

**PRIMARY HEALTH CARE BASED GROUP INTERPERSONAL THERAPY (IPT-G),
FOR DEPRESSED POSTPARTUM ADOLESCENTS LIVING WITH HIV IN NAIROBI:
AN IMPLEMENTATION SCIENCE STUDY.**

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DOCTOR OF PHILOSOPHY IN CLINICAL PSYCHOLOGY

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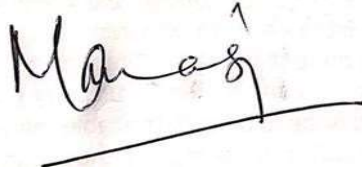
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I declare that this dissertation titled “**Primary health care-based Group Interpersonal Therapy (IPT-G), for depressed postpartum adolescents living with HIV, in Nairobi. An implementation science study.**” is my original work and has not been presented for the award of any degree at any other university.

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DEDICATION

I am grateful to my wife Teglah and children: Jesse, Mitchelle, Debrah and Shem, for the support and sacrifices towards committing time and resources during the entire study period.

LIST OF ABBREVIATIONS

AIDS...	Acquired Immunodeficiency Syndrome
ART.....	Antiretroviral Therapy
ARV.....	Antiretroviral drugs
EPDS.....	Edinburgh Postnatal Depression Scale
FGDs.....	Focus Group Discussions
KIIs... ..	Key Informant Interviews
HIV... ..	Human Immunodeficiency Virus
IPT-G... ..	Group Interpersonal Therapy
KDHS.....	Kenya Data Health Survey
KNBS.....	Kenya National Bureau of Statistics
LMIC.....	Low and Middle-Income Countries
mhGAP	Mental health Gap Action Programme
MICS.....	Multiple Indicator Cluster surveys
PLWHAs.....	Persons Living with HIV/ AIDS
PMAD.....	Perinatal mood and anxiety disorders
PMTCT... ..	Prevention of Mother-to-Child Transmission
PPD... ..	Postpartum Depression
RCTs... ..	Randomized Controlled Trials

SSI..... Semi-structured Interviews

TAU... .. Treatment AS Usual

UNAIDS... ..the Joint United Nations Programme on HIV/AIDS

UNICEF United Nations International Children's Emergency Fund

WHO World Health Organization

OPERATIONAL DEFINITIONS

Postpartum depression, which is also called **postnatal depression**, is a type of clinical depression that can affect women, typically after childbirth. It is one of the common mental disorders among mothers after childbirth. The symptoms include low mood, tiredness and sleep disturbance, lack of energy, forgetfulness, irritability, and poor functioning.

Perinatal depression is typically defined as a non-psychotic depressive episode of mild to major severity that occurs during pregnancy or post-delivery.

HIV/AIDS stigma is seen as the prejudice that discounts, discredits, and discriminates people perceived to have AIDS or HIV and the individuals, groups, and communities with which they are associated.

Internal stigma refers to real or imagined fear of societal attitudes and potential discrimination arising from a particular undesirable attribute, disease (such as HIV), or association with a particular group or behaviour.

External stigma is discrimination that may result in ostracism, rejection, and avoidance. Furthermore, it may also lead to low turnout for HIV counselling and testing, identity crisis, isolation, loneliness, low self-esteem, and lack of interest in containing the disease.

Adolescence is a transitional phase of growth and development between childhood and adulthood. This age range falls within the World Health Organization (WHO) definition of young people, which refers to individuals between ages 10 and 24. Furthermore, during adolescence, the individual experiences an upsurge of sexual feelings following the latent sexuality of childhood. It is during adolescence that the individual learns to control and direct sexual urges.

Group interpersonal therapy is a therapeutic intervention administered in a group of 6 to 8 participants meant to improve attachment mechanisms involving emotional understanding, social support, and learning to cope with current life. It focuses on the important interpersonal changes and challenges women experience during the postpartum period.

Evidence-based intervention is the integration of clinical expertise, proven evidence from systematic reviews, and patient perspectives to provide high-quality services. It is the conscientious, explicit, and effective use of current best evidence in making decisions about the care of individual patients.

Community health workers are the community health assistants and community health volunteers who act as a link between the health center and the residents within the community.

Community health assistant is the employ of the government who acts the overall in-charge of all the community health volunteer attached to a health center.

Community health volunteer is a lay health care provider who is not an employee of the government and offers services within the community on voluntary basis with a small token from the government and sometimes other non-governmental organisations having programs in the community.

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ABSTRACT

Introduction: Postpartum depression may occur among some mothers after childbirth. Adolescent pregnancy can lead the expectant girl to drop out of school, receive poor obstetric care and family support. Adolescent mothers are prone to severe postpartum depression as compared to older women. Early sexual initiation increases the risk of unintended pregnancies and potentially increases HIV exposure. Interpersonal therapy (IPT) is an evidence –based intervention focusing on interpersonal relationship problems. IPT acknowledges that life changes elicits mood changes which could lead to interpersonal distress. IPT has four components of problem areas: role transition, loss and grief, role conflict and loneliness/social isolation. IPT seeks to enhance emotional processing, reduce interpersonal distress, improve interpersonal skills building and enhance social support. WHO recommends Group interpersonal Therapy (IPT-G) as an evidence-based intervention for use in primary health care settings. We assessed the acceptability and feasibility of community health workers (CHWs) delivering IPT-G among depressed postpartum adolescents (PPAs) living with HIV.

Study Objectives

Broad Objective

The overall objective is to assess whether trained community health workers can deliver group interpersonal therapy to depressed postpartum adolescents living with HIV within primary health care settings.

Specific Objectives

a) Primary Objectives

Among adolescents with postpartum depression and living with HIV in routine clinical settings. In this study, all outcomes are assessed postpartum at baseline 6–12 weeks, 20 weeks, 28 weeks, and at 36 weeks;

Objective 1: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary health care workers compared to treatment as usual (receiving routine PMTCT clinic services), alters depression as assessed by Edinburgh Postnatal Depression scale score 16 weeks after initiation of intervention (EPDS cut-off ≥ 10 indicative of depression).

Objective 2: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary health care workers compared to treatment as usual (receiving routine PMTCT clinic services), alters the HIV-related stigma levels as measured by HIV/AIDS Stigma Instrument.

Objective 3: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary health care workers compared to treatment as usual (receiving routine PMTCT clinic services), alters the levels of social functioning in the participants as measured by World Health Organization Disability Assessment Schedule 2.0.

b) Secondary Objectives

Among adolescents with postpartum depression and living with HIV in routine clinical settings. In this study, all outcomes are assessed postpartum at baseline 6–12 weeks, 20 weeks, 28 weeks, and at 36 weeks;

Objective 1: Assess traumatic experiences associated with adolescent pregnancy among depressed PPAs living with HIV using the Impact Event Scale and ascertain its association with depression.

Objective 2: Determine if the IPT-G administered to depressed PPAs living with HIV by primary health care workers compared to treatment as usual (receiving routine PMTCT clinic services), alters levels of adherence to HAART using viral load tests and The CASE adherence index

Objective 3: Evaluate the influence of IPT-G training of primary health care workers on their competency in mental health care (knowledge of postpartum depression, HIV related stigma and interpersonal skills)

Objective 4: Determine the influence of the IPT-G administered to depressed PPAs living with HIV by primary health care workers compared to treatment as usual (receiving routine PMTCT clinic services), on child health and developmental profile, such as weight and HIV status using Malawi Developmental Assessment Tool (MDAT).

Objective 5: Evaluate the perception, experiences, and competency of primary health care workers, health center management, and participants on IPT-G; fidelity, feasibility, acceptability and sustainability.

Method

Study design, participants and setting

This is an implementation research adapted from Proctor et al. (2009) conceptual framework. IPT-G has shown to be efficacious in reducing depression. In our implementation research, we conducted a pilot feasibility study to evaluate task sharing using CHWs to deliver IPT-G among depressed PPAs living with HIV in primary health care context.

The study was conducted among depressed postpartum adolescents living with HIV who were attending the prevention of mother-to-child HIV transmission (PMTCT) clinics in two primary care health centers. Twenty-four PPAs aged 15–24 years, 6–12 weeks postpartum and living with

HIV were eligible for participation. Our study is a two-arm intervention implementation study with 12 participants for intervention group and 12 participants for control group. Eight trained CHWs delivered IPT-G under continuous support supervision by a clinical supervisor to ensure protocol was maintained. Intervention group received 8 sessions of IPT-G which was conducted a session per week and thereafter the delayed IPT-G was administered to waitlist group for a similar period. After all had completed IPT-G, follow-up for the intervention group and waitlist group was done for 8 weeks to assess if the benefits of the IPT-G could be sustained over time by evaluating patient outcomes.

Implementation Outcomes

From the two study sites, we assessed using FGDs, key informant interviews (KIIs), audio recordings and field notes the perception of the CHWs, PPAs and the health care providers towards delivery of IPT-G within primary health care context.

- a) *Intervention outcomes* where feasibility was assessed by looking at the CHWs' level of engagement and adherence to IPT-G protocol. In addition, we observed the session's attendance and retention rate as indicators of IPT-G acceptability. For fidelity, we randomly selected 3 out of the 8 IPT-G recordings of the 8 sessions per study site to assess their level of adherence to protocol and also Interpersonal Knowledge test was used to evaluate the competency of the CHWs on IPT-G protocol as per the WHO, manual, 2016. Interpersonal inventory was used to assess changes in attachments and social relationships of the PPAs post-intervention
- b) *Service outcomes* was assessed by inquiring their perception on the duration of 90 minutes for each sessions for 8 weeks, linking activities in the sessions, peer group support and perception on the nature of the intervention.

- c) *Patient outcomes* was assessed by inquiring on their level of satisfaction from IPT-G, changes in social functioning, changes in mean scores for depression, HIV-related stigma and reduction in total disability. Other mental outcomes such as traumatic experiences, adherence to ART and child development were also assessed pre- and post-intervention and thereafter changes in their mean scores over time were reported.

Assessment Instruments

Depression was assessed using the Edinburgh postnatal depression scale (EPDS) and those with EPDS ≥ 10 participated in the intervention. The responses were 0,1,2,3 and possible scores on the EPDS range from 0 to 30, with higher scores indicating clinically significant depression. EPDS is a screening instrument and not diagnostic hence clinical judgement is of essence when dealing with patients presenting with features of depression. HIV-related stigma was screened using HIV/AIDS Stigma Instrument (HASI-P) and social functioning was rated using the World Health Organization's Disability Assessment Schedule 2.0 (WHODAS 2.0). Interpersonal inventory was used to assess attachments and social relationships of PPAs; testing of ART adherence using viral load and CASE Index; Impact Event Scale-Revised to assess traumatic experiences; Clinical Outcomes for Routine and Evaluation Outcome Measure to assess response of clinical symptoms to the intervention; Malawi Developmental Assessment tool to evaluate child development. FGDs and In-depth interviews were used to assess experiences and perceptions of CHWs, PPAs and health care providers towards delivery of IPT-G. Interpersonal Knowledge test was used to evaluate the competency of the CHWs.

Data Management and Analysis

Descriptive statistics was be used to compare changes in depression, HIV-related stigma, and social functioning between baseline and eight weeks and, between 16 weeks and 24 weeks. The

changes were explored along with the differences between intervention and treatment as usual groups reporting effect sizes (Cohen's d). Longitudinal continuous outcome variables across the time points analysed using the Generalized Linear Model.

All the transcripts were read and re-read to ensure they were of good quality and captured everything from the audio and the semi-structured interviews. For qualitative data, thematic framework was derived from exploratory factor analysis. Once the thematic factors were identified in the factor analysis, all interviews were thoroughly read through and relevant themes documented. We aimed to identify aspects relevant to delivery process of IPT-G and, personal perceptions and narratives on IPT-G. The qualitative analysis helped in generating contextual account (feasibility, acceptability and fidelity) of IPT-G being delivered by CHWs among depressed PPAs living with HIV

Results

Most of the participants: were aged 21-24 years 21(87.5 %), with a partner of 17 (70.8%), and with a parity of fewer than 2 children 19 (79.2%). The study had a retention and follow-up rate of 21(87.5%) out of the 24 of the PPAs. Among the 8 CHWs recruited to deliver IPT-G, one of the CHV encountered sudden death outside the study area leaving 7(87.5%) who participated in completion. This study highlights preliminary evidence that IPT-G being delivered by CHWs clinically reduces postpartum depression (PPD) and decreases HIV-related stigma. The intervention is feasible and acceptable as expressed by both CHWs and PPAs from their narrations during the FGDs. Trained CHWs became competent to deliver IPT-G and PPAs living with HIV showed positive changes in their lives as they could engage in open communication and socialize within their communities. Key barrier to smooth training of CHWs on delivery of IPT-G were other auxiliary assignments within the health center that affected their attention. Lack of

remuneration for CHVs compels them to seek other income-generating activities hence affecting their timely availability for IPT-G sessions.

We observed that, for every unit drop in the depressive score in the wait-list group, the intervention group dropped by about 6 units with a notable significant difference for depressive scores ($p=0.017$). However, a minimal improvement in adherence to ART was found vis-à-vis intervention.

Conclusion

We uphold the observation that group interpersonal therapy delivered by community health workers was feasible and acceptable, and depressed PPAs living with HIV can benefit from group interpersonal therapy in reducing depression, minimizing HIV-related stigma and improving social functioning within primary health care.

Ethics and Dissemination

The Kenyatta National Hospital-University of Nairobi approved this study of Nairobi Ethics and Research Committee (Approval No. P97/02/2018).

Keywords: Postpartum depression, HIV-related stigma, Group Interpersonal Psychotherapy, community health volunteers, community health assistant, prevention of mother-to-child transmission, task sharing

1. CHAPTER ONE

1.1. INTRODUCTION/BACKGROUND

1.1.1. Adolescent pregnancy

Postpartum depression affects primarily pregnant adolescents, and it is a crucial issue in the period of pregnancy and postpartum (perinatal period) since it presents health hazards that affect both the mother and the baby (American College, 2015; Hodgkinson et al., 2014). Earlier findings indicate high perinatal depression incidence levels in adolescents (16-44%) while that of postpartum and pregnant women being (10 – 20%), and non-pregnant adolescents being (5 – 20%) (Hodgkinson et al., 2014). A study finding at Kenyatta National Hospital -PMTCT clinic indicated that women living with HIV had post-partum depression prevalence of 48% (Yator et al., 2016). Approximately 19% of young women living in low-income countries get expectant close to 18 years old (Campbell et al., 2013). Reports from Data Health Survey (DHS) and Multiple Indicator Cluster surveys (MICS) show that 3% of women in low-income countries reported having given birth before 15 years of age (UNFPA, 2013). When an adolescent becomes pregnant, she is likely to have low educational attainment, quit school, have poor socioeconomic status, and low social capital compared to non-pregnant peers (UNFPA, 2011; World Health Organization, 2004). Similarly, their children, in comparison to their peers, are likely to have a low level of education, be raised in a single-mother household, get involved in alcohol and drug abuse, and prone to become a single adolescent parent (UNFPA, 2011; World Health Organization, 2004). Pregnancy during young age is seen as a social problem leading due to school dropouts, poor parenting styles, and poor obstetric life (Macleod, 1999; Ramulumo & Pitsoe, 2013). The stigma associated with adolescent pregnancy may lead to poor social support (Chigona & Chetty, 2008), an essential part of the mother's good health and offspring. The absence of social support is associated with bad

mental and physical health results in expectant adolescents (Kathree & Petersen, 2012); mood and anxiety disorders have been linked to an unplanned pregnancy, complicated pregnancy, or traumatic experiences during pregnancy (Nunes & Phipps, 2013).

1.1.2. Adolescent premarital sex

In Kenya, according to the 2014 KDHS, women's median age was reported to be 20.3 years at first birth, almost the same as the median age of 20.2 years at the time of marriage (KNBS, 2014). The median age of adolescent sexual debut before marriage was 18.0 years old for females and 17.4 years old for males (KNBS, 2014). Fifteen percent of women and 21% of men had their sexual debut at 15 years of age (KNBS, 2014). When a girl conceives, her present and future get affected negatively. Her education may end, her chances of employment diminishes, exposure to poverty increases, and neglect and poor coping skills increases (Campbell et al., 2013). Studies have shown that women in Kenya started their first sex at a mean age of 16 years old (Beguy et al., 2011; Chiao & Mishra, 2009; Luke et al., 2012; Magadi & Agwanda, 2009). A study in 2009 carried out in Kenya found that in young unmarried women (ages 15–24), about 47% had initiated sex (Chiao & Mishra, 2009). Additionally, studies have demonstrated that most of them, about 70% who were sexually active, never used protection (Gage & Meekers, 1994; Khan & Mishra, 2008; Ngom et al., 2003); hence, such behaviour risks unplanned adolescent pregnancy. About 20–50% of adolescents report incidents of being pregnant at some point in life (Gage & Meekers, 1994; Khan & Mishra, 2008; Were, 2007), with recorded median age shown to be 18.5 years at first pregnancy (Magadi & Agwanda, 2009). Adolescents who are not yet married with pregnancy fall into problems of school drop-outs, unemployment, lack of life skills, low status in the society, and lack of ability to live a decent life (Blum, 2007; Gage & Meekers, 1994; Ikamari et al., 2013).

1.1.3. Perinatal depression among adolescents

Perinatal depression is defined as a non-psychotic depressive experience ranging from mild to major severity during pregnancy or postnatal (Fisher et al., 2012). In the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), this is categorized with the specifier “with peripartum onset” or “with anxious symptoms” (American Psychiatric Association, 2013). Postpartum depression among the general population of mothers is the most recognized mental disorder after delivery, and it generally starts between 4 to 6 weeks after child birth (Sawyer et al., 2010). Adolescent mothers are at a greater danger for post-delivery depression in comparison to adult colleagues, the approximations in adolescents range from 26-50% (Nunes & Phipps, 2013).

The prevalence of depression may be double among young women than in adult women (Lindhorst & Oxford, 2008; Mollborn & Morningstar, 2009). Adolescents are affected more because of associated factors, such as social and financial assets, traumatic experiences, and seclusion arising from unplanned pregnancies (Hodgkinson et al., 2014). Adolescent mothers happen to undergo severe isolation; therefore, societal support reduces depression (Nunes & Phipps, 2013). Intervention on depression is key through screening of adolescents for any mental illness (Ammerman et al., 2013). During adolescent life, individuals experience many changes in health needs and psychosocial needs. Adolescence begins with puberty and ends in early adulthood (Unicef, 2011; World Health Organization, 2013). It is documented that 11% of women who give birth annually are adolescents, and their child birth is associated with many complications due to their young ages (Gilbert et al., 2004).

1.1.4. Prevalence of HIV infections among adolescents

In Kenya, 42000 new infections of HIV in adolescents between the age of 15 to 24 years were reported in 2009 (Konadu Gyesaw & Ankomah, 2013). HIV prevalence in Kenya for adolescents

is 1.1% in male and 4.5% in female aged 15 to 24 years as compared to Lesotho, which has the highest HIV infections for adolescents within the region where 4.2% were male while 13.6% were female of age 15 to 24 years infected (Bureau, 2012). Adolescents have more changes that may affect HIV-related stigma on the standard of life and healthcare (Harper et al., 2013; Hosek et al., 2005). Premarital sex is seen as a moral weakness from the perspective of the parents, health care providers, and the entire society (Tylee et al., 2007).

1.1.5. Association of HIV related stigma and perinatal depression

HIV/AIDS is highly connected to depression, stigma, and a sense of hopelessness (Lorraine Sherr et al., 2011). HIV-related stigma is connected to depression (Arseniou et al., 2014). Stigma and stigmatization are influenced by power and culture (Monteiro et al., 2013). Internalized stigma applies to the internal embarrassment, blame, hopelessness, guilt, and fear of discrimination related to living with HIV, and such feelings perpetuate an individual to have negative thoughts towards the people around them, thus predisposing participants to PPD (Brouard & Wills, 2006). Furthermore, internalized stigma reinforces external stigma with the notable low turn-out for healthcare, isolation, loneliness, low self-esteem, and subsequently a lack of interest in adhering to highly active antiretroviral therapy (HAART).

2. CHAPTER TWO

2.1. LITERATURE REVIEW

2.1.1. Adolescent unintended pregnancy

Unplanned pregnancies across Sub-Saharan Africa are estimated as 14 million yearly, and about a half from adolescents 15 – 24 years of age (Hubacher et al., 2008). Furthermore, unmarried adolescents have little likelihood of using modern hormonal contraceptives, unlike their older female counterparts; hence, the high fertility rate in Kenyan adolescents ranging from 2% to 36% at 15 years and 19 years of age, respectively (Kinaro, 2013). Early sexual debut in adolescent girls living in third world countries makes them exposed to chances of acquiring HIV and even unintended pregnancies (Joint United Nations Programme on HIV/AIDS, 2014).

2.1.2. Issues of sexuality among adolescents

Sexuality among adolescents is a critical period of development. During puberty, there is physical and psychological change that occurs (Harden, 2014). Unprotected sex, common among older male counterparts is one of the risky behaviours (Cluver et al., 2011). Dysfunctional families lead to mental illness such as depression among adolescents (Auerbach & Ho, 2012) and behavioural problems (Schofield et al., 2012).

2.1.3. Adolescent pregnancy

Pregnancy in adolescence age is mainly viewed as a social issue; it is both a product and cause of social problems like dropping out of school and insufficient childcare, leading to bad obstetric results (Ramulumo & Pitsoe, 2013). Most of the behavioural and emotional mental disorders begin in childhood or adolescence.

2.1.4. Poor social support from the family as a risk factor to adolescent perinatal depression

Multiple studies have demonstrated that physical and sexual violence were heavily connected to depression in pregnancy and at the post-pregnancy period, affecting more than 50% of adolescents (Buzi et al., 2015; Meltzer-Brody et al., 2013). This percentage is worrying because pregnant adolescents with physical and sexual violence histories are likely to be involved in risky behaviours such as the use of substances like Marijuana and alcohol (Udo et al., 2016). Low-income family background was connected to low emotion-focused support-seeking and understanding and more emotional and behavioural complications (Rodriguez et al., 2014).

2.1.5. Vulnerability of adolescents to HIV infection

Studies have shown that while the proportion of new HIV infections has reduced among several populations, over a third of new infections of HIV continues to happen among the age group of 15 to 24 years old (Kasedde et al., 2014). Globally, HIV is currently the second among known origins of adolescent deaths (World Health Organization, 2014), with a high prevalence of HIV of 6% for female adolescents aged 15 to 17 years old in Lesotho and Swaziland. The high rates in females could be due to unprotected sex with heterosexual and possibly multiple partners and, in some instances, concurrent relationships. Despite handling a chronic disease, adolescents infected with HIV must face psychosocial challenges, adhere to drugs, and learn to go about sexual relationships while going through swift physical and psychological changes (Sohn & Hazra, 2013).

2.1.6. HIV infections in the adolescent group as an impediment to economic growth

In Kenya, some studies have associated infections and neurocognitive delays among babies and children infected or affected by HIV (Abubakar et al., 2013). For children affected by HIV,

parental disease or death may shift responsibilities of the family to them at a young age, leading to dropping out of school, emotional and behavioural problems, and dangerous survival tactics, like exchanging sex for money (Betancourt et al., 2012), further continuing a cycle of HIV risk and infections (Cunningham et al., 1994).

2.1.7. HIV related stigma among adolescents

Herek defined HIV-related stigma as “prejudice, discounting, discrediting, and discriminative directed towards people alleged to have HIV or AIDS (Herek, 1999). Three different stigma mechanisms were defined by Earnshaw and colleagues: (1) internalized stigma, which is having negative feelings and beliefs related to HIV and applying to oneself; (2) anticipated HIV stigma, involving expectations of discrimination, stereotyping, and prejudice from others in future due to someone’s HIV status; and (3) enacted HIV stigma, involves experiences of discrimination, stereotyping and or prejudice from others in the past or present due to someone’s HIV status (Earnshaw et al., 2013). Stigmatized persons may also internalize the perception of their status and self-defeating internal representations of possibly leading to loss of self-efficacy and unstable emotions (Tsai et al., 2012). Prevalence of HIV in Kenya is reported as female and male aged 15 to 24 years old who are HIV infected (total) 3.12%, female 3.97 %, and male 2.26% (UNAIDS, 2017).

Table 1: HIV status as per KDHS 2014

HIV indicator	Status as at 2014
HIV-related stigma	Nairobi county HIV Stigma Index recorded 39.5%, which is lower than the levels for North eastern counties (Mandera, Garissa & Wajir) with 60.2%
Average HIV stigma and Discrimination	PLHIV who reported personally that they underwent discrimination and/or stigma as a result of their HIV status (45 %)
HIV prevention knowledge	Adolescents between the age of 15-24 years old as of 2014: (Female) 73%, (Male) 82%
Early sexual debut	Female and male between the age of 15-24 years old engaged in sexual intercourse before age 15 (12.1%)
Sexual and gender-based violence	Adolescents between the age of 15 -24 years old who went through sexual and gender-based violence; women: (15–19) – 6.5 %, (20–24) – 12.6%; men: (15–19) – 2.7 %, (20–24) – 4.1%

2.1.8. Effects of anxiety on postpartum adolescents

Maternal anxiety at pregnancy leads to many adverse outcomes, including obstetric problems such as; spontaneous abortion, preeclampsia, placenta abruption, preterm labour, low birth weight, small head circumference, and low mental development scores among babies (Ding et al., 2014). Soundly recognized literature points out that women who go through anxiety disorder in pregnancy are at an increased danger of post-delivery depression and comorbid anxiety (Sutter-Dallay et al., 2004). HIV-related stigma has also been linked with depression and decreased self-esteem (Tanney et al., 2012).

2.1.9. Mental health during adolescent pregnancy

Efficacy studies have indicated that non-specialists can provide several evidence-based psychotherapies that address certain mental disorders within developing countries (van Ginneken et al., 2013). Depression is widespread in expectant women living with HIV (Kapetanovic et al.,

2014). Ssewamala and colleagues, in an intervention known as “SUUBI Adherence,” focused on improving adherence self-efficacy among adolescents with HIV who were either in or out of school by developing financial empowerment and management skills and enhancing mental health among the youths. It was known to improve ART adherence (Ssewamala et al., 2015).

In Kenya, the standard guideline for preventing mother-to-child transmission clinics is exclusive breastfeeding during the first 6 months, then breastfeeding up to 1 year with suitable mixed feeding (NASCO, 2013). Effective communication by parents on issues of sexuality at home, sex education at school, self-efficacy, and enhanced practice of protected sex, seem to reduce adolescents’ pregnancy.

2.1.10. Infant outcomes of depressed mothers

Mothers who give birth to babies who weigh <1500 g are 4-18 times at risk for post-delivery depression compared to the others (Helle et al., 2015). Additionally, concerns such as the fear of harming the baby (36%), poor attachment to the baby (34%), and even in extreme cases, child suicide attempts have been reported (Thorsteinsson et al., 2014). These warning signs have significant effects on the family's health (Mathisen et al., 2013). Adverse effects on child development include frequent illness and poor growth (Goodman et al., 2011; Hussain & Nauman, 2010). Notably, studies have shown that children born by depressed mothers present increased risks of underweight, stunted growth, poor cognitive development, deficient motor development, behavioural and emotional problems in pre-school children.

2.1.11. Group Interpersonal Therapy (IPT) on depression care of pregnant adolescents living with HIV

We adapted Interpersonal Psychotherapy (Weissmann et al., 2000), which takes less time to administer, and evidence has shown its efficacy for depression. In one of the meta-analyses, IPT was used where medication was not feasible, and it worked (Weissman, 2007).

Interpersonal psychotherapy's tenets may include attachment mechanisms that involve emotional understanding, social support, and learning to handle the present life (Lipsitz & Markowitz, 2013). Interpersonal psychotherapy is appropriate since it concentrates on crucial interpersonal changes and challenges women go through during post-pregnancy. The principles of IPT can be combined within primary care settings because IPT is practical, problem-oriented, short-term, and very effective (Grigoriadis & Ravitz, 2007).

Spinelli et al's. findings showed greater efficacy of IPT compared to childcare education programs in two randomized controlled trials (RCTs) in varied groups of women (Spinelli et al., 2013; Spinelli & Endicott, 2003). IPT for adolescents was adapted by Mufson and colleagues (L. Mufson et al., 1994; L. Mufson, Gallagher, et al., 2004). The IPT-G strategy has two significant effects: to give a sense of progress for existing group members and to allow new members to see the progress of other women then receive the benefits of their experience (J. E. Johnson, 2014). IPT seeks to quicken interpersonal change mechanisms which may either be enhancing social support, reducing interpersonal stress, enabling emotional processing, and enhancing interpersonal skills (Lipsitz & Markowitz, 2013).

Depression and IPT-G

Generally, adolescent mothers who had past histories of depression had three to four times higher odds of developing depression at post-pregnancy period (Meltzer-Brody et al., 2013; Nunes & Phipps, 2013). This Group Interpersonal Therapy has been identified as an intervention to mitigate depression (World Health Organization, 2016). It is administered in 8 sessions focusing on 1 or more problem areas, for instance grief and loss, life changes, social isolation/loneliness or interpersonal disputes in their daily living. IPT-G has been recommended by World health organization's mhGAP as one of the first-line psychological interventions for management of depression (World Health Organization, 2016).

Psychological interventions like interpersonal psychotherapy and cognitive behaviour therapy are suitable first-line treatments for pregnant or breastfeeding women showing depression requiring minimal use of antidepressant medication where possible. IPT-G has been used in community settings and it has worked well hence IPT-G can be implemented by supervised community health workers in primary health care.

Globally, majority of people with mental disorders receive no treatment where 1 in 6 people suffering from major depression in high-income countries receiving effective treatment whereas as few as 1 in 27 for low-or middle- income countries (Thornicroft et al., 2017). Training non-specialist health workers in short mental health courses is an effective approach. For IPT-G intervention to be scaled up and implemented in primary healthcare settings, an effectiveness implementation hybrid type I design was used (Meffert et al., 2016; Onu et al., 2016a). Curran and Colleagues recommend the hybrid type I study design to determine the effectiveness of an intervention when utilized within a real-world scenario. Type II design puts the same weight on effectiveness and implementation, whereas type III emphasizes implementation intervention and

strategies with secondary aims like clinical outcome (Curran, Bauer, et al., 2012). Most of the effort is in task sharing towards increasing global capacity in provision of mental health care (Caulfield et al., 2019; Raviola et al., 2019). For task sharing and other community approaches to be successful, there is need for strengthening mental health literacy and community awareness in low-and middle income countries (Thornicroft et al., 2010).

Evidenced-based interventions including cognitive behavior therapy and interpersonal therapy have been adapted and delivered by non-specialist health workers (Bolton et al., 2003). In Africa, South East Asia and Latin America other psychotherapeutics approaches that have been simplified and packaged as intervention programs are the Friendship Bench and Problem management Plus of which both are based on problem-solving therapy which has been adapted for treatment of depression (Chibanda et al., 2015; van't Hof et al., 2020), the Thinking Healthy Program based on cognitive behavior therapy is also used for treatment of perinatal depression (Fuhr et al., 2019; Sikander et al., 2019), Healthy Activity Program based on behavioral activation for treatment of depression is also recommended (Chowdhary et al., 2016; Patel et al., 2017).

Task shifting using cognitive behavior therapy, interpersonal therapy and problem-solving therapy have been found to be effective in treatment for depression for both low-and middle-income countries (Dua et al., 2011). Cultural differences shapes the understanding about mental illness hence it is one of the important factors in task shifting (Faregh et al., 2019). For non-specialist to deliver evidenced-based interventions with fidelity, effective training and continuous supportive supervision is important (Beidas& Kendall, 2010). In India, lay health workers supervised by mental health specialist have been adopted in treatment of depression and anxiety (Patel et al., 2010). Uganda (Bolton et al., 2003), Pakistan (Rahman et al., 2008) and India (Patel et al., 2010) have previous attempted to introduce task sharing as solution to scaling-up mental health services.

