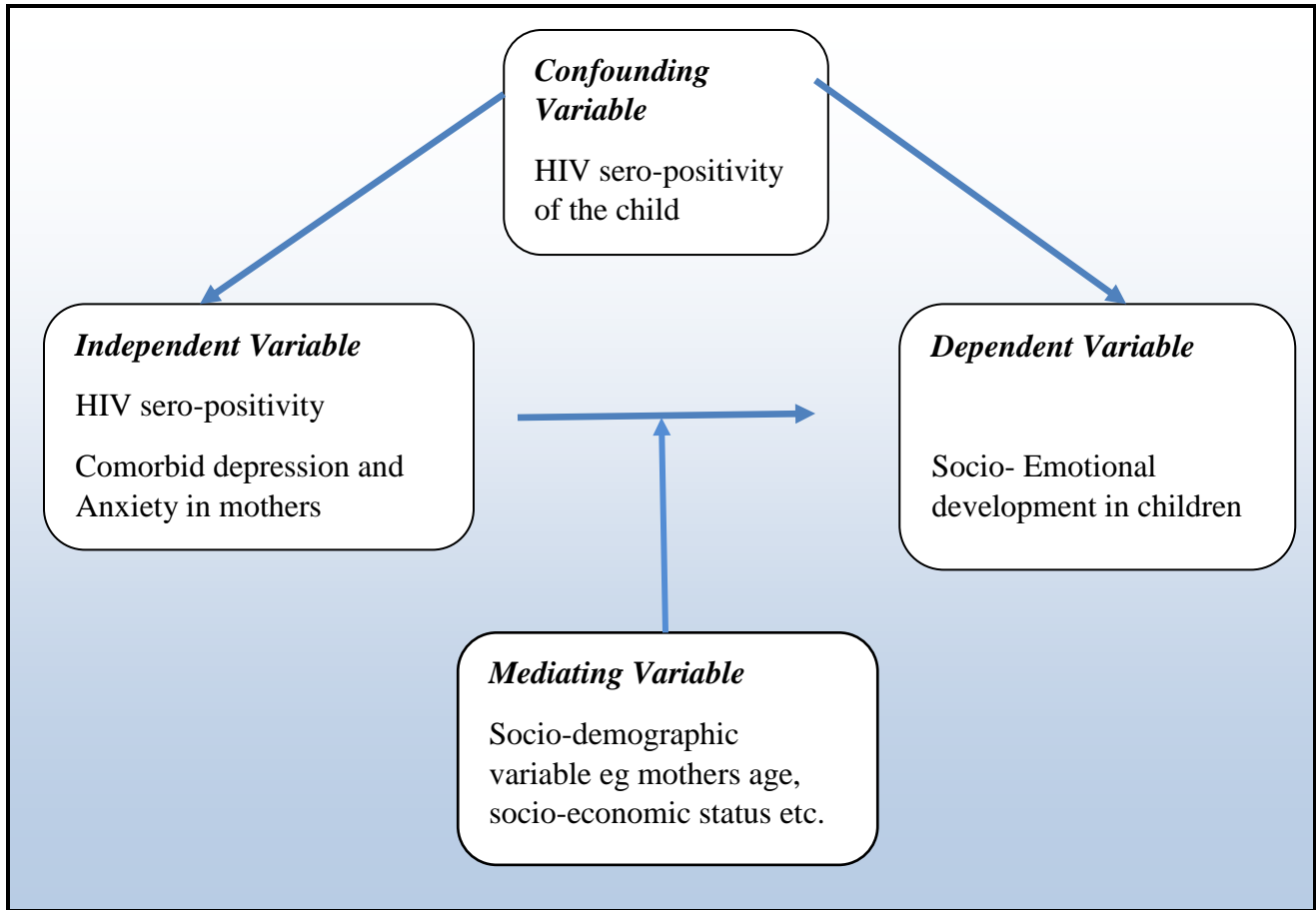
Figure 1: Conceptual Framework Showing Possible Relationship Between Variables
Author: Raywe Sylvia _2017

1.7   Rationale of the Study

Given that depression is predicted to be the second- leading cause of global disease burden by the year 2020 (WHO, 2008) and comorbid depression and anxiety disorders are also associated with negative HIV-related outcomes, determining prevalence is key in advising management strategies. Therefore this study will contribute in establishing the prevalence of the comorbidity among women who are supposedly the most vulnerable (more likely to suffer from depression and anxiety than males) gender- particularly HIV infected women. This is significant because the study also seeks to determine if the fact that a mother suffers from the comorbidity (depression

and anxiety) will also affect a child's socio-emotional development. Hence it will also help in establishing prevalence of socio-emotional development problems among the children of which there is serious paucity of data in Kenya. The overall expected outcome of this study is to promote maternal mental health and children's' psychosocial and socio-emotional health and development from an evidence based perspective. This will contribute to the inclusion of mental hygiene programmes in antenatal and post natal care of HIV positive mothers. This will hopefully inform the decisions that will be made by stakeholders which will in turn help achieve this goal especially through education of mothers on the importance of their psychological well being in relation to their relationship with their children and the impact on their socio-emotional development. This study forms the basis for further studies in this area.

1.8   Hypotheses

Null Hypothesis

> There is no association between comorbid depression and anxiety in mothers suffering from HIV and the level of socio-emotional problems in their children.

Alternate Hypothesis

> There is an association between comorbid depression and anxiety in mothers suffering from HIV and the level of socio-emotional problems in their children.

CHAPTER TWO: LITERATURE REVIEW

2.1   Theoretical Framework

A number of theoretical perspectives underpinning socio- emotional development in children and the importance of the mothers through her association and relationship with the child have been suggested. These theories explain the importance of a mothers psychological well being in interacting with her child and its implications. A combination of a functionalist and dynamical system theories have been proposed as a plausible explanation of how socio-emotional development occurs. It suggests that the dynamic transactions between a child and his environment involve a number of emotionally related components for example ability to express themselves with regards to their actions, motives, goals, physiological patterning, experiential feelings and appraisals. As the child matures and develops emotionally, these components also evolve over time as per the changes in the environment and his/her interaction with it (Saarni, et al., 2008). Basically, emotional development in a child should reflect their social experiences and this includes the cultural context. Bowlby (1988) and Ainsworth, et al. (1978) theories on secure attachment further explain the concept. According to Bowlby's attachment theory which places importance on mothers and child interaction from infancy, a child's experience and how they interact with a primary caregiver can lead to either a secure attachment or insecure attachment. Depending on the level of responsiveness a parent has towards the child's needs, and the care he/she receives, attachment traits can emerge. Secure attachment is natured by a caring and responsive parent while insecure attachment is brought about by uncaring and unresponsive parenting (Bowlby, 1988). In line with what Bowlby suggested, Ainsworth et al.,(1978), also posited that the availability of a mother or primary caregiver especially when a child needs them was important for children to develop secure attachments. They further suggested that the mother

should also be competent enough to provide help, security, safety and comfort for the child. Maternal depression with comorbid anxiety even in HIV negative mothers; has been shown to interfere with this development (Goodman, et al., 2011).

2.2   Prevalence of comorbid Depression and Anxiety in HIV Infected Women

Depression alone is said to account for the largest proportion of the burden associated with all the mental and neurological disorders (WHO, 2013). However; as mentioned earlier depressive and anxiety disorders commonly occur together in patients presenting in the primary care setting and therefore a patient presenting with one disorder probably also suffers from the other disorder. According to Epkins & Heckler (2011); this disorders share similar risk and protective factors hence the common comorbidity. According to earlier studies carried out in 2004 by the World Health Organization and World Mental Health Surveys (Demyttenaere, et al., 2004, Kessler, et al., 2005), anxiety and mood disorders especially major depression were among the most common mental health conditions in the general populations of countries around the world. This was found to be true in low, middle and high- income countries. The WHO study has been replicated by a few researchers and their indicative results show the same trends in the recent years (Kurz & Hesselbrock, 2006; Aboge, et al., 2014).

With regards to whether HIV is a predisposing factor to psychiatric disorders especially among women; researchers in Mexico conducted a study to determine the prevalence of depression and anxiety but looked at incidence in both women and men. The study established that women were more affected by both depression and anxiety but it is also important to note that the sample size of women who participated in the study was only 38 out of 291 PLWHA therefore it could be stated that the significant level could be statistical noise. Regardless, the study affirmed what

other studies have been reporting and concluded that women are more prone to suffer from depression and anxiety. The Becks Depression Inventory and Becks Anxiety Inventory were used for this study (Caballero-Suárez, et al., 2017).

In a another study done to determine the prevalence of co-morbid depression and anxiety among HIV patients at Alert Hospital, Addis Ababa, Ethiopia; it was established that 24.5 percent of the respondents who were 307 in total were suffering from the comorbidity. The study concluded that having perceived HIV stigma, HIV Stage III, poor social support and poor medication adherence were associated with depression while being female, being divorced and having comorbid TB and perceived HIV stigma were associated with anxiety. However, it was generally noted that women were mostly affected with the comorbidity (Tesfaw, et al., 2016).

In Tanzania, a study done to assess the prevalence of depression at ARV therapy initiation and clinical outcomes among a cohort of women living with HIV, it was reported that at intiation of ARVs the number of women who had depression symptoms were 57%. This was associated with increased risk of mortality [hazard ratio (HR): 1.92; 95% confidence interval (CI): 1.15–3.20; P=0.01] and incidence of severe anemia (hemoglobin <8.5 g/dl; HR: 1.59; 95% CI: 1.07–2.37; P=0.02). The study assumption of causality was estimated at 36.1% (95% CI: 13.6–55.1%) of deaths among the study cohort to attributable to depression and its consequences. However, the study doesn't clarify or indicate their findings regarding anxiety or comorbidity (Sudfeld, et al., 2017). It's important to note that no recent study has been published from Kenya with related data about prevalence of comorbid depression and anxiety among women living with HIV. This study seeks to fill this gap.

2.3   Impact of Comorbid Depression and Anxiety in Mothers on Socio-Emotional Development of Children

Since the prevalence studies mentioned were indicative of maternal mental health, it is understandable that other studies examining mechanisms underlying associations between maternal depression and adverse child outcomes (including behavior, socio-emotional adjustment, and emotion regulation) indicate that maternal depression does affect child outcomes (Herba, Glover,Ramchandani, Randen, 2016). The outcome is presumably worse when a mother suffers from both depression and anxiety. One study sought to determine if there is a correlation between a parent's mental health and pathways to risk and to resilience from infancy to adulthood and it was found that individuals who had mothers suffering from mental health problems during their first three years of life had poorer overall mental health functioning and more psychiatric diagnoses at age 30 compared to individuals whose mothers did not have mental health problems (Slominski, 2010). This study was a longitudinal study that looked at the respondents' development from their childhood to adulthood. It also did not focus only on depression or anxiety but the findings are still relevant to this study. The study also determined that these individuals had difficulties in a few aspects of development i.e. social- emotional development. Similar results have been reported in other studies for example, Romano, Babchishin, Pagani, Kohen (2010), who established that early social and emotional competencies are linked to later academic achievement, whereas social and emotional problems or challenges are linked to academic difficulties.

Due to paucity of recent data that is directly related to this study, literature will be reviewed from older studies that have assessed the relationship between the two variables. In a study carried out on 1500 women and their children in 2006 in the USA, it was reported that a parent's mental health or emotional well-being will have an impact a child's socio-emotional

development (CANDLE, 2006). Though the study considered only the level of impact, poverty, had on the women who participated in the study with regards to their stressful level; it clearly established that women with sound emotional well-being helped their children develop secure attachments. As for mothers who had notably high levels of stress, their children were found to be insecurely attached. This was attributed to the fact that these mothers were most unlikely to pay attention to their children's needs, they were also found to be harsh and spent less time with their children. These women were however not tested for HIV prior to participating in the study. Therefore, considering that these two factors of poverty and seropositivity of the respondents are to be considered in this particular study, it would be correct to assume that these women who are to participate in the study would be suffering from major depression and anxiety and hence children born by these mothers are more likely to be suffering from social and behavioural problems which are due to poor or delayed emotional attachment.

Borrowing from the concept behind Bowlby's (1988), theory of secure attachment in children or Ainsworth et al.'s, (1987) theory of attachment, the relationship between a mother and child is very important and it is reflected in many other developmental aspects of the child. However a number of studies have indicated that generally depressed mothers are less attentive and unresponsive to their children's needs (Herba, et al.,2016). They are also poor models for negative mood regulation and problem solving unlike non depressed mothers and this is mainly because depressed mothers were found to hardly set limits for their children or to even follow through once they set limits. Hence their children were reportedly more passively non-complaint, lacking age appropriate autonomy with less mature expressions. (Herba, et al.,2016). Demographic variables, such as maternal age, ethnicity, socioeconomic status, marital status,

child's age and number of siblings, were also taken into account. Studies on anxiety in relation to socio-emotional development in children are scarce.

2.4   Parenting and Socio-Emotional Development in children

For these expected milestones to be achieved, mother to child relationship should be affectionate because the social and emotional development of an infant and toddlers depend on the nature of this particularly interpersonal social interaction. It is, therefore, justifiable that research has found links between maternal mental health to impaired parenting (Lee,Anderson,Horowitz & August, 2009 & White, Roosa, Weaver & Nair, 2009). Earlier studies show that this link is further extended to the occurrence of emotional incompetence, poor child behavioral and cognitive outcomes especially among low-income families (Jackson, Brooks-Gunn, Huang & Glassman, 2000,Petterson & Albers, 2001). Studies have established that responsive caregiving helps children to regulate their emotions; this, in turn, helps them develop predictability, responsiveness and safety in their social environments. According to Shonkoff (2004), relationships that are nurturing and consistent in early years are the key to better outcomes for children as they develop. Hence, parents and caregivers do play a very important role in their children's healthy development. However, Catz, Gore- Felton, McClure (2002), observed that women who were infected with HIV exhibited a high level of depression, stress and anxiety which was associated with less social support for their children. These mothers were found to have difficulty showing affection, patience, playfulness towards their children. They were also found to be very self-critical and not capable of making decisions. All these traits were found to adversely affect the emotional development of their children.