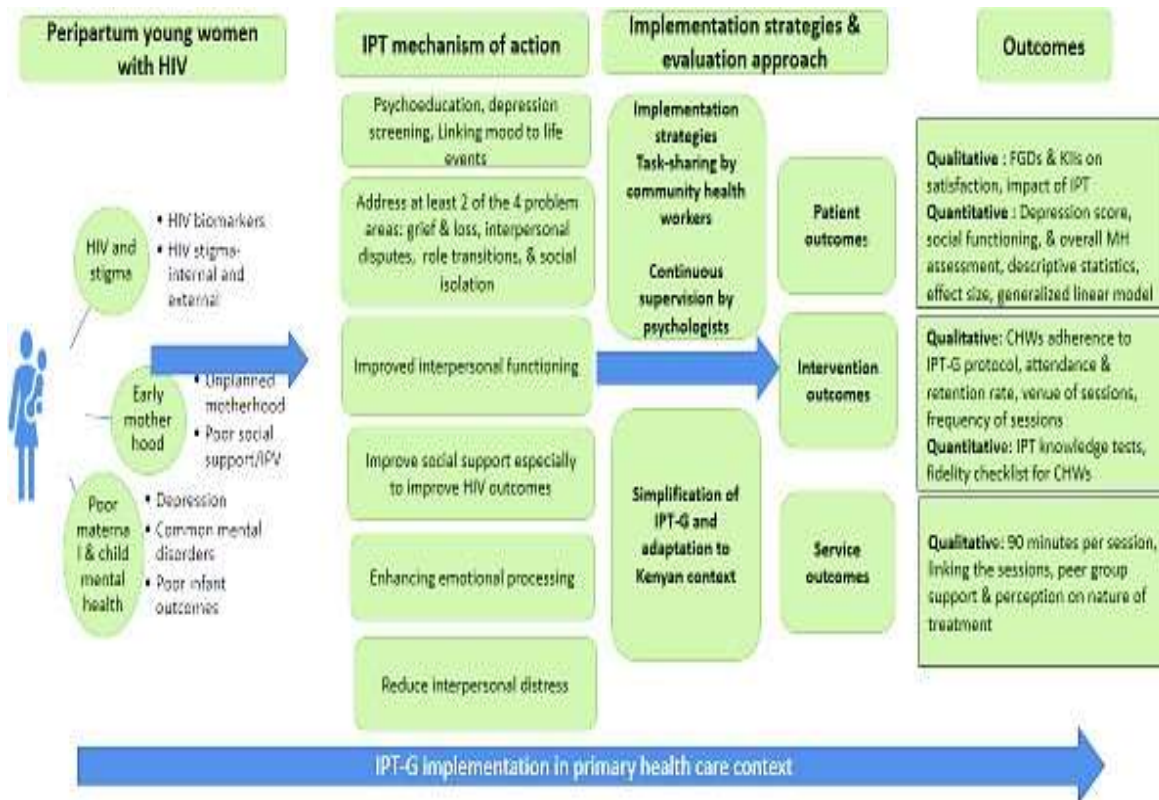
Table 2: Related review studies in IPT-for adolescents

Author	Type of study	Study purpose	N	Age (Years)	Main results
Mufson et al. (1994) (L. Mufson et al., 1994)	Open trial	Acceptability and efficacy	14	12–18	<Depression >General functioning
Mufson et al. (1996) (L. Mufson & Fairbanks, 1996)	One year follow up	Follow up	10	12–18	Maintained recovery
Mufson et al. (1999) (L. Mufson et al., 1999)	Randomized control clinical trial IPT-A vs. Clinical monitoring	Efficacy of IPT-A	48	12–18	>Treatment completion <Depression >General functioning + Interpersonal problem solving skills
Rossello & Bernal (1999) (Rosselló & Bernal, 1999)	Randomized control trial: IPT vs. CBT vs. Wait list	Efficacy of a different Modification	71	13–17	<Depression >Self-esteem+ social adaptation (>Wait list)
Mufson et al. (2004) (L. Mufson, Dorta, et al., 2004)	Community setting: IPT-A vs. TAU effectiveness	Effectiveness study	63	12–18	<Depression >global+ social functioning
Mufson et al. (2004) (L. Mufson, Gallagher, et al., 2004)	Adaptation to a group format (IPT-AG).	Acceptability and feasibility	One group of 6		>Attendance rate <Depression >Children’s assessment Scale

global

Mufson et al (2004) (L. H. Mufson et al., 2004)	IPT-A IPT-AG.	Vs	Efficacy IPT-AG	of 18 (10 in IPT- AG)	13–18	No significant difference in symptoms, overall functioning and Social functioning. In some instances greater improvement in IPT-AG
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Figure 1: Conceptual Framework



Conceptual model guiding the development of IPT-G intervention to improve health outcomes for depressed postpartum Kenyan adolescents living with HIV

2.1.12. PROBLEM STATEMENT

Maternal depression in LMICs has a significant impact on public health in a given population. 16% of prenatal women experience mental illness and 20% experience depression during postnatal period, with some instances higher than 34% (Hanlon, 2013). Perinatal depression is twice more common in LMICs than in high-income countries (Gajaria & Ravindran, 2018), with the prevalence of one out of five women in LMICs suffering from depression (Gelaye et al., 2016). Studies have shown that younger women are more likely to experience PPD (Ghaedrahmati et al., 2017). This could be due to changes in transitions in roles and interpersonal relationships and levels of social support during the perinatal period (Martini et al., 2015). Common social determinants of PPD in LMICs are low socioeconomic status, poor social support, domestic conflict and possible pressure to birth male babies (Shidhaye, 2014). HIV-related stigma has also been associated with depression (Arseniou et al., 2014).

IPT-G has been identified as an intervention to mitigate depression (WHO & Columbia, 2016). Non-specialized lay health workers have demonstrated their ability to deliver IPT within community settings (van Ginneken et al., 2013). As a therapy, due to its focus on practical problems arising from life events, it is feasible to administer in primary health care and community settings (Markowitz & Weissman, 2004). It has been recommended as an evidence-based first-line psychological intervention for pregnant and breastfeeding mothers with a view of protecting the cognitive and behavioral development of the infant against the possible effects of psychotropic medications (Kohrt et al., 2018).

Task-sharing has been noted to improve accessibility and effectiveness of mental health services in low-resource settings where specialist health workers are few or unavailable (Hoeft et al., 2018; Theobald et al., 2018). Our study seeks to ascertain feasibility and acceptability of IPT-G being

delivered by trained and supervised CHWs as an intervention for depression among depressed adolescent mothers living with HIV. This will increase the uptake of mental health services among the underserved population within the primary health care settings.

2.1.13. JUSTIFICATION

In Kenya, according to the 2014 KDHS, the first birth in women is reported at a median age of 20.3 years, which is almost the same as the median age of their first marriage (20.2 years) (KNBS, 2014). Youths start sexual relationships at a median age of 18.0 years old in females and 17.4 years old in males (KNBS, 2014). Sexual initiation at the age of 15 years stands at 15% for females and 21% for male adolescents (KNBS, 2014). A pregnant girl loses education, gets unemployed, becomes poor, and lacks prospects (Campbell et al., 2013). Adolescent mothers are highly affected by postpartum depression than adult ones, with estimates from 26% to 50% (Nunes & Phipps, 2013). This information shows the need to intervene for this vulnerable age group. Adolescence is the entry point to motherhood for most Kenyan women. There are myriad challenges associated with pregnancy at adolescent age, as shown in the previous studies.

Therefore, the lead researcher intends to carry out an implementation pilot trial of IPT-G on depressed postpartum adolescents living with HIV through primary healthcare providers. Interpersonal psychotherapy (IPT) is the innovation of Gerald Klerman and Myrna Weissman in the 1980s for addressing interpersonal issues in depression (Markowitz & Weissman, 2004). World Health Organization (WHO) in the year 2016 modified IPT into 8 sessions for a group and can now be administered by non-mental health personnel and thus can be easily scaled up by non-specialized staff (WHO & Columbia, 2016). IPT has four problem areas of interest: loss and grief,

role transition, role conflict, and loneliness/social isolation. IPT is interested in enhancing interpersonal relationships and promoting the social functioning of an individual. IPT aims at improving social skills and social support, reducing interpersonal distress, enhancing emotional processing and improving interpersonal building skills (Glass & Benshoff, 2002).

Previous studies on adolescents have supported the idea that surveillance and discussions about perinatal depression in community settings may provide education and resources for adolescents. Integrated health care systems with mental health services embedded within perinatal clinics may provide convenience and accessibility for adolescents with perinatal depression (Harrison et al., 2014).

The adapted version of IPT-Adolescents for group IPT (IPT-AG) proved efficacious and feasible even in similarly impoverished community settings such as post-war Northern Uganda (Verdeli et al., 2008). Kisumu pilot trial applied IPT to women living with HIV with the intention of sustaining the intervention. Addressing this gap improves efficacy by compensating for the shortage of mental health specialists within the society (Onu et al., 2016b). Such approaches would accelerate the transition and scaling up of mental health care services for people living with HIV in LMICs (Meffert et al., 2016). IPT-G is efficacious in reducing depression and therefore this implementation research aims to assess the acceptability, appropriateness, feasibility, fidelity and sustainability of IPT-G among depressed PPAs when being delivered by CHWs within primary health care settings.

2.1.14. RESEARCH QUESTIONS

Does group interpersonal therapy (IPT-G) administered to depressed PPAs living with HIV by primary health care workers mitigate depression and other mental health outcomes?

2.1.15. HYPOTHESIS

Hypothesis: IPT-G administered to depressed postpartum adolescents living with HIV by primary health care workers reduces depression and mitigates other mental health outcomes.

2.1.16. OBJECTIVES

2.1.16.1. Broad Objective

The overall objective is to assess whether trained CHWs can deliver IPT-G to depressed postpartum adolescents living with HIV to mitigate depression and other mental health outcomes in primary health care setting.

2.1.16.2. Specific Objectives

a) Primary Objectives

Among adolescents with postpartum depression and living with HIV in routine clinical settings. In this study, all outcomes are assessed postpartum at baseline 6–12 weeks, 20 weeks, 28 weeks, and at 36 weeks;

Objective1: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary healthcare workers compared to treatment as usual (receiving routine PMTCT clinic services), alters depression as assessed by Edinburgh Postnatal Depression Scale score 16 weeks after initiation of intervention (EPDS cut-off ≥ 10 indicative of depression).

Hypothesis: IPT-G administered to depressed PPAs living with HIV by primary health care workers alters the depression by helping them in decreasing interpersonal stress.

Objective 2: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary healthcare workers compared to treatment as usual (receiving routine PMTCT clinic services), alters the HIV-related stigma levels as measured by HIV/AIDS Stigma Instrument.

Hypothesis: IPT-G administered to depressed PPAs living with HIV by primary health care workers reduces the HIV-related stigma, and that participants have a reduction in HIV-related stigma scores due to enhanced interpersonal skills building.

Objective 3: Evaluate whether IPT-G administered to depressed PPAs living with HIV by primary healthcare workers compared to treatment as usual (receiving routine PMTCT clinic services), alters the levels of social functioning in the participants as measured by World Health Organization Disability Assessment Schedule 2.0.

Hypothesis: IPT-G administered to depressed PPAs living with HIV by primary healthcare workers reduces total disability and that the participants have improved social support, interpersonal relations on everyday functioning by enhancing decision making and communication skills.

a) Secondary Objectives

Among adolescents with postpartum depression and living with HIV in routine clinical settings. In this study, all outcomes are assessed postpartum at baseline 6–12 weeks, 20 weeks, 28 weeks, and at 36 weeks;

Objective 1: Assess traumatic experiences associated with adolescent pregnancy among depressed PPAs living with HIV using the Impact Event Scale and ascertain its association with depression.

Hypothesis: IPT-G intervention enables depressed PPAs living with HIV to deal with traumatic experiences by facilitating emotional processing with a reduction in Impact Event scale scores.

Objective 2: Determine if the IPT-G administered to depressed PPAs living with HIV by primary healthcare workers compared to treatment as usual (receiving routine PMTCT clinic services), alters levels of adherence to HAART using viral load tests and the CASE adherence index.

Hypothesis: IPT-G improves adherence to HAART by depressed PPAs living with HIV as measured by viral load tests and the CASE adherence index by enhancing social support.

Objective 3: Evaluate the influence of IPT-G training of primary health care workers on their competency in mental health care (knowledge of postpartum depression, HIV related stigma and interpersonal skills)

Hypothesis: Health workers' competency in mental health improves after training in IPT-G as measured by a semi-structured questionnaire.

Objective 4: Determine the influence of the IPT-G administered to depressed PPAs living with HIV by primary healthcare workers compared to treatment as usual (receiving routine PMTCT clinic services) on child health and developmental profile, such as weight and HIV status using Malawi Developmental Assessment Tool (MDAT).

Hypothesis: IPT-G improves child health and enhances developmental profile as measured by Malawi Developmental Assessment Tool (MDAT) due to improved maternal-child secure attachment style.

Objective 5: Evaluate the perception, experiences and competency of primary health care workers, health center management and PPAs on IPT-G (fidelity, feasibility, acceptability and sustainability).

Hypothesis: Primary health care workers, health center management and depressed PPAs living with HIV appreciate the benefits of IPT-G at the end of the study if a remarkable reduction in depression is noted.

3. CHAPTER THREE

3.1. METHODOLOGY

3.1.1. STUDY DESIGN

This is an implementation research adapted from Proctor et al. (2009) conceptual framework (Proctor et al., 2009). IPT-G has shown to be efficacious in reducing depression (L. Mufson, Gallagher, et al., 2004). In our implementation research, we conducted a pilot feasibility study to evaluate task sharing using CHWs to deliver IPT-G among depressed PPAs living with HIV in primary health care context.

The study was conducted among depressed postpartum adolescents living with HIV who were attending the prevention of mother-to-child HIV transmission (PMTCT) clinics in two primary care health centers. Twenty-four depressed PPAs aged 15–24 years, 6–12 weeks postpartum and living with HIV were eligible for participation. Our study is a two-arm intervention implementation study with 12 depressed PPAs for intervention group and 12 depressed PPAs for control group. Eight CHWs were trained to deliver IPT-G under continuous support supervision by a clinical supervisor to ensure protocol was maintained. Intervention group (at week 12 postpartum) received 8 sessions of IPT-G which was conducted a session per week and thereafter the delayed IPT-G was administered to waitlist group (at week 20 postpartum) for a similar period. After all had completed IPT-G, follow-up for the intervention group and waitlist group was done for 8 weeks to assess if the benefits of the IPT-G could be sustained over time by evaluating patient outcomes.

Implementation Outcomes

From the two study sites, we assessed using FGDs, KIIs, audio recordings and field notes the perception of the CHWs, depressed PPAs and the health care providers towards delivery of IPT-G within primary health care context.

a) *Intervention outcomes* feasibility was assessed by looking at the CHWs level of engagement and adherence to IPT-G protocol. In addition, we observed the session's attendance and retention rate as indicators of IPT-G acceptability. For fidelity, we randomly selected 3 out of the 8 IPT-G recordings of the 8 sessions per study site to assess their level of adherence to protocol and also Interpersonal Knowledge test was used to evaluate the competency of the CHWs on IPT-G protocol as per the WHO, manual, 2016. Interpersonal inventory was used to assess changes in their attachments and social relationships of the depressed PPAs post-intervention.

b) *Service outcomes* were assessed by inquiring their perception on duration of 90 minutes for each sessions for 8 weeks, linking activities of the sessions, peer group support and perception on the nature of psychological treatment.

c) *Patient outcomes* were assessed by inquiring on their level of satisfaction from IPT-G, changes in social functioning, changes in mean scores for depression, HIV-related stigma and reduction in total disability. Other mental outcomes such as traumatic experiences, adherence to ART and child development were also assessed pre- and post-intervention and thereafter change in their mean scores over time was reported.

Target population: Twenty-four depressed postpartum adolescents aged 15-24 years who were living with HIV and attending PMTCT clinic at Kangemi and Kariobangi Health centers.

3.1.2. Outcome measures: Intervention, Service and Patient outcomes

IPT-G intervention was administered for 8 sessions at different times (intervention group initiated at 12 weeks and control group at week 20 post-delivery) and later compared the outcome measures to ascertain the implementation acceptability, feasibility, fidelity and adoption of the intervention when administered by primary healthcare personnel in primary health care. The benefits of IPT-G as an intervention were assessed by comparing the changes in depression before and after intervention. The essence of time of initiating intervention was considered.

Implementation of new interventions considers all levels of internal and external factors; primary health care provider behaviour, health center facility and guiding policies in an organization (Proctor et al., 2009; Raghavan et al., 2008). The acceptability, feasibility and fidelity of IPT-G for treatment of postpartum depression among HIV+ adolescents were obtained via qualitative interviews (focus group discussions and in-depth interviews that involved adolescent mothers, CHWs who delivered IPT-G and health center management in both study sites (Appendix XVI).

- a) Study Process and Outcomes framework to assess efficacy of IPT-G

Table 3: Process and outcome measures to assess efficacy of IPT-G

Study Component	Description
1 IPT-G efficacy	Administered by Primary Health Care Workers
2 Target population	HIV+ Postpartum adolescents with EPDS score \geq 10 attending PMTCT clinics: Kangemi and Kariobangi health centers, Kenya. They should be 6–12 weeks postpartum.
3 Recruitment	Study information provided to HIV+ adolescents at the waiting bay, HIV clinic providers informed about the study and eligibility criteria. Twelve participants from each clinic to form a total of 24 participants for the study.
4 Eligibility	HIV+ adolescents 6–12 weeks postpartum and aged 15–24 years old. EPDS score \geq 10 and under PMTCT program. Able to attend IPT-G once a week for 8 sessions
5 Intervention	<p>Participants were randomized as recruitment strategy to receive:</p> <p>a) Eight sessions of weekly IPT-G delivered at week 12 at the PMTCT clinics +PMTCT psychosocial treatment as usual (TAU) or</p> <p>b) PMTCT psychosocial TAU+ Delayed IPT-G offered at week 20.</p>
6 Treatment as Usual	Any mental health counselling/psychotherapy, psychotropic medication, ARV adherence counselling, couples therapy, other study participation, and or other psychosocial interventions at the PMTCT clinic or outside is allowed and noted.
7 Retention	Participants who default sessions or evaluations were telephoned up to three occasions to be categorized as lost to follow-up. Those with severe depression or suicidal ideations were referred to Kenyatta National Hospital's mental department for further management.
8 Clinical outcomes	<i>Primary:</i> diagnosis of PPD, HIV-related stigma, and social functioning; <i>Secondary:</i> continuous measures of PPD and HIV-related stigma, traumatic experiences, interpersonal functioning, HIV viral load, self-reported ARV adherence, competency of primary health care workers, and adverse infant outcomes. Primary and secondary outcomes assessed at baseline (week 6-12) and repeated at 20, 28, and 36 weeks).

9	Adaptation of IPT and training of therapists	Adaptations to IPT-G content and process to optimize fit while maintaining fidelity to IPT protocol. Additional IPT adaptations were made following the opinion of primary health care workers, therapists (non-specialist trainees) during 4 days of formal IPT-G training and 16 session of piloting
10	Adherence to protocol	Evaluated at the end of every session by an IPT-G study supervisor using fidelity checklist and IPT knowledge test to the CHWs to evaluate their competency after every session (of the 15 items, a score of 70% which is 21 out of possible 30 is acceptable).
11	Sample size	Twenty-four participants(12 participants for intervention group administered IPT-G at week 6- 12 postpartum;12 participants for waitlist group delayed IPT-G to week 20 postpartum)
12	Data analysis	<p>The primary analysis compared change from baseline to post-treatment (8 weeks) between IPT-G plus TAU and TAU plus Delayed IPT-G.</p> <p>Maintenance of gains assessed for significant change in postpartum from week 12 to week 20, 28, and week36 follow-up assessments. Sub-group (Sensitivity) analyses were used to identify sub-groups for whom IPT-G plus TAU was more or less effective.</p>

Adapted from :(Curran, Bauer, et al., 2012)

b) Implementation outcomes

The implementation outcomes and data collection strategies (adapted from Proctor et al. 2009) (Proctor et al., 2009) were a guideline on how to extract information on the acceptability, feasibility and fidelity of IPT-G in a given time of the study period (Curran, Bauer, et al., 2012).

Acceptability—Perception among the implementation team that gives evidence-based intervention is satisfactory. Focus group discussions and in-depth interviews are analysed by peer reviewing and checking on the emerging themes. Data was collected from different sources qualitatively to enhance the credibility of the results.

Appropriateness—Appropriateness is the apparent fit, relevance, or compatibility of the innovation or evidence-based practice setting, provider, or consumer, and or perceived fit of the innovation to address a particular problem. Based on the participants aged 15–24 years, does IPT-G adequately address issues of life such as lower education level, dropping out of school, having low socioeconomic status, and low social capital that is known to cause depression?

Feasibility- This is the level to which a new treatment or innovation can be successfully utilized or carried out within a given setting (Karsh, 2004). IPT-G was considered feasible when the 24 study participants and if all participants attended more than 80% of the sessions and less than 6 participants dropped out from the intervention and less than 3 of facilitators refused to continue with IPT-G.

Fidelity—Fidelity was interested in evaluating if an intervention was implemented according to protocols of IPT-G (Dusenbury et al., 2003; Rabin et al., 2008). Some of the possible determining factors of effective IPT-G were adherence to the evidence-based protocol, how it was disseminated to the low-resource settings, program structures, and other factors linked to delivering care to the participants (Dane & Schneider, 1998; Mutamba et al., 2018). WHO reduced the IPT sessions to 8sessions according to administering treatment for the depressed (Swartz et al., 2014).

Adoption—this refers to the process of comparing organizational readiness and change from before to post-treatment (8 weeks) between the two health centers around the successful screening of depression and readiness to adopt IPT-G in their settings. In addition, testing the maintenance of gains for substantial change from 6–12 weeks to 20 weeks, 28 weeks, and 36-week follow-up assessments. The lead researcher also inquired from the IPT-G facilitators and health center management team if the intervention was to be continued even to the other postpartum adolescents who lived with HIV and attended the PMTCT clinic because of its benefits.

Sustainability—Sustainability refers to the extent to which new intervention roll-out is maintained (Johnson et al., 2004; Turner & Sanders, 2006). We followed-up the participants for 24 weeks to ascertain the benefits of IPT-G over time.

3.1.3. Qualitative process evaluation alongside clinical outcomes:

The Interview guide was adapted from Curran and colleagues' work in 2012 published in the Implementation Science journal (Curran, Sullivan, et al., 2012). Data was collected using focus group discussions and individual interviews (Brunette et al., 2008; Curran et al., 2005). Analysis was done by putting into themes responses with similar meanings (Weber, 1990). The qualitative data was aimed to understand their perceptions and experiences of IPT-G thus highlight the feasibility, acceptability, fidelity, appropriateness and sustainability of IPT-G.

a. Focus group discussions target participants:

- i. 19 out of the 24 depressed PPAs (10 for Kariobangi health center and 9 for Kangemi health center)
- ii. 7 out of the 8 CHWs (4 for Kariobangi health center and 3 from Kangemi health center)

b. KIIs target participants :

- i. In-depth interviews were conducted amongst: 2 nursing officers-in-charge (1 from each study site),
- ii. 2 laboratory technologists (1 from each study site),
- iii. PMTCT-nurse (1 from each study site),
- iv. CHAs (1 from each study site) and
- v. PMTCT lay leaders (1 from each study site).

Acceptability and appropriateness of the intervention by CHWs and nurses were assessed through interviews focusing on the relevance of content and delivery approach. For the appropriateness of the content, we did pre-intervention pilot testing with participants and also collected qualitative data that reviewed the critical depression-related themes. Feasibility was assessed by looking at the attendance for both the participants and the interventionists over the study period. Fidelity was measured by the post-training assessment and satisfactory ratings on the IPT knowledge test among the CHWs. Refer to appendix XIV and XVI, respectively.

Table 4: Summary of Objectives and Associated outcomes and measures

No.	Primary Objectives	Outcome measures	Potential confounders	Method of assessment
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1	Mitigating depression	IPT-G versus treatment as usual (TAU)	Socio-demographic factors; interpersonal relationships,	Postpartum depression using EPDS scores. Cut-off ≥ 10
2	Mitigating HIV related internal and external stigma	IPT-G versus TAU	Socioeconomic status, education, social support, marital status,	HIV related stigma using scores of HIV/AIDS Stigma Instrument – PLWHA (HASI-P)
3	Enhanced social functioning	IPT-G versus TAU	religion, substance use, parity, occupation, infant birth weight and infant HIV status.	Level of social functioning using scores of WHODAS 2.0
No	Secondary Objectives			
1	Assess levels of traumatic experiences	IPT-G versus TAU	Socio-demographic factors; interpersonal relationships,	Traumatic experiences using scores of Impact Event Scale
2	Level of adherence to HAART	IPT-G versus TAU	socio-economic status,	Compliance to HAART using CASE adherence index/Viral load and CD4
3	Assess primary health care workers' competency in IPT-G		education, social support, marital status, religion, substance use, parity,	<ul style="list-style-type: none"> • Clinical Outcome for Routine and Evaluations outcome measure • Questionnaires, Semi-structured interviews, Focus Group Discussion and Observation
4	Assess adverse Infant outcomes	IPT-G versus TAU	occupation, infant birth weight and infant HIV status.	Child health and developmental profile using Malawi Developmental Assessment Tool (MDAT)
5	Implementation outcomes	IPT-G process		<p><i>Intervention outcomes</i>(Feasibility-CHWs level of engagement, adherence to protocol; Acceptability-attendance and retention rate; Fidelity-assess 3 out 8 recordings of IPT-G sessions, IPT knowledge test</p> <p><i>Service outcomes</i> (perception on the duration of 90 minutes per session, nature of intervention, level linking activities between the sessions).</p>

Note: The group interpersonal therapy (IPT-G) intervention explained the difference in outcome measures because all the participants were getting treatment as usual care services (TAU) in their respective PMTCT clinics.

3.1.4. STUDY SITES

There were two study sites: Kangemi health center and Kariobangi health center at the PMTCT clinic in Nairobi. Kangemi is a low-income estate in Kenya located at a driving distance of 12 km from Nairobi city center. Another study site, Kariobangi health centre, is surrounded by a low-income estate located at a driving distance of 13 km from Nairobi city centre. Both study sites were low-income estates with a lack of social determinants of health. Considering these were vulnerable populations, if we could not have been able to recruit enough participants from Kangemi and Kariobangi health centers, we would have expanded our study to Dagoretti and Kayole health centers. The two additional sites were more similar except the location within Nairobi County. They were of similar socio-economic status, staffing and same availability of services for treatment as usual and thus could not significantly alter the study.

There are over 200 health centers within Nairobi County distributed across the general population. We chose the two study sites (Kariobangi and Kangemi health centers) since there was an existing working relationship with the University of Nairobi hence made it easier to access the PMTCT clinics, availability of eligible participants and diversity of the patient population.

3.1.5. STUDY POPULATION

Postpartum adolescents living with HIV attending the PMTCT clinic at Kangemi and Kariobangi health centers aged between 15–24 years were screened for depression. Forty-six PPAs attending PMTCT clinic and who were 6-12 weeks postpartum were screened for depression using

Edinburgh Postnatal Depression Scale (EPDS) at a cut-off score of ≥ 10 . Thirty-two of them met the inclusion criteria but 25 depressed PPAs consented to participate in the study (13 depressed PPAs from Kariobangi health center and 12 depressed PPAs for Kangemi health center). One of the participants from the intervention group dropped out before initial session due to change of residence. Participants had to be willing to continue with the PMTCT services within the same facility for all the study period with a view to minimizing loss to follow-up.

3.1.5.1. INCLUSION CRITERIA

- 1) We recruited postpartum adolescents living with HIV aged 15–24 years old.
- 2) All depressed postpartum adolescents living with HIV and attended perinatal clinic (PMTCT clinic) from 6–12 weeks post-delivery.
- 3) They were able to attend a once-a-week therapy session that continued for a total of 8 weeks.
- 4) An engagement interview was carried out to understand the participants' interpersonal, practical, and cultural barriers that needed addressing before they signed up for the intervention. This also enabled the researcher to identify and carry out a cognitive assessment that ascertained concentration, attention, sound judgment, and memory.

3.1.5.2. EXCLUSION CRITERIA

1. Postpartum adolescents who were living with HIV and attended reproductive health clinic above age 25 years
2. Those with a cognitive impairment making them unable to sign informed consent. Less than a score of 10 on EPDS and those with severe suicidal ideations.

- Individuals who had existing drug and alcohol dependence that required substance use treatment.

Figure 2: Participant flowchart

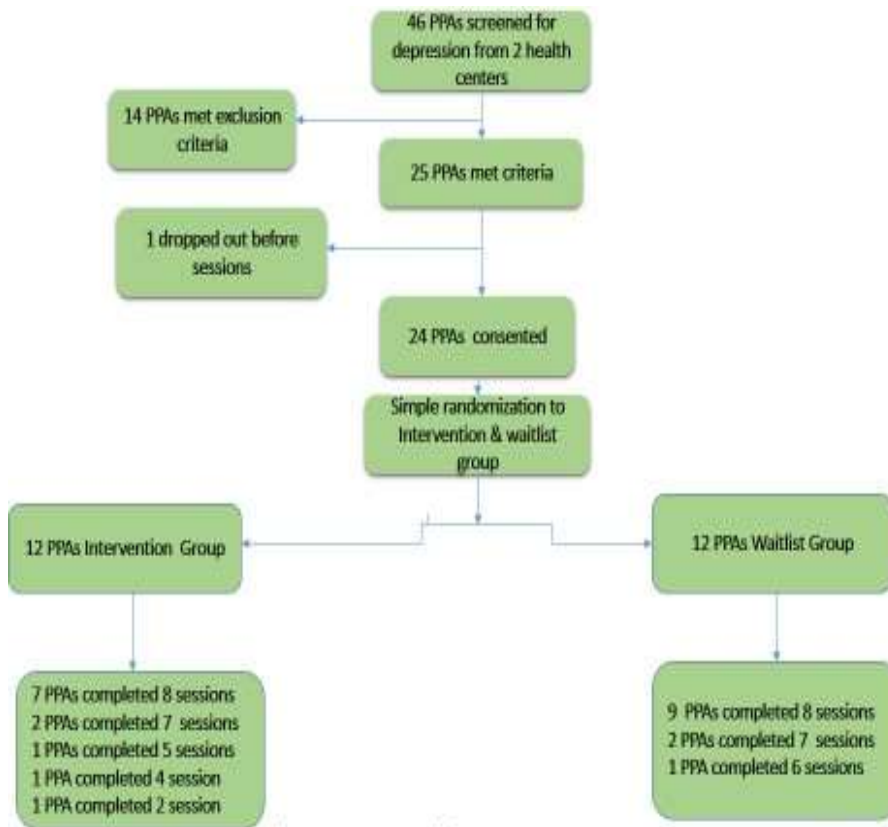


Fig 2: IPT-G Participants flow chart

3.1.6. IPT-G INTERVENTION DELIVERY BY PRIMARY HEALTH CARE WORKERS

3.1.6.1. Intervention procedures

The lead researcher conducted a one-on-one engagement session with potential participants 3 weeks prior. Primary healthcare workers administered IPT-G in a low-resource settings after being trained by Interpersonal psychotherapy practitioners who are all Clinical psychologists with experience in clinical practice and also acted as supervisors for the process of IPT-G and ensured protocol was maintained.

Twenty-four PPAs were administered IPT-G intervention for 8 sessions at different times (12 participants for intervention group initiated at week 12 and 12 participants for control group at week 20 post-delivery) and later the lead researcher compared intervention group Vs. control group to measure feasibility, acceptability, and fidelity of the intervention when administered by primary healthcare workers within primary health care settings. The intervention was first tested with three young mothers at each study site as piloting before the main study. The IPT-G sessions were conducted in a spacious room within the Kangemi health center's maternity building and in a social hall at the Kariobangi health center. The intervention group received weekly IPT-G sessions plus treatment as usual for 8 weeks, while the waitlist control group received only treatment as usual. After the first 8 weeks, the IPT-G intervention was offered to the waitlist control group for 8 weeks and waitlist group followed up for another 8 weeks. Thus, the intervention group was monitored cumulatively for 16 weeks from the time IPT-G was completed. On termination of the IPT-G sessions, all participants continued with treatment as usual at the health center. Marital conflict was attended to by inviting the male partner to attend couples' sessions to learn problem-solving skills and were then referred to the PMTCT nurse for continual support. The CHWs

maintained contact with postpartum adolescents who participated to help them practice the lessons learned from the IPT-G intervention. At 28 weeks postpartum, the lead researcher carried out structured interviews among the participants to determine the overall views of the participants about IPT-G, which helped evaluate its feasibility, acceptability, and fidelity. Additionally, the Clinical Outcomes for Routine and Evaluation-Outcome Measure was administered between sessions and at the end of therapy. Assessment of changes in postpartum depression through EPDS scores and HIV-related stigma was also crucial in evaluating the efficacy of IPT-G. The lead researcher also evaluated the therapists/facilitators in view of understanding the fidelity of IPT-G. We documented process outcomes regarding adolescent participation and interventionist fidelity to determine feasibility. Exit interviews were conducted with participants and interventionists to assess acceptability at week 28 postpartum after intervention for all groups. For medical/clinical emergencies during the study, Dr. Kumar was the primary study person on psychosocial management. Referral to Kenyatta National Hospital for specialized mental health care was done for participants who were found exhibiting severe perinatal depression, anxiety, HIV-related stigma, suicidal ideations, and those whose children had bad developmental profiles.