Other pre and postnatal mechanism that have been looked at with regards to this comorbidity and its link to impaired child's emotional development are for example; parenting and negative

maternal cognitions (Pawlby,et al., 2011), maladaptive and increased interpersonal stress of the mother (Barker, 2012) and the degree to which depression and anxiety can alter the intra-uterine environment, and hence affect fetal development. For example, depression is reported to be associated with higher levels of circulating cortisol, which can affect the development of the biological stress system of a child. (Goodman, et al., 2011,Field, et al., 2010). As mentioned, there is a paucity of data on the effect of depression and comorbid anxiety impact on the emotional development in Kenya.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

The chapter is presented in the following sections namely: the research design, target population, sampling design and sample size, data collection, data management and analysis and ethical consideration.

3.1 Study Design

The study adopted a descriptive cross-sectional research design to assess prevalence of comorbid depression & anxiety among HIV -infected mothers and its implication on the child's emotional development in Kibra slums

3.2 Study Site

This study was carried out at the Kibra South clinic which was started by the Medecins Sans Frontieres's but currently it is run by the government in partnership with AMREF. This clinic was opened in 2013 in the sprawling slums of Kibra. Medical care in this facility is free of charge and includes inpatient and outpatient services, 24-hour maternity and delivery care as well as ongoing treatment for diseases such as HIV and TB which are common in Kibra. Besides people who have been victims of sexual violence who have access to treatment, support and ongoing counseling at the clinic, parents also bring their children in for essential vaccinations and for nutritional screening making the hospital an ideal study site. Currently the number of patients that seek medical services at the clinic has dropped. It is currently estimated that nearly 220 people go to the clinic monthly down from nearly 500 patients. The estimated number of mothers who bring in their children between the age of 2yrs and 3yrs is 100 per month.

3.3   Study Population

The study targeted mothers who are HIV positive that were previously attending the PMTCT (prevention of the mother to child transmission) clinic and currently bringing in their children either for vaccination or regular check up at the clinic. Mothers who have children aged between 24 and 36 months were targeted population.   This is because the study focuses on socio-emotional growth from infancy to toddlerhood. At this stage, children's development unfolds in an interpersonal context and particularly their relationship between them and their caregiver or nurturing adults. At this stage the children are particularly attuned to social and emotional stimulation. The mothers who attend the clinic mostly come from the nearby Kibra settlements although a few of them also come from the neighboring Langata Estate. Most of them have low socio-economic backgrounds and probably not very well educated. Being that the Clinic is in an urban area, there was no definitive way to determine the possible participants religious affiliation.

3.4   Inclusion and Exclusion Criteria

Inclusion criteria included:

- HIV- positive mothers with children aged between 24 and 36 months attending the immunization clinics or regular checkup

- HIV-positive mothers attending the immunization clinics or regular checkup who gave consent

- HIV positive mothers adherent to their medication _*this was important to ensure that the participants had lower chances of suffering from Brain encephalopathy associated with HIV/AIDS which can worsen symptoms of depression and make a mother either exaggerate or extremely minimize symptoms in a child (with regards to social emotional problems)*

Exclusion criteria will include:

- HIV- positive mothers who were too sick to participate in the study or suffering from current febrile illness

- HIV -positive mothers who have children that are below the age of 2years.

3.5   Study Period

The study took 2 months from the date of approval by the Kenyatta National Hospital/U.O.N/ Ethics & Research Committee.

3.6   Sample Size Determination

The number of registered patients/ mothers who attend or seek treatment at the Kibra South clinic on a daily basis is estimated to be over 2000 in number but the number of patients who seemingly fit our inclusion criteria is estimated to be than 280. The sample size of the mothers that would be willing to participate was calculated by adopting Yamane Taro's sample size determination formula below (Yamane, 1967): $n = \frac{N}{1+N(e)2}$

Where n is the sample size of target population needed for the study
N is the entire population size of target population
e is the level of precision (error estimate) which is 0.05

$$n = \frac{N}{1+N(e)^2} \quad = \quad n = \frac{280}{1+280(.05)^2} \quad = 164.7 = 168 \text{ respondents}$$

Therefore the number of participants that were approached to participate in the study was 168. However, some questionnaire may not be filled due to respondents abandoning the study prematurely, therefore the attrition rate was:

10% for Non-response = 168×10/100=16.8 i.e.17 respondents

Therefore: 168+ 17 = **185 respondents**

3.7   Sampling Method

The sampling technique that was used for the study was systematic random sampling. For this study, every fourth respondent was approached and requested to participate in the study. This means that every respondent had an equal opportunity to participate in the study. This was done until the total number of respondents (n=185) was reached.

3.8 Recruitment Strategy and Consenting Procedures

As mentioned earlier, Kibra South clinic receives patients that are both out and in patients who come in for various medical services. The in patients are mothers that are delivering children only and they are approximately 20 admissions in a month. The rest of the 200 patients are usually outpatient. However, the study only targeted mothers who were HIV positive and have children aged between 24 and 36 months- toddlers. Only these parents were considered during sampling.

Once the respondents were identified as they came in for clinic or check up with their children, they were approached and kindly asked to participate. If the respondent met the inclusion criteria then they were asked to sign consent forms that indicated that their participation was entirely voluntary. Prior to the respondents consenting to participating in the study, they were adequately informed about the purpose or aim of the study and the study expectations and their roles as participants.

3.9   Study Instruments

Socio-demographic questionnaire

Four tools were used in this study. The first tool was a researcher- designed questionnaire which was used to determine the respondents' socio-demographic factors such as age, level of education, number of children and income.

Becks Depression Inventory (BDI II)

The second tool was a standardized tool that was used to determine the prevalence and severity of depression i.e. the Becks Depression Inventory (BDI II). The BDI has 21 items whose total score is 63. There are cut off points for mild, moderate, moderately severe and severe depression. It has been reported to have an internal consistency of 0.82 (Gould, 1982) and sensitivity of over 0.8 among HIV positive respondents (Tusiime, et al., 2015).

Becks Anxiety Inventory (BAI)

The third assessment tool to be used was Becks Anxiety inventory (BAI). It is a self report measure for Anxiety. The inventory contains 21 items rated from 0 to 3 by the taker, with a total possible score of 63 points. The reliability or internal consistency for the BAI = (Cronbach's α=0.92) Test-retest reliability (1 week) for the BAI = 0.75. As for its validity; the correlations of the BAI with a set of self-report and clinician-rated scales were all significant. It was moderately correlated with the revised Hamilton Anxiety Rating Scale (.51), and mildly correlated with the Hamilton Depression Rating Scale (.25) (Beck et al., 1988).

Depression & Anxiety Screeners Cut Off Scores

BDI II Scores	Depression Severity
0-13	Minimal Range
14-20	Mild Depression
21-29	Moderate Depression
30+	Severe Depression

BAI Scores	Anxiety Severity
0-21	Low anxiety
22-35	Moderate Anxiety
36 & above	Potentially concerning level of Anxiety

The Brief Infant-Toddler Social and Emotional Assessment (BITSEA)

Finally, the fourth tool that was used for the study which is also standardized is the BITSEA. The 42-item BITSEA is used to to do early detection for social emotional problems in children. It focuses on two areas of the concept; Firstly, the behavioral component where it looks at the problems that the child has as reported by the parent. Secondly; it assesses for delays in social-emotional competence and can also be used to screen for autism spectrum disorders or ADHD in toddlers. The BITSEA was developed and applied in the USA, and since then also studied in Turkey and Finland (Briggs-Gowan, et al., 2004;Karabekiroglu, et al., 2009; Haapsamo, et al., 2009). It is used for parents with children of 12-36 months old who are being assessed for socio-emotional issues. The tool has 2 item scales; social emotional problems scale and social emotional competencies scale. Total scores are considered for each scale independently. Studies done to check for validity and reliability have reported 0.79 and 0.65 as the Internal consistency of the Problem scale and the Competence scale 0.65 respectively. A test-retest reliability (ICC) reported 0.87 and 0.85 for both scales (Briggs-Gowan, et al., 2004).

3.10 Piloting/ Pre-test

Pre-testing was conducted to ensure that the tools captures every aspect of the study and its appropriateness for the particular target population. Piloting was done by the researcher issuing the questionnaires to a few random participants; who were 10 in number, who were subjected to a short interview. These respondents were later included in the main study. These questionnaires were assessed by the researcher to see if there were any questions that the respondents had issues

with or had trouble answering. Through this, the researcher was then be able to accommodate the changes needed to capture the information needed from the researcher- designed socio-demographic questionnaire. No amendments were made to the BITSEA.

3.11   Data Collection Procedure

Preparation Phase

1. The researcher sought permission from the KNH/ERC before starting data collection.

2. Approval from the county government was also obtained first before embarking on the research. This included informing the county ministry of health about the purpose and objectives of the study.

3. Once the approval was obtained particularly from the county and KNH/ERC the Clinic administration allowed the study to be done at the clinic

4. However, the researcher also sought the consent of Kibra South Clinic administration before embarking on data collection. This included informing them about the objectives of the study, the procedures of the data collection.

5. The clinic administration offered one office where the data collection was conducted for privacy and confidentiality

Implementation Phase

1. Once the participants were identified through systematic sampling, Consent from all participants was first obtaimned at the study site. The consent form explained what information was being sought and for what purpose the study was being conducted was issued to the respondents who agreed to participate in the study.

2. The researcher then administered the socio-demographic questionnaire, BDI, BAI and the BITSEA instruments to the respondents.

3. The researcher stored the filled in questionnaires after completing the questionnaire.

4. The questionnaires was researcher- administered to ensure that mothers who were both educated and uneducated got an opportunity to participate in the study. Its important to note that, the BITSEA was translated and back translated to Kiswahili and then piloted to ensure validity of information gathered for easy administration by researcher in some cases

3.13   Flow Chart of the Data Collection Process
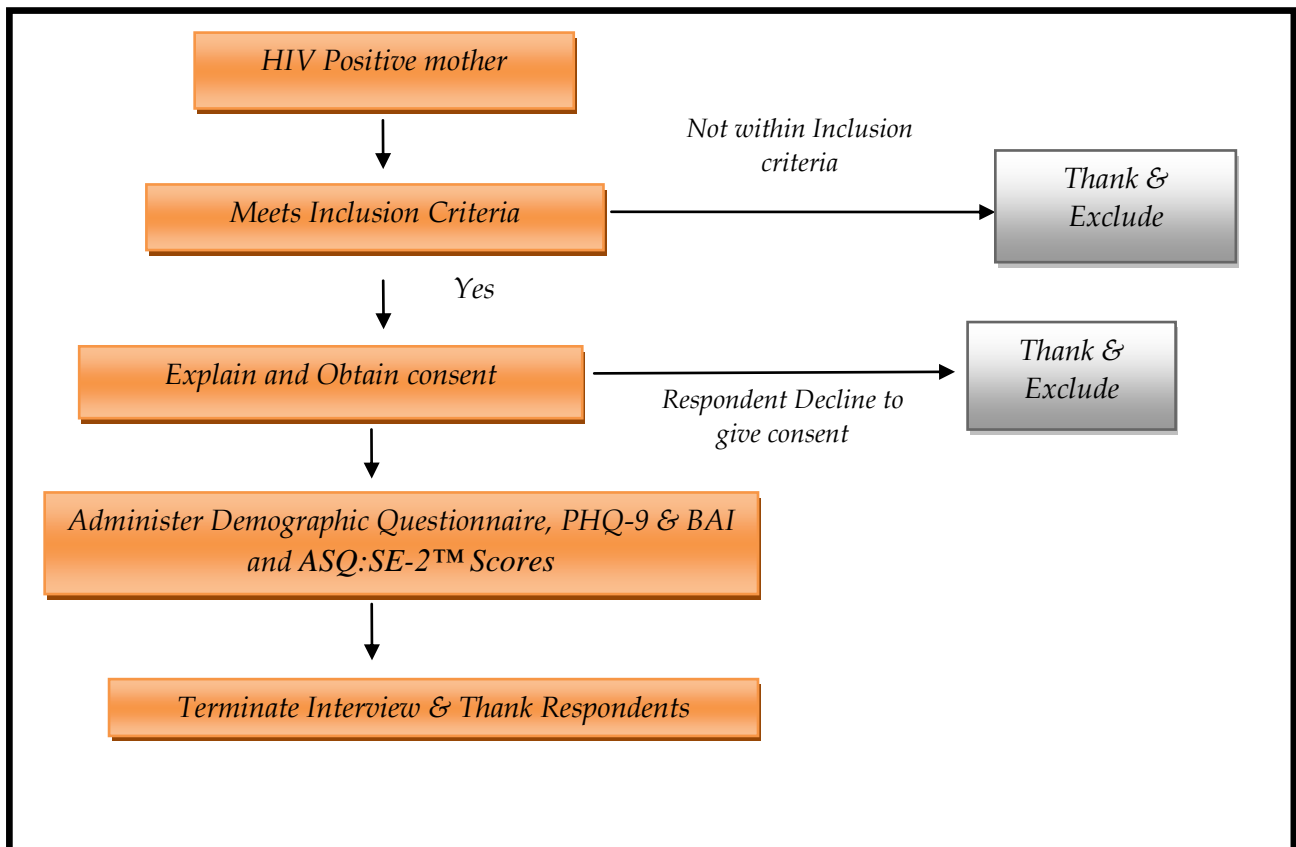
Figure 3. 1: Flow Chart for Data Collection Process
Author_ (Raywe, Sylvia)

3.14   Data Analysis & Presentation

This study was a quantitative study and hence, the data collected was empirical. After data collection, data entry and quantitative statistical analysis was done using Statistical Package for

Social Sciences (SPSS) version 23. Association between the variables was presented using Chi-squares, correlation between socio-demographic factors e.g. age, education levels of the respondent and the scores of both tools was presented to give a perspective of how the variables interrelate. Frequency tables were used to present the socio-demographic factors while bar graphs and pie charts were used to represent the scores of both standardized tools.