3.1.6.2. IPT-G protocol and techniques for this study

IPT-G works through tasks and steps. According to IPT-G protocol, tasks are goals targeted to achieve in the different phases of therapy and steps are the sequence in a given task. Tasks and steps are clearly stipulated till session 8 of IPT-G. The approaches are to understand the current depression, link depression with present problems that affect interpersonal relationships, and look for new ways to handle existing issues. The session comprises 6–10 participants, and any given session lasts 90 minutes to administer IPT-G protocol for sessions 1–8.

Table 5: IPT-G protocol for sessions 1-8

IPT-G Protocols for session 1–8 (tasks and steps)		
Phases	Tasks	Steps
Pre-group phase	Task 1: Help the person recognize and start dealing with current depression	<p>Task 1 has 7 steps</p> <p>Step 1: Introduce yourself to the person and describe whom you work for.</p> <p>Step 2: Explain that what is discussed in the meeting remains confidential.</p> <p>Step 3: Ask the person about their symptoms of depression and how they affect the person’s everyday functioning.</p> <p>Step 4: If the person meets the criteria, tell them they have depression.</p> <p>Step 5: Explain that depression is a treatable condition.</p> <p>Step 6: Discuss with the person how to create an environment that helps them recover from depression.</p> <p>Step 7: Mobilize resources.</p>
	Task 2: Help the person understand links between current depression and IPT problem areas; conduct an Interpersonal inventory.	<p>Task 2 has 2 steps</p> <p>Step 1: Find out what was happening in the person’s essential relationships and social roles when the current depression started.</p> <p>Step 2: Discuss the essential people in the person’s life (interpersonal inventory)</p>
	Task 3: Decide with the person on the interpersonal problems that are linked to the current depression, invite the person to join the IPT group and discuss goals and rules	<p>Task 3 has 4 steps</p> <p>Step 1: Explain the connection between depression and problem areas.</p>

		Step 2: Decide with the person 1 or 2 goals that they can work on.
		Step 3: Ask the person if they would like to join the group.
		Step 4: Provide information on the group and end the session.
Initial Phase (Session1)	Task 1: Introduce the group members and talk about depression (30 minutes).	Task 1 has 4 steps: Step 1: You and the group members introduce yourselves to each other. Step 2: Remind the group about confidentiality. Step 3: Talk about depression in general. Step 4: Give hope.
	Task 2: Discuss depression and the IPT problem areas that the group members are facing (45 minutes).	Task 2 has 3 steps Step 1: Discuss in general links between depression and IPT problem areas. Step 2: Review each person's problems and goals. Step 3: Ask group members to talk about their lives
	Task 3: Discuss how the group works (15 minutes).	Task 3 has 3 steps Step 1: Describe how Group IPT works. Step 2: Cover group rules. Step 3: End the session.
Middle phase (session 2-7)	Task 1: Start each group session by reviewing group members' depression (15-20 minutes)	Task 1 has 2 steps Step 1: Start the group Step 2: Review depression symptoms
		Task 2 has 2 steps

	Task 2: Link depression to events from the previous week (10-15 minutes).	Step 1: Discuss events from the previous week.
		Step 2: Link these events to the group member's problem areas
		Techniques
Middle phase	Task 3: use strategies specific to each IPT problem area	Task 3 has 7 techniques
	Duration: approximately 45 minutes	Technique 1: Rating of depression
		Technique 2: Linking mood to event and event to mood
		Technique 3: Communication analysis
		Technique 4: Decision analysis
		Technique 5: Role-play
		Technique 6: Interpersonal skills building
		Technique 7: Work at home/setting practice exercises
	Task 4: Assign practice exercises and end the session. Duration: approximately 15 minutes	
Termination group phase (Session 8)	Gives the opportunity to review what has happened during treatment and group members to say goodbye to each other and the facilitator. Also, to make plans about addressing problems that might arise up or new problems that emerge.	
IPT-G tenets	4 IPT problem areas	Strategies for dealing with depression
	Grief	Help participants find meaning in life without their loved one
		Educate the client about the grieving process
	Disputes/Conflicts	Clearly define what the problem is between the two sides
		Identify the phase of the disagreement (see below: still negotiating, being stuck, or ending the relationship).

	Explore options for a plan of action to resolve the problem.
	Disagreements may have three stages; it can either be still negotiating, stuck or ending the relations.
Life changes	Identify the old role and mourn its loss.
	Think about positive and negative aspects of the new role or potential opportunities for growth and meaning.
	Develop skills to manage the new role, break any social isolation, and find supportive people who can help.
Loneliness/social isolation	First, social isolation can be the result of significant changes in the group members' social circle resulting from the other 3 problem areas (grief, disputes, life changes)
	The second type of isolation is a more longstanding one, where the person has profound difficulty in starting and maintaining friendships and other relationships

3.1.6.3. Strategies for dealing with the 4 IPT problem areas

IPT has four (4) problem areas: interpersonal relationships, grief and loss, disputes/conflicts, life changes, and loneliness/social isolation.

3.1.6.4. Trainers and supervisors

Trainers and supervisors of IPT-G should practice IPT-G before implementing it to satisfy the certified supervisor of IPT-G. To maintain the fidelity of the intervention, facilitators discussed every IPT session with the IPT supervisor through telephone calls and enhanced peer-to-peer IPT supervision groups at the venue of the study. Recording of the session using audiotape was also

done to help the supervisor assess the levels of adherence to IPT-G protocol by a given facilitator at any given time.

3.1.6.5. Tenets of IPT-G

The areas of interest in the IPT-G are the current depression, links, and current problems that influence interpersonal relationships and the means of solving them. IPT-G recommends 6-10 participants in a group while a session happens for 90 minutes each week. In our intervention for the mental wellbeing of HIV+ postpartum adolescents, we focused on life changes, social isolation/loneliness, and disputes in their daily living.

3.1.7. SAMPLE SIZE

An implementation study is used to test the acceptability, feasibility, and appropriateness of intervention to scale it up to a broader population (Porta, 2014). In an implementation study, sample justification is unnecessary, considering that the area of interest usually is to test the efficacy of a given intervention (Julious, 2005). A sample size of 12 per group is recommended as adequate to satisfy the assessment of feasibility, precision gain, and regulatory considerations (Julious, 2005). Implementation research is not to prove the superiority of an intervention but to understand the process in the intervention, feasibility, and possible facility barriers (Arain et al., 2010; Lancaster et al., 2004; Thabane et al., 2010). The current flat rule of the thumb still approves 12 participants per group during an implementation study as an acceptable sample size (Julious, 2005). Van Belle has also posited the same recommendation for a sample size of 12 participants per group for an implementation study.

Therefore, in our study the researcher carried out the implementation research of IPT-G by accepting 24 depressed postpartum adolescents out of 46 PPAs who screened positive depression

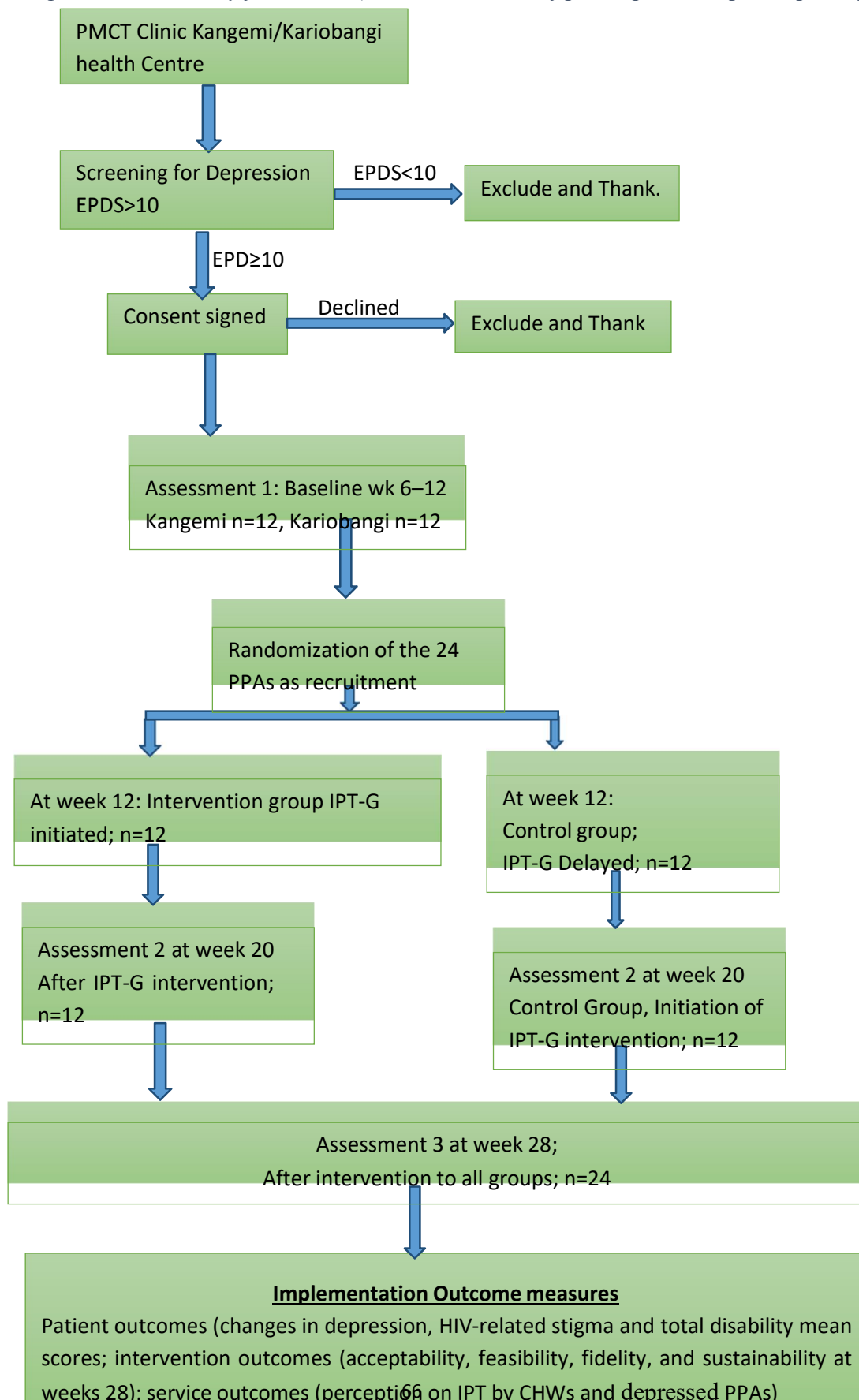
at a cut off score ≥ 10 on EPDS and were also living with HIV from Kangemi Health Center (12 participants) and Kariobangi Health Center (12 participants), which were both primary health care facilities in low-income estates under Nairobi County, Kenya.

3.1.7.1. Procedure for Qualitative Inquiry

Ritchie and colleagues in 2003 outlined seven factors that might affect the potential size of a sample: “the heterogeneity of the population; the number of selection criteria; the extent to which ‘nesting’ of criteria is needed; groups of special interest that require intensive study: multiple samples within one study; types of data collection methods used; and the budget and resources available” (Ritchie et al., 2006). Despite the existence of other factors affecting sample size in qualitative studies, researchers mostly use saturation as a guiding principle in data collection (Mason, 2010).

The 19 out of the 24 depressed PPAs who participated in the study were administered a semi-structured clinical interview that assessed the general perception on IPT-G and their body changes after receiving the intervention. Also IPT knowledge test was administered to the CHWs to test their competency. Inquiries were also done on possible facilitators and barriers associated with IPT-G delivery.

Figure 3: Implementation study flow chart (N=Total number of participants, n=participants per group)



3.1.8. SAMPLING PROCEDURES/SELECTION OF STUDY PARTICIPANTS

Postpartum adolescents living with HIV attending PMTCT at Kangemi and Kariobangi health centers were screened at 6–12 weeks postpartum using the study eligibility checklist (Appendix II). Those who met the criteria were then screened to assess levels of depression using the Edinburgh Postnatal Depression Scale (EPDS). A cut-off of EPDS score ≥ 10 was used to identify postpartum adolescents with moderate to severe depression for inclusion in the study. 46 PPAs attending PMTCT were screened for depression and 32 PPAs had EPDS scores ≥ 10 and met the inclusion criteria. Twenty-five depressed PPAs consented for the study but one dropped before the initial session due to change of residence leaving 24 depressed PPAs.

The health center in-charge for the two facilities did not participate in the study and only provided administrative support in their respective study sites. With the help of the health center in-charge, the lead researcher identified in each study site four CHWs (1 community health assistant and 3 community health volunteers) within the PMTCT clinic who had a minimum qualification of at least post primary school level education and ability to read and write. The CHWs signed a written informed consent to participate in the study.

3.1.9. RECRUITMENT AND CONSENTING PROCEDURES

3.1.9.1. Recruitment and randomization

During week 5 of postpartum, the lead researcher engaged the eligible participants in contracting and preparing for the intervention. After the participant had been attended as per their routine clinic (Kangemi and Kariobangi health centers), those who met the inclusion criteria outlined in the study eligibility checklist were directed by the assisting PMTCT nurse to the room where the study was

being conducted. All mothers above 24 years, those with severe mental debilitation, and those not competent in English and Kiswahili were not eligible for this study.

Since the study was conducted on a unique group population, every effort was put to ensure that postpartum adolescents who were HIV positive and attended the PMTCT clinic at Kangemi and Kariobangi health centers participated voluntarily to maintain the credibility of the data collected. On identifying those who met the eligibility criteria for participation in the study, all necessary information about the study was explained to them and made to read repeatedly through each section to adopt the procedure of IPT-G intervention. Participants were invited to meet their selected health center staff, lead researcher, and research assistants in a room secured for this study for research-related information to share the purpose of the study and benefits that they were to derive. Information about the study shared with the participants included the purpose, procedure, benefits, risks, voluntariness, and free will to withdraw any time without giving reasons and still receive PMTCT services equal to the others.

Those who were cognitively stable, with no signs of neurocognitive impairment, and those who accepted to participate signed informed consent, and assent from the parent or guardian was necessary for those with severe mental disturbances that affected their ability to make informed choices. Those who declined to participate were appreciated for their time, excluded from the study, and hence not eligible to sign informed consent.

3.1.9.2. Recruitment Procedure for Study Participants and Interventionists

Participants who had signed the informed consent to participate in the study had EPDS administered to them at a cut-off of ≥ 10 , where the participant was likely suffering from a depressive illness of varying severity (moderate to severe depression). On identifying the PPAs with depression, random distribution of intervention and control group was formed. A card with

the lead researcher's contact details was provided. Twenty-five depressed young mothers enrolled, with one dropping out because of a change in residence before the IPT-G sessions began, leaving 24 participants. Twenty-four pieces of paper were allocated binary numbers, either 1 (for the intervention group) or 2 (for the waitlist control group). The participants were then asked to choose a folded piece of paper; those with the number 1 formed the intervention group (12 participants), and the remainder formed the waitlist control group (12 participants).

Waitlist Condition

Treatment as usual for the waitlist control group entailed routine services offered at the PMTCT clinics within the two health centers. The offerings included services for sexual and reproductive health, male partner involvement, child-maternal nutrition and child immunization.

3.1.10. VARIABLES

3.1.10.1. Independent Variables

The primary predictor variable was IPT-G intervention plus treatment as usual (receiving routine PMTCT clinic services) at week 12 of postpartum compared with delayed IPT-G plus TAU (receiving routine PMTCT clinic services) at week 20 among depressed postpartum adolescents living with HIV who attended PMTCT clinics at the two study sites. Socio-demographic factors which formed part of potential confounders concerning the feasibility and acceptability of IPT-G intervention were: state of interpersonal relationships, age, socioeconomic status, education level, marital status, religion, parity, occupation and infant HIV status.

3.1.10.2. Dependent Variables

The primary outcome measure was to assess feasibility and acceptability of IPT-G being delivered by CHWs amongst depressed PPAs living with HIV in primary health care settings. Secondary

outcomes of interest are changes in HIV-related stigma and changes in social functioning among depressed postpartum adolescents living with HIV. Other secondary outcome measures were: traumatic experiences associated with their HIV+ status, adherence to ART medication and child outcomes. Implementation outcomes in this study entailed feasibility, acceptability, fidelity and adoption of the intervention when administered by primary health care workers. The IPT-G intervention explained the difference in outcome measures because all the participants were getting usual care services in their respective PMTCT clinics.

3.1.11. DATA COLLECTION PROCEDURES

Ethical approval was obtained from the KNH/UON Ethics Review Board; then recruitment was done for a duration of one month during the perinatal clinic for the postpartum adolescents who lived with HIV and attended the PMTCT clinic at Kangemi and Kariobangi Health Centers. The researcher requested the clinic Nursing Officer-in-charge for a conducive study area (possibly a room) that enabled the assessment of mothers who had already been attending at PMTCT clinic to avoid interference with typical workflow at the clinic. During a visit to the area of study, the lead researcher identified in each study site; three of the staff in the clinic who were community health workers and preferably having attained formal education to form 4 or basic education with the ability to read and write.

The choice of CHWs was informed by the fact that these were men or women who were respected and trusted by his or her community. They were closer to the community on issues pertaining to health and were elected by the community. They lived within the community, and so they knew and understood people and cultures; hence they were suitable for such an intervention that targeted vulnerable groups in a low-resource setting. The benefits of these CHWs were also to assist in mobilizing the participants during the study period. In addition, the costs of implementing the IPT-

G were minimized by using this group of community health workers who were already involved in this activity of supporting the vulnerable population. Therefore, the said CHWs were of great help in informing the participants of the study (intervention for depression using group Interpersonal therapy) as they checked into the clinic and assisted in directing them to the room where the study was carried out. On meeting the patient, the lead researcher administered the study eligibility checklist to explore factors that determined inclusion and exclusion of participants depending on their attributes.

Each participant was allocated a coded study number to enhance confidentiality and assist in tracking the details of the participant by the researcher in cases where there was a need for psychological intervention or referral to other facilities for further management. The lead researcher and research assistants then proceeded with selected participants. They shared the necessary information on the study, including its purpose, procedure, benefits, dangers, voluntariness, and free will to withdraw any time from the study, and informed the participants that they would still continue to receive PMTCT services equal to the others. The language of communication was either English or Kiswahili, depending on their preference. Since these were the two official national languages in Kenya, the instruments of assessment were translated into the same. There was no provision for an interpreter in the study to avoid distortion of information and bias. All participants were conversant with both English and Kiswahili with addition of their respective dialect depending on their ethnicity.

At this point, the lead researcher and clinical supervisor identified adolescents who met the selection criteria to participate in the study and then requested them to sign the informed consent. Those who refused to sign informed consent were thanked and excluded from the study, and those who agreed to sign proceeded to respond to the assessment using self-report questionnaires and

in-depth interviews. The lead researcher allowed participants to express themselves freely when responding to the questionnaires without undue influence by either the researcher talking or acting in a manner likely to suggest preference of certain responses. The lead researcher made an appointment with individual participants as a pre-group phase to individual prospective participants. This was done three weeks before the initial group phase (Session 1).

At the initial group phase, the lead researcher conducted a baseline data collection for all 24 participants using a socio-demographic questionnaire. Edinburgh Postnatal Depression Scale was administered to determine perinatal depression, with item 10 that helped to assess suicidal intent, the Impact of Event Scale was used to determine traumatic experiences, and the HIV/AIDS Stigma Instrument- PLWHA (HASI-P) was used to assess HIV-related stigma in pregnant adolescents who lived with HIV. Interpersonal connectedness was assessed using the IPT Inventory, and prosaically behaviour was assessed using the World Health Organization Disability Assessment Schedule 2.0, the viral load, and the Case Adherence Index were used to assess adherence to ART.

All self-report questionnaires were expected to take about 45 minutes in total. After completing the first assessment, initiation of group interpersonal therapy for depression was done, beginning with the initial group phase (session 1), which systematically progressed up to the termination phase (session 8). Relevant strategies and tasks were implemented as per the WHO, IPT-G guidelines. Successive assessments were conducted between sessions, and were used in analysing the efficacy of IPT-G at the termination of the therapy.

While the primary health care workers were administering IPT-G, the lead researcher assessed their abilities and competency using the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM) and Interpersonal Therapy rating scale. The feasibility and acceptability of the IPT-G within the health centers were assessed using in-depth interviews, Focus Group

Discussions for the participants, facilitators, and the health center manager. Also, the observations that were recorded during the intervention process were crucial.

In a separate setting, in-depth interviews that lasted about 45 minutes were conducted in the two study sites by the lead researcher to evaluate the IPT-G feasibility and acceptability. During the in-depth interviews for the 24 depressed postpartum adolescents who lived with HIV (12 participants for the intervention group and 12 participants for the control group), audio-recording was done during sessions, and brief notes were written to cross-reference during the data analysis process.

While collecting data, participants who were overwhelmed by the sentimental nature of the psychologically invasive questions were referred to a clinical psychologist for psychosocial support intervention and appropriate psychotherapy. The information in the filled forms was kept in safe custody where the lead researcher alone could access it as it awaited analysis and after that preserved until the results were out and validated before being shredded. Transport reimbursement and a small token for time compensation to the participants were necessary since the study had many instruments of assessments that consumed some of their time more than they usually spend when attending their regular PMTCT clinic.

After a participant responded to all the questionnaires, the researcher thanked her for agreeing to contribute information in the study, and she was free to leave the study room. The next participant was taken through the same data collection procedures, and the sequence was maintained every time until the required population of 24 participants was achieved.

3.1.12. SELECTING AND TRAINING OF CHWs IN IPT-G AND MAINTENANCE OF FIDELITY

This was initiated on approval by the KNH/UON Ethics and Review Committee. This was after being cleared by the Department of Psychiatry at the University of Nairobi. With the help of the health center in-charge, the lead researcher identified in each study site four CHWs (1 community health assistant and 3 community health volunteers) within the PMTCT clinic who had a minimum qualification of at least post primary school level education and ability to read and write. The CHWs signed a written informed consent to participate in the study. Information on an amount for a small token for participating in the study was discussed with the research assistants.

A two-day training was organized for all CHWs. The lead researcher and the clinical supervisor (a master's student in clinical psychology) trained the participants in the requisite skills for delivery of IPT-G in accordance with the WHO's 2016 guidelines (WHO & Columbia, 2016). CHWs from each respective study sites conducted piloting of IPT-G with 3 PPAs weekly for 8 sessions before the main study which formed part of the field work training and supervision to enhance the skills of CHWs in IPT-G delivery. CHWs were invited for another one day meeting to discuss their experiences and observations before the main study. The clinical supervisor continuously supervised CHWs. The lead researcher received further guidance from the study supervisors and regularly consulted several International Society of Interpersonal Psychotherapy colleagues specializing in adolescent and perinatal IPT. Training sessions covered IPT tasks, steps, and techniques for the pre-group, initial, middle, termination, and follow-up phases. In addition, the CHWs simulated role-plays on various IPT-G skills. An IPT knowledge score of at least 70%(21 of 30 points) was required to pass competency requirements (WHO & Columbia, 2016). To understand the competency of the CHWs in delivering IPT-G sessions, fidelity to the intervention

was assessed by using the interpersonal therapy rating scale for initial, middle and termination sessions of the intervention group and waitlist control groups. Additional information on depression and HIV-related stigma was also shared with the CHWs to enhance their knowledge on the study.

The clinical supervisor conducted supportive group supervision before and after every session for all facilitators at a given study site and individually as needed. We held 18 supervisory sessions for each group. Group text messages were used to maintain constant contact with the CHWs. The study team used phone calls to communicate new updates and to conduct the participant follow-up. After the intervention, CHWs followed up with the PPAs who participated for at least 24 weeks to help them practice the interpersonal skills acquired during the group sessions.

During the day of recruitment of participants, the lead researcher conducted a 2-hours discussion about the aims and objectives of the study and data collection instruments to ensure that they understood the research problems, aims, questions, primary and secondary objectives of the study. All questionnaires were read through, and a harmonized approach of administering it to the participants was developed; hence training was standardized for all the research assistants. Characteristics of an exemplary data collector were emphasized, and effective communication skills reiterated. The 2-week training period also acted as a bonding between the lead researcher and research assistants, and also the supervisors of IPT-G assessed the competence of the facilitators of the intervention and even taught additional practical skills to them.

Table 6: Training of CHWs on IPT-G delivery (Task sharing training)

Table : Preparation of CHWs for task sharing(Training on IPT-G delivery)

Topics	Scope
1. Purpose of the study	<ul style="list-style-type: none">• To enlighten the 8 CHWs on why this intervention was necessary.
2. Mental health awareness on depression, HIV-related stigma and its impact on social functioning	<ul style="list-style-type: none">• Improve their awareness on mental health problems.
3. Interpersonal relationship and effective communication skills	<ul style="list-style-type: none">• Teach CHWs on social interaction and communication (verbal, para-verbal and non-verbal cues).
4. Teamwork and group dynamics	<ul style="list-style-type: none">• Explain to CHWs on how to motivate a group and individual uniqueness.
5. Time management	<ul style="list-style-type: none">• Keeping time for weekly sessions.
6. Conducting group sessions	<ul style="list-style-type: none">• How to encourage equal participation.
7. Recruitment of PPAs and follow-up	<ul style="list-style-type: none">• Identifying the eligible PPAs and knowing where they reside.
8. Introduction to IPT-G	<ul style="list-style-type: none">• Training them on what is IPT? How it is conducted? Why it is good? When is it important to use? Where to conduct sessions?
9. Structure of IPT-G	<ul style="list-style-type: none">• The phases, tasks steps and techniques in IPT-G as per WHO manual, 2016.
10. IPT problem area	<ul style="list-style-type: none">• The four problem areas (Grief and loss, role transition, role conflict and social isolation/loneliness).
11. Rating of depression scores	<ul style="list-style-type: none">• How to administer EPDs and the chosen cut-off score of ≥ 10 for this study.
12. Techniques in IPT-G	<ul style="list-style-type: none">• Techniques of IPT-G(linking life events with interpersonal distress, rating depression scores, interpersonal skills building, communication analysis ,decision analysis, role play and home assignments/behavior modification.
13. Referral pathways and linkage to care	<ul style="list-style-type: none">• When to refer and available referral mental health facilities within Nairobi County.
14. Piloting with 7 PPAs 8 weekly session for 90 minutes	<ul style="list-style-type: none">• Lead researcher and clinical supervisor helped the 8 CHWs from the two study sites to practice IPT-G as per the IPT-G protocol, manual, 2016 using 7 depressed PPAs with $EPDS \geq 10$ who had been recruited form the two study centers.
15. Monitoring and evaluation of the sessions	<ul style="list-style-type: none">• The clinical supervisor administered fidelity checklist and IPT knowledge test to the CHWs to evaluate their competency after every session (of the 15 items, a score of 70% which is 21 out of possible 30 is acceptable).

16. Second follow-up meeting for all CHWs to discuss their experiences and observations during piloting
 17. Continuous supportive supervision during the entire period of the study
- After piloting was conducted by CHWs, a one day follow-up meeting was conducted to share experiences and observations with a view to improving their skills for the main study.
 - Weekly meetings after each session to enhance fidelity.
 - Field notes done by the clinical supervisor also helped in framing the IPT problem areas for the group sessions
 - WhatsApp group was formed for all the CHWs to enhance supervision.
-

3.1.13. STUDY INSTRUMENT

We targeted to report the socio-demographics of the participants from the two study sites. The primary aim of this study was to assess feasibility and acceptability of IPT-G being delivered by CHWs among depressed PPAs living with HIV in reducing depression, minimizing HIV-related stigma, and improving social functioning. We evaluated changes in depression scores pre-intervention and post-intervention, and sustainability of clinical benefits through follow-up for 24 weeks. This study also considered other mental health outcomes associated with depression among PPAs living with HIV with a view to evaluate the changes that could occur upon delivery of IPT-G. The additional instruments included Impact event scale (IES) to assess psychological trauma on being informed of their HIV status or experiences associated young motherhood. Qualitative data was collected post-intervention using Focused Group Discussions amongst the PPAs and CHWs, Key Informant Interviews amongst respective health care providers and PMTCT lay leaders to understand their experiences and observations during the delivery process of IPT-G

3.1.13.1. Socio-demographic and Clinical Questionnaire

The researcher's designed Socio-demographic questionnaire was used to acquire information on ante-natal care, delivery, well-child care, infant birth weight, gestational age, mother and infant's general health status, substance use, PMTCT infant HIV testing, and infant developmental profile. Also, the need to inquire on participant's level of social support and other relevant demographic variables like age, marital status, level of education, religion, occupation, parity of the mother, sexuality, and pregnancy (Appendix VII).

3.1.13.2. Edinburgh Postnatal Depression Scale (EPDS)

This was used to assess the postpartum depression score of the adolescents living with HIV and attending the routine clinical settings. Perinatal depression affects most women who are of reproductive age (Wisner et al., 2002). Edinburgh Postnatal Depression Scale (with 10-questions) is suitable for assessing postpartum depression (Cox et al., 1987). EPDS has shown good validity and reliability and also sensitive to change over time for depressive symptoms during perinatal period (Bergink et al., 2011). A cut off score of 10 was used for screening of postpartum depression as recommended by Murray and Cox (Murray & Carothers, 1990). The EPDS with the same cut off score has also been used in Kenya for similar studies(Ongeri et al., 2018). Kiswahili version of EPDS where the translation was done in Kenya is also available (Kumar et al., 2015)

EPDS is a screening instrument and not diagnostic hence clinical judgement is of essence when dealing with patients with features of depression. It has been used previously in similar studies (Kleiber & Dimidjian, 2014; Meltzer-Brody et al., 2013).

A cut-off of ≥ 10 was used to screen for postpartum depression. The responses were 0,1,2,3, and possible scores on the EPDS range from 0 to 30, with higher scores indicating clinically significant

depression. The tool has been used in various countries in Africa such as Uganda, Zimbabwe, Malawi, Zambia, South Africa, Nigeria, and Angola, and the validity and reliability have proved acceptable. In Uganda, EPDS has been used to screen for depression among postpartum mothers within primary health care setting (Kakyo et al., 2012). A systematic review and Meta-analysis looking into reliability and validity of instruments used in assessing perinatal depression in African countries supported the use of EPDS (Tsai et al., 2013) (Appendix VIII).

3.1.13.3. HIV/AIDS Stigma Instrument – PLWHA (HASI – P)

This has 33 items and was used to assess HIV-related stigma in 6 areas: verbal abuse, negative self-perceived, healthcare neglect, social isolation, fear of contagion workplace stigma and the total stigma arising from the sum of all the subscales. It has been translated into languages used in different countries such as; Lesotho, Malawi, South Africa, Swaziland, and Tanzania. The instrument has been validated in Africa and hence yielded acceptable results for my study (Holzemer et al., 2007). The responses are on a four scale 0–3 and mean of individual scores ranging 0 to 1 where scores closer to 1 meaning greater stigma (Appendix IX).

3.1.13.4. Clinical Outcomes for Routine and Evaluation- Outcome Measure (CORE-OM)

The CORE-OM has 34 items used to assess 4 domains which include; wellbeing (4 items), symptoms or problems (12 items), functioning (12 items), and risks (6 items) (Barkham et al., 1998). Eight items report the adaptive part of life (items 3, 4, 7, 12, 19, 21, 31, and 32). It takes between 5-10 minutes to finish the interviews. CORE-OM34 improves patient care by facilitating communication between researchers and clinicians (i.e., familiarity with the same measures & scores on those measures), providing the ability to compare between studies, facilitating audit of

clinical services, facilitating audit of individual therapists' work, and feeding into health economic and other research analyses (Appendix X).

3.1.13.5. Impact of Event Scale-Revised (IES-R)

Impact of Events Scale-Revised was used to assess psychological distress following a traumatic event; it has five responses, 0–4 in a 22- items instrument (Daniel & Charles, 1997). Divided into domains of intrusion sub-scale (8items), avoidance sub-scale (8 items), hyperarousal sub-scale (6 items). Scored with the guidelines of Normative Walsh and Clarke (Walsh & Clarke, 2003) (Appendix XI).

Sub-scale	Mean	SD	Range (0–4)
Intrusion	0.36	0.63	0–3.9
Avoidance	0.38	0.57	0–3.0
Hyper-arousal	0.49	0.61	0–3.14
Total score	0.41	0.55	0–3.0

(Appendix XI).

3.1.13.6. WHODAS 2.0 (World Health Organization Disability Assessment Schedule 2.0)

WHODAS 2.0 is a 36-item version, self-administered, and it has 6 domains assessing disability in all of them (T. B. Üstün, 2010). These are; understanding and communicating, getting around, self-care, getting along with people, participating in society, and life activities. Response range from 1-5. Disability scores are calculated by dividing the raw overall score by total items in a givendomain (Appendix XII).

3.1.13.7. The CASE adherence index/Viral Load

Case Adherence Index is a good tool for assessing the level of adherence when using Anti-retroviral Therapy (Mannheimer et al., 2006). This instrument can easily be administered taking about 2 minutes to fill. The outcome informs on the level of adherence to treatment. It has only 3 questions with a score of >10 depicting good adherence, while <10 signals poor adherence.

Testing ART's adherence using viral load

In our study, CD4 and viral load were obtained from participants' PMTCT files with the help of a health records officer at the reception area. This was done during the initial session of IPT-G within week 6-12 post-delivery and then at week 36 during the follow-up session. The acceptable standard for testing ART adherence is viral load testing. CD4 testing is also of importance to document. A normal CD4 count for adults is above 500, and when it drops too low (usually below 200), opportunistic infections infect the body since it cannot defend itself. Virological failure is defined by a persistent high viral load of ≥ 1000 copies/ml at least after 6 months of using ART (NASCO, 2013). Voluntary counselling and testing for HIV is done, and those reported to be living with HIV undergo baseline tests for CD4 counts, Viral load (VL), liver functions test, Hepatitis B and Urea and creatinine. Those who test negative for Hepatitis B are vaccinated against the virus, those with $CD4 \leq 100$ cells/mm³ are done the IMMY Cryptococcal Antigen (CrAg) to rule out Cryptococcal meningitis and with $VL \geq 1000$ copies/ml as per World Organization is initiated on ART. The repeat test is done in six months, and if the viral load is still more than 1000 copies/ml, the patient is maintained on the same regimen for three months, and another repeated viral load is done. Suppose the levels of VL remain ≥ 1000 copies/ml after the following three months.

In that case, the health caregiver does a Drug Sensitivity Test and searches for possible causes of HIV treatment failure or associated risk factors like poor compliance to medication, substance

abuse (alcohol or any other drug), or other opportunistic infections. The patient is then prepared and initiated on second-line antiretroviral therapy. Viral load is done after 3 months of medication, and if the VL stagnates at ≥ 1000 copies/ml, a repeat of the viral load test is done in the following 3 months, and any form of status quo now put the patient at stage 4 of HIV disease, and most of the care addresses the associated opportunistic infections. Some factors associated with HIV treatment failure are the presence of resistant strain that could have acquired during HIV transmission or Hepatitis B, which could also use ART as a form of treatment, thus reducing the levels of medication intended to treat HIV. Currently, viral load is done at Kenya Medical Research Institute (Welcome Trust -Kilifi, KEMRI-Kisumu, Walter Reed-Kericho), Kenyatta National Hospital and National Reference Laboratory. Since all these are regional laboratories of excellence, G4S has been contracted to be supplying samples to the nearby laboratory in a given region/county. In the future, there is a need to increase such laboratories even to the county level to ease viral load testing as the preferred form of monitoring HIV response to ART.

The researcher also asked the participants some questions to screen for Alcohol and Drug Use Disorders since it also contributes to HIV treatment failure for those who are using it. Answering **YES to two or more** questions indicated an alcohol or drug use problem and required further assessment and management.

Question	No	Yes
1. Have you ever ridden in a Car driven by someone (including yourself who was “high” or had been using alcohol or drugs?		
2. Do you ever use alcohol or drugs to Relax, feel better about yourself or fit in?		

3. Do you ever use Alcohol or drugs while you are by yourself or alone?
 4. Do you ever Forget things you did while using alcohol or drugs?
 5. Do your Family or Friend ever tell you that you should cut down on your drinking or drug use?
 6. Have you ever gotten into Trouble while you were using alcohol or drugs?
-

(See Appendix XIII)

3.1.13.8. IPT Inventory/Interpersonal Therapy knowledge test

IPT has proved to be effective in the treatment of depression (Klerman et al., 1984). Attachment theory postulates that interpersonal relationship is significant (Stuart & Robertson, 2003).

The IPT mitigates issues to do with grief and losses, role changes, disputes, and social isolation. It resolves problems by tending to improve attachment styles, communication, and forms of interaction. The responses were either “YES” or “NO” where descriptive analysis was used to understand the interpersonal relationship. Some questions are qualitative in nature to enable the respondents to express their feelings and explore their belief system about a given phenomenon (Appendix XIV).

3.1.13.9. The Malawi Developmental Assessment Tool (MDAT)

The Malawi Developmental Assessment Tool (MDAT) was created and validated for African low-resource settings. It has 136 items with good sensitivity (97%) and specificity (82%). The tool contains four domains: gross motor, fine motor, language, and social domains of development, each having 34 items. Therefore, MDAT is a culturally relevant developmental assessment tool for child developmental outcomes for this study. MDAT has been created for use in African settings since it is easy to test for child development from birth up to 6 years of age and is administered in 30 minutes. Local health workers could use the tool with little training and

researchers who could require a tool to use as an outcome measure when assessing the development of children in these settings (Gladstone et al., 2010). In our study, the lead researcher used MDAT to assess the child development outcomes at week 12, week 20, week 28, and at 36 weeks of child growth post-delivery. The assessment was administered during the routine sessions, with the last assessment during follow-up (Appendix XV).

3.1.13.10. Qualitative process evaluation alongside clinical outcomes

Curran et al., 2012 formulated some guidelines when delving into implementation science (Curran, Bauer, et al., 2012). Qualitative clinical is interviews used to attain information on the understanding of an intervention and changes associated with implementation challenges (Brunette et al., 2008; Palinkas et al., 2008). Analysis by identifying common, occurring themes is made to develop a meaningful response in a given study (Weber, 1990).

Qualitative data was collected using FGDs, KIIs, and semi-structured questionnaires post-intervention to understand their experiences and observations during the delivery of IPT-G. The purposive method of sampling was used to select our sample population for the FGDs and KIIs. FGDs were conducted at post-intervention among the participants where 19 out of the depressed 24 PPAs (10 for Kariobangi health center and 9 for Kangemi health center) and 7 out of the 8 CHWs (4 for Kariobangi health center and 3 from Kangemi health center) to understand their perceptions and experiences of IPT-G. In-depth interviews were conducted amongst: 2 nursing officers-in-charge (1 from each study site), 2 laboratory technologists (1 from each study site), PMTCT-nurse (1 from each study site), CHAs (1 from each study site) and PMTCT lay leaders (1 from each study site) (Appendix XVI).

Table 7: Constructs and measures

	Construct and Domain	Measure and Parameter
1	Interpersonal relationships	<ul style="list-style-type: none"> Adolescent interpersonal Connectedness and Conflict Inventory from Adolescent IPT Manual (Klerman et al., 1984)
2	Postpartum depression	<ul style="list-style-type: none"> Edinburgh Postpartum Depression Scale (EPDS) (Meltzer-Brody et al., 2013)
3	HIV-related stigma	<ul style="list-style-type: none"> HIV/AIDS Stigma Instrument -PLWHA (HASI-P) (Holzemer et al., 2007)
4	Traumatic experiences	<ul style="list-style-type: none"> Impact Event Scale (Daniel & Charles, 1997)
5	ART adherence	<ul style="list-style-type: none"> The CASE adherence index/Viral load and CD4 (NASCO, 2013)
6	Disability across six domains; understanding and communicating, getting around, self-care, getting along with people and life activities	<ul style="list-style-type: none"> World Health Organization Disability Assessment Schedule 2.0 (T. Bedirhan Üstün et al., 2010)
7	Psychological health to measure: Well-being, symptoms or problems, functioning and Risks	<ul style="list-style-type: none"> Clinical outcome measure for Routine and Evaluation outcome measure
8	Adolescent mother and child profile	<ul style="list-style-type: none"> Information on: post-natal care, delivery, well-child care, PMTCT and infant HIV testing Infant birth weight, the general health status of mother and infant. Child developmental profile using Malawi Developmental Assessment Tool (MDAT)
9	Implementation outcomes(IPT-G delivery process)	<p><i>Intervention outcomes</i>(Feasibility-CHWs level of engagement, adherence to protocol; Acceptability-attendance and retention rate; Fidelity-assess 3 out 8 recordings of IPT-G sessions, IPT knowledge test</p> <p><i>Service outcomes</i> (perception on the duration of 90 minutes per session, nature of intervention, level linking activities between the sessions).</p>

3.1.14. Validity of the study Instruments

Validity refers to whether an instrument measures what it was initially intended to measure (Scholtes et al., 2011). The quality of the data is enhanced by cross-checking and inspecting information obtained from the pilot study. Relevant corrections to the administration of study instruments were done with the assistance of the pre-test findings. The researcher set the questions in line with the objectives, thus increased the validity of the study. To minimize the internal validity associated with this design, random sampling was used. Clear data collection procedures and the elaborate flow of the study also enhanced the validity of the study.

Reliability of the study instruments

Collected data analysed in line with study questions. Both the Kiswahili and English versions of the questionnaires were available to enhance understanding of the study as per participants' preference which were the two acceptable national languages in Kenya. Clarifications of questions to the participants were done on a need basis with much care to avoid bias. Throughout the study, a standard 0.05 level of significance was adopted to measure reliability, making the results reliable.

Pretesting of the study tools

All the questionnaires were pretested among the postpartum adolescents living with HIV at the PMTCT clinic, Kangemi and Kariobangi health centers. Those who participated in the pretesting were not included in the study. After the pretesting process, the lead researcher designed a better approach for the effective administration of the standardized questionnaires and, where necessary, modified the socio-demographic questionnaire objectively.

Basic assumptions of the study

The study was pegged on the belief that the participants responded genuinely with utmost good faith to each question in the quantitative and qualitative questionnaires. Another assumption was that their status of living with HIV and the adolescent age pregnancy made the participants a vulnerable population.

Quality assurance procedures

To evaluate change in symptomatology among participants during IPT-G sessions, the Clinical Outcomes for Research and Evaluation-Outcome Measure was administered at every session and at the end of therapy. The competency of CHWs was assessed using IPT knowledge tests and the randomly selecting 3 audio-recordings out of the 8 sessions to assess fidelity during delivery of IPT-G.

3.1.15. ETHICAL CONSIDERATIONS

Ethical approval was sought from Kenyatta National Hospital-University of Nairobi Ethics and Research Committee (Approval No. P97/02/2018) approval by the Department of Psychiatry Board of Postgraduate studies committee, University of Nairobi. Other county and health services permits were sought thereafter. Details of the study were shared with each participant during recruitment and they signed written informed consent.

3.1.15.1. Informed Consent

After the participants (postpartum adolescents who were living with HIV at the PMTCT clinic, Kangemi and Kariobangi health centers) had been attended as per their routine clinics, those who met the inclusion criteria as per the study eligibility checklist were directed by assisting PMTCT nurse to the room where the study was conducted. All mothers above 24 years of age, who were

cognitively impaired, and those not competent in Kiswahili and English were not eligible in this study.

On identifying those who met the criteria to participate in the study, all the needed information about the study was explained to them, including the purpose, procedure, benefits, risks, voluntariness, and free will to withdraw from the study without any explanation and still receive PMTCT services equal to the others. Those who accepted to participate signed informed consent by virtue of being emancipated minors. Those unable to do so due to their cognitive impairment were excluded from the study. Those who declined to participate appreciated for their time and were excluded from the study and hence not eligible to sign informed consent.

Since the study was conducted on a unique group population, every effort was put to ensure that postpartum adolescents living with HIV at the PMTCT clinic, Kangemi and Kariobangi Health Centers participated voluntarily to enhance the credibility of the data collected.

3.1.15.2. Confidentiality

Coding and use of serial numbers were utilized to protect the participant's identity. The results were only used for the intended purpose of assessing the effectiveness of Primary Health Care-based Group Interpersonal Therapy (IPT) on the mental well-being of depressed postpartum adolescents living with HIV.

3.1.15.3. Risks

The risks anticipated, such as invasion of personal life on questions related to HIV status, perinatal depression, traumatic experiences, HIV/AIDS-related stigma, and social support structure, were discussed objectively in detail with the participants. During the study, the challenges that arose

from the participants concerning their HIV status stress, perinatal depression, and HIV-related Stigma were handled through Interpersonal psychotherapy.

3.1.15.4. Benefits

All participants received IPT-G, which is an evidence-based treatment for depression. Those who presented with severe depression with severe suicidal ideation (as assessed using item #10 in EPDS) were referred for psychiatrist review at Kenyatta National Hospital. Due to its interpersonal therapeutic nature, those who had other psychological problems include HIV-related stigma, social support, conflict/stress, or disengagement in interpersonal relationships, traumatic experiences, interpersonal connectedness, pro-social behaviour, and health care utilization benefited. After the termination phase, the researcher referred participants who still had severe depression to a mental health facility for further treatment. The participants were made to understand that there was no direct monetary or financial benefit from the study. The indirect benefit is that it informed the improvement of mental healthcare in primary healthcare facilities.

3.1.16. DATA MANAGEMENT

3.1.16.1. Data Safety Monitoring and management

Confidentiality of information collected during the study is ethically mandatory. The lead researcher liaised with the health center in-charge, who provided a lockable cabinet where all the data, interviews, audio recordings, and other documents of the study were kept and only accessed by the lead researcher and the two supervisors. At the beginning of every session, the lead researcher distributed relevant stationeries and resources about 30 minutes before the beginning of the IPT-G session and collected them for safe custody at the end.

Advisory group

The lead researcher reported unique events that happened during the study to a team of experts from diverse fields of medicine to enhance quality in the implementation of IPT-G. The lead researcher shares information, such as dropouts of the participants, withdrawal of facilitators, increase in severity of depression, study site barriers and any emergencies or challenges participants experienced during the study period. The advisory group comprised of;

- a) Two of the study supervisors, Dr. Manasi Kumar, Senior lecturer at the Department of Psychiatry, University of Nairobi, and Prof. Grace John-Stewart, Departments of global health, medicine, epidemiology, and paediatrics University of Washington
- b) Health center in-charges from both study sites (Kangemi and Kariobangi)
- c) Prof. Ruth Nduati, Department of M.Med (Paediatrics), University of Nairobi- Chair of the Advisory group and technical advisor in this study.
- d) Dr. Alfred Osoi, Lecturer, Department of Obstetrics/Gynaecology, University of Nairobi.
- e) Dr. Beatrice Amugune, Senior Lecturer, Department of Pharmacy, University of Nairobi.

The lead researcher and the team agreed on the day and time to discuss the progress of the study every two weeks till its completion.

Data analysis

The Lead researcher was the custodian of the master file database. The study was conducted using a standard protocol for each of the two study sites to pool the data for analysis. Every effort was made to ensure uniformity in study execution at each investigational site.

Questionnaires and data entry forms were double-entered in the Statistical Package for Social Sciences (SPSS) version 25, compared for errors and discrepancies, and cleaned before analyses were conducted. The final clean dataset was kept in SPSS format in preparation for analyses. Exploratory data analysis techniques were used to uncover the distribution structure of the study variables and identified outliers using descriptive statistics.

Statistical Analyses

Socio-demographic and Baseline Characteristics: Demographic data including, but not limited to age, sex, facility, profession, religion, and baseline characteristics including, but not limited to EPDS, HIV/AIDS stigma instrument, WHODAS 2.0, Impact events scale; Case adherence index, viral load, Clinical Outcomes in Routine Evaluation Outcome Measure, Interpersonal rating scale child characteristics (MDAT), known socio-demographic, and economic environmental moderators of main outcomes were reported for each subject.

Changes between the baseline and 8 weeks and between 16 weeks and 24 weeks were explored along with the differences between Experimental and Waitlist Control groups that reported effect sizes (Cohen's d). Between-groups comparison was made at every time point. Within-groups comparisons were performed between baseline and specific follow-up, separate for every study group using simple statistical analyses for bivariate analyses depended on the distribution of the outcome variable and included correlations, ANOVA, t-tests, chi-squared tests, and their non-parametric equivalents that depended on the observed distribution of the outcome variable. To inform our multivariable analyses, the linkage between potential confounders and effect modifiers

was tested in multiple linear and logistic regression models on continuous and binary outcome variables, respectively, by testing the major effect, creating interaction terms, stratification, and carrying out adjusted and unadjusted analysis.

The longitudinal continuous outcome variables across the time points were analysed using the Generalized Linear Model technique (Generalized estimated equation for continuous outcomes and mixed effect model for binary outcomes) to understand the effect of variation due to groups (between-groups effect) and due to follow-up time (within-groups effect). Interaction between time and group was assessed (for changes in group effects with time), and, in the absence of such an interaction, the overall difference between groups and across the two follow-up assessments was calculated (95% CIs and P-values).

To investigate the effect of loss follow-up on the intention-to-treat analysis, sensitivity analysis was done by modelling response indicator and incomplete outcome variable, jointly using Heckman selection models. Secondary outcomes were analysed with the same procedure, adjusting for baseline characteristics. All necessary assumptions were tested, and the findings were reported before inferential statistics were calculated. Statistical tests were considered significant when P-values were less than 0.05, and 95% CIs were presented throughout.

Qualitative Data

The FGDs and KII were audio-recorded, and the audio files adequately labelled and transcribed, and translated for qualitative data analysis. While conducting the FGDs, detailed notes were taken and this acted as a back-up for the audios that could not have been clear and also capture any non-verbal communications. All the transcripts were read and re-read to ensure they were of good quality and captured everything from the audio and the semi-structured interviews. For qualitative data, thematic framework was derived from exploratory factor analysis. Once the thematic factors

were identified in the factor analysis, all interviews were thoroughly read through and relevant themes documented. We aimed to identify aspects relevant to delivery process of IPT-G and, personal perceptions and narratives on IPT-G. The qualitative analysis helped in generating contextual account (feasibility, acceptability and fidelity) of IPT-G being delivered by CHWs among PPAs living with HIV.

3.1.17. RESULTS DISSEMINATION

The research findings report from this study was compiled and presented to the supervisors who then approved it for presentation at the psychiatric departmental research meetings for examination purposes held every Friday of the week throughout the year. Two booklets were submitted to the Board of Postgraduate Studies (BPS), 1 booklet at the Department of Psychiatry- University of Nairobi, and 1 copy each to the PMTCT clinic in-charge at Kangemi and Kariobangi health centers. The lead researcher and all of the supervisors each kept 1 copy for future reference.

3.1.18. STUDY LIMITATIONS/STRENGTHS

3.1.19. Limitations

The self-report questionnaire used in the study could result in reporting bias thus affecting the outcome. To mitigate this, the lead researcher took time to make participants understand the aims and objectives of the study to enhance sincere responses. EPDS is a screening instrument and not diagnostic hence clinical judgement is of essence when dealing with patients with features of depression. The study required enormous resources due to the many assessment instruments and the mixed method of study where data analysis in the qualitative study needed extra funds. This implementation research was not powered as per this sample since its desired findings were exploratory and it was also meant to evaluate how the intervention performed if implemented in a

routine clinical setting. Our study sites are low-income estates in urban setting which may not help replicate rural populations of adolescents living with HIV or in high income settings.

3.1.20. Strengths

We targeted a vulnerable population and the promising results on feasibility and acceptability of IPT-G for depressed postpartum adolescents living with HIV can go a long way in expanding mental health services to a larger underserved group. It is also important to appreciate that CHWs delivered the intervention after structured training and continuous supervision which proves to be a feasible and acceptable form of intervention as we move towards mhGAP. This study assessed the efficacy of IPT-G when administered by community health care workers and provide pointers to task-sharing benefits and weaknesses. We tested a validated intervention on its efficacy hence it acted as a reference point when a more extensive study is being designed. The study addressed challenges of adolescent pregnancy which is an important area with few previous literature to highlight clinical outcomes. This mixed-method in our study enabled us to get specific valuable information to help understand real-world problems and practical solutions. The qualitative interview extracted truthful information which was helpful when reporting progress of acceptability, feasibility, and fidelity of IPT-G.

3.1.21. STUDY TIMELINE

The study was conducted January 2017–August 2019.

Table 8: Timelines of proposed activities

Timeline of proposed activities
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Objectives	Milestone/ Objectives	Year 1(Jan–Dec 2017)				Year 2(Jan–Dec 2018)					Year 3(Jan–Dec 2019)											
		1	2	3-6	7-12	1	2-5	6	7	8-9	10-12	1	2	3	4	5	6-8	9	10	11	12	
Proposal writing	Presentation of research topic	☐																				
	Preparation of Research concept		☐																			
	Proposal writing			☐																		
ERC Clearance	Proposal presentation (Dept and BPS committee)				☐																	
	Amendments of comments					☐																
	Proposal submission to Ethical Review committee						☐															
	Coordinating IPT-G planning activities in health centers							☐														
	Training of IPT-G facilitators								☐													
Obj.1	Phase 1: IPT-G versus TAU, Immediate intervention (Two clinics)									☐												
Obj.2	Phase 2: IPT-G versus TAU, Delayed intervention(Two clinics)										☐											
Obj.3	Tracking infant outcomes											☐										
Obj.4	Effectiveness outcome measures												☐									
	Data Analysis													☐								
	Report writing														☐							
	Results presentation															☐						
	Manuscript writing																☐					
	1 st Publication and 2 nd Publication																	☐	☐	☐	☐	

3.1.22. STUDY CLOSURE PLAN AND PROCEDURE

Termination of IPT-G required early preparation of the participants. The facilitator involved the participants from the beginning. Emphasis was given at the 5th session and enabled the participants to prepare psychologically in coping independently after the group sessions. Termination phase was also the time of evaluating the changes that arose from treatment. Edinburgh Postnatal Depression Scale was administered at a cut-off of score ≥ 10 to identify those who had not sufficiently improved, necessitating the need for follow-up actions or referral to a specialist mental health facility. Prior preparation to termination enabled the participant to identify areas where they benefited from the IPT-G.

The individualized session was organized to enable each participant to give their views and experiences concerning interpersonal therapy. The researcher reminded the participants the need to maintain communication in respective groups thus acting as a reminder of a worthy venture to maintain the course to recovery. Short notes on depression were issued to the participants to enhance the continuity of IPT-G intervention. Psychosocial support through phone calls or short messaging services was maintained to all participants for a period not less than 24 weeks from the time of termination of the study.

4. CHAPTER 4

4.1. RESULTS

Partial results of the presented work have been published in:

1. Yator O, Khasakhala LI, John-Stewart G, Kumar M. Acceptability and Feasibility of Group Interpersonal Therapy (IPT-G) for Depressed HIV+ Postpartum Adolescents Delivered by Community Health Workers: A Protocol Paper. Clin Med Insights Psychiatry [Internet]. 2020 Jan 24;11:117955732095122. Available from:
<http://journals.sagepub.com/doi/10.1177/1179557320951222>
2. Yator O, Kagoya M, Khasakhala L, John-Stewart G, Kumar M. Task-sharing and piloting WHO group interpersonal psychotherapy (IPT-G) for adolescent mothers living with HIV in Nairobi primary health care centers: a process paper. AIDS Care [Internet]. 2020 Aug 11;1–6. Available from:
<https://www.tandfonline.com/doi/full/10.1080/09540121.2020.1801981>

Other manuscripts

- Preliminary Effectiveness of Group Interpersonal Psychotherapy for Depressed Kenyan young mothers with HIV: A pilot trial.- Under production at American Journal of Psychotherapy (accepted 07 SEPT 2021)
- Acceptability and impact of group interpersonal therapy (IPT-G) on Kenyan adolescent mothers living with HIV: A qualitative analysis (under second revision as on 10th October 2021)

- Barriers and facilitators to working with community health workers on complex mental health interventions for post-partum adolescents living with HIV. (submitted to BMJ Family Medicine and Community Health (FMCH) journal)

This is an implementation research and the findings will be presented on:

- a) Patient outcomes - changes in means scores pre-and post-intervention for depression, HIV-related stigma and reduction in total disability. Other mental outcomes comparing pre-and post-intervention and changes over time will also be reported.
- b) Intervention outcomes-feasibility will be reported from the findings of the CHWs level of engagement and adherence to IPT-G protocol. Acceptability will be reported from the session's attendance and retention rate of the participants. We will report fidelity from what we understood after randomly selecting 3 out of the 8 sessions of IPT-G per study site to listen to and assess their level of adherence to protocol. Competency will be highlighted based on the scores of interpersonal Knowledge test which was administered to CHWs. Improvement in attachments and interpersonal relationship within their family set-up among the PPAs will also be reported
- c) Service outcomes –we document perceptions and observations of CHWs and depressed PPAs on duration of 90 minutes for each sessions for 8 weeks, linking activities in the sessions, peer group support and perception on the nature of the intervention.

4.1.1. Socio-demographic characteristics of participants overall

This pilot feasibility study was conducted within two study sites and our interest in their socio-demographic characteristics was to ascertain the commonalities of our study participants for both intervention group and waitlist group.

Twenty-four depressed PPAs participated in the study who were equally randomized to either the intervention group (n=12) or the waitlist group (n=12). Most of the participants were aged between 21-24 years 21(87.5%). They were already living with a partner 17 (70.8%) with parity of fewer than 2 children 19 (79.2%). Less than half of the participants were aware of their child's HIV status 10 (41.7%). About half of the participants had attained secondary and above education level 13 (54.2%) despite the majority still being unemployed 19 (79.2%) and earning less than 100USD 22 (91.7%). Slightly below half of the participants had difficulty accepting their status of living with HIV upon diagnosis 11 (45.8%). Thirteen (54.2%) of the participants reported being physically abused by their male partners (See Table 9).

Table 9: Socio-demographic characteristics of respondents (N=Total number of participants; n=participants per arm)

Variable	Category	Overall (N=24)	Intervention (N=12)	Waitlist (n=12)	P-Value
Age	18-20 Years	3(12.5%)	2(16.7%)	1(8.3%)	1.000
	21-24 Years	21(87.5%)	10(83.3%)	11(91.7%)	
Marital Status	Without a partner	7(29.2%)	4(33.3%)	3(25.0%)	1.000
	With a Partner	17(70.8%)	8(66.7%)	9(75.0%)	
Education Level	Primary and Below	11(45.8%)	4(33.3%)	7(58.3%)	0.414
	Secondary and above	13(54.2%)	8(66.7%)	5(41.7%)	
Occupation	Employed	5(20.8%)	4(33.3%)	1(8.3%)	0.317
	Unemployed	19(79.2%)	8(66.7%)	11(91.7%)	
Income per month (Kenya shillings)	0-10000	22(91.7%)	11(91.7%)	11(91.7%)	1.000
	10001-20000	2(8.3%)	1(8.3%)	1(8.3%)	
Number of children	1	11(45.8%)	5(41.6%)	6(50.0%)	0.856
	2	8(33.3%)	5(41.6%)	3(25.0%)	
	3	3(12.5%)	1(8.3%)	2(16.7%)	
	4	2(8.3%)	1(8.3%)	1(8.3%)	
Reaction to HIV status	Accepted	13(54.2%)	9(75.0%)	4(33.3%)	0.100
	Not Accepted	11(45.8%)	3(25.0%)	8(66.7%)	
HIV status of child	Negative	10(41.7%)	5(41.7%)	5(41.7%)	1.000
	Not Sure	14(58.3%)	7(58.3%)	7(58.3%)	
Intimate partner Violence	Yes	13(54.2%)	6(50.0%)	7(58.3%)	1.000
	No	11(45.8%)	6(50.0%)	5(41.7%)	

Table 9 presents the socio-demographic characteristics of the respondents disaggregated by the intervention status. No significant differences were observed between the intervention group and waitlist group at baseline, implying that randomization was achieved. Therefore, the bias in terms of socio-demographics was taken care of for the intervention group. The waitlist control group had similar socio-demographics among the study population; hence, good for the trial to ascertain the effects of IPT-G since all other external factors were well controlled.

a) Patient outcomes

4.1.2. Baseline characteristics of different outcomes

We sought to understand the scores of the different outcome variables we had aimed to assess by analysing their mean scores of the symptomatology or observed characteristics using the relevant screening tools.

Table 10: Baseline characteristics of different outcomes

Measures	Overall (N=24)	Intervention Group (n=12)	Waitlist Group (n=12)	P-Value*
Depression Scores (EPDS)	16.1±5.6	15.8±4.6	16.4±6.7	0.765
Negative Self Perception (HASI-P)	1.4±1.8	1.2±2.3	1.5±1.2	0.19
External stigma (HASI-P)	0.2±0.3	0.2±0.3	0.1±0.3	0.523
Global Distress (CORE-OM)	44.5±20.2	36.7±15.1	52.3±22.1	0.131
Global Distress Minus Risk (CORE-OM)	41.9±18.7	35.1±14.4	48.8±20.5	0.259
PTSD IES	18.3±22.6	18.6±22.1	18.1±24.2	0.712
Total Disability (WHODAS-2.0)	16.3±13.4	13.3±12.3	19.4±14.4	0.192
Medication Adherence	13.0±3.1	12.8±3.1	13.3±3.1	0.812

Table 10 presents the results of baseline characteristics of different outcome measures. As shown in the tables, no significant differences in terms of the outcome measures were observed between the intervention and waitlist groups, i.e., no significant differences at baseline when screening was done for depression, HIV-related stigma, and social functioning, global distress, traumatic experiences and medication adherence.

4.1.3. Efficacy of intervention

4.1.3.1. Effect of intervention on depression scores

We evaluated whether IPT-G administered by primary healthcare workers compared to treatment, as usual alters depression as assessed by Edinburgh Postnatal Depression Scale score 16 weeks after initiation of intervention (EPDS cut-off ≥ 10 indicative of significant depression).

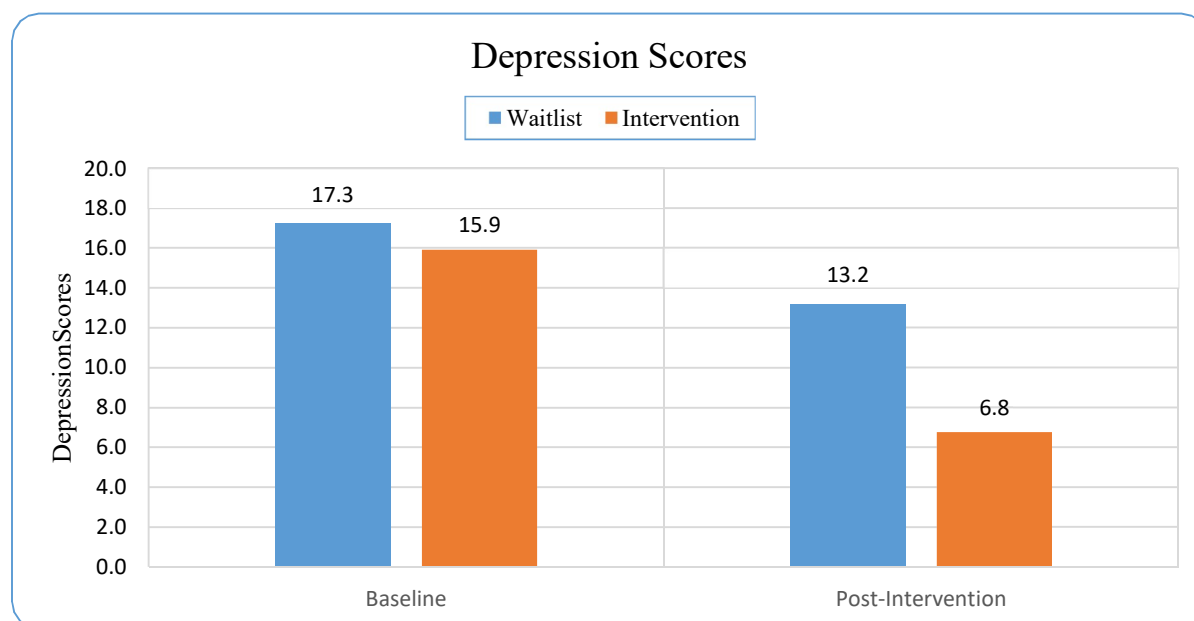
Table 11: Effect of intervention on depression

Parameter	Category	β	S.E.	95% C.I.		Sig.
				Lower	Upper	
Group	Waitlist	6.42	2.68	1.17	11.66	0.017
	Intervention	Ref.				
Time	Baseline	9.17	1.98	5.29	13.04	<0.001
	Post-Intervention	Ref.				
Group*Time	Interaction	-5.08	2.49	-9.96	-0.20	0.041

Table 11 presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in reducing depression scores. There was a significant difference in depression scores between the waitlist and intervention group ($p=0.017$). For every unit drop in the depressive score in the waitlist group, the intervention group dropped by about 6 units. In terms of change over time, i.e., between baseline and end-line, a significant decrease in depression scores over time ($p<0.001$) (decrease by about 9.2 units) was noted, regardless of which group the participants were assigned to. With regards to group time interaction, there was a significant group time interaction ($p=0.041$). As shown in figure 1, while there was a decrease in depression symptom scores over

time, participants in the intervention group had their depressive scores dropping faster than the waitlist group, i.e., from 15.9 to 6.3 in the intervention group compared to 17.3 to 13.2.