Hypothesis Testing

To determine whether the null hypothesis will be accepted or rejected a Chi-Square Test of Independence was done. This test of hypothesis was appropriate because it the hypothesis focused on establishing association between dependent and independent variable.

3.15   Data Management

As mentioned data collected had only codes instead of participants' names which ensured anonymity and confidentiality was upheld. The data was then locked in a lockable wardrobe and only unleashed during data entry. They were stored similarly after the process. Data collected or analyzed from the study, will be kept safe and stored for 10 years after the completion of the project. Open access publication of data and deposition will ensure longevity of the data in the long-term.

3.16   Ethical Consideration

The approval from the Hospital and University of Nairobi ethics and research committee and the study site administration was sought before the commencement of the study. The researcher informed the clinic administrators what the study would entail by sharing the study objectives with them. All the participants were briefed on the nature of the study and the necessary instructions, study objectives, risks and participant rights. Each participant was presented with

informed consent forms which had the title of the study, the institution, identity of the researcher and supervisors as well as the purpose and procedure of the study. Participants were assured that participation was entirely on voluntary basis and also made aware that they can withdraw from the study if they felt uncomfortable to continue and no penalties or victimization will result. Each study participant was required to sign an informed consent form before enrolment. Participation was entirely voluntary. The respondents remained anonymous and no name were required. The population participating in the study were accorded care and non- disclosure or confidentiality was maintained during data collection. The researcher acknowledged that there would be a risk of distressing the participants during the interview and gathering of data so counselling was offered as need arose on site for mild cases of emotional distress. If respondents were found to be suffering from moderate to severe emotional distress or the disorders (depression, Anxiety or the comorbidity) then referral for psychiatric evaluation was done where they could be put on anti depressants or anxiolytics medication. The same applied to children whose parent's reports showed serious socio-emotional problems. Such cases were referred for psychiatric evaluation by a child psychiatrist. Psychotherapy would then be scheduled on regular intervals for respondents through referrals to the psychologists at Kenyatta National Hospital department of Mental Health. Moreover, if the researcher noted that the respondent had not been complying with treatment regimen, then referral for treatment and medication counselling that is focused on adherence was done.

The participants were also informed that there were no physical risks anticipated from the study. The respondent was taken through the instructions for all these questionnaires and given time to answer the questions when asked by the researcher. Questionnaires were researcher administered .Completed questionnaires were collected and researcher thanked the participants. All the

completed questionnaires were kept in a secure bag and transported to the researcher's home. The questionnaires were kept under lock and key awaiting data analysis.

3.17 Study Limitations

The first limitation was that the BITSEA has never been used in Africa and hence there are no established norms for this population. The second limitation was that data can only be generalized to HIV infected people; as it did not un-infected mothers to compare the outcome. Other limitations were lack of funds as the instrument evaluating the emotional and social development of the children is quite expensive. The process of data collection was also costly.

CHAPTER 4: RESULTS

4.0   Introduction

This chapter entails the analysis of the data collected. The results are presented according to the study objectives which were:

1. To establish the prevalence of Comorbid depression and anxiety among the HIV -positive mothers attending the Kibra South Clinic

2. To establish the prevalence of socio-emotional development problems among the children attending the Kibra South Clinic

3. To determine whether there is a relationship between comorbid depression and anxiety in HIV infected mothers and child's emotional development problems

4.1   Response Rate

The sample size population for the study was 185 respondents and the response rate was 100%. 11 respondents did not meet the inclusion criteria and were excluded from the study. All respondents participated in the full interviews once they signed the consent forms.

4.2   Respondents' Socio Demographic Profiles

Table 4.1 presents socio-demographic characteristics of the respondents who were HIV positive mothers with children between the ages of 24 to 36 months. The mean age of the respondents was 31.13yrs (SD. ±6.641), the mode was 30yrs and the median 30yrs.

Forty three point two percent (43.2% (80)) were married while 24.3% (45) were single or never married and 20.5% (38) were separated, and 10.8% (20) were widowed. Only 2 respondents were divorced. Thirty eight point four percent (38.4% (71)) of the respondents had reached primary school, 31.9% (59) had attained secondary school education, and 18.9 % (35) had been

to college. One point 1 percent (1.1 % (2)) had attained university education and had completed undergraduate degree courses. Finally, 9.7 % (18) had no formal education.

 Majority 81.6% (151), indicated that they worked outside the home while 54.1 %(100) of them indicated that they worked part time.

 The average salary of the respondents was Kshs. 9684.24 (SD. ±5452.259), the mode was Kshs. 5000 and the median Kshs. 8100. Most of the respondents indicated that they had 2 children. The mean was 2.72(SD±1.373) while the median was 2.

Table 4. 1: *Respondents Socio-Demographic Profiles*

Variable		Outcome 185/100%	
		Frequency (n)	Percentage (%)
Marital Status	Single/ Never Married	45	24.3%
	Married/Cohabiting	80	43.2%
	Separated/Divorced	40	21.6%
	Widowed	20	10.8%
Age categories (years)	18-24 Years	25	13.5%
	25-34 years	113	61.1%
	35-44 years	41	22.2%
	45-54 years	6	3.2%
Level of education	Primary	71	38.4%
	Secondary	59	31.9%
	College	35	18.9%
	University	2	1.1%
	No Formal Education	18	9.7%
Occupation Status	Employed	151	81.6%
	Unemployed	34	18.4%
Working Situation	Working full time	50	27.0%
	Working part time	100	54.1%
	Not working& Not Looking For Work	12	6.5%
	Unemployed & Looking For Work	23	12.4%
Salary	<5000	12	6.5%
	5000-19,999	163	88.1%
	20000-49,999	9	4.9%
	Don't Know	1	0.5%

4.3   Depression among the HIV -Positive Mothers Attending the Kibra South Clinic

4.3.1   Becks depression Inventory Scores & Severity of Depression

Becks depression Inventory was used to determine the level of depression among the respondents. The mean score was 14.18 (SD. ±8.972), the mode was 9 and the median was 11.0. Figure 4.1 below presents the levels and severity of depression among respondents. As indicated, 20.0% (37) scored between14-20 which meant that they had mild depression. Eighteen point nine percent (18.9% (35)) had scores ranging from 21 -29 and this meant that they were suffering from moderate depression. Six point five percent (6.5% (12)) of them had severe depression with scores from 30 and above. Fifty four point six percent (54.6% (101)) of the respondents had scored between 0-13 implying that they had no depression.
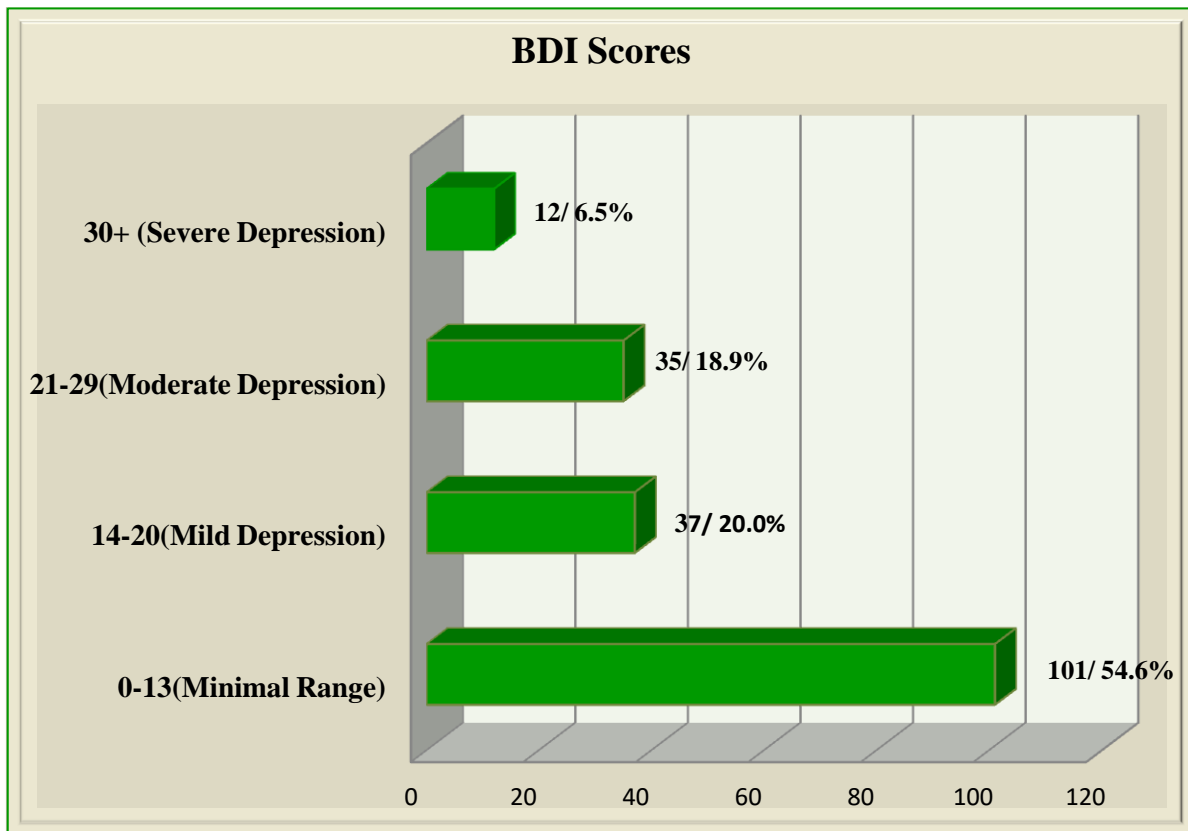
Figure 4. 1: Severity of Depression

4.3.2 Prevalence of Depression

The prevalence of depression was determined by considering mild to severe depression, this is presented in Table 4.2 below. The findings show that the prevalence of depression was 45.4%.

Table 4. 2: *Prevalence of Depression*

	Frequency (N=185)	Percentage (%=100)
Depression	84	45.4
No depression	101	54.6
Total	185	100.0

4.4 Anxiety among the HIV -Positive Mothers Attending the Kibra South Clinic

4.4.1 Becks Anxiety Inventory Scores & Severity of Anxiety

Becks Anxiety Inventory was used to determine the level of anxiety among the respondents. The mean score was 24.93 (SD. ±16.836), the mode was 6 and the median was 27.

Table 4.3 below presents the levels and severity of anxiety among respondents. As indicated, 30.3% (56) had scores starting from 36 implying that they suffered from severe anxiety. Forty two point seven percent (42.7% (79)) of the respondents had scores between 0-21 implying that they had low anxiety and not clinically significant depression. Twenty seven percent (27.0% (50)) scored between 22-35 signifying that they had moderate anxiety.

Table 4. 3: *BAI scores*

	Frequency (N=185)	Percentage (%=100)
36 & Above -Severe Anxiety	56	30.3
22- 35 -Moderate Anxiety	50	27.0
0-21- Low Anxiety	79	42.7
Total	185	100.0

4.4.2 Prevalence of Anxiety

The prevalence of anxiety was determined by summation of the number of respondents diagnosed with moderate to severe anxiety, this is presented in Figure 4.2 below. The findings show that the prevalence of anxiety was 57.3%.
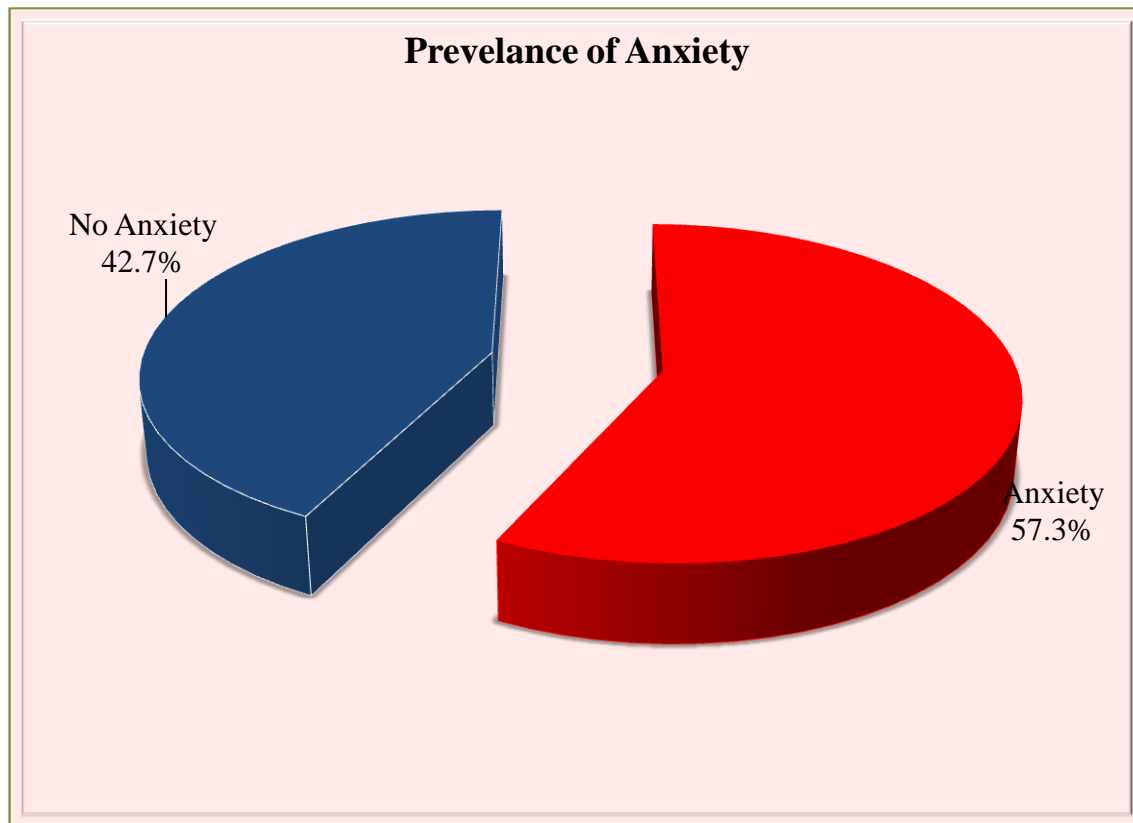
Figure 4. 2: Prevalence of Anxiety

4.5 Prevalence of comorbid Depression & Anxiety among the HIV -Positive Mothers Attending the Kibra South Clinic

The prevalence of comorbid depression and anxiety was determined by considering respondents who had been found to have both depression and anxiety. Figure 4.3 below represents the finding and as shown the prevalence rate was 38.4% (71).