Figure 4: Change in depression scores



4.1.3.2. Effect of intervention on HIV-related stigma scores

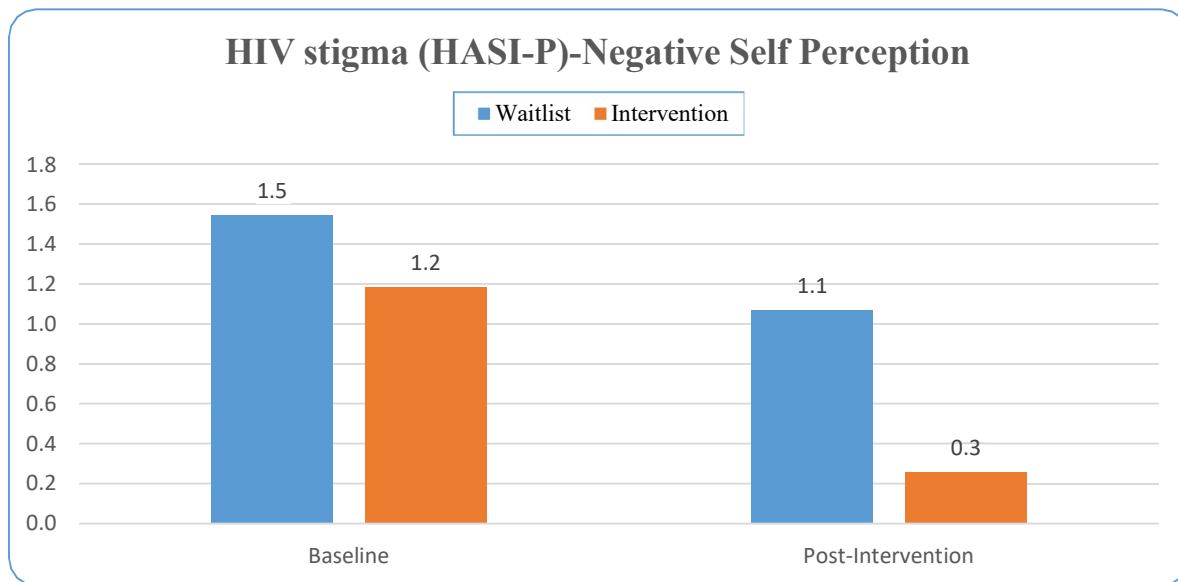
We aimed to evaluate whether IPT-G administered by primary healthcare workers compared to treatment, as usual, alters the HIV-related stigma levels as measured by HIV/AIDS Stigma Instrument.

Table 12: Effect of intervention on HIV-related stigma scores

HIV stigma (HASI-P)-Negative Self Perception						
Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	0.81	0.33	0.17	1.45	0.014
	Intervention	Ref.				
Time	Baseline	0.93	0.56	-0.18	2.03	0.100
	Post-Intervention	Ref.				
Group*Time	Interaction	-0.45	0.60	-1.63	0.74	0.460

Table 12 presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in reducing HIV-related stigma scores. There was a significant difference in HIV-related (internal) scores between the waitlist and intervention group ($p=0.014$). For every unit drop in the depressive score in the waitlist group, the intervention group dropped by about 0.81 units. In terms of change over time, i.e., between baseline and end-line, there was no significant difference in HIV-related stigma (internal) scores over time ($p=0.100$) (decrease by about 0.93) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.460$). As shown in figure 2, while there was a decrease in HIV-related stigma (internal) scores over time, participants in the intervention group had their HIV-related stigma scores dropping faster as compared to the waitlist group, i.e., from 1.2 to 0.3 in the intervention group as compared to 1.5 to 1.1.

Figure 5: Change in HIV-related stigma scores



4.1.3.3. Effect of intervention on social functioning (WHODAS 2.0)

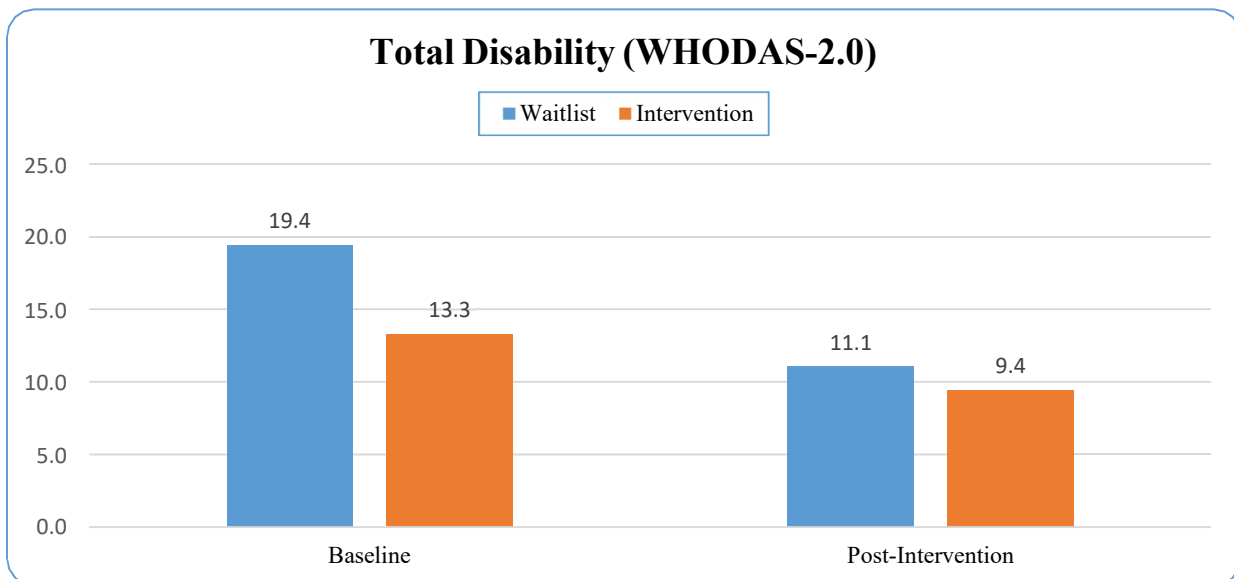
We sought to understand whether IPT-G administered by primary healthcare workers compared to treatment, as usual, alters the levels of social functioning in the participants as measured by World Health Organization Disability Assessment Schedule 2.0.

Table 13: Effect of intervention on social functioning (WHODAS 2.0)

Total Disability (WHODAS-2.0)						
Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	1.62	5.94	-10.03	13.27	0.785
	Intervention	Ref.				
Time	Baseline	3.88	3.20	-2.40	10.16	0.226
	Post-Intervention	Ref.				
Group*Time	Interaction	4.46	5.08	-5.50	14.41	0.380

Table 13 presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in decreasing total disability with increased social functioning. There was no significant difference in total disability scores between the waitlist and intervention group ($P=0.785$). For every unit drop in total disability scores in the waitlist group, the intervention group dropped by about 1.62 units. In terms of change over time, i.e., between baseline and end-line, there was no significant difference in total disability scores over time ($p=0.226$) (decrease by about 3.88) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.380$). As shown in figure 3, there was a drop in total disability scores over time participants in the intervention group from 13.3 to 9.4.

Figure 6: Change in social functioning



4.1.3.4. Effect of intervention on Global distress scores

After administering IPT-G to the intervention and waitlist group, we administered Clinical Outcomes for Routine and Evaluation Outcome Measure to assess response of clinical symptoms to the intervention across all the outcomes.

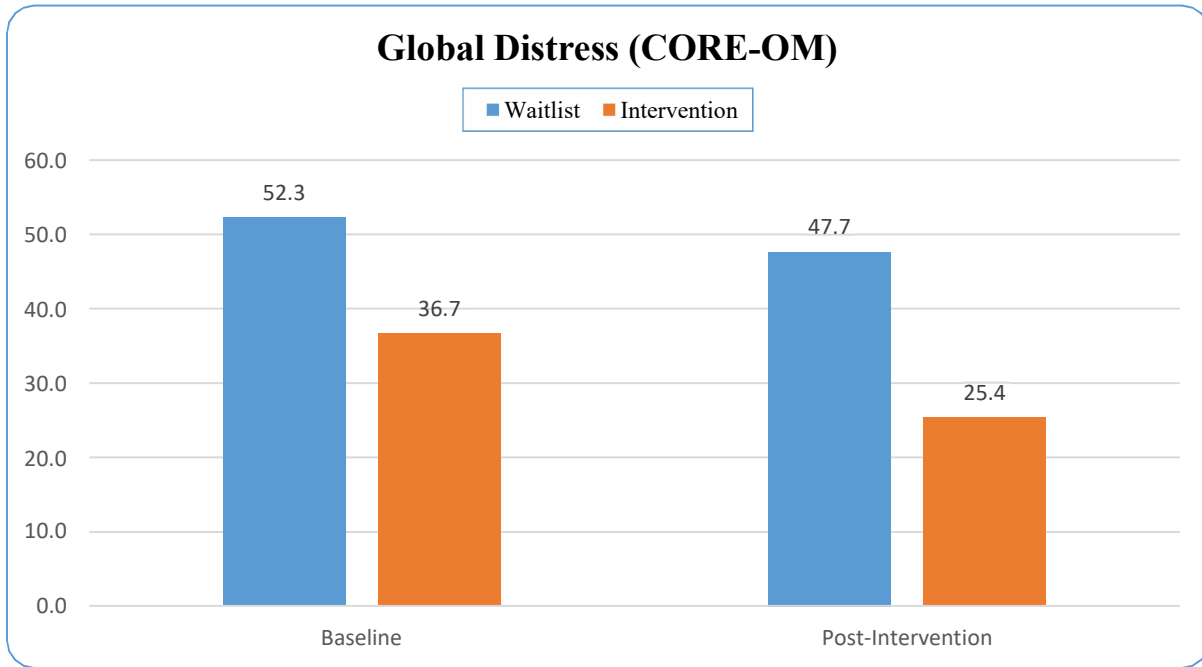
Table 14: Effect of intervention on Global distress scores

a) Global Distress (CORE-OM)						
Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	22.25	7.42	7.70	36.80	0.003
	Intervention	Ref.				
Time	Baseline	11.25	5.05	1.34	21.16	0.026
	Post-Intervention	Ref.				
Group*Time	Interaction	-6.67	7.71	-21.79	8.45	0.387

Table 14(a) presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in reducing global distress scores. There was a significant difference in global distress scores between the waitlist and intervention group ($P=0.003$). For every unit drop in the global distress scores in the waitlist group, the intervention group dropped by about 22 units. In terms of change over time, i.e., between baseline and end-line, there was a significant decrease in global distress scores over time ($p=0.026$) (decrease by about 11.25 units) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.387$). As shown in figure 4, while there was a decrease in global distress scores over time, participants in the intervention group had their global distress

scores dropping faster in comparison with the waitlist group, i.e., from 36.7 to 25.4 in the intervention group as compared to 52.3 to 47.7.

Figure 7: Change in Global distress (CORE-OM)

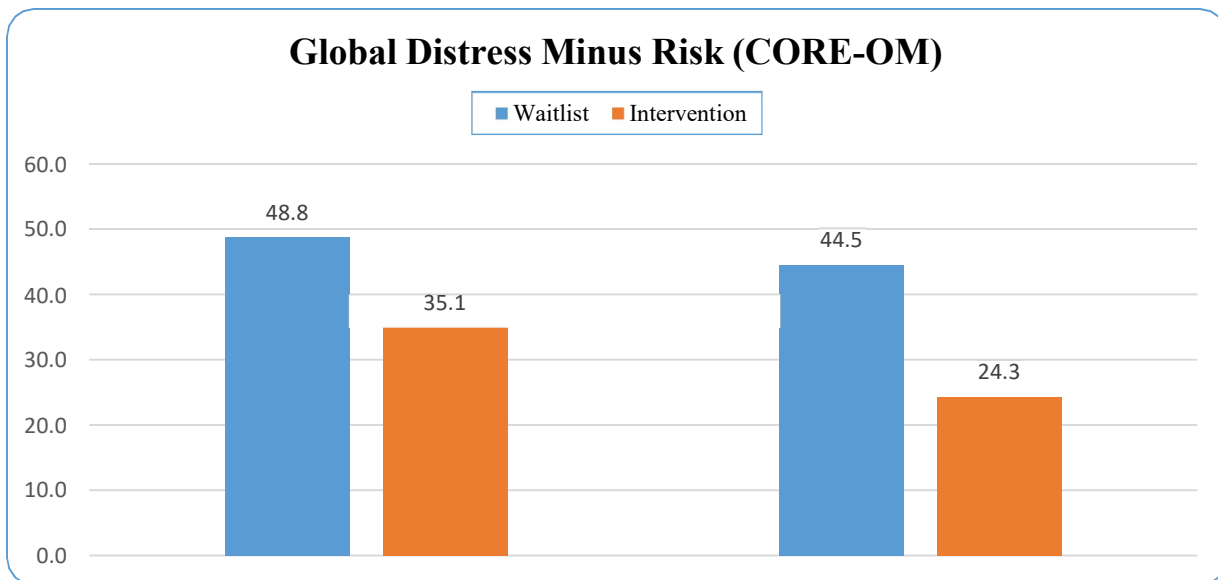


b) Global Distress Minus Risk (CORE-OM)

Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	20.17	6.56	7.31	33.02	0.002
	Intervention	Ref.				
Time	Baseline	10.75	4.42	2.09	19.41	0.015
	Post-Intervention	Ref.				
Group*Time	Interaction	-6.50	6.21	-18.66	5.66	0.295

Table 14 (b) presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in reducing global distress minus risk scores. There was a significant difference in global distress minus risk scores between the waitlist and intervention group ($P=0.002$). For every unit drop in the global distress minus risk scores in the waitlist group, the intervention group dropped by about 20 units. In terms of change over time, i.e., between baseline and end-line, there was a significant decrease in global distress minus risk scores over time ($p=0.015$) (decrease by about 10.75 units) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.295$). As shown in figure 8, while there was a decrease in global distress minus risk scores over time, participants in the intervention group had their global distress minus risk scores dropping faster as compared to the waitlist group, i.e., from 35.1 to 24.3 in the intervention group as compared to 48.8 to 44.5.

Figure 8: Changes in Global distress minus risk (CORE-OM)



4.1.3.5. Effect of intervention on psychological traumatic experiences (IES-R)

We assessed the effect of IPT-G on traumatic experiences associated with adolescent pregnancy using the Impact Event Scale and ascertain its association with depression.

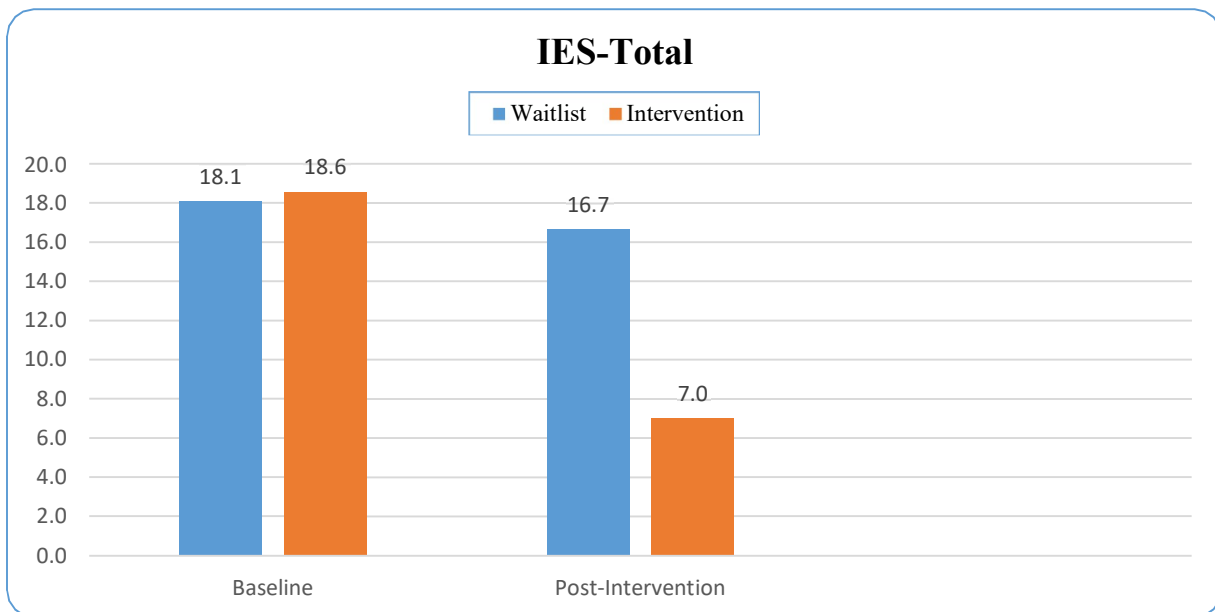
Table 15: Effect of intervention on psychological traumatic experiences (IES-R)

		IES-Total				
Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	9.67	6.11	-2.31	21.65	0.114
	Intervention	Ref.				
Time	Baseline	11.58	7.15	-2.44	25.60	0.105
	Post-Intervention	Ref.				
Group*Time	Interaction	-10.17	10.05	-29.86	9.52	0.312

Table 15 presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in reducing psychological traumatic experiences scores. There was no significant difference in psychological traumatic experiences scores between the waitlist and intervention group ($P=0.114$). For every unit drop in the psychological traumatic experiences scores in the waitlist group, the intervention group dropped by about 9.67 units. In terms of change over time, i.e., between baseline and end-line, there was no significant difference in psychological traumatic experiences scores over time ($p=0.105$) (decrease by about 11.58 units) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.312$). As shown in figure 9, while there was a decrease in psychological traumatic experiences scores over time, participants in the intervention group had

psychological traumatic experiences scores dropping faster compared to the waitlist group, i.e., from 18.6 to 7.0 in the intervention group as compared to 18.1 to 16.7.

Figure 9: Change in psychological traumatic experiences



4.1.3.6. Effect of intervention on ART adherence (CASE Index)

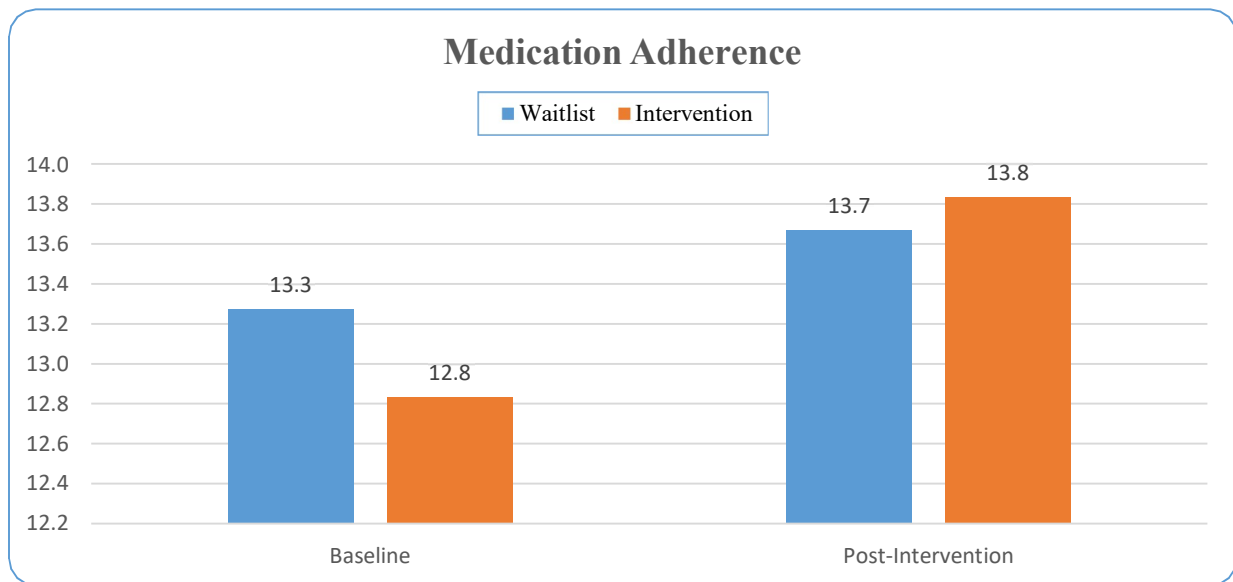
We endeavoured to understand whether IPT-G administered by primary healthcare workers compared to treatment as usual, alters levels of adherence to HAART using viral load tests and the CASE adherence index.

Table 16: Effect of intervention on ART adherence (CASE Index)

Medication Adherence						
Parameter	Category	β	S.E.	95% C. I.		Sig.
				Lower	Upper	
Group	Waitlist	-0.17	1.31	-2.74	2.41	0.899
	Intervention	Ref.				
Time	Baseline	-1.00	0.80	-2.57	0.57	0.211
	Post-Intervention	Ref.				
Group*Time	Interaction	0.61	1.06	-1.47	2.68	0.567

Table 16 presents the results of generalized estimating equations (GEE) on the effectiveness of IPT-G intervention in increasing adherence to ART. There was no significant difference in adherence to ART between the waitlist and intervention group ($P=0.899$). In terms of change over time, i.e., between baseline and end-line, there was no significant difference in adherence to ART over time ($p=0.211$) (increase by about 1.00) regardless of which group the participants were assigned to. With regards to group time interaction, there was no significant group time interaction ($P=0.567$). As shown in figure 10, while there was an increase in adherence to ART over time, participants in the intervention group had adherence to ART rising faster compared to the waitlist group, i.e., from 12.8 to 13.8 in the intervention group as compared to 13.3 to 13.7.

Figure 10: Change in ART Adherence



4.1.4. Changes in different outcomes between intervention and waitlist from baseline and post-intervention

Using Cohen's *d*, the reduction, we evaluated the effect size of changes before and after the intervention of different outcomes between the intervention group and the waitlist.

Table 17: Changes in different outcomes between intervention and waitlist from baseline and post-intervention

Measure	Intervention		Wait List	
	Estimate (Cohen's <i>d</i>)	95% C.I.	Estimate (Cohen's <i>d</i>)	95% C.I.
Depression Scores EPDS	1.569	(0.617 to 2.492)	0.651	(-0.177 to 1.466)
HIV stigma-Negative Self Perception Scores	0.561	(-0.279 to 1.380)	0.416	(-0.416 to 1.239)
HIV stigma-External Stigma Scores	-0.053	(-0.852 to 0.748)	0.406	(-0.416 to 1.213)
Global Distress Scores	0.767	(-0.070 to 1.588)	0.204	(-0.600 to 1.004)
Global Distress Minus Risk Scores	0.791	(-0.048 to 1.614)	0.21	(-0.595 to 1.010)
IES-Total Scores	0.666	(-0.173 to 1.488)	0.065	(-0.736 to 0.864)
Total Disability (WHODAS-2.0) Scores	0.281	(-0.526 to 1.082)	0.562	(-0.259 to 1.372)
Medication Adherence Scores	-0.315	(-1.117 to 0.493)	-0.119	(-0.936 to 0.701)

Table 17 presents the effect size of changes before and after the intervention of different outcomes between the intervention group and the waitlist. Using Cohen's *d*, the reduction of depression after administering IPT-G had a more substantial effect size of 1.569 (95% CI: 0.617 - 2.492) on the intervention group as compared with the waitlist control group with an effect size of 0.651 (95% CI: -0.177 - 1.466).

Reduction of HIV-related stigma (internal) after administering IPT-G had a more substantial effect size of 0.561 (95% CI= -0.279 to 1.390) on the intervention group as compared with the waitlist control group with an effect Size of 0.416 (95% CI=-0.416 to 1.239).

There was a reduction in Global distress after administering IPT-G with a more substantial effect size of 0.67 (95% CI= -0.070 to 1.588) on the intervention group as compared with the waitlist control group with an effect Size of 0.204 (95% CI=-0.600 to 1.614) whereas Global Distress Minus Risk Scores was 0.791 (95% CI= -0.048 to 1.588) on intervention group as compared with the waitlist control group with an effect Size of 0.21 (95% CI=-0.595 to 1.010).

We found a reduction in psychological traumatic experiences after administering IPT-G had a more substantial effect size of 0.666 (95% CI= -0.173 to 1.488) on the intervention group compared with the waitlist control group with an effect Size of 0.065 (95% CI= -0.736 to 0.864).

4.1.5. Change before and after intervention

We administered the waitlist group delayed IPT-G and on completion we evaluated the changes in different outcomes before (Baseline) and after intervention (week 16).

Table 18: Changes in different outcomes before and after intervention

Measure	Pre- Intervention	Post- intervention(week 16)	Z [†]	Sig.	*Effect size (95% C.I)
Depression Scores EPDS	16.6±5.1	6.0±5.1	-4.288	< 0.001	2.079 (1.365-2.778)
HIV stigma-Negative Self Perception Scores	1.4±1.8	0.3±0.5	-3.184	< 0.001	0.825 (0.224-1.417)
HIV stigma-External Stigma Scores	0.2±0.3	0.0±0.1	-2.511	0.008	0.661 (0.076-1.240)
Global Distress Scores	44.5±20.2	30.2±12.3	-3.241	0.001	0.854 (0.258-1.441)
Global Distress Minus Risk Scores	41.9±18.7	29.3±11.3	-3.455	< 0.001	0.815 (0.221-1.400)
IES-Total Scores	18.3±22.6	9.4±12.6	-1.409	0.166	0.489 (-0.088-1.061)
Total Disability (WHODAS-2.0) Scores	16.3±13.4	8.2±9.9	-2.314	0.019	0.689 (0.102-1.268)
Medication Adherence Scores	13.0±3.1	14.3±2.2	-1.595	0.116	-0.457 (-1.034-0.125)

Note *Cohen's d; †-Wilcoxon's Sign Rank Test

Table 18 presents the results of changes of various outcomes before and after the intervention. There was a significant drop in mean depression scores before (16.6) and after intervention (6.0) ($p < 0.001$) effect size $d = 2.079$.

There was a significant drop in mean HIV-related stigma scores (internal) before (1.4) and after intervention (0.3) ($p < 0.001$) effect size $d = 0.825$ whereas a drop in mean of HIV-related stigma scores (external) before (0.2) and after intervention (0.0) ($p = 0.008$) effect size $d = 0.661$.

There was a significant drop in mean in total disability before (16.3) and after intervention (8.2) ($p=0.019$) effect size $d=0.689$ with a significant drop in mean global distress scores before (44.5) and after intervention (30.2) ($p=0.001$) effect size $d=0.854$. There was also a significant drop in mean global distress minus risk scores before (41.9) and after intervention (29.3) ($p<0.001$) effect size $d=0.815$.

After administering IPT-G, there was no significant difference in psychological traumatic experiences and adherence to ART which could be attributed to robust prevention of mother-to-child transmission (PMTCT) programs within the two health facilities.

4.1.6. Sustainability of gains from IPT-G over time

Our study followed-up all the participants ($N=24$) to assess changes in different out-comes before (baseline) and after intervention(week 24). We are interested in understanding whether the benefits accrued from IPT-G could be maintained four months after intervention.

Table 19: Changes in different outcomes before (baseline) and follow-up after intervention (week 24)

Measure	Pre- Intervention	Post- intervention(week 24)	t	df	p	*Effect size (95% C.I)
Depression Scores EPDS	16.2±5.1	6.3±5.7	7.76	21	<0.001	1.910(1.201 to 2.605)
HIV stigma-Negative Self Perception Scores	1.4±1.9	0.2±0.4	3.03	20	0.007	0.866(0.249 to 1.474)
HIV stigma-External Stigma Scores	0.2±0.3	0.1±0.2	2.25	21	0.035	0.404(-0.183 to 0.986)
Global Distress Scores	44.5±20.2	36.5±21.8	1.98	23	0.060	1.023(0.401 to 1.634)

Global Distress Minus Risk Scores	41.0±19.3	24.4±14.2	4.88	21	< 0.001	1.053(0.429 to 1.667)
IES-Total Scores	19.0±23.3	11.9±13.1	1.31	21	0.204	0.346(-0.239 to 0.927)
Total Disability (WHODAS-2.0) Scores	15.5±13.7	5.9±8.0	2.67	21	0.014	0.937(0.322 to 1.543)
Medication Adherence Scores	13.1±3.0	13.8±3.5	-0.89	20	0.386	-0.266(-0.851 to 0.323)

Note *Cohen's d

Table 19 presents the results of changes of various outcomes before (baseline) and on follow-up after the intervention (week 24). There was a significant drop in mean depression scores before (16.2) and after intervention (6.3) ($p < 0.001$) effect size $d = 1.910$.

There was a significant drop in mean HIV-related stigma scores (internal) before (1.4) and after intervention (0.2) ($p = 0.007$) effect size $d = 0.866$ whereas a drop in mean of HIV-related stigma scores (external) before (0.2) and after intervention (0.1) ($p = 0.035$) effect size $d = 0.404$.

There was a significant drop in mean in total disability before (15.5) and after intervention (5.9) ($p = 0.014$) effect size $d = 0.937$ with a significant drop in mean global distress minus risk scores before (41.0) and after intervention (24.4) ($p < 0.001$) effect size $d = 1.053$.

After administering IPT-G, there was no significant difference in psychological traumatic experiences and adherence to ART which could be attributed to robust prevention of mother-to-child transmission (PMTCT) programs within the two health facilities.

4.1.7. Changes in mean scores over time (trends) on IPT-G intervention.

Both intervention and waitlist group was assessed at different time points to ascertain the effects of IPT-G. Selected time points was before (baseline), T1 (post-intervention at week 8), T2 (week 16) and week (24) for both intervention and waitlist group.

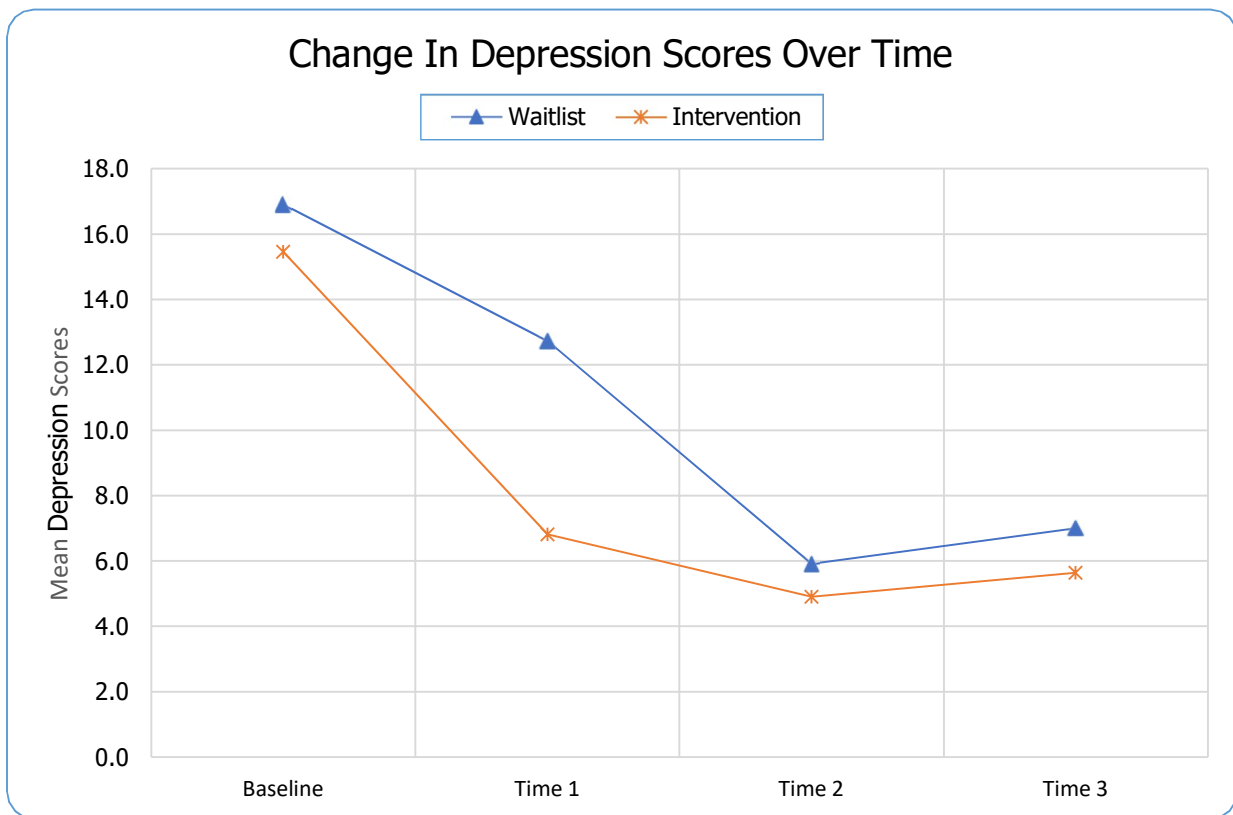
Table 20 presents the results of sustainability over time of various outcomes before (baseline), after intervention (week 8), and on follow-up up to 4 months (mean \pm SD). Both depression scores for intervention and wait-list dropped consistently in response to IPT-G, and adherence to ART increased subsequently. We have also presented the various outcomes (depression, HIV-related stigma, social functioning, traumatic experiences, and levels of clinical symptoms or distress, adherence to ART) on line graphs as shown from figure 1-figure 18.