Prevalance of Comorbid Depression & Anxiety
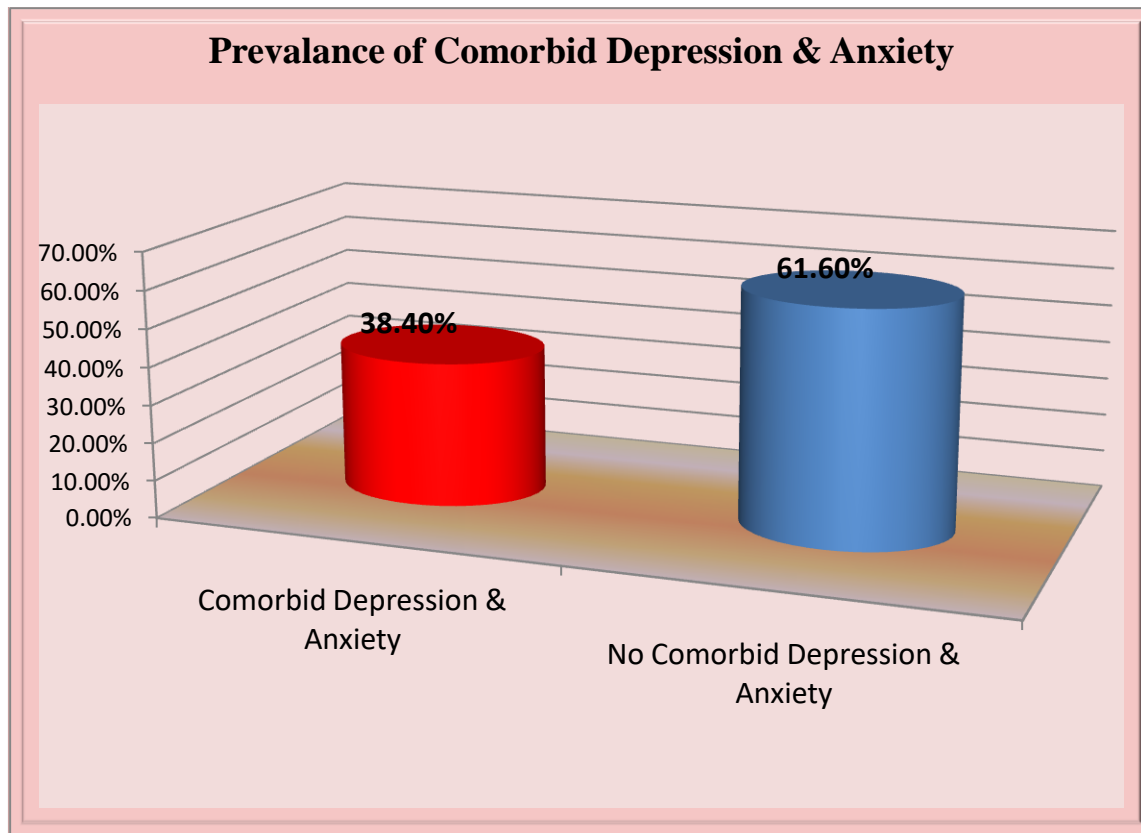
Comorbid Depression & Anxiety	Frequency (N=185)	Percentage (%=100)
No	114	61.6
Yes	71	38.4
Total	185	100.0

Figure 4. 3: Comorbid Depression & Anxiety

4.6 Association & Correlation between Socio-demographic factors & depression, Anxiety and Comorbid Depression & Anxiety

To establish association between socio-demographic factors and depression or anxiety the Pearson chi square test was done. Being that all the variables are categorical, to establish the correlation strength of relationship and effect of independent variable on dependent variables, Cramer's Phi Coefficient test was carried out for significantly associated variables.

4.6.1 Socio-demographic factors & depression

Table 4.4 presents association between socio-demographic factors & depression. Level of education was significantly associated with depression at p=0.029, the participants with higher levels of education i.e. College and University were generally less depressed unlike participants with primary and secondary school level of education.

Cramer's V values for education and working situation was 0.242 and 0.261 respectively. This indicates that the strength of relationships between these variables to be moderate.

Table 4. 4: Socio-Demographic Factors & Depression

Variable		Depression		Chi-Square (P Value)	Correlation statistics (Cramer's V)
		No Depression	Depression)		
Marital Status	Single	24(13.0%)	21(11.4%)	*0.228*	
	Married/Cohabiting	49(26.5%)	31(16.8%)		
	Widowed	8(4.3%)	12(6.5%)		
	Divorced	0(0.0%)	2(1.0%)		
	Separated	20(10.8%)	18(9.7%)		
Age categories (years)	18-24 Years	10(5.4%)	15(8.1%)	*0.250*	
	25-34 years	64(34.6%)	49(26.4%)		
	35-44 years	25(13.5%)	16(8.6%)		
	45-54 years	2(1.1%)	4(2.1%)		
Level of education	Primary	45(24.3%)	26(14.0%)	*0.029*	*0.242*
	Secondary	23(12.4%)	36(19.4%)		
	College	24(13.0%)	13(7.0%)		
	No F. Education	9 (4.9%)	9(4.9%)		
Occupation Status	Employed	78(24.3%)	73(39.4%)	*0.091*	
	Unemployed	23(12.4%)	11(6.0%)		
Salary	<5000	3(1.6%)	9(4.9%)	*0.102*	
	5000-19,999	92(49.7%)	71(38.4%)		
	20000-49,999	6(3.2%)	3(1.6%)		
	Don't Know	0(0.0%)	1(0.5%)		

4.6.2 Socio-demographic Factors & Anxiety

Table 4.5 presents association between socio-demographic factors & anxiety. Age was significantly associated with anxiety at p=0.009, where participants between the ages of 24 to 35 years were found to be most affected. Occupation was also significantly associated with anxiety at p=0.013. Employed respondents were found to be most affected and more so those working part time. Cramer's V for age was 0.250 and for work situation was 0.248 which indicate that the strength of relationships between these variables to be moderate. Cramer's V for occupation was 0.183 which indicates that there was a weak relationship.

Table 4. 5: Socio-Demographic Factors & Anxiety Severity

Variable		Anxiety		Chi-Square (P Value)	Correlation statistics (Cramer's V)
		No Anxiety	Anxiety		
Marital Status	Single	22(11.9%)	23(12.4%)	*0.496*	
	Married/Cohabiting	36(19.5%)	44(23.8%)		
	Widowed	7(3.8%)	13(7.1%)		
	Divorced	0(0.0%)	2(1.1%)		
	Separated	14(7.6%)	24(12.9%)		
Age categories (years)	18-24 Years	5(2.7%)	20(10.8%)	*0.009*	*0.250*
	25-34 years	55(29.7%)	58(31.4%)		
	35-44 years	19(10.3%)	22(11.9%)		
	45-54 years	0(0.0%)	6(3.3%)		
Level of education	Primary	32(17.3%)	39(21.1%)	*0.073*	
	Secondary	22(11.9%)	37(20.0%)		
	College	19(10.3%)	16(8.6%)		
	University	2(1.1%)	0(0.0%)		
	No F. Education	4 (2.2%)	14(7.5%)		
Occupation Status	Employed	58(31.4%)	93(50.3%)	*0.013*	*0.183*
	Unemployed	21(11.4%)	13(7.0%)		
Salary	<5000	2(1.1%)	10(5.4%)	*0.224*	
	5000-19,999	73(39.5%)	90(48.7%)		
	20000-49,999	4(2.2%)	5(2.7%)		
	Don't Know	0(0.0%)	1(0.5%)		

4.6.3 Socio-demographic Factors & Comorbid Depression &Anxiety

Table 4.6 presents association between socio-demographic factors & co-morbid depression/ anxiety. These variables were found to be significantly associated with comorbid depression/ anxiety; Age at p=0.031 where participants between the age of 25 to 34 years were found to be most affected. Level of education was also significant at p=0.025; participants with higher levels of education were found to be less affected. Respondents' salary was also found to significantly associated with anxiety at p=0.005. Respondents who earned less than 5000 shillings were generally found to be suffering from the comorbidity. From the data, Majority of respondents who earned exactly 5,000 shillings were also found to be suffering from the comorbidity. The correlation between the significantly associated variables indicated that the strength of relationships between these variables to be moderate and values above 0.2 but less than 0.3.

Table 4. 6: Socio-Demographic Factors & Depression /Anxiety Severity

Variable		Comorbid Depression &Anxiety		Chi-Square (P Value)	Correlation statistics (Cramer's V)
		Yes	No		
Marital Status	Single	18(9.7%)	27(14.6%)	*0.121*	
	Married/Cohabiting	24(13.0%)	56(30.3%)		
	Widowed	9(4.9%)	11(5.9%)		
	Divorced	2(1.1%)	0(0.0%)		
	Separated	18(9.7%)	20(10.8%)		
Age categories (years)	18-24 Years	16(8.6%)	9(4.9%)	*0.031*	*0.219*
	25-34 years	37(20.0%)	76(41.1%)		
	35-44 years	15(8.1%)	26(14.1%)		
	45-54 years	3(1.6%)	3(1.6%)		
Level of education	Primary	21(11.4%)	50(27.0%)	*0.025*	*0.245*
	Secondary	30(16.2%)	29(15.7%)		
	College	10(5.4%)	25(13.5%)		
	University	0(0.0%)	2(1.1%)		
	No F. Education	10(5.4%)	8(4.3%)		
Employment Status	Employed	58(31.4%)	47(25.4%)	*0.234*	
	Unemployed	21(11.4%)	3(1.6%)		
Salary	<5000	10(5.4%)	2(1.1%)	*0.005*	*0.263*
	5000-19,999	57(30.8%)	106(57.3%)		
	20000-49,999	3(1.6%)	6(3.2%)		
	Don't Know	1(0.5%)	0(0.0%)		

4.7   Multivariable Analysis determining predictors of Comorbid Depression & Anxiety

Multiple Binominal/Binary logistic regression was performed to ascertain the effects of age, marital status, education, employment, work situation, salary, depression and anxiety on the likelihood that participants have comorbid depression and anxiety. The logistic regression model was statistically significant at p value = 0 .001. The model explained 69.1% (Nagelkerke R^2) of the variance in comorbid depression and anxiety among the participants and correctly classified 90.8% of the cases. (Table 4.7 to 4.9 below)

Table 4. 7: Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
113.085[a]	.507	.691
a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.		

Table 4. 8: Regression Model Significance & Variance

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Constant	-.502	.153	10.836	1	.001	.605

Table 4. 9: Classification of the Table

Observed		Predicted		
		Comorbid Depression & Anxiety		Percentage Correct
		No	Yes	
Comorbid Depression & Anxiety	No	105	9	92.1
	Yes	8	61	88.4
Overall Percentage				90.7
a. The cut value is .500				

The Wald chi square test was used to determine statistical significance for each of the independent variables. Table 4.10 below indicates that, no socio-demographic factor was a risk

factor for comorbid depression and anxiety. The results show that; depression (p = <0.001) and

anxiety (p = <0.001) added significantly to the model/prediction.

Table 4. 10: Binary Logistic Regression Table

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Marital Status	.525	.492	1.138	1	.286	1.691	.644	4.440
Education	.582	.680	.733	1	.392	1.790	.472	6.789
Age	-.038	.047	.645	1	.422	.963	.878	1.056
No of children	-.270	.199	1.835	1	.176	.764	.517	1.128
Salary	.000	.000	.051	1	.821	1.000	1.000	1.000
Anxiety	.078	.020	15.763	1	<.001	1.081	1.040	1.123
Depression	.185	.038	24.127	1	<.001	1.203	1.117	1.295
Constant	-4.386	1.664	6.949	1	.008	.012		

4.8 Socio-Emotional Development Problems among the Children Attending the Kibra South Clinic

185 children accompanied their parents; Girls were more than boys at 53% (98) and most of

them were between the ages of 30 to 36 months; 56.2% (104).

Table 4. 11: Gender & Age of the Children

Variable		Outcome 185/100%	
		Frequency (n)	Percentage (%)
Gender	Boy	87	47.0%
	Girls	98	53.0%
Age	24-29 Months	81	43.8%
	30-36 Months	104	56.2%

4.8.1 Levels of Socio-Emotional Development using the Brief Infant -Toddler Socio-emotional development Assessment (BITSEA)

The Brief infant -toddler social emotional assessment (BITSEA) was used to determine whether

the children indeed had socio- emotional problems based on the parent's perception of the

children's development and behavior. The tool covers both behavioral problems (for example excessive aggressive behavior, sadness, fear and deviant behaviors such as self injurious movements, odd posturing etc) that have become excessive in intensity and frequency; and competencies deficits or delays aspect of socio-problems (e.g. level of attention, compliance, mastery motivation, pro-social peer relation, empathy, imitation/ play skills and social relatedness). Percentile ranking below 14% indicated a presence of significant socio-emotional problems while percentile ranking ranging from 15 to 26% indicated socio-emotional development that was on course although in some cases there were slight but clinically insignificant problems. The percentile vary per gender and age (months) of the child.

As indicated in Table 4.12 below, 14.1% of the children had behavioral problems, 5.9% had competencies deficits and delays and 18.4% had both difficulties.

Table 4. 12: Levels of Socio-Emotional Development (Based on Percentile Ranking)

	Frequency (N=185)	Percentage (%=100)
SE/ Behavioral Problems	26	14.1
SE/ Competencies Deficits/Delays	11	5.9
Both Behavioral & Competency Deficits	34	18.4
No SE Problem	114	61.6
Total	185	100.0

4.8.2 Prevalence of Socio-Emotional Development using the Brief Infant -Toddler Socio-emotional development Assessment (BITSEA)

Figure 4.4 below represents the finding and as shown, the prevalence rate was 38.9% (72). The prevalence of Socio-Emotional Development Problems was determined by considering the summation of all the children with percentile rankings from 14% and below. This was determined by the parents scores based on their perception of their children behaviors and social abilities. 52.8% of the children found to be having socio-emotional problems were male.

Prevalence of Socio-Emotional Development Problems

No Socio Emotional Development 114/ 61.1%

Socio Emotional Problem 71/ 38.9%
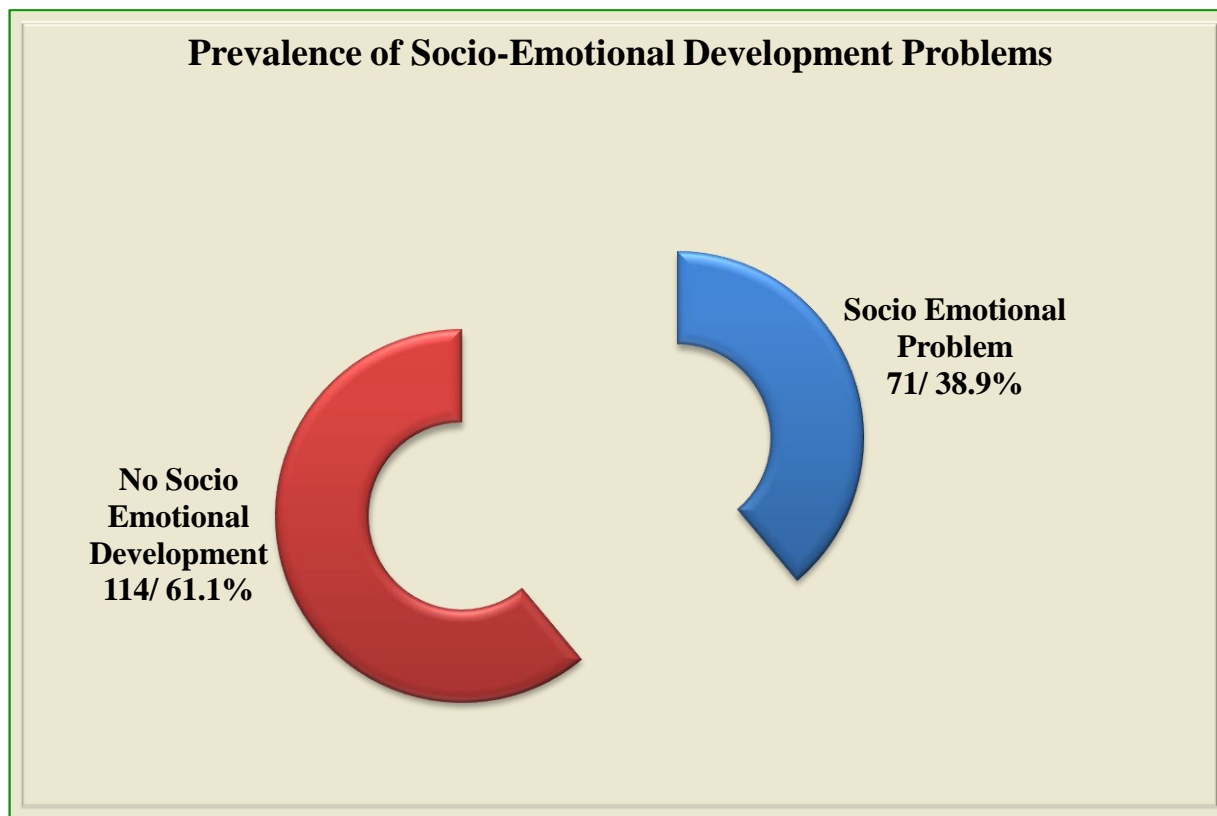
Figure 4. 4: Prevalence of Socio-Emotional development Problems

4.9 Association between a Mother's Comorbid Depression & Anxiety and Child's Socio-Emotional Development Problems

As indicated in Table 4.13 below, there was no significant association between comorbid depression and anxiety among the mothers and the socio-emotional development among the children at a P=0.672.

Table 4. 13: Comorbid Depression & Anxiety and Socio-Emotional Development In Children

Variable		Socio-Emotional Development In Children		Chi-Square
		Yes	No	(P Value)
Comorbid Depression & Anxiety	Yes	29(15.7%)	42(22.7%)	*0.672*
	No	43(23.2%)	71(38.4%)	

4.10 Correlation between Comorbid Depression & Anxiety and Socio-Emotional Problems in Children

As indicated in Table 4.12 below, There was a negative linear relationship between the competence deficit component of socio-emotional development and BDI scores(depression). Meaning as the depression scores went up, the competence scores went down(as severity of depression increased, the child was more likely to have competence delays or deficits).

Table 4. 14: Pearson Correlation statistics showing relationship between variables

		Competence D/D Percentile Rank	BAI Scores	BDI scores
Competence delay/deficits Percentile Rank	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	185		
BAI Scores	Pearson Correlation	-.039		
	Sig. (2-tailed)	.602		
	N	185		
BDI scores	Pearson Correlation	-.154*	.634**	
	Sig. (2-tailed)	.037	.000	
	N	185	185	
Behavioral Problems Percentile Rank	Pearson Correlation	.563**	-.011	-.066
	Sig. (2-tailed)	.000	.885	.371
	N	185	185	185

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.11 Hypothesis Testing

The study's Null hypothesis was: *There is no association between comorbid depression and anxiety in mothers suffering from HIV and the level of socio-emotional problems in their children.* The alternate hypothesis was; *there was an association between comorbid depression and anxiety in mothers suffering from HIV and the level of socio-emotional problems in their children.*

To determine whether the null hypothesis will be accepted or rejected, a chi-square test of

independence was used. The significance is also more than 0.05 at P value 0.672 (Table 4.13)

The null hypothesis is therefore accepted.

CHAPTER 5: DISCUSION, CONCLUSIONS AND RECCOMMENDATION

5.1   Discussion

5.1.1   Socio – demographic profile of HIV Positive Mothers

The study revealed that most of the respondents were between the ages of 25 and 34 years at 34.6%. The mean age was 31.13yrs (SD. ±6.641), the mode was 30yrs and the median 30yrs. Similar results have been reported in other studies. For instance, a study that had been done in Northeastern Tanzania to determine the maternal HIV status and pregnancy outcomes, also reported that the women between the age of 26 and 35 years were the most affected participants. They represented 43.8% of the study population in Tanzania (Habib, et al., 2008). Similarly another study that was done to determine the socio - demographic characteristics of HIV patients diagnosed at immunization centers in Calabar, Nigeria; it was reported that mothers aged between 25 and 34yrs were the most infected participants (Venn, Ochigbo, Anah, & Asindi, 2016). Another study that was done in Mangaung, Free State in South Africa, to determine the socio-demographic risk factors for HIV infection in women; similar to this current study, it was reported that women aged 25-34 years were mostly affected (Hattingh, Walsch, & Jourbert, 2009).

This current study also found that most of the respondents were married (43.2%).In line with the current study, a study carried out in Tanzanian   reported that 41.4% of the mothers were married or cohabiting with a partner (Habib, et al., 2008). In another Tanzanian study done to assess the prevalence of depression at ARV therapy initiation and clinical outcomes among a cohort of women living with HIV, it was reported that most of the participants were also married at 35.4% (Sudfeld, et al., 2017). Similar results were established in the South African study mentioned above (Hattingh, et al., 2009).

The findings from the Kibra study also established that most respondents had low levels of education with 48.1% having no formal education or having only attained their primary school education. Habib et al., (2008), found that 36.8% of the women in HIV infected women in Tanzania had only primary school education. The South African study generally reported that HIV infected women had low levels of education and considered this a major risk factor for HIV (Hattingh, Walsch, & Jourbert, 2009). Though the Nigerian study found that HIV infected participants mostly had secondary school education, unlike our current study which found that most of the mothers had primary school education, it generally concluded that HIV seropositivity was associated with low levels of education (Venn, et al., 2016).

Although the current study found that participants were employed, it also found that the majority of these participants' salaries generally ranged slightly below 5000 and slightly above 15000 Kenyan shillings. The mode being 5000 shillings. More or less similar results have been reported in the studies previously mentioned (Venn et al.,, 2016; Hattingh et al., 2009; Pattanashetti, 2017). These studies indicated that the female participants were mostly from low socio-economic backgrounds.

5.1.2 Prevalence of Comorbid Depression and Anxiety among the HIV -Positive Mothers

The prevalence of comorbid depression among the HIV infected mothers at the Kibra South Clinic was found to be 38.4%. To establish this prevalence rate of comorbid depression and anxiety, the study first looked at prevalence of depression and anxiety both independently. The study found that 45.4% of the mothers were suffering from depression and 57.3% had anxiety. These were determined using the Becks Depression and Becks Anxiety Inventories. Most Studies have reported varied prevalence rates for both disorders. For instance higher prevalence rate was reported in a Tanzanian study done to assess the prevalence of depression at ARV

therapy initiation and clinical outcomes among a cohort of women living with HIV. This study

indicated that the prevalence of depression was 57.8% among these women at ART initiation

(Sudfeld, et al., 2017). However, the study did not assess for anxiety. In another study that was

carried out in India, a lower prevalence rate of depression was also reported among a cohort of

HIV infected women. The study reported that 34.5% of the women who participated in the study

had clinical depression (Pattanashetti, 2017). The levels of depression were 27 (54%) having

mild, 21 (42%) moderate, and 2 (4%) having severe depression. These percentages were

calculated based only on the total number of participants that had depression. This study was

carried out by Karnataka Institute of Medical Sciences in India and the main aim of the study

was to highlight the fact that depression was under-diagnosed among HIV infected women in

this area; the BDI was used in this study (Pattanashetti, 2017).

With regards to anxiety, a study that was conducted to determine the prevalence and correlates of

depression and anxiety among patients with HIV on follow up at Alert Hospital, Addis Ababa,

Ethiopia, found that more women were generally affected by the disorder. Out of the 245

women who were engaged in the study, 42.4% (104) of them were diagnosed with anxiety

(Tesfaw., et al, 2016). The prevalence rate was slightly lower than this Kibra study findings.

Higher prevalence rate of anxiety (85%) was also reported in a study that was done in Albania to

determine the level of anxiety and depression among HIV infected patients (Morrison, et al.,

2011).

5.1.3   Prevalence of Socio-Emotional Development Problems among the Children Attending the Kibra South Clinic

The Brief infant -toddler social emotional assessment (BITSEA) was used to determine whether

the children indeed had socio- emotional problems. The tool covers both behavioral problems

(for example excessive aggressive behavior, sadness, fear and deviant behaviors such as self injurious movements, odd posturing and competencies deficits or delays aspect of socio-problems (e.g. level of attention, compliance, mastery motivation, pro-social peer relation, empathy, imitation/ play skills and social relatedness).

Overall, the study found that 38.9% of the children were having social emotional problems. Fourteen point one percent (14.1%) of the children were found to be having socio-emotional behavioral problems, 5.9% were reported as having socio-emotional competencies deficits or delays and 5.9% of the children were found to be having both behavioral and competencies delays and deficits. In a previous study that was done in the United states, it was reported that between 30 and 50% of children who had parents with psychiatric disorders were most likely to be having socio-emotional problems or psychiatric diagnosis (Hammen, 2003). This prevalence could also be explained by the fact that these children came from families with low socio-economic backgrounds, which is generally associated with these problems. In a study that was done in the United States, it was found that generally children coming from low socio-economic backgrounds were reportedly having socio-emotional behavioral problems (Knapp, Ammen, Arstein-Kerslake, Poulsen, & Mastergeorge, 2007).

Although some published studies on socio-emotional development have not entirely focused on both aspects of behavior and competencies deficits or delays; there are relevant findings to this current study. For example, in a comparative study that was undertaken in Myanmar among children with HIV infected parents and those that did not, it was found that children with infected parents had significant emotional problems but there was no difference in their social or conduct behaviors. The study aimed to look at psychological behaviors among these groups of children. It is however, important to note that the children being assessed were from 4 years to

16 years of age and even more importantly, the study established key mediating factors such as displacement and other social conditions as playing a major role (Myo-Myo & Tippawan, 2017).

5.1.4 Relationship between Comorbid Depression And Anxiety in Mothers And Child's Emotional Development Problems

The study reported that there was no association between a mother having comorbid depression and anxiety and her child having socio-emotional development problems. However, it was established that there was a relationship between a mother suffering from depression and probability of her child having socio-emotional development problems particularly competency delays or deficits { r=-154, p=0.037}. Similar to these current findings, a study that was done to determine the impact that postpartum depression had on infant social withdrawal also found that even though 31% of the children were socially withdrawn and 42% of the mothers were suffering from postpartum depression, the study reported that depression was not a predictor of infant social withdrawal (Hartley, et al., 2010). In another study that was conducted in the United States which was looking at socio-emotional development among other constructs such as cognitive development in 24 months toddlers, it was found that maternal variables such as greater parenting stress, maternal psychological distress were associated with competence delays and deficits particularly associated with autism spectrum disorders (Frederick, et al., 2018).

5.2 Conclusion

Prevalence of Comorbid depression and anxiety among the HIV -positive mothers attending the Kibra South Clinic was high. Prevalence of socio- emotional development problems in the toddlers was also significantly high. Finally, the study concludes that there was no relationship between comorbid depression and anxiety in HIV infected mothers and child's emotional development problems. However, it reports that there is a relationship between depression

(independently) and socio-emotional development problems in children particularly competency deficits. This connection is best explained by Bowlby's and Ainsworth's attachment theories which are the theoretical underpinning of this study.

The study implies that a child whose mother has depression is most likely going to have difficulty in compliance, levels of attention, mastery of motivation, pro-social peer relation, empathy, imitation/ play skills and social relatedness. The assumption is; a depressed mother who is probably unattached and inattentive to a child will not model and nature socially acceptable and adaptive behavior in the child hence the deficits. The mother is also less likely to notice if the child is having problems.