Table 20: Changes in mean scores over time (trends) on IPT-G Intervention

Measure	Baseline		T1		T2		T3	
	Waitlist	Intervention	Waitlist	Intervention	Waitlist	Intervention	Waitlist	Intervention
Depression (EPDS Scores)	17.3±5.9	15.9±4.3	13.2±6.6	6.8±7.0	7.1±5.4	5.0±4.6	7.0±4.9	5.6±6.5
Total HIV stigma (HASI)	0.3±0.3	0.4±0.6	0.2±0.2	0.2±0.5	0.1±0.1	0.0±0.1	0.1±0.1	0.1±0.2
Verbal Abuse (HASI)	0.2±0.3	0.3±0.6	0.1±0.2	0.4±0.7	0.0±0.1	0.1±0.1	0.1±0.1	0.2±0.5
Negative Self Perception (HASI)	1.5±1.2	1.2±2.3	1.1±1.1	0.3±0.5	0.4±0.6	0.1±0.3	0.3±0.5	0.1±0.4
Health Care Neglect (HASI)	0.0±0.2	0.1±0.1	0.0±0.0	0.2±0.5	0.0±0.1	0.0±0.0	0.0±0.1	0.0±0.0
Social Isolation (HASI)	0.2±0.4	0.4±0.9	0.0±0.1	0.3±0.6	0.0±0.1	0.1±0.1	0.1±0.3	0.2±0.6
Fear of Contagion (HASI)	0.2±0.5	0.1±0.1	0.1±0.2	0.1±0.2	0.0±0.0	0.0±0.0	0.0±0.1	0.0±0.0
Work Place Stigma (HASI)	0.0±0.0	0.0±0.1	0.0±0.0	0.2±0.4	0.0±0.1	0.0±0.0	0.0±0.0	0.0±0.0
External Stigma (HASI)	0.1±0.3	0.2±0.3	0.0±0.1	0.2±0.4	0.0±0.1	0.0±0.0	0.0±0.1	0.1±0.3
Well Being (CORE-OM)	9.2±3.6	6.8±4.0	7.5±3.8	4.8±2.9	7.0±2.0	5.9±3.0	5.1±3.5	4.5±2.0
Problem Symptoms (CORE-OM)	18.4±12.8	13.6±7.8	15.0±14.1	3.9±5.4	6.1±6.3	4.0±5.4	7.3±8.8	2.6±3.5
Functioning (CORE-OM)	20.0±6.5	14.8±5.8	22.0±7.3	15.6±8.7	19.4±4.4	16.3±8.1	16.0±7.0	13.3±7.7
Risk (CORE-OM)	3.5±3.6	1.6±2.3	3.2±4.9	1.1±2.7	1.1±2.4	0.7±1.5	1.9±4.5	0.4±0.8
Global Distress (CORE-OM)	52.3±22.1	36.7±15.1	47.7±22.8	25.4±14.2	33.6±9.7	26.8±14.0	30.3±20.3	20.7±10.8
Global Distress minus Risk	48.8±20.5	35.1±14.4	44.5±20.0	24.3±12.7	32.5±8.4	26.2±13.3	28.4±16.5	20.4±10.6
IES Total	18.1±24.2	18.6±22.1	16.7±19.3	7.0±10.8	1.7±2.4	3.8±5.9	9.5±12.0	14.2±14.3
IES INT	6.3±9.0	6.8±8.4	7.3±8.6	1.6±2.9	5.1±6.8	4.1±5.2	2.2±3.6	4.4±5.7
IES AVD	7.1±9.6	7.3±8.6	4.9±6.6	4.1±6.3	1.4±2.3	2.8±4.9	5.0±6.2	7.2±7.4
IES HYP	4.8±6.5	4.4±6.0	4.5±5.9	1.3±3.0	8.2±9.5	10.6±15.4	2.4±4.0	2.6±2.8
WHO DAS	19.4±14.4	13.3±12.3	11.1±15.3	9.4±15.1	8.0±9.5	8.4±10.7	6.3±8.4	5.4±7.9
Adherence	13.3±3.1	12.8±3.1	13.7±3.5	13.8±3.2	13.9±1.7	14.6±2.6	14.2±3.2	13.6±3.9

The intervention group had a significant drop in mean depression scores at baseline (15.9) and after intervention (6.8). On follow-up for 2 months, the mean scores decreased (5.0) and slightly increased at a 4-month follow-up (5.6). The wait-list group had a significant drop in mean depression scores at baseline (17.3) and after intervention (13.2). On follow-up for 2 months, the mean scores decreased (7.1) and with a slight increase at a 4-month follow-up (7.0) (see figure 11).

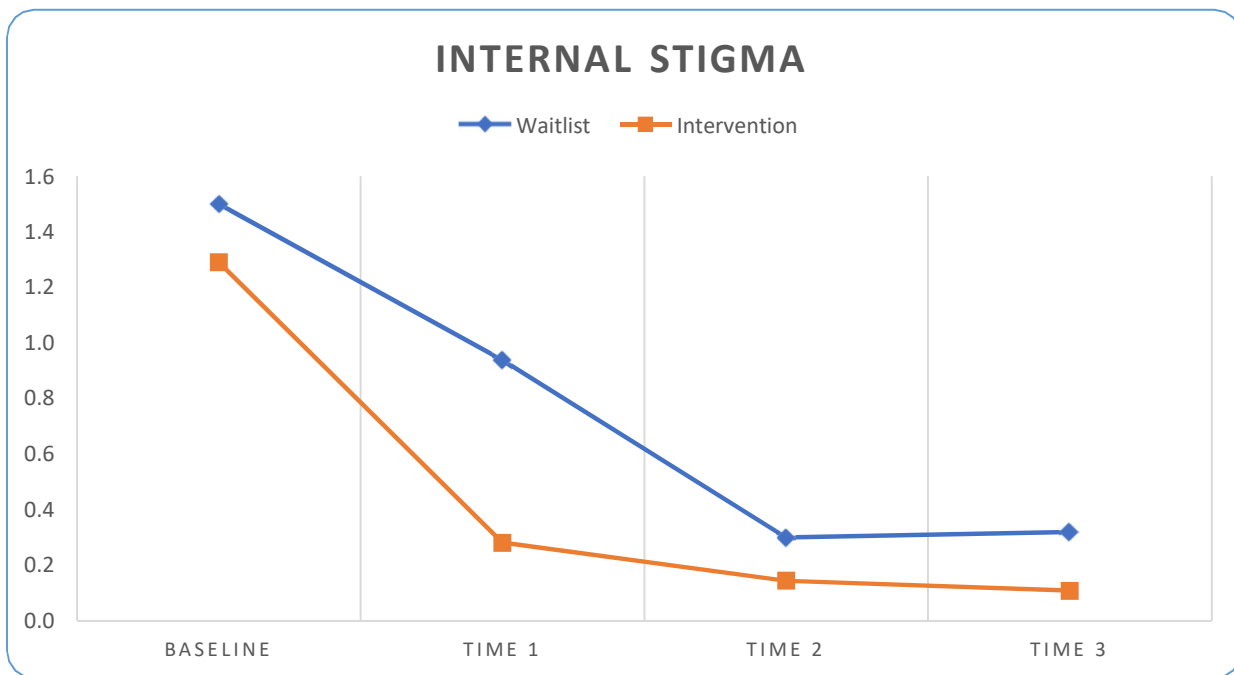
Figure 11: Outcome changes over time to depression scores



The intervention group had a significant drop in mean internal stigma scores at baseline (1.2) and after intervention (0.3). On follow-up for 2 months, the mean scores decreased (0.1) and were maintained at a 4-month follow-up (0.1). The wait-list group had a significant drop in mean

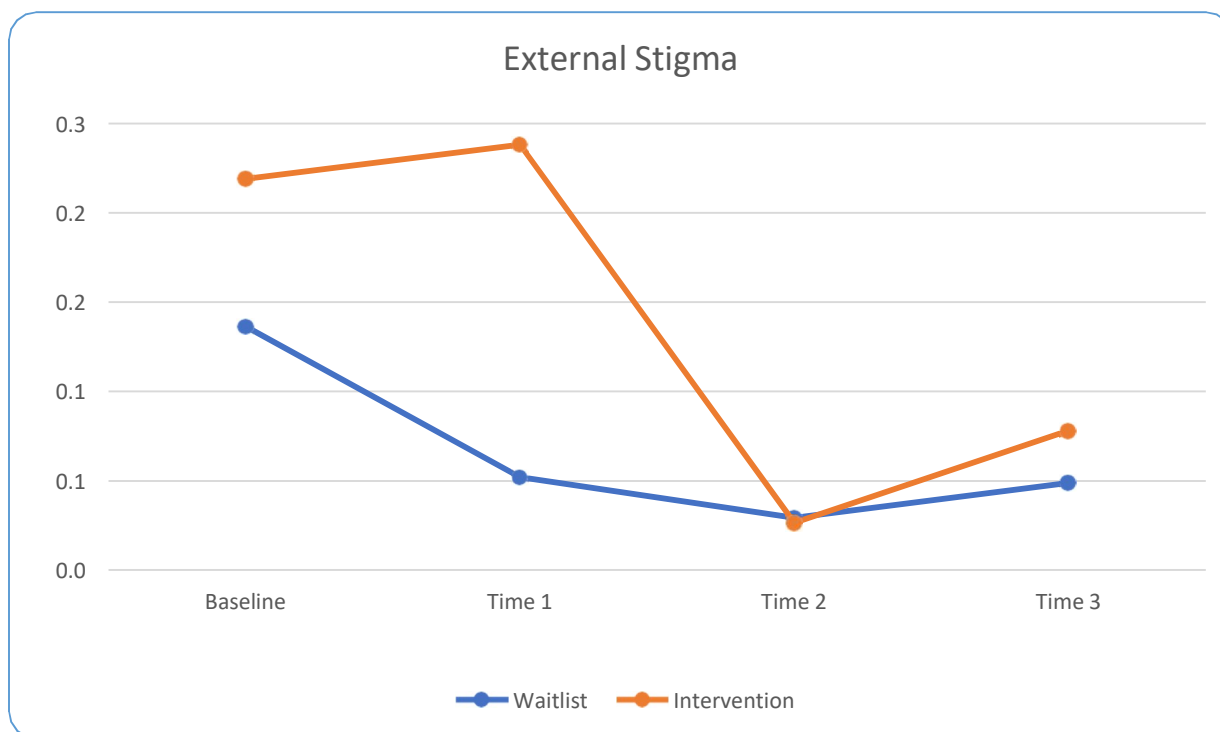
internal stigma scores at baseline (1.5) and after intervention (1.1). On follow-up for 2 months, the mean scores decreased (0.4) and with a slight increase at a 4-month follow-up (0.3) (see figure 12).

Figure 12: Outcome changes over time to internal stigma scores



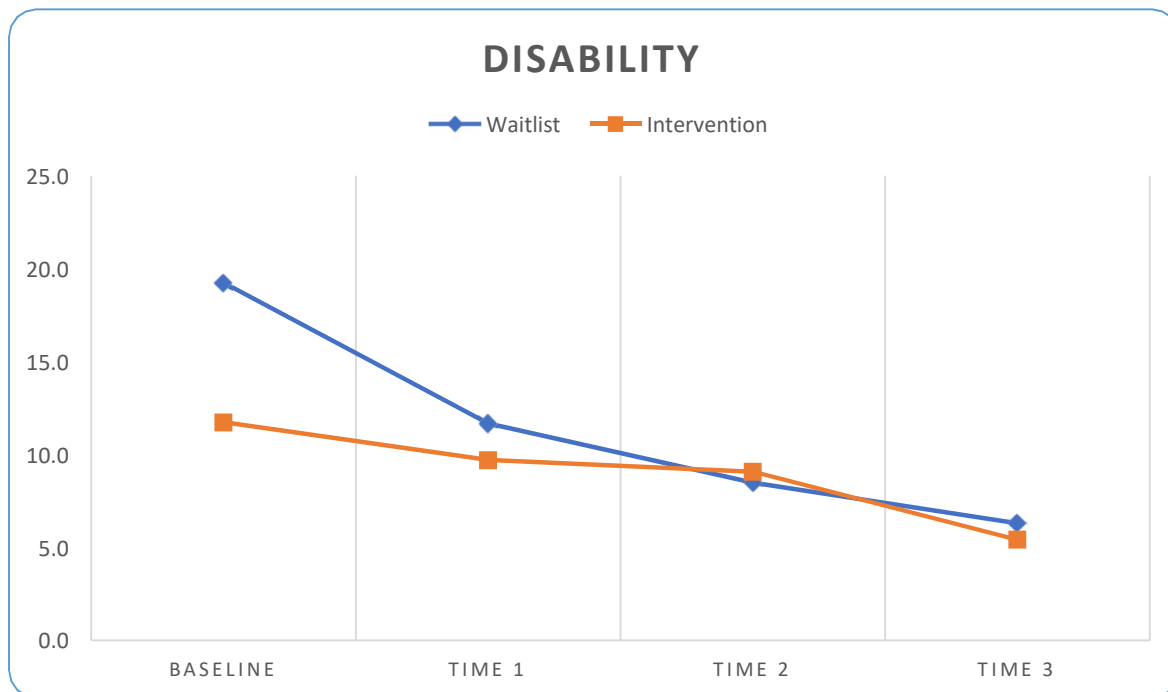
The intervention group had mean external stigma scores at baseline (0.2) and remained the same after intervention (0.2). On follow-up for 2 months, the mean scores decreased (0.0) and were maintained at a 4-month follow-up (0.1). The wait-list group had a mean external stigma score at baseline (0.1) and slightly decreased after intervention (0.0). On follow-up for 2 months and at a 4-month follow-up, the mean scores were maintained at (0.0) (see figure 13).

Figure 13: Outcome changes over time to external stigma scores



The intervention group had a significant drop in mean disability scores at baseline (13.3) and after intervention (9.4). On follow-up for 2 months, the mean scores decreased (8.4) and a further decrease at a 4-month follow-up (5.4). The wait-list group had a significant drop in mean disability scores at baseline (19.4) and after intervention (11.1). On follow-up for 2 months, the mean scores decreased (8.0) and with a further decrease at a 4-month follow-up (6.3) (see figure 14).

Figure 14: Outcome changes over time to Disability scores

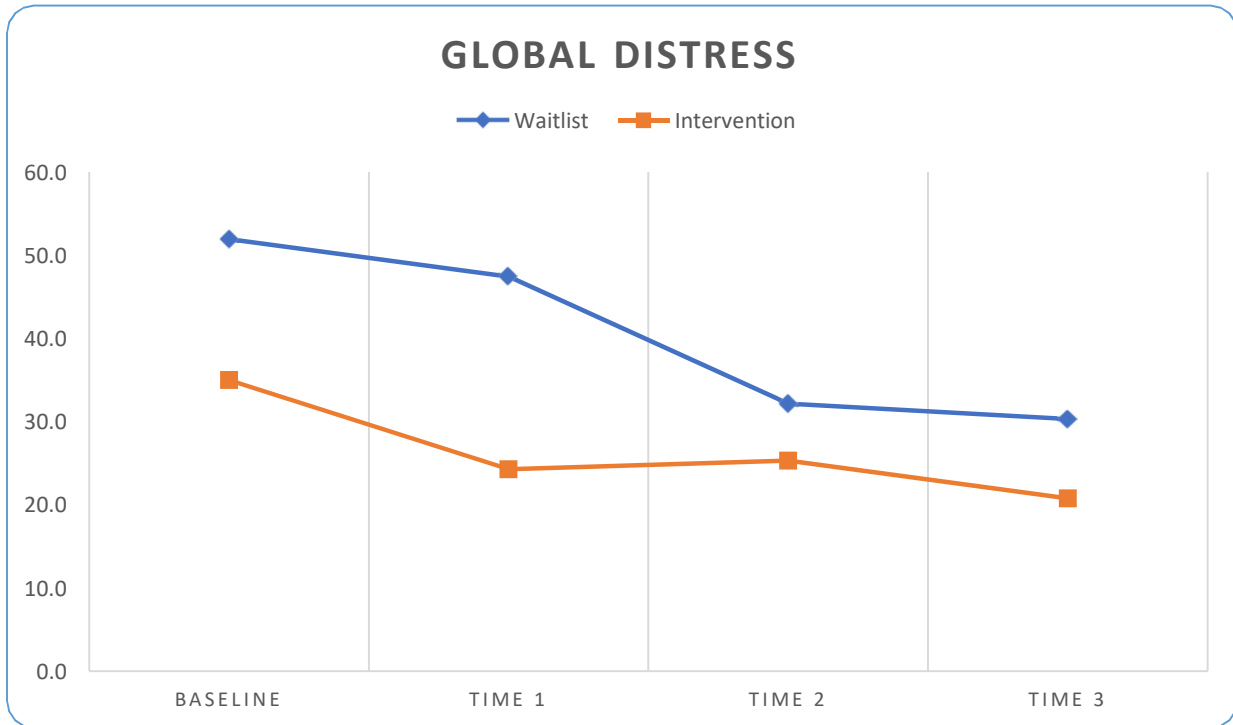


The intervention group had a significant increase in mean social functioning (including general functioning, close and social relationships) scores at baseline (14.8) and after intervention (15.6). On follow-up for 2 months, the mean scores increased (16.3) and with a slight drop at a 4-month follow-up (13.3). The wait-list group had a significant increase in social functioning scores at baseline (20.0) and after intervention (22.2). On follow-up for 2 months, the mean scores slightly decreased (19.4) and a further decrease at a 4-month follow-up (16.0).

The intervention group had a significant drop in mean global distress scores at baseline (36.7) and after intervention (25.4). On follow-up for 2 months, the mean scores slightly increased (26.8) and with another decrease at a 4-month follow-up (20.7). The wait-list group had a significant drop in mean global distress scores at baseline (52.3) and after intervention (47.7). On follow-up for 2

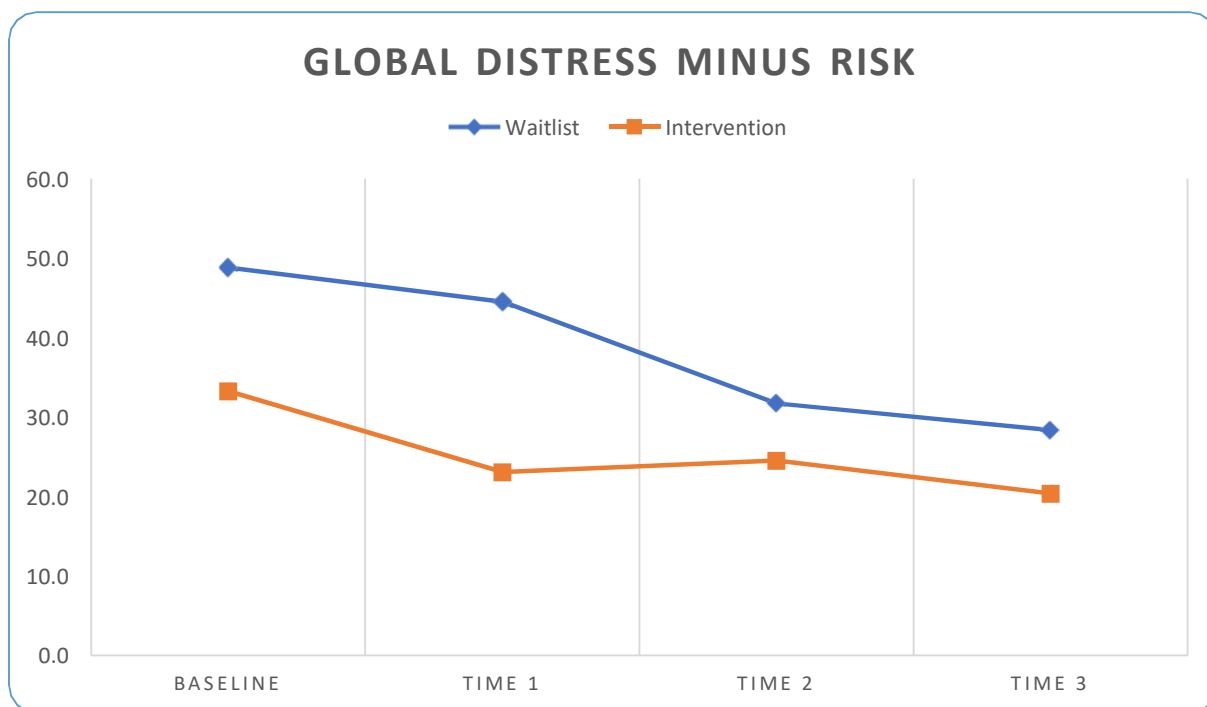
months, the mean scores decreased (33.6) and with a further decrease at a 4-month follow-up (30.3) (see figure 15).

Figure 15: Outcome changes to Global distress scores



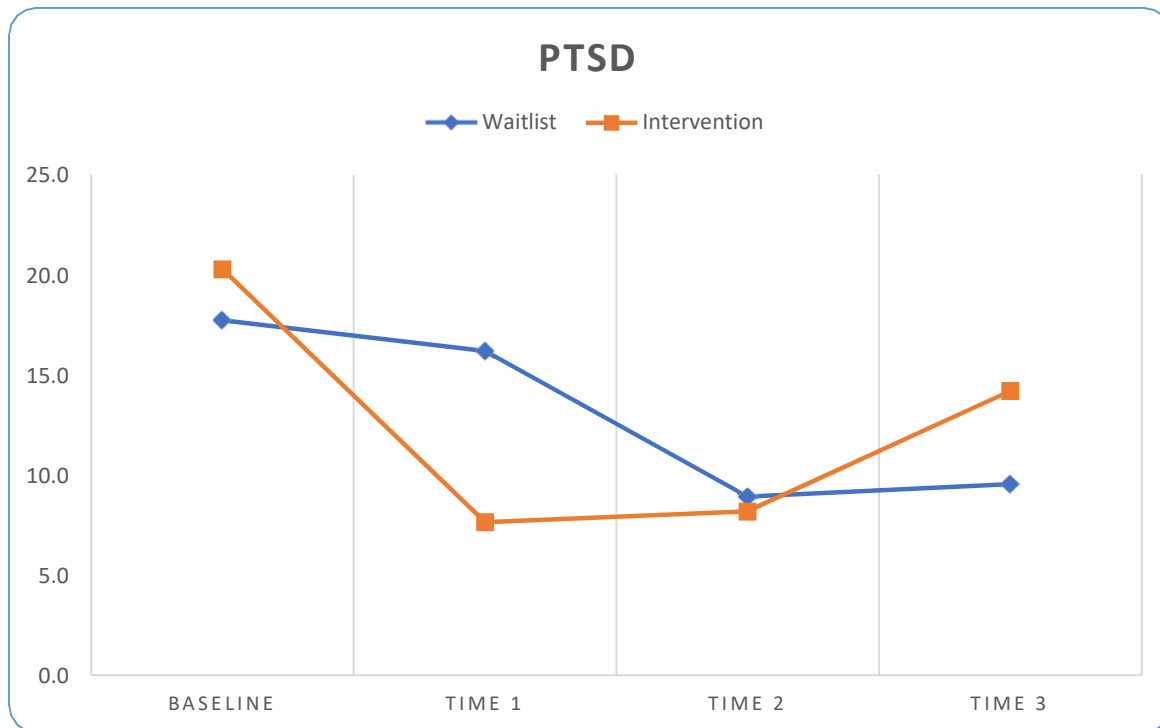
The intervention group had a significant drop in mean global distress minus risk scores at baseline (35.1) and after intervention (24.3). On follow-up for 2 months, the mean scores slightly increased (26.2) and with another decrease at a 4-month follow-up (20.4). The wait-list group had a significant drop in mean global distress minus risk scores at baseline (48.8) and after intervention (44.5). On follow-up for 2 months, the mean scores decreased (32.5) and with a further decrease at a 4-month follow-up (28.4) (see figure 16).

Figure 16: Outcome changes over time to Global distress minus risk scores



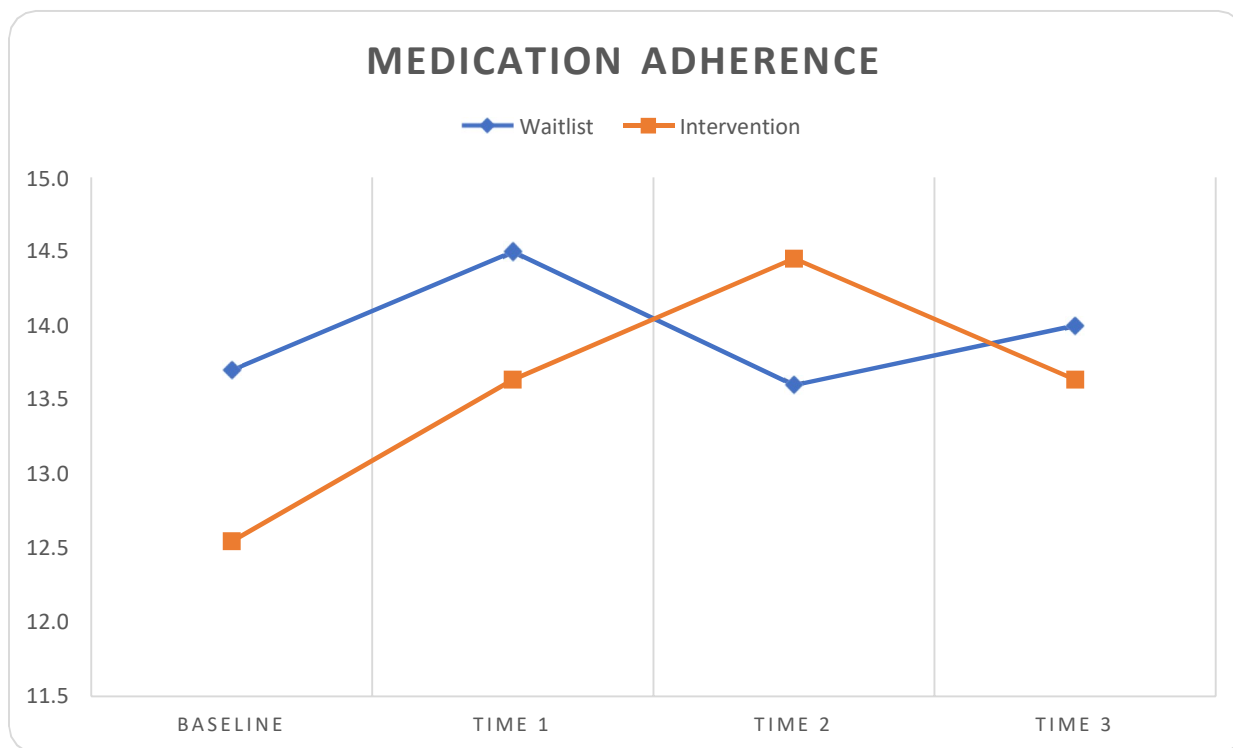
The intervention group had a significant drop in mean traumatic experiences scores at baseline (18.6) and after intervention (7.0). On follow-up for 2 months, the mean scores decreased (3.8) and with a sharp increase at a 4-month follow-up (14.2). The wait-list group had a drop in mean traumatic experiences scores at baseline (18.1) and after intervention (16.7). On follow-up for 2 months, the mean scores sharply decreased (1.7) and with a notable increase at a 4-month follow-up (9.5) (see figure 17).

Figure 17: Outcome changes over time to traumatic experiences scores



The intervention group had a significant increase in mean score towards adherence to ART at baseline (12.8) and after intervention (13.7). On follow-up for 2 months, the mean scores increased (14.6) and with a slight decrease at a 4-month follow-up (13.6). The wait-list group had a significant increase in mean adherence to ART scores at baseline (13.3) and after intervention (13.7). On follow-up for 2 months, the mean scores increased (14.0) and with a slight increase at a 4-month follow-up (14.2) (see figure18).

Figure 18: Outcome changes over time to Adherence to ART scores



4.1.8. Adherence to ART

Our study on viral load scores found out that participants either maintained a lower detectable level, a slight decrease, and in some circumstances, an increase (See Table 21). The participants were not a cohort since they were attending routine clinical settings; hence sample collection for viral load testing happened at varied timelines. Despite the lack of reagents for viral load testing across most satellite test centers in the country, we received support from USAID through the AfyaJijini program. They communicated to the two-study sites to collect samples for all study participants after the intervention period and be submitted to Kenya Medical Research Institute, Nairobi for testing in support of our trial.

Table 21: Viral load changes at baseline and post-intervention

Group	Viral load (copies/ml) at baseline	Viral load (copies/ml) post IPT	Status
Intervention	LDL		Unknown
Intervention	LDL	LDL	Unchanged
Intervention	LDL	973	Increased
Intervention	LDL	LDL	Unchanged
Intervention	LDL	LDL	Unchanged
Intervention	LDL		Unknown
Intervention	LDL	LDL	Unchanged
Waitlist	LDL	LDL	Unchanged
Waitlist			Unknown
Waitlist			Unknown
Waitlist	2455	21400	Increased
Waitlist	LDL	LDL	Unchanged
Waitlist			Unknown
Intervention	LDL	LDL	Unchanged
Intervention	1206	LDL	Reduced
Intervention	320	122	Reduced
Intervention	LDL	LDL	Unchanged
Intervention	LDL	LDL	Unchanged
Waitlist	LDL	114	Increased
Waitlist		LDL	Unknown
Waitlist		LDL	Unknown
Waitlist	LDL	75	Increased

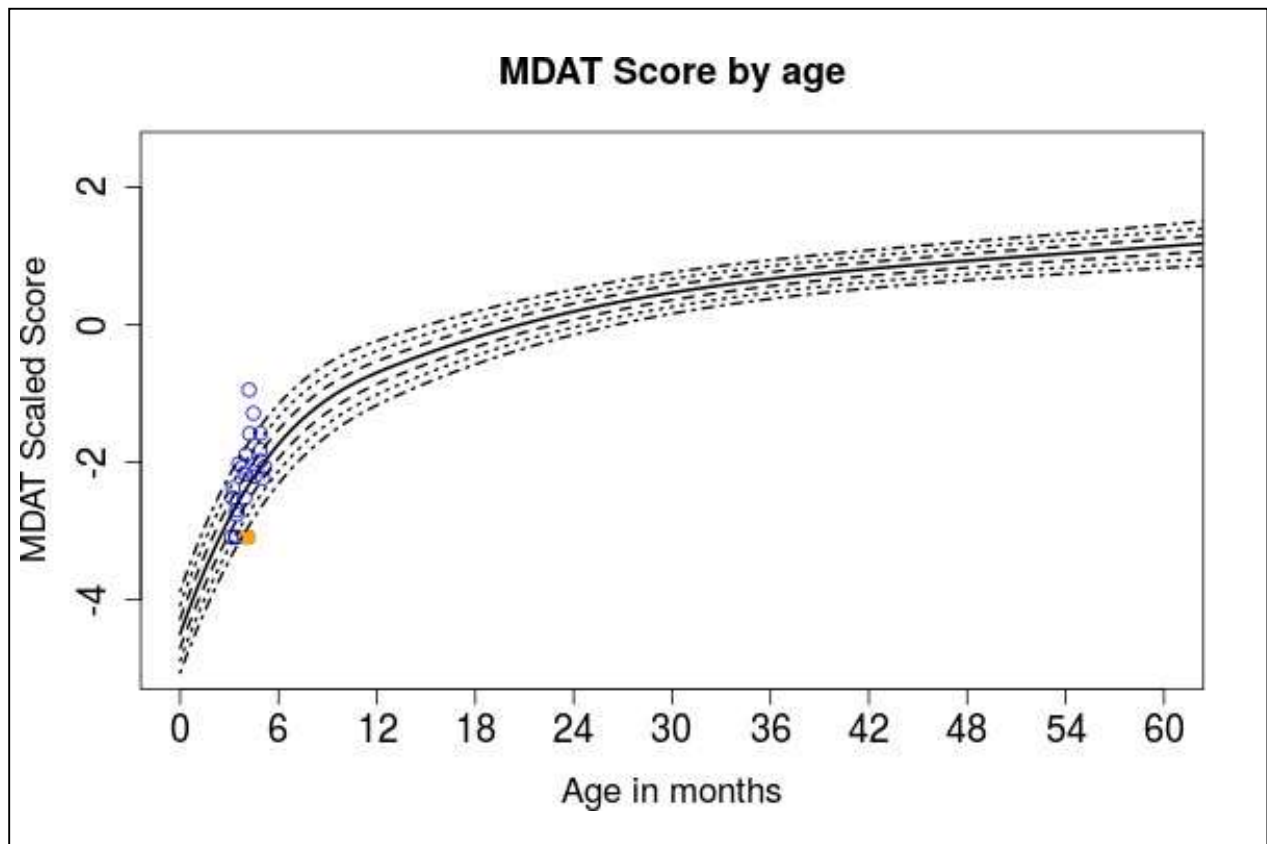
4.1.9. Child growth and development using Malawi Development assessment tool (MDAT)

Summary findings for MDAT scores on child growth and development were reported (See Figure 19). Our findings suggest that more than 90% of the children were within the normal developmental milestones despite their mothers' HIV status. The IPT-G intervention could have positively impacted the child's growth by reducing depression, decreasing HIV-related stigma and improving social functioning among their mothers which might have positively impacted maternal engagement and sensitivity. The positive changes in their lives including being able to engage in open communication and socialize within their communities could have been some of the gains transferred to their children.