5.3   Recommendations

The study recommends that;

1. Screening of psychiatric disorders and assessing for general psychological wellness to be included in the treatment regimen of the HIV infected mothers

2. Children socio-emotional development assessment could also be included as part of the procedures done to assess children for growth/developmental milestones or deficits

3. The clinic did not have the services of a psychiatrist and it would be beneficial to the patients to have access to treatment for their psychiatric disorders as these disorders do predict poor medication adherence

4. Thorough follow up for patients with these disorders should be done to ensure they receive psychosocial support through therapy and group counselling. It is however important to note that the clinic ensured that most patients were in support groups.

Recommendation therefore is to incorporate cognitive behavioral therapy in the group sessions.

5. Thorough psycho-education of the mothers on the importance of their psychological well being in relation to the impact it may have on their children's socio-emotional development is key. Mothers could be encouraged to engage in moderate exercising programs which may help with stress management.

5.4   Recommendation for Further studies

This current study only focused on women who were HIV positive, a comparative study looking at comorbid depression and anxiety among women who are HIV negative would give a deeper insight into socio-emotional development among children.

The researcher also intends to undertake a follow up study to determine the effectiveness of positive psychology on comorbid depressive & anxiety disorders among HIV infected women.

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APPENDICES

Appendix 1: Informed Consent Explanation

TITLE OF STUDY: Cormobid Depressive & Anxiety disorder Among HIV Infected Mothers and Implications on Children's Socio-Emotional Development In Kibra Slums.

PRINCIPAL INVESTIGATOR AND INSTITUTIONAL AFFILIATION: Sylvia Raywe, Msc. Clinical Psychology student from the University of Nairobi.

INTRODUCTION:

I would like to tell you about a study being conducted by the above listed researcher. The purpose of this consent form is to give you the information you will need to help you decide whether or not to be a participant in the study. Feel free to ask any questions about the purpose of the research, what happens if you participate in the study, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions to your satisfaction, you may decide to be in the study or not. This process is called "informed consent". Once you understand and agree to be in the study, I will request you to sign your name on this form. You should understand the general principles which apply to all participants in a medical research:

i) Your decision to participate is entirely voluntary

ii) You may withdraw from the study at any time without necessarily giving a reason for your withdrawal

iii) Refusal to participate in the research will not affect the services you are entitled to in this health facility or other facilities. We will give you a copy of this form for your records.

May I continue? YES/ NO

This study has approval by The Kenyatta National Hospital–University of Nairobi Ethics and Research Committee protocol No. _____

WHAT IS THIS STUDY ABOUT?

The researcher listed above is interviewing mothers living with HIV and have children between the age of 2 to 3 years. The purpose of the interview is to assess the prevalence of co- morbid depression and anxiety in HIV- positive mothers and its implication on child's socio-emotional development. Participants in this research study will be asked questions about their psychological wellness and their children's social emotional development.

There will be approximately 185 participants in this study randomly chosen. We are asking for your consent to consider participating in this study.

WHAT WILL HAPPEN IF YOU DECIDE TO BE IN THIS RESEARCH STUDY?

If you agree to participate in this study, the following things will happen:

You will be interviewed by a trained interviewer in a private area(designated office at the Clinic) where you feel comfortable answering questions. The interview will last approximately 30 minutes. The interview will cover topics such as demographic information (age, level of education, marital status), depression, anxiety, HIV and social emotional development of the child.

After the interview is done, psycho education, counseling/ psychotherapy and referral for psychiatric review at Kenyatta National Hospital may follow if deemed necessary.

We will ask for a telephone number where we can contact you if necessary. If you agree to provide your contact information, it will be used only by people working for this study and will never be shared with others. The reasons why we may need to contact you include: clarification of information given.

ARE THERE ANY RISKS, HARMS, DISCOMFORT ASSOCIATED WITH THIS STUDY?

Medical research has the potential to introduce psychological, social, emotional and physical risks. Effort should always be put in place to minimize the risks. One potential risk of being in the study is loss of privacy. We will keep everything you tell us as confidential as possible. We will use a code number to identify you in a password-protected computer database and will keep all of our paper records in a locked file cabinet. However, no system of protecting your confidentiality can be absolutely secure, so it is still possible that someone could find out you were in this study and could find out information about you.

Also, answering questions in the interview may be uncomfortable for you. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any question asked during the interview.

It may be embarrassing for you to have to give details of your personal life. We will do everything we can to ensure that this is done in private. Furthermore, the researcher is a professional with special training in these examinations/interviews. Also, discussing your condition maybe stressful leading to emotional distress. Referrals for psychiatric review will be done for severe cases while counseling will be done on site for less severe cases. Follow psychotherapy and counselling services will be done.

In case of any injury, illness or complications related to this study, contact the researcher right away at the number provided at the end of this document.

ARE THERE ANY BENEFITS BEING IN THIS STUDY?

First, finding out whether you are psychologically well will be beneficial. For those who will be found to have the comorbidity or severe depression or anxiety then appropriate action will be

taken. The children's socio-emotional development will also be assessed and if problems or concerns will be noted than referrals again will be done. The information you will provide will be contribution to science and knowledge in understanding the comorbidity among HIV infected mothers and how it impacts the socio-emotional development of their children.

WILL BEING IN THIS STUDY COST YOU ANYTHING?

There will be no financial cost to you as the data collection will be carried out during your clinic visit.

WILL YOU GET REFUND FOR ANY MONEY SPENT AS PART OF THIS STUDY?

As indicated above, you will not spend any money to take part in this study. Hence there will be no compensation.

WHAT IF YOU HAVE QUESTIONS IN FUTURE?

If you have further questions or concerns about participating in this study, please call or send a text message to the researcher at the number provided at the bottom of this page. The researcher will pay you back for your incurred costs related to communication.

For more information about your rights as a research participant you may contact the:

KENYATTA NATIONAL HOSPITAL-UNIVERSITY OF NAIROBI ETHICS AND RESEARCH COMMITTEE

SECRETARY/ CHAIRPERSON,
Telephone No. 2726300 Ext. 44102,
Email uonknh_erc@uonbi.ac.ke.

PRINCIPAL INVESTIGATOR (RESEACHER)
Sylvia Raywe Sijenyi
University of Nairobi
Telephone No. 0724449939
Email: raywe32@gmail.com

SUPERVISORS
Prof. A. Obondo- B. A.
Associate Professor
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi
Telephone No. 0721849686

Prof. Caleb Othieno
MB, ChB; M Med (Psych)
Associate Professor
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi
Telephone No. 0724879111

WHAT ARE YOUR OTHER CHOICES?

Your decision to participate in research is voluntary. You are free to decline participation in the study and you can withdraw from the study at any time without injustice or loss of any benefits.

Appendix 2: Statement of Consent

Participant's statement

I have read this consent form or had the information read to me. I have had the chance to discuss this research study with a study counselor. I have had my questions answered in a language that I understand. The risks and benefits have been explained to me. I understand that my participation in this study is voluntary and that I may choose to withdraw any time. I freely agree to participate in this research study.
I understand that all efforts will be made to keep information regarding my personal identity confidential.

By signing this consent form, I have not given up any of the legal rights that I have as a participant in a research study.

I agree to participate in this research study: **Yes**   **No**

I agree to have the questionnaire preserved for later study: Yes   No

I agree to provide contact information for follow up: Yes   No

Participant printed name: _____

Participant signature / Thumb stamp _____ **Date** _____

Researcher's statement

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has willingly and freely given his/ her consent.

Researcher's Name: _____ **Date** _____

Signature _____

Role in the study: _____

Appendix 3: Ridhaa Ya Kushiriki Kwa Utafiti

UTANGULIZI

Majina yangu ni Sylvia Raywe, mimi ni mwanafunzi wa chuo kikuu cha Nairobi na waania shahada ya uzamili ya Clinical Psychologia. Mada ya utafiti ni *cormobid depressive & anxiety disorder among hiv infected mothers and implications on Children's Socio-Emotional Development In Kibra Slums.*

MADHUMUNI YA UTAFITI
Kuchunguza idadi au ujumla wa wanawake ambao wana maradhi ya ukimwi wanavyokabiliwa na ugonjwa wa unyogovu na usumbufu na vile haya magonjwa yanaathiri namna watoto wao wanavyokuwa kijamii na kijinisia.

MALENGO MAALUM

1. Kuchunguza idadi au ujumla wa wanawake ambao wana maradhi ya ukimwi wanaokabiliwa na ugonjwa wa unyogovu na usumbufu
2. Kuchunguza idadi au ujumla wa watoto ambao wanashida za kukua kijamii na kijinisia
3. Kuchunguza kama kuna uhusiano kati ya mama kuwa na ugonjwa wa unyogovu na usumbufu na watoto kuwanashida za kukua kijamii na kijinisia

MAELEZO YA UTARATIBU WA UTAFITI

Umechaguliwa kama mshiriki mdhaniwa wa utafiti huu kwa sababu unakidhi vigezo vya kuingizwa vya utafiti huu yale yalikuwa; mama ambaye ana viruzi vya Ukimwi na mtoto wa miaki kati ya miaka miwili au mitatu ambao wanaletwa kwenye kliniki kupata chanjo ama kuangaliwa mara kwa mara. Kigezo kingine kilikuwa ni mama amabaye atatoa idhini kwa kupiga sahihi ridhaa hii.
Nakuhimiza usome fomu hii na uulize maswali yoyote ambayo unaweza kuwa nayo kabla ya kukubali kuingia kwenye utafiti huu. Ni ya muhimu kutambua kuwa utafiti huu utachapishwa baada ya kukamilika.
Ikiwa unakubali kuwa katika utafiti huu, utaombwa kusaini fomu ya kibali kama uthibitisho wa hiari wa ushiriki. Baada ya kutia saini kwenye ridhaa, basi utaendelea kama mshiriki and kujazaa orodha ya maswali yatayo anadikwa kwenye karatasi tatu tofauti. Kujibu maswali hayo yote yatachukuwa kama muda wa dakika ishirini na tano.

HATARI, MADHARA NA USUMBUFU INAYOHUSISHWA NA UTAFITI HUU

Hakuna hatari, madhara na usumbufu wowote inayohusishwa na utafiti huu

FAIDA YANAYOHUSISHWA NA UTAFITI HUU
Faida inayohusishwa na utafiti huu ni kuwa mshiriki atapate kujua kama anaugonjwa wa unyogovu na usumbufu. Pia atapata kujua kama mtoto wake anashida zinazotokana na kukuwa kijamii na kijinisia

SIRI YAKO KAMA MSHIRIKI

Lakini tutahakikisha kuwa unacho tueleza kama mshriki itakuwa siri. Tutatumia msimbo kukujua kwenye data itakayokuwa kwa kompyuta ambayo imelindwa na neno la kificho. Isitoshe, makaratasi yetu yote yatawekwa na kufungiwa ndani ya kabati ya faili.

NITAREGESHEWA PESA AMBAYO NITATUMIA KAMA MSHIRIKI WA UTAFITI HUU?

LA, kama ilivyoelezewa, hautahitaji pesa kuhusishwa kwa utafiti huu.

HAKI YA KUULIZA MASWALI AMA KURIPOTI WASIWASI

Kama unamaswali zaidi ama wasiwasi yeyote kama bado utafiti unaendelea au baada ya kushiriki kwenye utafiti, tafadhali wasiliana nami kwa simu au unaweza tuma ujumbe kwenye nambari hii ya mtafiti au, unaweza wasiliana na karani/ Mwenya kiti, Kenyatta National Hospital-University of Nairobi Ethics and Research Committee.

KENYATTA NATIONAL HOSPITAL-UNIVERSITY OF NAIROBI ETHICS AND RESEARCH COMMITTEE

SECRETARY/ CHAIRPERSON,
Telephone No. 2726300 Ext. 44102,
Email uonknh_erc@uonbi.ac.ke.

PRINCIPAL INVESTIGATOR (RESEACHER)
Sylvia Raywe Sijenyi
University of Nairobi
Telephone No. 0724449939
Email: raywe32@gmail.com

SUPERVISORS
Prof. A. Obondo- B. A.
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Department of Psychiatry
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University of Nairobi
Telephone No. 0721849686

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Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi
Telephone No. 0724879111

HAKI YA KUJITOA KWENYE UTAFITI

Uamuzi wako kushiriki ni kwa hiari yako. Uko na huru kukataa kuwa mshiriki wa utafiti huu. Unaweza kujitoa kama mshiriki wa utafiti huu wakati wowote bila udhalimu au upungufu wa faida yoyote kwako. Unahurusa kutokujibu swala lolote ama kujitoa kabisa kwenye utafiti wakati wowote ukiendelea na unaweza pia kataa majibu yako kutumika.

Appendix 4: Fomu Ya Ridhaa Ya Mshiriki

KAULI YA MSHIRIKI

Nimesoma fomu ya ridhaa hii ama nimesikiza maneno ambayo nimesomewa. Nimepata muda wa kujadiliana juu ya utafati huu na mshauri wa utafiti. Maswali yangu yamejibiwa kwa lugha ambayo ninaelewa. Nimeelezewa juu ya madhara na faida na ninaelewa kuwa kushiriki kwenye utafiti huu ni kwa hiari yangu na ninaweza kujitoa wakati wowote kama mshiriki. Ninakubali kuhisika na utafiti huu.

Ninaelewa kuwa watafiti watafanya juhudi na mikakati ambayo yatahakikisha kuwa mambo yangu(utambulisho) yatabaki kuwa siri.

Kwa kutia saini kwenye fomu hii, sijawapa au kukana haki zangu za kisheria ambayo ninazo kama mshiriki wa utafiti huu.

Nakubali kuwa mshiriki wa utafiti huu   Ndio   La
Nakubali kuwa dodoso yangu inaweza wekwa na kutumika
Katika utafiti mwingine   Ndio   La
Nakubali kuwapa nambari yangu ya mawasiliano iliniweze
Fuatiliwa virahisi   Ndio   La

Jina la Mshiriki: _____

Saini la Mshiriki / Kidole _____ Tarehe _____

Mtafiti

Mimi niliyepiga saini yangu hapa, nimemweleza mshiriki maneno yote muhimu juu ya utafiti huu na nina amini kuwa ameelewa na kuamua kwa hiari yake kuwa mshiriki wa utafiti huu.