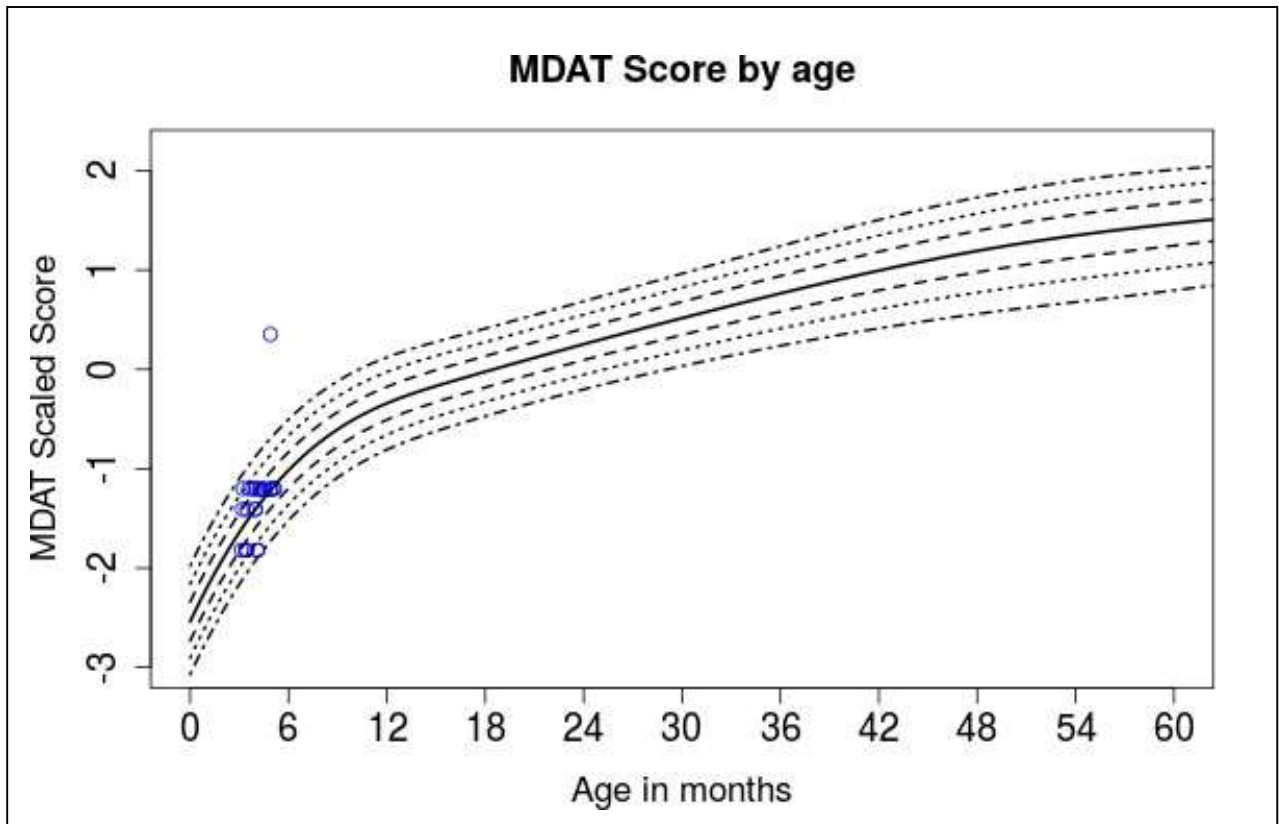
There is a need for an intervention study targeting adolescent mothers living with HIV and their children to assess maternal and child outcomes effectively. We uphold that the intervention could have improved existing social and emotional attachment between the mother and the child in their daily living.

Figure 19: MDAT score by age (Domains: Full model T1, T2 and T3 for, Gross motor, Fine motor, Language and social)

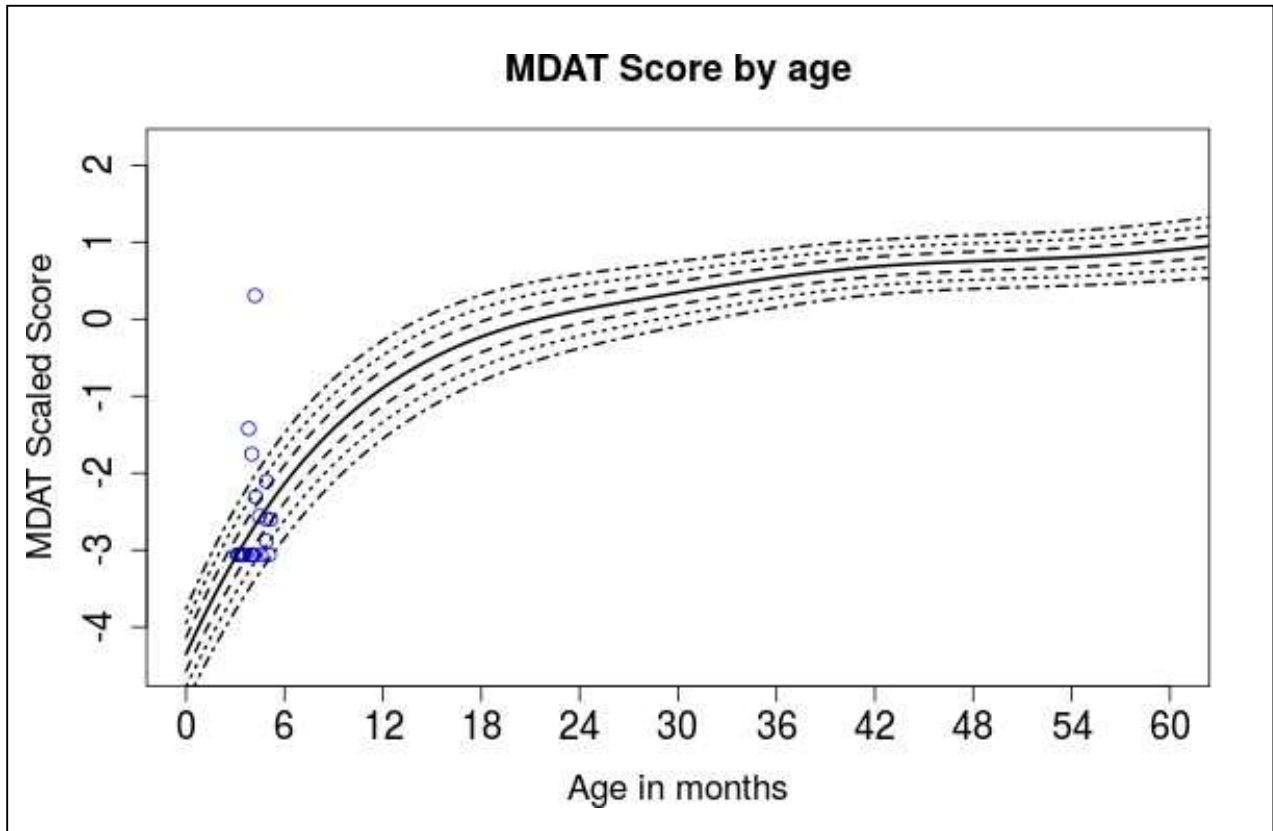
FULL MODEL T1



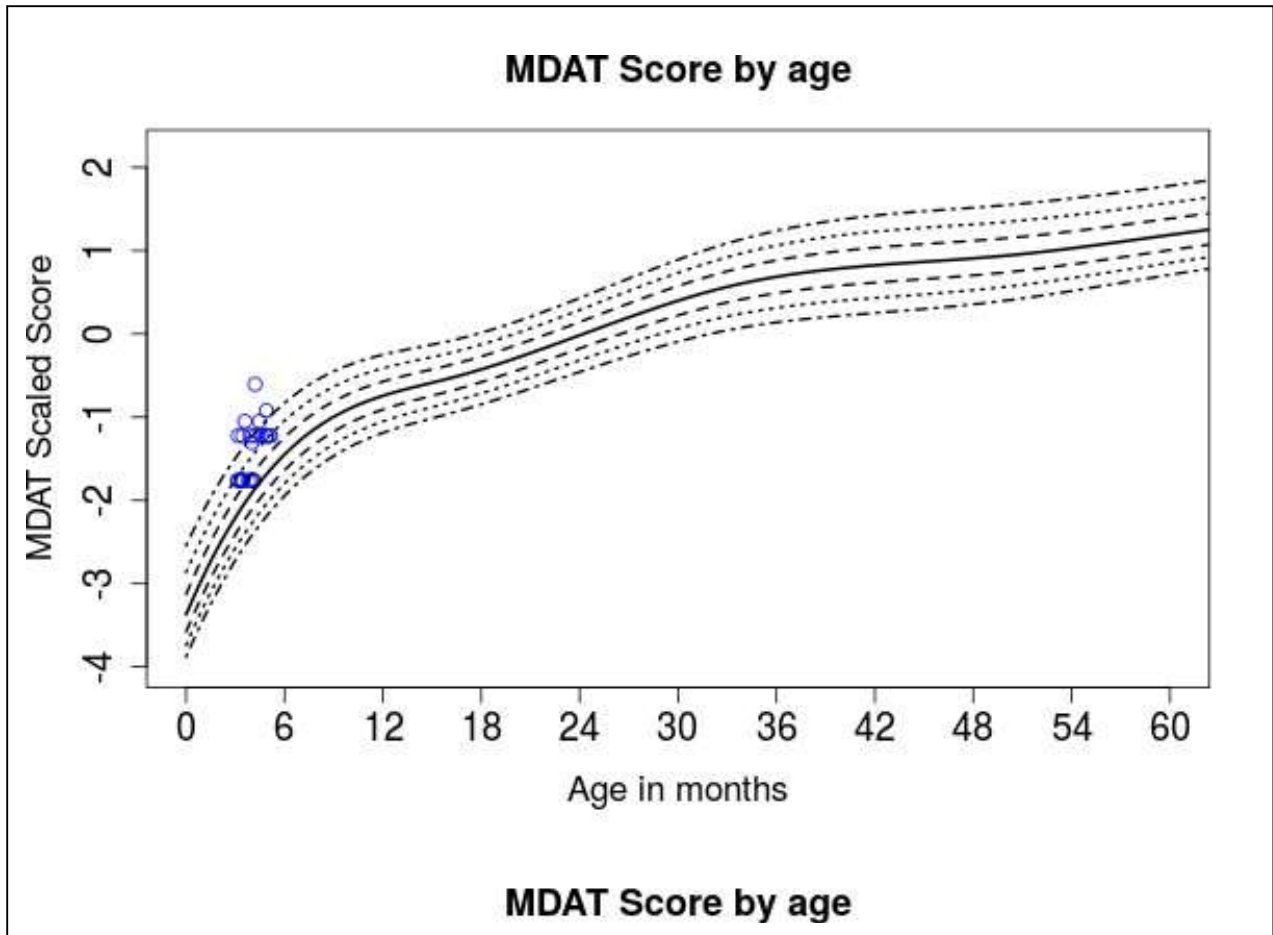
GROSS MOTOR



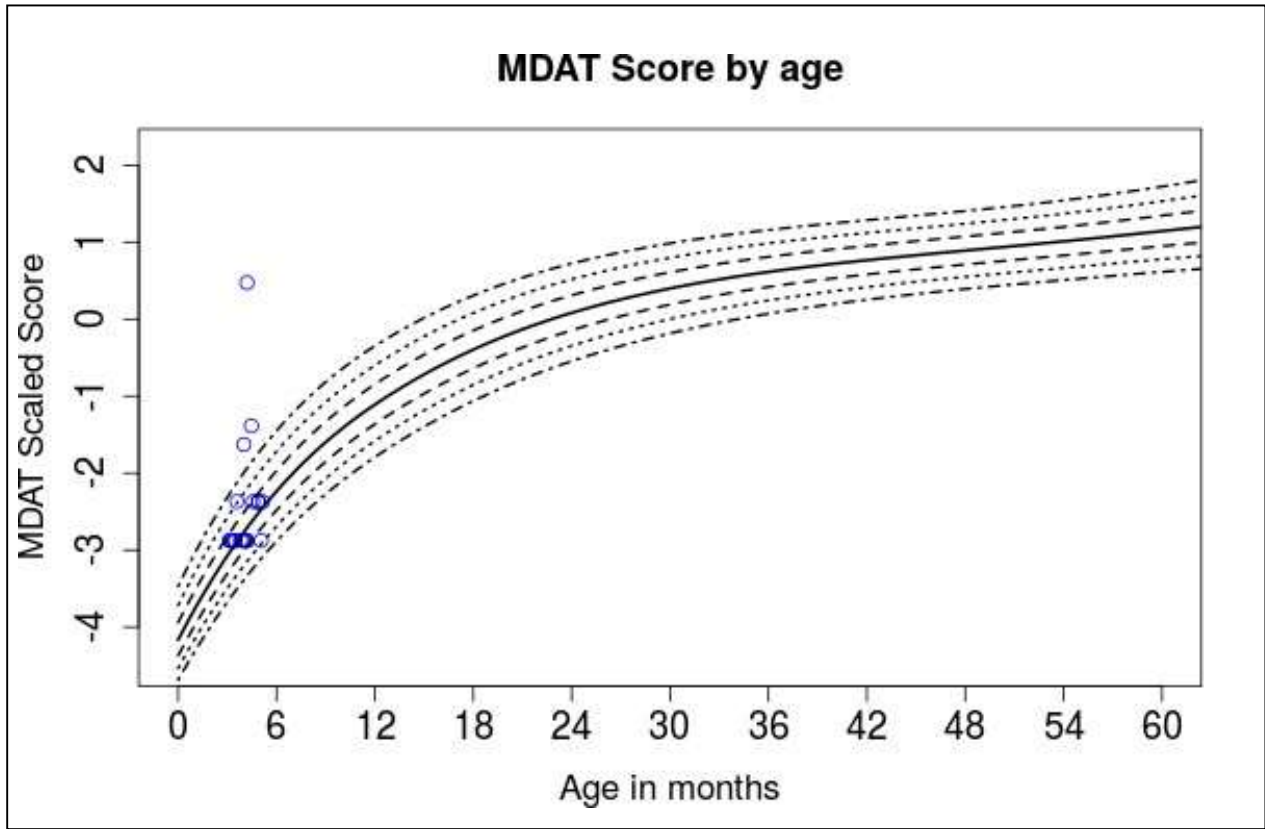
FINE MOTOR







LANGUAGE:



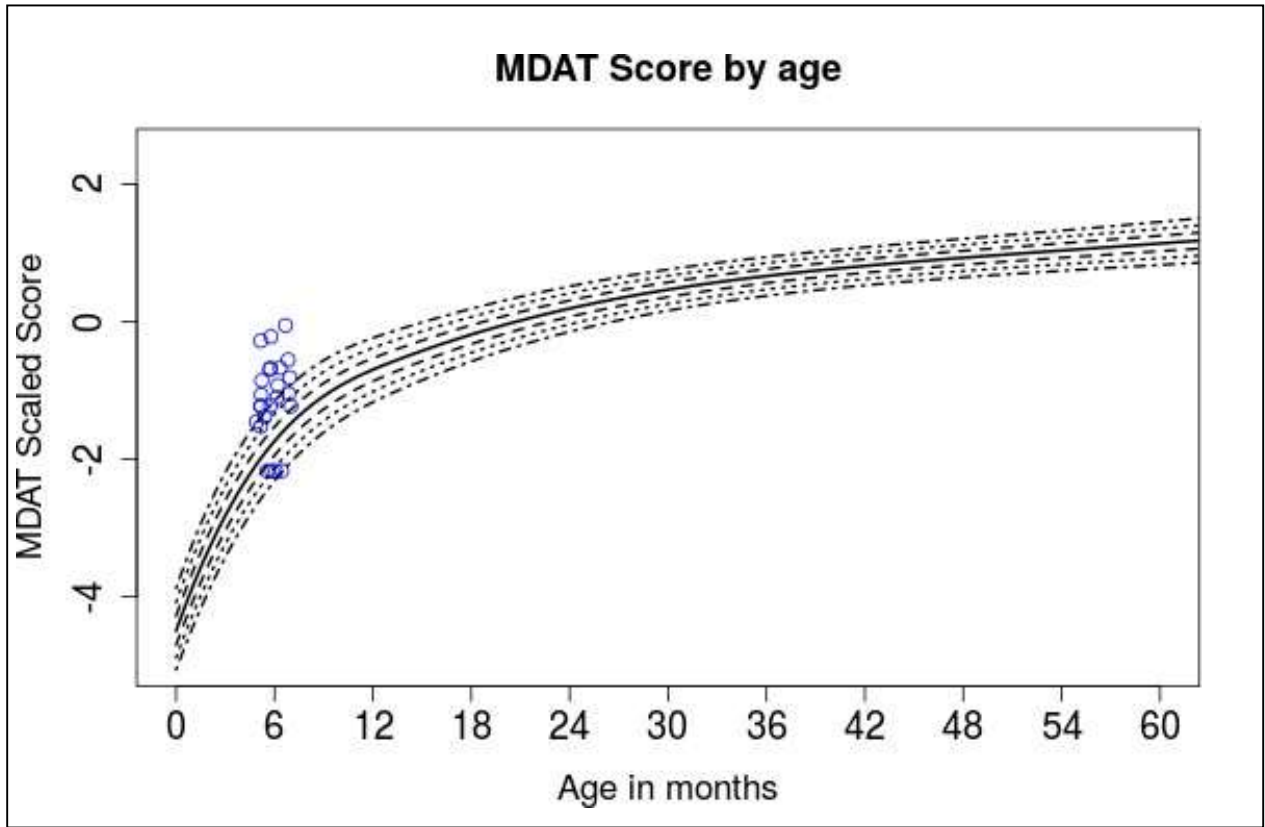
SOCIAL



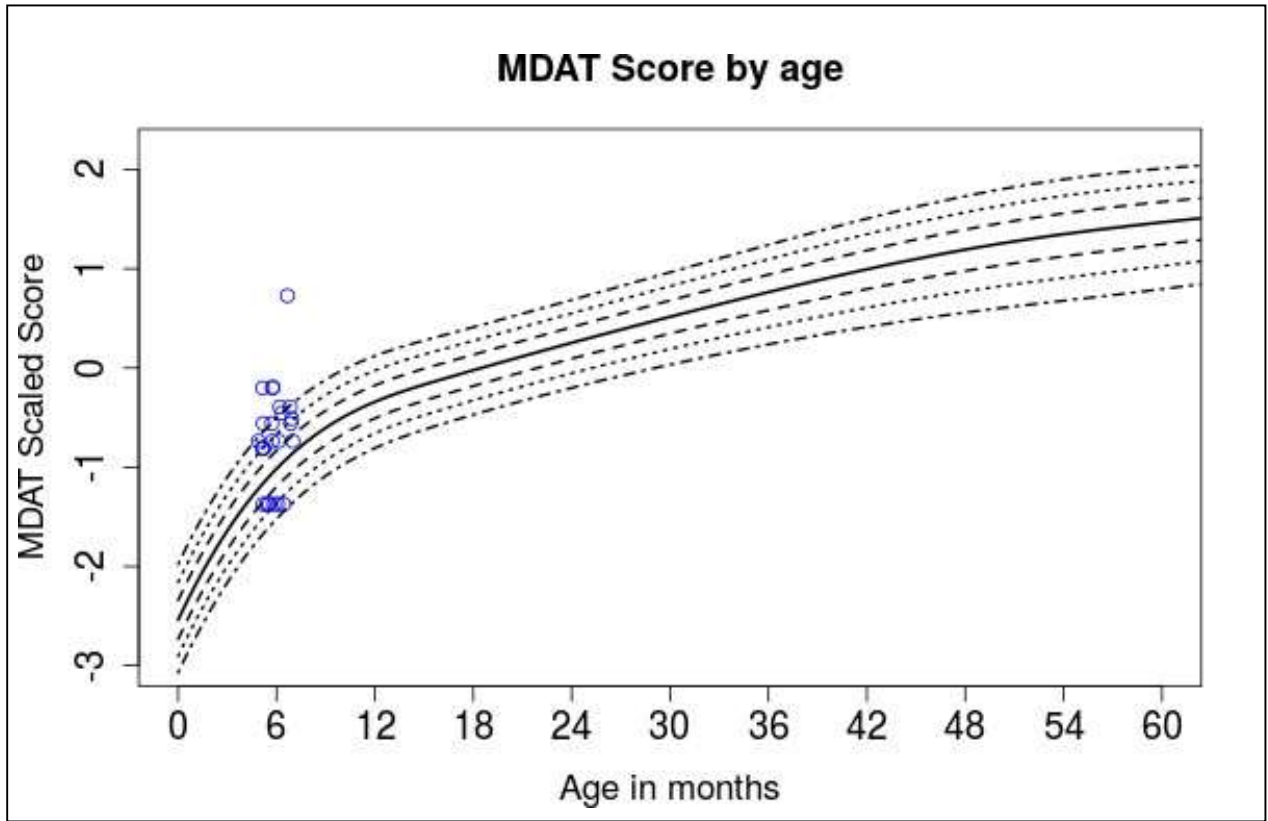
FILE DOWNLOADS

-  MDAT.DAZ_GM.csv
 -  MDAT.DAZ_LA.csv
 -  MDAT.DAZ_SO.csv
 -  MDAT.DAZ.csv
- WJDHE

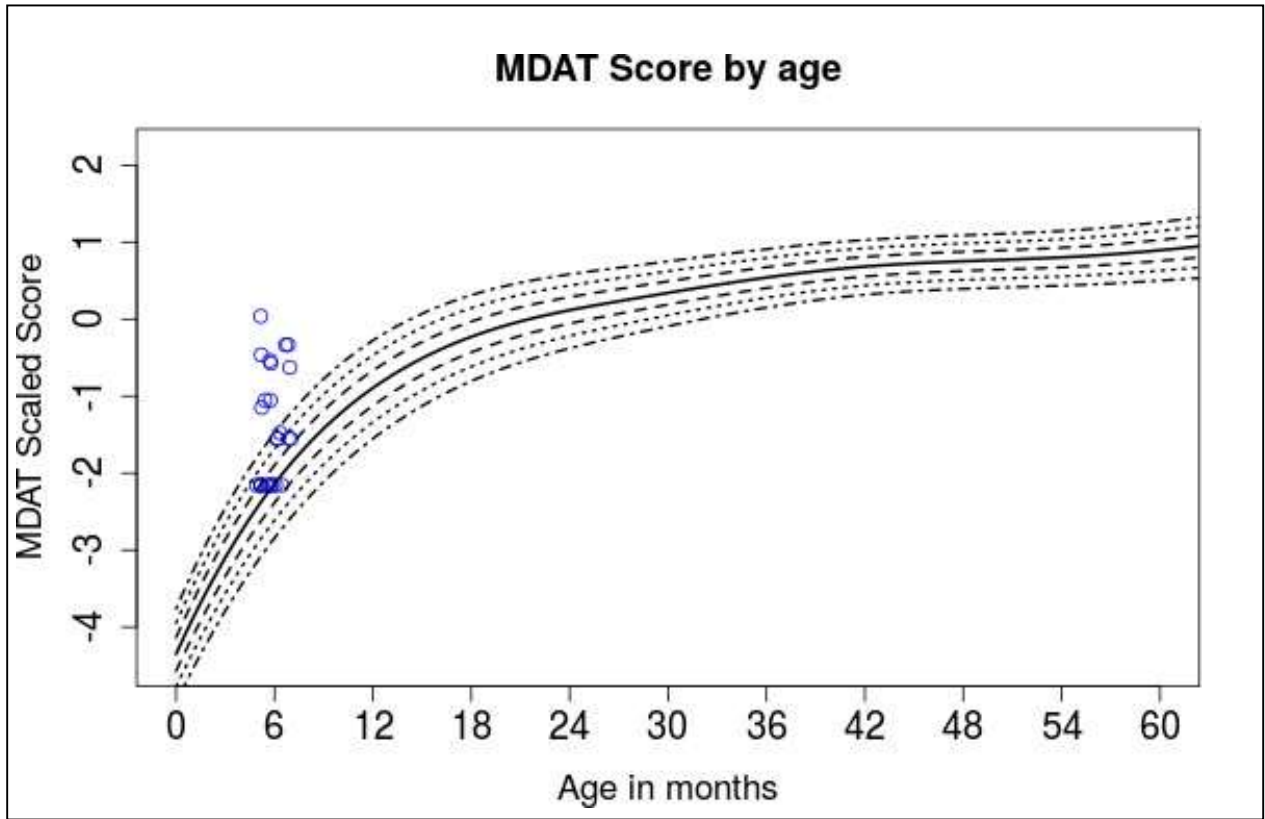
FULL MODEL T2



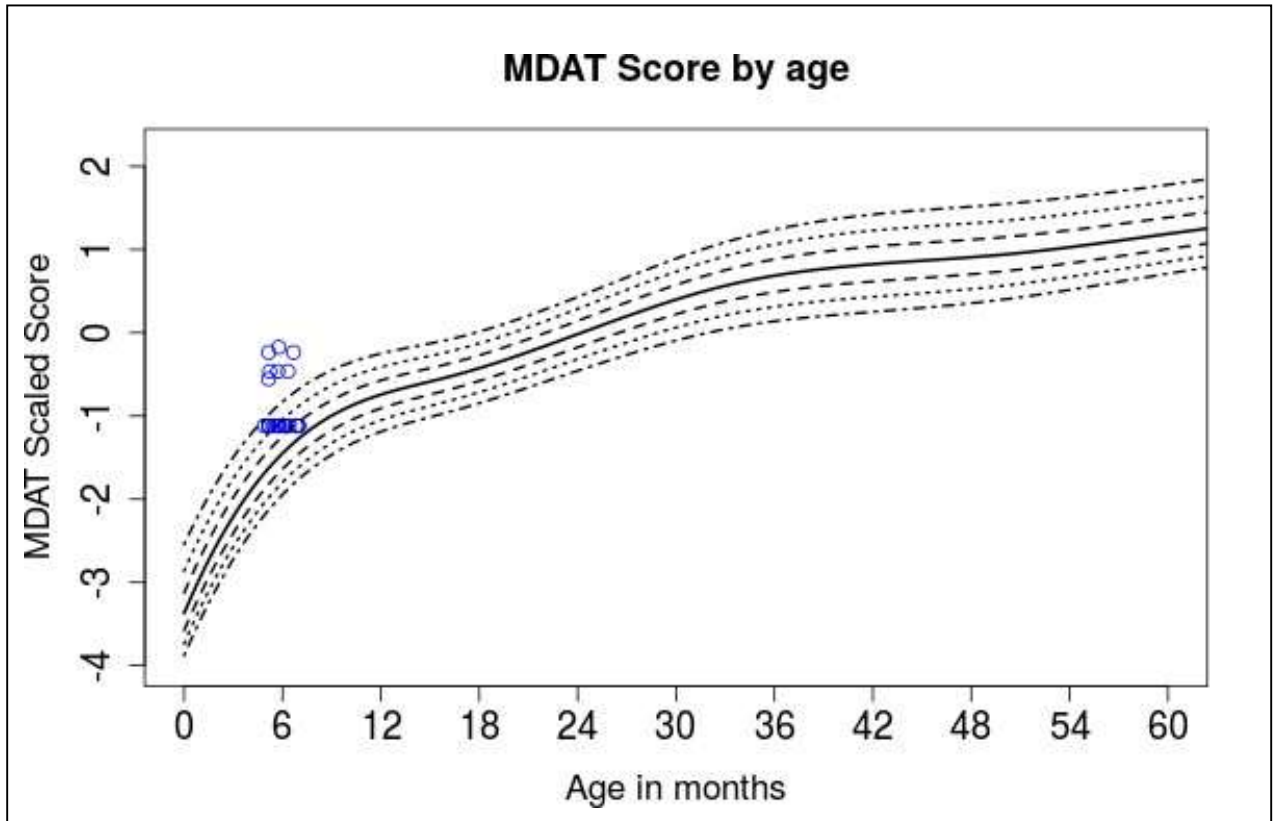
GROSS MOTOR



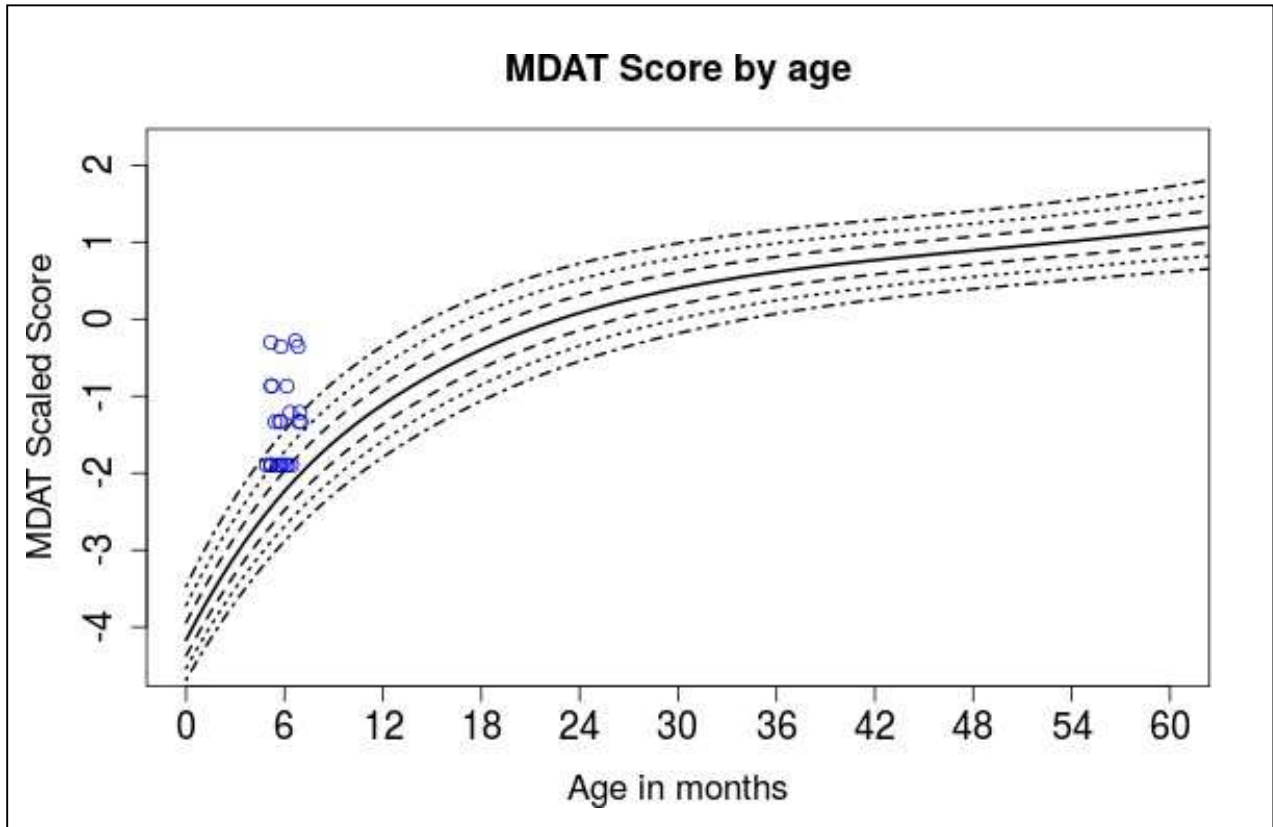
FINE MOTOR



LANGUAGE



SOCIAL



DOWNLOADS FOR T2

 MDAT.DAZ_GM
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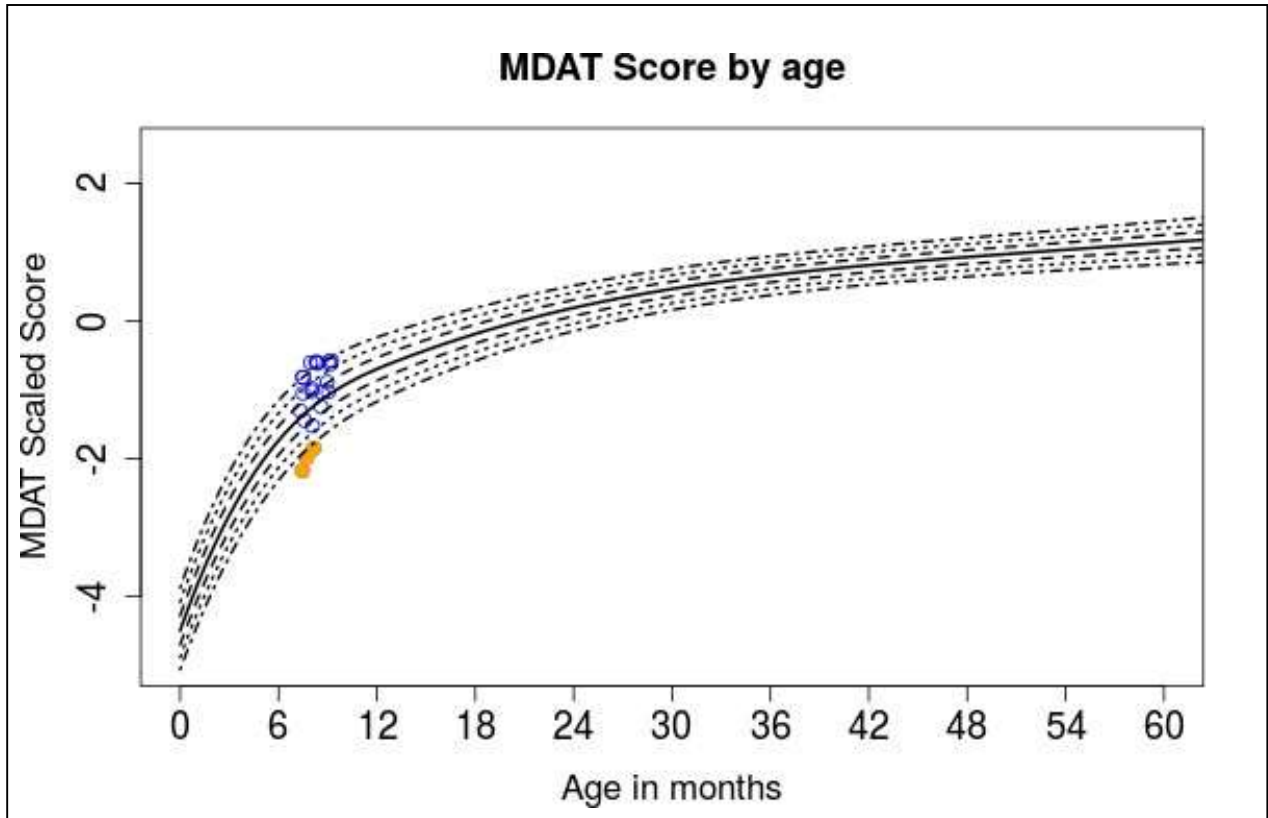
 MDAT.DAZ_FM
(1).csv