Jina la Mtafiti: _____ Tarehe _____

Saini _____

Jukumu langu kwa utafiti huu: _____

Kwa maelezo zaidi, tafadhali wasiliana na Sylvia Raywe*[0724-449939]* kutoka saa mbili asubuhi hadi saa kumi na moja na nusu jioni (Jumatatu hadi Ijumaa).

Appendix 5: Socio-demographic Questionnaire

Respondent code………………….
Date of questionnaire completion………………

1. What is your age?
(Tick one answer)
   a. 18-24 years old
   b. 25-34 years old
   c. 35-44 years old
   d. 45-54 years old
   e. 55 yrs +

2. What is your marital status?
(Tick one answer)
   a. Single, never married
   b. Married or domestic partnership
   c. Widowed
   d. Divorced
   e. Separated

3. How   many   children   do   you   have?   Please
   indicate..

4. What is the highest level of education you have completed?
(Tick one answer)
   a. Primary school or less..
   b. High school graduate or GED...
   c. Some college/AA degree/Technical school training..................................
   d. College graduate (BA or BS)..
   e. Graduate school degree: Master's or Doctorate degree (MD, PhD, And JD)..........
   f. No education

5. Do you work for pay outside the home? ....
(Tick one answer)
   a. Yes
   b. No

6. Check the box that best corresponds to your current work situation.
(Indicate "Yes" or "No" for each question.)
   a. Working full time...
   b. Working part time..
   c. Not working and not looking for work..
   d. Unemployed and looking for work...
   e. Disabled or retired and not looking for work.......................................

f. Currently in school..

Any other specify…………………………………………………

7. What is your total combined family income for the past 12 months, before taxes, from all sources, wages, public assistance/benefits, help from relatives, alimony, and so on? If you don't know your exact income, please estimate.

(Tick one answer)

a. Less than Kshs. 5,000..

b. 5,000 - 19,999..

c. 20,000 - 49,999...

d. Don't know..

Appendix 6: Maneno Ya Kijamii Na Idadi

Kodi ya Mshiriki………………….

Tarehe ya kukamilisha Maswali ………………

1. Unamiaka mingapi?
(Jibu Moja)…Miaka…
   a) 18-24
   b) 25-34
   c) 35-44
   d) 45-54
   e) 55 yrs +

2. Hali yako ya ndoa ni nini?
(Jibu Moja)
   a) Kamwe Hujao
   b) Umeoa
   c) Mjane
   d) Umetalakiwa
   e) Umetengena kwa ndoa

3. Una watoto wangapi? Tafadhali eleza...

4. Ni kiwango gani cha juu cha elimu uliyokamilisha?
 (Jibu Moja)
   a) Chini ya shule ya Msingi au Shule ya Msingi..
   b) Shule ya Sekondari...
   c) Chuo kikuu /chuo cha elimu(haujamaliza)..
   d) Zaidi ya shahada ya kwanza (MD, PhD, And JD)..........
   e) Hakuna elimu rasmi
   f) Umekataa kujibu

5. Je, unafanya kazi kwa kulipa nje ya nyumba?
 (Jibu Moja)
   a) Ndio
   b) No

6. Angalia sanduku ambalo linalingana na hali yako ya sasa ya kazi.
(Onyesha "Ndiyo" au "Hapana" kwa kila swali.)
   a) Kufanya kazi wakati wote
   b) Kufanya kazi wakati mmoja
   c) Hufanyi kazi wala hautafuti
   d) Haujaajiriwa lakini unatafuta kazi
   e) Walemavu au wastaafu na hawajatafuta kazi

f) Mwanafunzi

Vinginevyo bayana …………………………………………

7. Nini kipato chako cha jumla cha familia kwa miezi 12 iliyopita, kabla ya kodi, kutoka kwa vyanzo vyote, mshahara, msaada wa umma / faida, msaada kutoka kwa jamaa, alimony, na kadhalika? Ikiwa hujui mapato yako halisi, tafadhali tathmini.

(Jibu Moja)
   a) Chini ya shillingi 5,000...
   b) 5,000 - 19,999...
   c) 20,000 - 49,999...
   d) Sijui...

Appendix 7: Becks Depression Inventory

On this questionnaire there are groups of statements. Please read each of the statements carefully, then pick out the one statement in each group which best describes the way that you have been feeling the past week, including today

Circle the number besides the statements in each group before making your choice

1.
   0. I do not feel sad
   1. I feel sad
   2. I am sad all the time and I can't snap of it
   3. I am sad, unhappy that I can't stand it

2.
   0. I am not particularly discouraged about the future
   1. I feel discouraged about the future
   2. I feel I have nothing to look forward to
   3. I feel that the future is hopeless and that things cannot improve

3
   0. I do not feel like a failure
   1. I feel that I have failed more than the average (normal) person
   2. As I look back on my life, all I can see is a lot of failures
   3. I feel I am a complete failure as a person

4
   0. I am not particularly discouraged about the future
   1. I feel discouraged about the future
   2. I feel I have nothing to look forward to
   3. I feel that the future is hopeless and that things cannot improve

5
   0. I get much satisfaction out of things as I used to
   1. I don't enjoy things the way I used to
   2. I don't get real satisfaction out of anything anymore
   3. I am dissatisfied or bored with everything

6
   0. I don't feel particularly guilty
   1. I feel guilty a good part of the time
   2. I feel guilty most of the time
   3. I feel guilty all the time

7
   0. I don't feel I am being punished
   1. I feel I may be punished
   2. I expect to be punished
   3. I feel I am being punished

8

    0. I don't feel I am any worse than anybody else
    1. I am critical of myself for my weaknesses or mistakes
    2. I blame myself all the time for my faults
    3. I blame myself for everything bad that happens

9

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

10

    0. I don't cry any more than unusual
    1. I cry more now than I used to
    2. I cry all the time
    3. I used to be able to cry, but now I can't even though I want to

11

    0. I am no more irritated now than I ever was
    1. I get annoyed or irritated more easily than I used to
    2. I feel irritated all the time now
    3. I don't get irritated at all by the things that used to irritate me

12

    0. I have not lost interest in other people
    1. I am less interested in other people than I used to be
    2. I have lost most of my interest in other people
    3. I have lost all of my interest in other people

13

    0. I make decisions about as well as I ever could
    1. I put off making decisions more than I used to
    2. I have greater difficulty in making decisions more than I used to
    3. I can't make decisions at all any more

14

    0. I don't feel I look any worse than I used to
    1. I am worried that I am old or unattractive
    2. I feel that there are permanent changes in my appearances that make me look unattractive
    3. I believe that I look ugly

15

    0. I can work about as well as before
    1. It takes an extra effort to get started at doing something
    2. I have to push myself very hard to do anything
    3. I can't do any work at all

16

    0. I can sleep as well as usual
    1. I don't sleep as well as I used to
    2. I get tired from doing almost anything
    3. I am too tired to do anything

17

    0. I don't get more tired than usual
    1. I get tired more easily than I used to
    2. I get tired from doing almost anything
    3. I am too tired to do anything

18

    0. My appetite is no worse than usual
    1. My appetite is not as good as it used to be
    2. My appetite is much worse now
    3. I have no appetite at all anymore

19

    0. I haven't lost much weight, if any, lately
    1. I have lost more than five pounds
    2. I have lost more than ten pounds
    3. I have lost more than fifteen pounds

20

    0. I am no more worried about my health than usual
    1. I am very worried about my physical problems such as aches and pains; or upsets stomach; or constipation
    2. I am very worried about my physical problems and it's hard to think of much else
    3. I am worried about my physical problems that I cannot think about anything else

21

    0. I have not noticed any recent change in my interest in sex
    1. I am less interested in sex than before
    2. I am less interested in sex now
    3. I have no interest in sex completely

Appendix 8: Becks Depression Inventory (Kiswahili Version)

Yafuatayo ni mafungu ya sentensi. Tafadhali soma kila fungu kwa makini. Chagua kutoka katika kila fungu sentensi ambayo yaelezea vyema ulivyokuwa ukihisi JUMA LILILOPITA NA UNAVYOHISI LEO! Ashiria sentensi moja au zaidi ya moja uliyochagua katika kila fungu kwa <u>kuweka alama</u> mviringo juu ya nambari ya sentensi hiyo. **Hakikisha umesoma sentensi zote katika kila fungu kabla ya kuchagua sentensi iliyo sambamba na unavyohisi**

1
  0. Sina huzuni
  1. Nina huzuni
  2. Nina huzuni wakati wote na siwezi kijiondoa katika hali hii ya huzuni
  3. Nina huzuni sana mpaka siwezi kustahimili/kuvumilia

2
  0. Sijavunjika moyo hasa na siku za usoni
  1. Nahisi nimevunjika moyo na siku za usoni
  2. Nahisi sina ninalo tarajia siku za usoni
  3. Nahisi nimekata tamaa ya siku za usoni, na naona mambo hayawezi kuwa bora zaidi

3
  0. Sijihisi kama nimeanguka maishani
  1. Nahisi nimeanguka maishani zaidi ya mtu wa kawaida
  2. Nkiangalia maisha yangu yaliopita naona nimeanguka sana
  3. Nahisi nimeanguka kabisa maishani

4
  0. Naridhika na mambo kama ilivyo kawaida yangu
  1. Sija furahi mambo kama nilivyokuwa nikifurahia
  2. Sitosheki tena kikamilifu na jambo lolote
  3. Sitosheki wala sichangamshwi na chochote tena

5
  0. Sihisi hasa kama nina hatia fulani
  1. Nahisi nina hatia wakati mwingine
  2. Nahisi nina hatia wakati mwingi
  3. Nahisi nina hatia wakati wote

6
  0. Sihisi kama nina adhibiwa
  1. Nahisi kama naweza kuadhibiwa
  2. Natarajia kuadhibiwa
  3. Nahisi nina adhibiwa

7
  0. Sihisi kama nimeikasirikia nafsi yangu
  1. Nimeikasirikia nafsi yangu
  2. Najidharau
  3. Najichukia

8
   0. Sihisi kama mimi ni mbaya zaidi ya mtu yeyote yule
   1. Najisuta (kujitoa makosa) sana katika makosa yangu ama udhaifu wangu
   2. Najilaumu wakati wote kwa makosa yangu
   3. Najilaumu kwa ovu lolote linalo tendeka
9
   0. Sina wazo lolote kujiua
   1. Nina wazo la kujiua
   2. Ningetaka kujiua
   3. Nitajiua nikipata nafasi
10
   0. Silii siku hizi zaidi ya vile ilivyo kawaida yangu
   1. Nalia siku hizi zaidi ya ilivyokuwa kawaida yangu
   2. Nalia wakati wote siku hizi
   3. Nilikuwa nikiweza kulia, lakini sasa hata nikitaka kulia siwezi
11
   0. Sikasirishwi kwa urahisi siku hizi zaidi ya ilivyo kawaida yangu
   1. Nakasirishwa kwa urahisi zaidi ya ilivyokuwa kawaida yangu
   2. Nahisi nimekasirishwa wakati wote siku hizi
   3. Sikasirishwi kamwe na mambo ambayo yalikuwa yakinikasirisha
12
   0. Sijapoteza hamu ya kujihusisha au kujumuika na watu
   1. Hamu yangu ya kujihusisha na watu imepungua zaidi ya ilivyokuwa
   2. Nimepoteza sana hamu yangu ya kujihusisha na watu
   3. Nimepoteza hamu yangu yote ya kujihusisha na watu
13
   0. Ninafanya uamuzi kuhusu jambo lolote kama kawaida
   1. Ninahairisha kufanya uamuzi zaidi ya vile nilivyokuwa nikifanya
   2. Nina uzito mkubwa wa kufanya uamuzi kuliko hapo awaki
   3. Siwezi tena kufanya uamuzi wa jambo lolote lile
14
   0. Sihisi kuwa naonekana vibaya zaidi ya nilivyokuwa
   1. Nina wasi wasi kuwa naonekana sivutii
   2. Ninahisi kuwa kuna mabadiliko yasio ondoka kwenye umbo langu yanayofanya
      nisivutie
   3. Nina amini kuwa nina sura mbaya

15
   0. Naweza kufanya kazi kama vile ilivyokuwa hapo awali
   1. Nilazima nifinye bidii, ndipo nianze kufanya jambo lolote
   2. Inabidi nijilazimishe sana ili niweze kufanya jambo lolote
   3. Sitaweza kabisa kufanya kazi yoyote

16
    0. Ninalala kama kawaida yangu
    1. Silali vyema kama nilivyo kuwa nikilala hapo awali
    2. Naamka mapema kwa saa limoja au masaa mawili, ambayo sio kawaida yangu, halafu ni vigumu kupata usingizi tena
    3. Naamka mapema zaidi ya masaa mawili, ambayo sio kawaida yangu, halafu siwezi kupata usingizi tena

17
    0. Sichoki zaidi ya nilivyokuwa nikichoka hapo awali
    1. Nachoka kwa urahisi zaidi ya kawaida yangu
    2. Nachoshwa (Nachokeshwa), karibu na kila jambo ninalofanya
    3. Ninachoka sana hata siwezi kufanya lolote

18
    0. Hamu yangu ya chakula sio mbaya zaidi ya vile ilivyokuwa hapo awali
    1. Hamu yangu ya chakula sio mbaya zaidi kama vile ilivyokuwa hapo awali
    2. Hamu yangu ya chakula ni mbaya zaidi siku hizi
    3. Sina tena hamu ya chakula hata kidogo

19
    0. Sijapunguza uzito wa mwili wa kuonekana hivi karibuni
    1. Nimepunguza uzito wa mwili zaidi ya kilo mbili
    2. Nimepunguza uzito wa mwili zaidi ya kilo tano
    3. Nimepunguza uzito wa mwili zaidi ya kilo saba

20
    0. Sina wasiwasi usio wa kawaida kuhusu haki yangu ya afya
    1. Nina wasiwasi kuhusu shuda za mwili kama vile maumivu hapa na pale; au shida ya tumbo,au kufunga choo
    2. Nina wasiwasi kuhusu matatizo ya mwili mpaka inakuwa ni vigumu kuwaza jambo lengine lolote
    3. Nina wasiwasi kuhusu matatizo ya mwili mpaka siwezi kuwaza jambo lengine lolote

21
    0. Sijaona mabadiliko yoyote hivi karibuni kuhusu hamu yangu ya kufanya mapenzi
    1. Hamu yangu ya kufanya mapenzi imepungua zaidi ya vile ilivyokuwa
    2. Hamu yangu ya kufanya mapenzi imepungua sana siku hizi
    3. Nimepoteza kabisa hamu yangu ya kufanya mapenzi

Appendix 9:   Beck Anxiety Inventory (BAI) Questionnaire

(Use "✔" to indicate your answer)

	Not at all (0)	Mildly but it didn't bother me much (1)	Moderately, it wasn't pleasant at times (2)	Severely ,it bothered me a lot (3)
1. Numbness or tingling	□	□	□	□
2. Feeling hot	□	□	□	□
3. Wobbliness in legs	□	□	□	□
4. Unable to relax	□	□	□	□
5. Fear of the worst happening	□	□	□	□
6. Dizzy or lightheadness	□	□	□	□
7. Heart pounding/ racing	□	□	□	□
8. Unsteady	□	□	□	□
9. Terrified or afraid	□	□	□	□
10. Nervous	□	□	□	□
11. Feeling of choking	□	□	□	□
12. Hands Trembling	□	□	□	□
13. Shaky/ unsteady	□	□	□	□
14. Fear of losing control	□	□	□	□
15. Difficulty in breathing	□	□	□	□
16. Fear of losing control	□	□	□	□
17. Difficulty in breathing	□	□	□	□
18. Fear of dying	□	□	□	□
19. Scared	□	□	□	□
20. Indigestion	□	□	□	□
21. Faint /light headed	□	□	□	□
22. Face Flushed	□	□	□	□
23. Hot/cold sweats	□	□	□	□

FOR OFFICE CODING
0 + _____ + _____ + _____ =Total Score: _____

Appendix 10: Beck Anxiety Inventory (BAI) Questionnaire (Kiswahili)

(Tumia "✔" ili kuonyesha jibu lako)

	Haijatokezae hata kidogo (0)	Imetokezea kidogo lakini haikunisumbua sana (1)	Imetokezea kiasi na ilinisumbua kiasi (2)	Imetokezea kabisa na ilinisumbua sana (3)
1. Kufungia na kusonga kwa mwili	☐	☐	☐	☐
2. Kusikia joto	☐	☐	☐	☐
3. Kukumbwa kwa miguu	☐	☐	☐	☐
4. Kutoweza kupumzika	☐	☐	☐	☐
5. Kuogopa mabaya kutendeka	☐	☐	☐	☐
6. Kizunguzungu	☐	☐	☐	☐
7. Moyo kupigapiga kwa kasi	☐	☐	☐	☐
8. Kutokuwa dhabiti	☐	☐	☐	☐
9. Kuogofya	☐	☐	☐	☐
10. Hofu	☐	☐	☐	☐
11. Kusikia nikama unanyongwa	☐	☐	☐	☐
12. Kutetemeka mikono	☐	☐	☐	☐
13. kutokuwa dhabiti	☐	☐	☐	☐
14. Hofu ya kupoteza udhibiti	☐	☐	☐	☐
15. Kuwa na shida kupumua	☐	☐	☐	☐
16. Kuogopa kufa	☐	☐	☐	☐
17. Kuwa na woga	☐	☐	☐	☐
18. Shida ya tumbo	☐	☐	☐	☐
19. Kusikia mnyonge	☐	☐	☐	☐
20. Jasho baridi kwenye uso	☐	☐	☐	☐
21. Jasho baridi au moto	☐	☐	☐	☐

Kutumia kukodi

0 + _____ + _____ + _____ =Ujumla wa alama: _____

Child's Name ………………………………………………………..

Parents Name/ Code ……………………………………………….

Date of Birth………………………………………………………..

Date of Test…………………………………………………………

Was your child born prematurely   No ☐   Yes ☐

If yes, what was your expected date of Birth……………………………..

Instructions: Many statements describe normal feelings and behaviors but some describe feelings and behaviors that may be problems. Please do your best to respond to every item. Please Circle the ONE response that best describes your child's behavior in the LAST MONTH.

0= Not True   1=Somewhat True/Sometimes   2= Very True/ Often
1.   Shows pleasure when he or she succeeds (for example ,Claps for self)   0 1 2 *
2.   Gets hurt so often that you can't take your eyes off him or her   0 1 2
3.   Seem nervous, tense or fearful   0 1 2
4.   Is restless and can't sit still   0 1 2
5.   Follows rules   0 1 2 *
6.   Wakes up at night and needs help to fall asleep again   0 1 2
7.   Cries or has a tantrum until he or she is exhausted   0 1 2
8.   Is afraid of certain places, animals or things.   0 1 2   What is he or she afraid of ?...........................
9.   Has less fun than other children?   0 1 2
10. Looks for you (or other parent) when upset?   0 1 2 *
11. Cries or hangs on to you when you try to leave   0 1 2
12. Worries a lot or is very serious   0 1 2
13. Looks right at you when you say his or her name   0 1 2 *
14. Does not react when hurt   0 1 2
15. Is affectionate with loved ones   0 1 2 *
16. Won't touch some objects because of how they feel   0 1 2
17. Has trouble falling asleep or staying asleep   0 1 2
18. Runs away in public places   0 1 2
19. Plays well with other children (not including brother/sister)   N 0 1 2 *   (Circle N if there is no contact with other children)
20. Can pay attention for a long time (other than when watching TV)   0 1 2 *
21. Has trouble adjusting to changes   0 1 2
22. Tries to help when someone is hurt (e.g. gives a toy)   0 1 2 *
23. Often gets very upset   0 1 2
24. Gags or chokes on food   0 1 2
25. Imitates playful sounds when you ask him or her to   0 1 2 *

26. Refuses to eat	0 1 2
27. Hits, shoves, kicks or bites children(not including brothers/ sister) (Circle N if there is no contact with other children)	N 0 1 2
28. Is destructive. Breaks or ruins things on purpose	0 1 2
29. Points to show you something far away	0 1 2 *
30. Hits, bites or kicks you (or other parent)	0 1 2
31. Hugs or feeds dolls or stuffed animals	0 1 2 *
32. Seems very unhappy, sad, depressed or withdrawn	0 1 2
33. Purposely tries to hurt you(or other parent)	0 1 2
34. When upset, gets very still, freezes or doesn't move	0 1 2

The following statements describe feelings and behaviors that can be problems for young children. Some of the descriptions may be a bit hard to understand, especially if you have not seen the behavior in your child. Please do your best to respond to all statements. Please circle the one response that best describes your child's behavior in that LAST MONTH

35. Puts things in a special order over and over and gets upset if he or she is interrupted	0 1 2
36. Repeats the same action or phrase over and over without enjoyment. Please give an example…………………………………………	0 1 2
37. Repeats a particular movement over and over (like rocking, spinning). Please give an example……………………………………………..	0 1 2
38. Spaces out. Is totally unaware of what's happening around him or her	0 1 2
39. Does not make eye contact	0 1 2
40. Avoid Physical contact	0 1 2
41. Hurts self on purpose (for example, bangs his or her head). Please describe …………………………………………………………….	0 1 2
42. Eats or drinks things that are not edible (like paper or paint). Please describe……………………………………………………………..	0 1 2

1=Not at all worried 2= A little worried 3=Worried 4= Very Worried	
A. How worried are you about your child's behavior, emotions or relationships?	1 2 3 4
B. How worried are you about your child's development?	1 2 3 4

The End

Jina La Mtoto …………………………………………………..

Jina la Mzazi/Msimbo ………………………………………………….

Tarehe la Kuzaliwa…………………………………………………..

Tarehe la Mtihani huu……………………………………………………

Je, Mtoto wako alizaliwa mapema?   Hapana ⬚   Ndio ⬚

Kama Ndio, ulitarajia kumzaa siku/ Tarehe gani? ……………………………..

> Maelekezo: Kauli nyingi huelezea hisia na tabia za kawaida lakini baadhi huelezea hisia na tabia ambazo zinaweza kuwa matatizo. Tafadhali fanya uwezo wako kujibu kila kitu. Tafadhali Circle jibu moja ambalo linafafanua tabia ya mtoto wako Mwezi huu wa mwisho.

0= Sio kweli	1=Baadhi ya Kweli/ Wakati Mwingine	2= kweli/ Mara Nyingi
1. Je, yeye hufurahi wakati anapofanikiwa kwa kitu (kwa mfano, yeye hujipigia makofi)	0 1 2 *	
2. Yeye huumia kila wakati hadi hauwezi kosa kumangalia	0 1 2	
3. Anaonekana kuwa na wasiwasi, wasiwasi au wenye hofu	0 1 2	
4. Je, hawezi kupumzika na hawezi kukaa bado	0 1 2	
5. Hufuata kanuni	0 1 2 *	
6. Huamka usiku na huhitaji usaidizi kulala tena	0 1 2	
7. Hulia au huleta vurugu hadi anachoka	0 1 2	
8. Huwa anaogopa mahali pengine, wanyama au vitu Anaogopa nini haswa?..........................	0 1 2	
9. Yeye huwa hapati raha kama watoto wengine?	0 1 2	
10. Hukutafuta (au mzazi huyo mwingine) kama hana furaha/ amekasirika?	0 1 2 *	
11. Hulia ama kukushikila unapotaka kutoka?	0 1 2	
12. Huwa na wasiwasi sana au huwa hana mchezo wowote?	0 1 2	
13. Huwa anakuangalia kwa macho unapomwita?	0 1 2 *	
14. Huwa haonyeshi ishara yeyote anapo umia?	0 1 2	
15. Anaonyesha mapenzi kwa wanaompenda?	0 1 2 *	
16. Hatagusa vitu vingine kwa sababu ya jinsi vinavyohisi?	0 1 2	
17. Hana shida ya kupata uzingizi or kuendelea kupata usingizi anapoamka baada ya kulala?	0 1 2	
18. Hutoroka katika maeneo ya umma	0 1 2	
19. Hucheza na watoto wengine(dudu na dada hawahesabiwi kwenye jibu hili) (Chora alama ya mviringo kwenye herufi N kama huwa haoni/ hachezi na watoto wengine)	N 0 1 2 *	
20. Anaweza tiamaanani kwa muda mrefu (sio wakati anapoangalia televisheni)	0 1 2 *	
21. Hupata shida kukaribisha marekebisho	0 1 2	

22. Hujaribu kusaidia wakati mtu anapoumia(kwa mfano hupeana toy)	0	1	2	*	
23. Hukasirika sana maranyingi	0	1	2		
24. Hujinyonga au kuonyesha hisia ya kutaka kutapika akila chakula?	0	1	2		
25. Huigiza sauti za kucheza wakati anapoambiwa	0	1	2	*	
26. Hukataa kula chakula	0	1	2		
27. Huchapa, huskuma, kupiga teke or kuuma watoto wenzake (isipokuwa dada na kaka zake) (Chora alama ya mviringo kwenye herufi N kama huwa haoni/ hachezi na watoto wengine)	N	0	1	2	
28. Huwa mharibifu. Huvunja au huharibu vitu kimakusudi	0	1	2		
29. Hupointi kukuonyesha kitu mbali sana	0	1	2	*	
30. Hukuchapa, kuskuma, kukupiga teke (au mzazi mwengine)	0	1	2		
31. Hukubatia au kulisha doli au wanyama vya kuigiza	0	1	2	*	
32. Hukaa nikama hanafuraha, ana huzuni na mwenye hatakikuwa na wenzake	0	1	2		
33. Hujaribu kimakusudi kukuumiza (au mzazi mwingine)	0	1	2		
34. Akikasirika hukaa nikama ametulia sana na wala hasongi?	0	1	2		

Maelezo yafuatayo yanaelezea hisia na tabia ambazo zinaweza kuwa matatizo kwa watoto wadogo. Maelezo mengine yanaweza kuwa vigumu sana kuelewa, hasa ikiwa haujaona tabia katika mtoto wako. Tafadhali fanya uwezo wako kujibu kauli zote. Tafadhali mzunguko majibu moja ambayo yanaelezea tabia ya mtoto wako katika MWEZI WA MWISHO

35. Hupanga vitu kwa utaratibu maalum na hukasirika ikiwa anaingiliwa	0	1	2
36. Anarudia hatua sawa au maneno kwa mara nyingi bila kufurahi. Tafadhali toa mfano………………………………………………	0	1	2
37. Anarudia harakati fulani mara kwa mara (kama kujiskuma mbele na nyuma kwenye kiti au kujizungusha). Tafadhali toa mfano …………………………………………..	0	1	2
38. Hupoteza fahamu kwa muda. Huwa hajui kinachoendelea/ fanyika karibu naye	0	1	2
39. Huwa hawezi angaliana kwa macho	0	1	2
40. Huwa hataki kushikwa au kushikana kabisa	0	1	2
41. Hujiumiza kimakusudi (kwa mfano hujigonga kwa kichwa)Tafadhali eleza ……………………………………………………….	0	1	2
42. Hula na Hunywa vitu amabavyo havifai kulwa kwa mfano karatasi ama rangi. Tafadhali eleza……………………………………………	0	1	2

1=Sina Wasiwasi Kabisa 2= Nina wasiwasi kidogo 3=Ninawasiwasi 4= Nina wasiwasi Kabisa				
A. Unawasiwasi kiasi gani juu ya tabia, hisia au mahusiano ya mtoto wako?	1	2	3	4
B. Unawasiwasi kiasi gani juu ya maendeleo ya mtoto wako?	1	2	3	4

KIKOMO