 MDAT.DAZ_LA
(1).csv

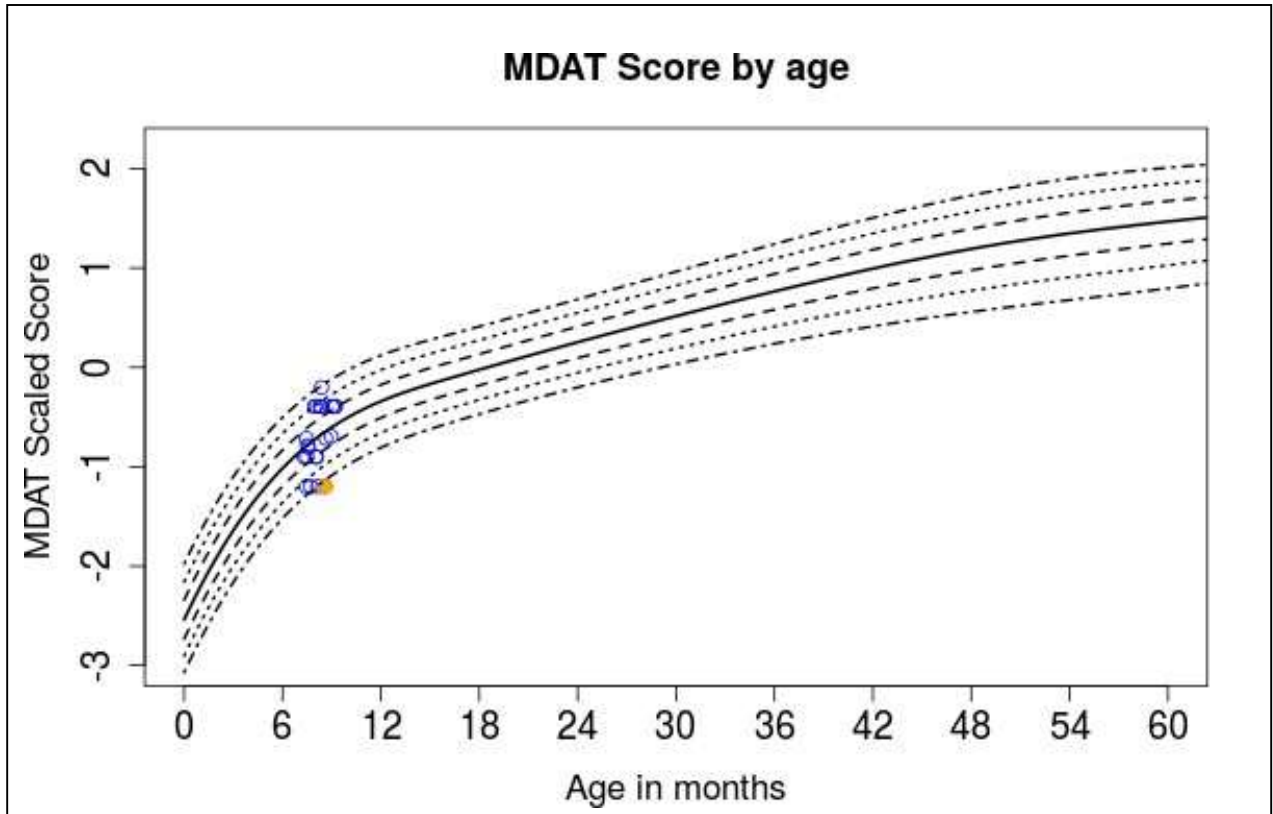
 MDAT.DAZ_SO
(1).csv

 MDAT.DAZ (1).csv

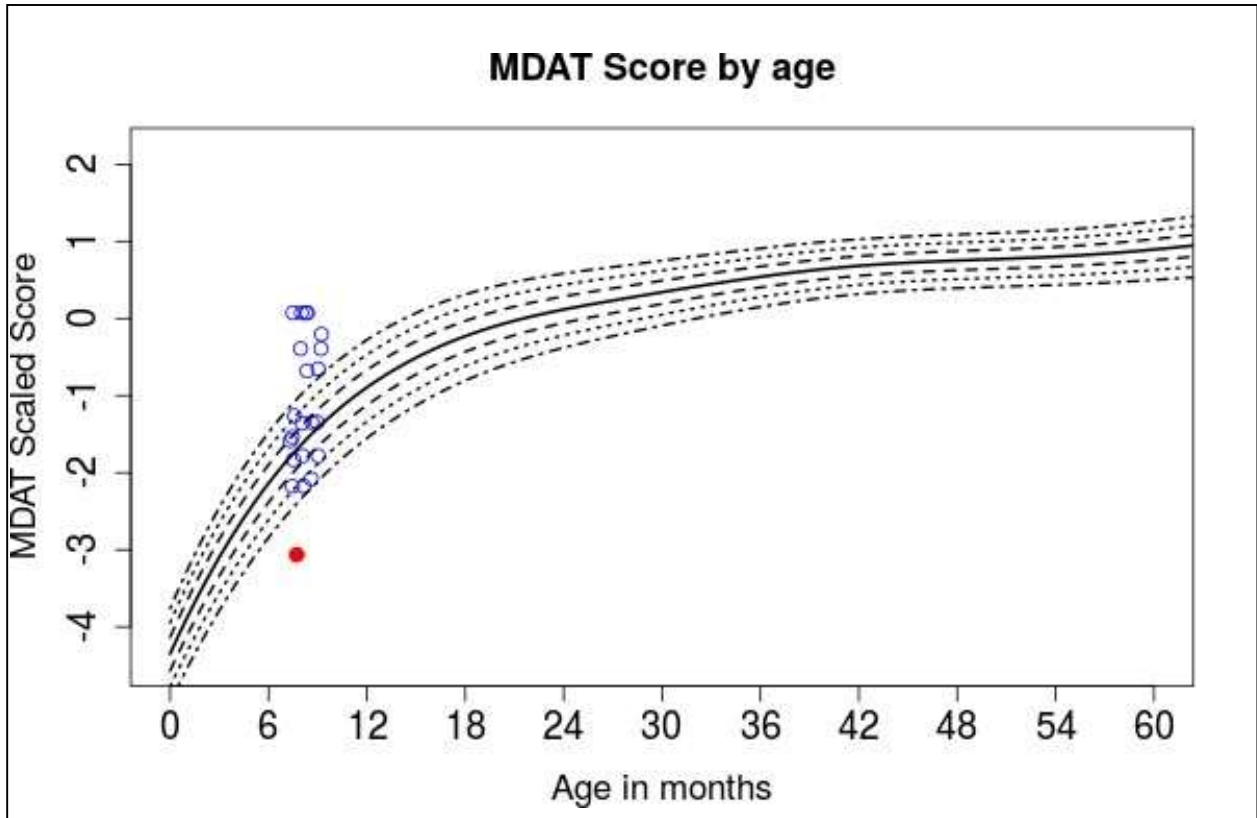
FULL MODEL T3



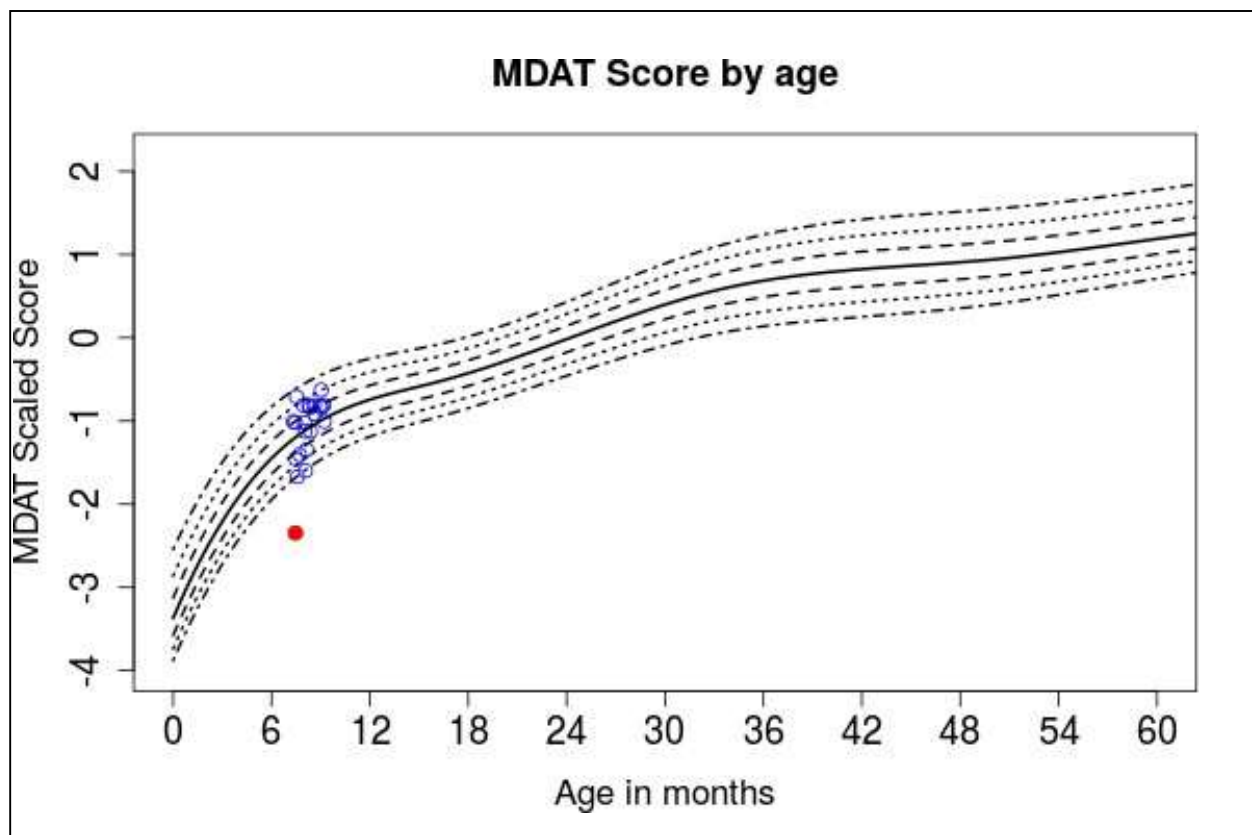
GROSS MOTOR



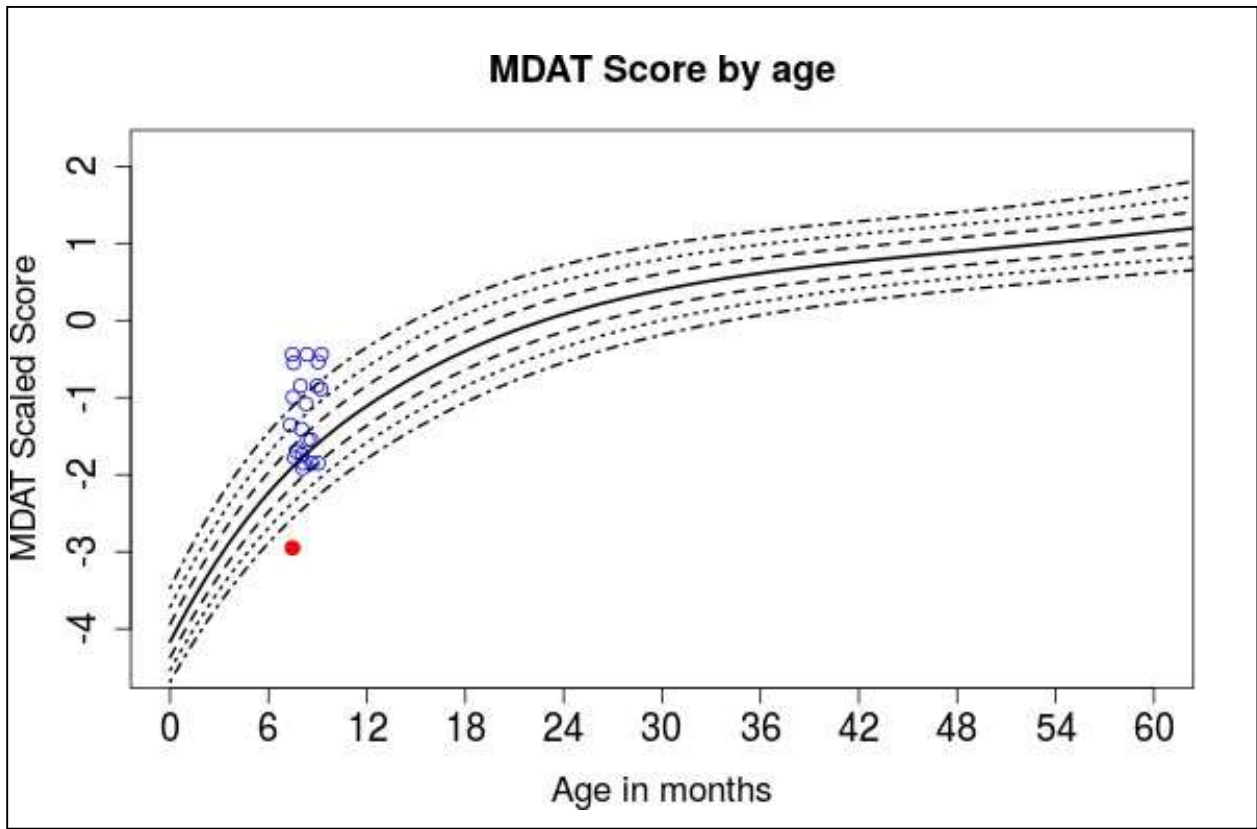
FINE MOTOR



LANGUAGE



SOCIAL



DOWNLOADS FOR T3

NOTE: Within the plots, children with DAZ scores less than -2 are highlighted in orange on each plot, based on the model being fitted. Similarly, children with DAZ scores less than -3 are shown in red - a list of IDs for these children based on the plot being viewed are included in a box under 'Plots'. These IDs are listed in the exports and align with any potential original IDs you specified per child.

4.1.10. QUALITATIVE FINDINGS

The average age for CHWs was 37 years and 9 months, with a range of 21 to 65 years. Younger CHWs demonstrated a better understanding of IPT-G protocol. Besides, CHWs who had post-secondary education understood the study protocol more easily. A key barrier to smooth training of CHWs on delivery of IPT-G were other auxiliary assignments within the health center that affected their attention. Lack of remuneration for CHWs compels them to seek other income-generating activities, affecting their consistent availability for IPT-G sessions. Our findings highlight the core feedback shared by CHWs and PPAs after IPT-G. The study had a retention and follow-up rate of 21 (87.5%) out of the 24 of the depressed PPAs. Among the 8 CHWs recruited to deliver IPT-G, one of the CHV encountered sudden death outside the study area leaving 7 (87.5%) who participated in completion. Below is a table with distribution of IPT-G attendance by the 24 depressed PPAs for the intervention and waitlist group.

Table 22: Intervention and waitlist group session's attendance for the 24 participants

Number of IPT-G sessions	Intervention group (attendance for the 12 participants)	Waitlist group (attendance for the 12 participants)
8 sessions	7	9
7 sessions	2	2
6 sessions	-	1
5 sessions	1	-
4 sessions	1	-
2 sessions	1	-

b) Intervention outcomes

4.1.10.1. Acceptability and feasibility

We conducted focus group discussions among the CHWs and adolescent participants and key informant interviews carried out among the health care providers working within the two study centers to evaluate their perception, experiences and competency on IPT-G.

CHWs found the intervention valuable in terms of how the intervention built their knowledge and skills and successfully delivered IPT-G. During the training of CHWs (2 CHAs and 6 CHVs), they demonstrated a good understanding of depression and reported competency in providing IPT-G. The adolescent mothers benefited from the IPT-G as they narrated how they could now function better, communicate better with their families and partners, interact socially, manage their anger, and even resume back to work for an income or education (see Table 23).

Table 23: Ideas that appealed to the adolescents

IPT-G informed Themes	Relevant Quotations
Improved communication	<p><i>"I am called JI, and it helped me now I can talk to people, I was hopeless but now.... yes, I am of importance. When I saw that I am this way, I felt that there is no life and that I am not important." (JI, age21, Kangemi)</i></p> <p><i>"I can say that we learnt how to communicate, communication." (MM, age24, Kangemi)</i></p> <p><i>"I had an issue with my parents, but now we are okay, and we communicate well." (RJ, age23, Kangemi)</i></p> <p><i>"About my estranged partner, I can say that at the moment, even though we have not yet met, we are fine because we are communicating." (MM, age24, Kangemi)</i></p> <p><i>"This group has helped me in terms of communication." (JF, age24, Kangemi)</i></p>
Improved anger management	<p><i>"I am FW; it has helped me I am not the same as I used to be; I used to be angry; I could get out of the house at night due to anger. Now we talk well in the house... yes [Laughter]." (FW, age21, Kariobangi)</i></p> <p><i>"I am called S, but that one is informal, but in reality, I am called NC; by the way, even me, it has helped me so much, I have seen that several things have changed. The anger I used to have is no longer there; I just feel that I am okay". (NC, age24, Kariobangi)</i></p> <p><i>"For me, I got assistance because even now I see that getting angered is not so much there, I just see that life is okay; I don't want- I mean I know how to control anger, and it cannot rise the way it used to happen to me." (JA, age22, Kariobangi)</i></p>
Improved social interaction	<p><i>"Me it has helped me when I am with people, I have accepted myself the way I am and then anger issues nowadays are not there, at least I can make friends; in the past, I could not make friends, but now at least I can sit with somebody and share something with her that is helpful." (SA, age23, Kariobangi)</i></p> <p><i>"I used to lock myself in the house, but currently, I can get out and make stories with neighbours, when I am called for a job, I can go." (RA, age18, Kangemi)</i></p> <p><i>"It helped me to interact with people." (RA, age21, Kangemi)</i></p>
IPT-G delivery process	<p><i>"They were nice on my side, caring, they used to concentrate on us, they were social; let me say they were just nice." (JF, age24, Kangemi)</i></p> <p><i>"They used to understand us." (JI, age21, Kangemi)</i></p> <p><i>"They were nice people; in case you got stuck on something, they could help you [Inaudible]." (SK, age23, Kangemi)</i></p>

Overall
Perceptions
towards IPT by
PPAs

"They used simple termsand for those that were difficult they used to elaborate." (MR, age24, Kangemi)

"They were just using simple terms." (RA, age18, Kangemi)

"I can tell him thanks because he has helped us so much; we had stress, we were lonely, but the way he organized this group it has helped us and we have found means of helping our colleagues out there and that he should just continue that way without giving up and God grant him strength and life." (FW, age21, Kariobangi)

"I can tell him that he assisted us so much because if some of us could still be where we used to be then, we wouldn't exist till now, but he did an important thing and assisted us so he should continue that way and may God bless him." (NC, age24, Kariobangi)

"I can tell him thanks for creating this organization it has helped all of us on how we can also educate other people to be happy, and he should just continue with that spirit." (LA, age19, Kariobangi)

"I can tell him thanks so much, he helped us a great deal because we came here with stress, but we have been assisted, and we say thank you so much, and it should just continue this way [Crosstalk]." (SA, age23, Kariobangi)

"I give back thanks for he has brought us from far because right now I could be in the ground [Laughter], so may God give him (YO) strength for him to continue with that spirit." (PN, age24, Kariobangi)

"I want to tell him thanks for he has made me able to believe in myself, and may God give him strength to proceed with this program for others who are behind and are like us to get assistance." (EA, age24, Kariobangi)

"For me, it had helped me, I have lived positively, and I am not bothered by what people say [Some silence]."(LA, age19, Kariobangi)

"I am EAO, and for me, this content made me more aggressive, I mean I am not the way I used to be; I have many differences such that when I walk in other places I am not afraid I know who I am now, I have decided to live a positive life and I am used to it, and if I see someone else I teach her the way I have been taught." (EO, age24, Kariobangi)

"At the first time, I wanted to kill myself [Inaudible], I have children, and they could become orphans. The moment I came in this group, it has helped me until now my children are grown, and I have even started working harder because the other one is in grade two, the other is still little, but you advised me." (PN, age24, Kariobangi)

"We have agreed with my husband that I am going back to school - -In the past, I used to wonder how he views me." (JI, age21, Kangemi)

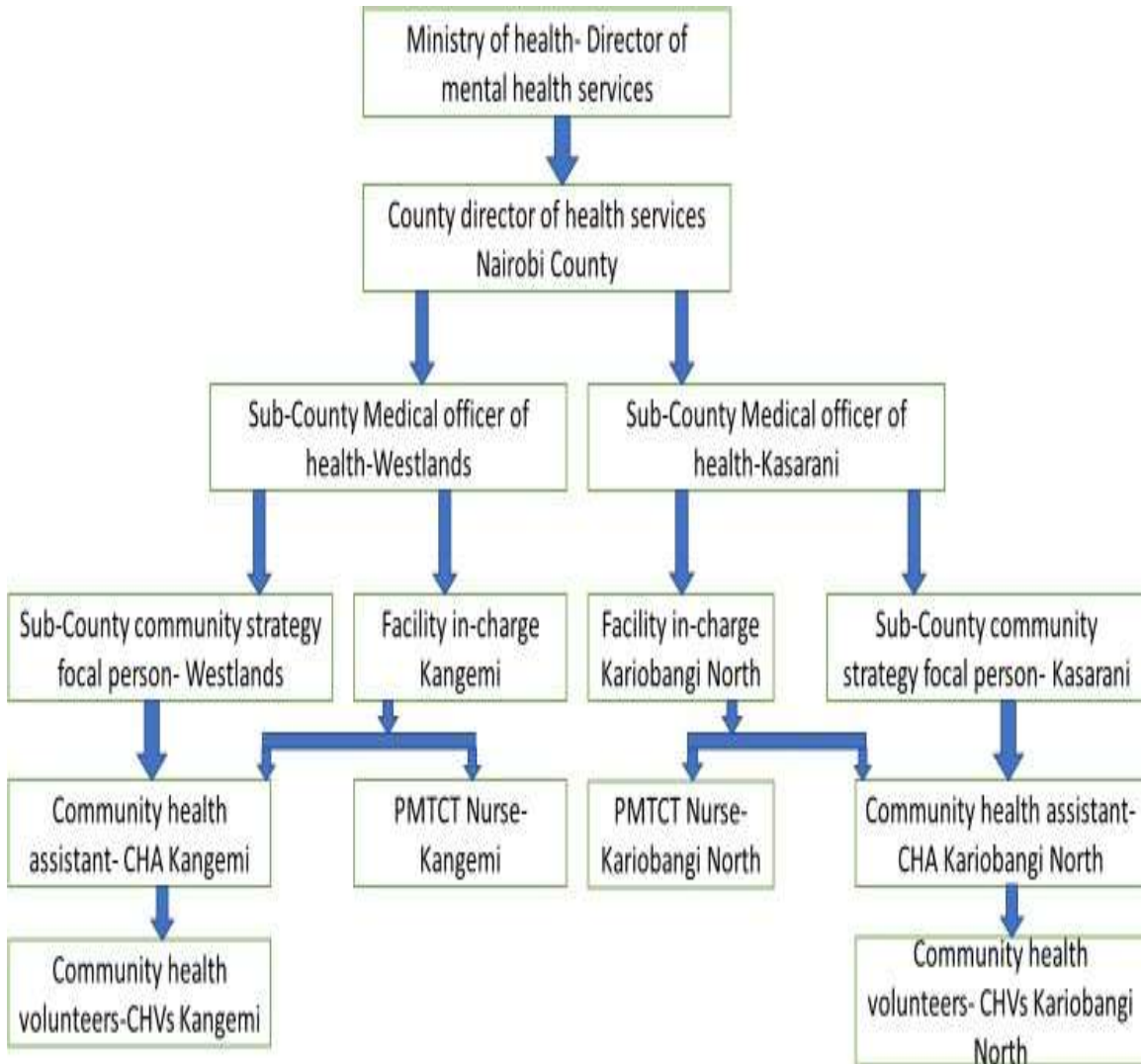
Our adolescent participants appreciate that IPT-G helped them alleviate social isolation, anger, hopelessness, and low mood, typical symptoms of significant depression. After IPT-G intervention, adolescent mothers could now acknowledge they lived with horrible thoughts and a feeling of hopelessness around their past and felt liberated and at great ease with their new situation. They narrated how they could socialize with others and perform their family responsibilities effectively, including looking after the baby without negative self-perceived stigma despite them living with HIV (see Table 24).

Table 24: Adolescent mothers understanding of IPT-G intervention

IPT theme	Quotations
Overall impact of IPT (Reduce social isolation, anger, hopelessness, low mood)	<p>"I used to stay in the house asking myself, 'who am I for sure? Whose friend can I be?' So I feel like even taking poison, I think of many things, but I have seen a great difference; when he comes, and we disagree, it means verbal exchange of all kinds [Laugh] I talk and talk he gets angry and leave only to return very late at night - -." (NC, age24, Kariobangi)</p> <p>"I think I was depressed; I used to sit in the house and had no friends. But when I started coming to this group, I found friends here; outside, I have also made friends. I used to be stressed as to why my husband doesn't go to work and frequent disagreements. But since I started coming here for advice, I realized that I am not the only one who has problems, so for me, it has gotten out; I just feel that it has helped me a lot, stress is usual, but for now, it is gone." (FW, age21, Kariobangi)</p> <p>"It was worse until hey! I used to keep quiet so much because I used to feel whenever somebody talks to me just a little then I get angry, and I just wish that we fight [Laughter] I mean I used to get extremely angry - -." (JA, age22, Kariobangi)</p> <p>"I know myself since I know how I used to feel; when I sit down, I ask myself, 'what kind of life is this?' I used to feel guilty; I don't want people's stories; I just feel that a story may arise and reach the point of the infection, so what will I say? You know at that point you will just be forced to remain silent; you will not talk- you will never have whatto say because they are negative, and you are positive, and they want to talk about that infection - - ." (JA, age22, Kariobangi)</p> <p>"I was depressed, but I had several regrets as I was just questioning myself, but nowadays it is over. The regrets were 'why have I become pregnant early?'" (LA, age19, Kariobangi)</p> <p>"I am another one; whenever someone could anger me just a little I could moody, sitting in the bed with tears, and when I cook the food cannot even be eaten because of too much salt [Laughter] or raw ugali; but for now I have changed, and I am good, even if you talk I act like I am not hearing or I go and sit outside and come back when he is quiet." (JN, age21, Kariobangi)</p> <p>"Before I joined this group, I was so depressed; I used to be an angry person, my anger was so much near, even if someone wrongs me where we live then I carry it into the house on the kids and even on the husband; but since I came here, I have changed." (LA, age19, Kariobangi)</p> <p>"In the past, whenever I could get angry, I could not cook.... I cannot eat; if it is talking to people, I cannot talk to him; everybody sits apart when it comes to washing everybody washes their clothes." (SK, age23, Kangemi)</p> <p>"- - at the moment I am stress-free, and I just know how I can handle it; I sleep and wake up when I have forgotten those things, but I normally thank God because I have never had stress." (RJ, age23, Kangemi)</p>

Capacity building through a collaborative approach was used, which involved engaging the Director of Mental Health Services and cascading the partnership to the health care management team downwards to the level of CHWs. The entire health management team supported our intent by issuing us clearance and linking to all the relevant clinical staff (See Figure 20 below).

Figure 20: Collaborative structure for IPT Implementation



4.1.10.2. Training of CHWs on IPT-G

Screening questionnaires were administered to CHWs before training to assess their knowledge of mental health concepts such as stress and depression. They all demonstrated a fair understanding of the difference between these. The CHWs appreciated continuous supportive supervision, and they felt that all their concerns arising from weekly sessions were being addressed promptly and

adequately. Furthermore, it was very encouraging to hear from the CHWs that our participants (depressed PPAs), after intervention, became role models in the community by imparting skills of managing their day-to-day life issues (see table 25).

Table 25: CHWs understanding of IPT-G intervention

IPT themes	Quotations
Addresses loss and grief for CHWs	<p><i>“Me too, it has helped me. Now that I can- I used to see a pregnant woman and I take another route that I don't want to meet, there where children are I could not go, but now I even carry your kids so it has helped me that's why you can see how strong I am.”(LN, age 34, CHA, Kangemi)</i></p> <p><i>"CA also left me, he was my friend, and it drew me so much down, but now I am fine, isn't it?" - - During CA's time of demise, it was like everybody in Kangemi felt like was carrying something [Silence].”(LN, age 34, CHA, Kangemi)</i></p> <p><i>"It has helped me a lot, the second thing let me say I was given a husband by Kangemi people, when we were doing training, and I lost the husband (refers to CA, deceased CHV), so IPT helped me to go through the loss and grief, anyway it was not a real husband [Laughter]. But he was a very good friend of mine.”(EO, age 24, CHV, Kariobangi)</i></p> <p><i>"Anyway, when I was undergoing through the sessions, I lost most of very important people, but IPT helped me. You know, when we were talking to these girls, and they are also expressing, "I lost my kid, I lost my daddy," and I was also like it was like me losing the people whom I care about, so we were going through these together. It was a process for all of us, so it healed me, and it healed them; that was very good." EO, age 24, CHV, Kariobangi)</i></p> <p><i>"- - and when I came here, I was so much stressed, and it could have resulted in depression because there is something, I lost then I lost both parents at the same time. So, when we started talking, I felt that I had put the load down, you get it? so when we continued and reached the middle, and I realized that I am good.”(NG, age 43, CHV, Kangemi)</i></p>
Empowered PPAs to live a better life	<p><i>"I can remember there is one who said after the sessions, "nowadays I can get out and talk with women, I can go out of the gate because when I was alone, I felt that I am not okay because I have HIV and I have given birth at a younger age. But now I have gotten that courage after these sessions to go outside I can talk, I have that courage," so that made her feel that they are many and she is not alone].”(LN, age 34, CHA, Kangemi)</i></p> <p><i>“Even the sessions were very good; because some used to come and tell you, I have this and that problem, and I passed through this, but I went and did what you told me, and I have succeeded' you get it.? One member in our group, I recall, and even at the moment, she normally rings me and tells me, "that thing helped me, and I am able to help others." (NG, age 43, Kangemi)</i></p> <p><i>“It has been a nice thing, every time I see you. I normally get impressed and just smile because at least there is progress in our lives, we are not the same as the way we used to be, okay?”(EO, age 24, Kariobangi)</i></p>

"I think that will help a lot because you see for the young girls you might find that when they do HIV test the husband is negative and the lady is positive, so you see the girl gets stressed because she is harassed by the husband "where did you get the virus?" And whatever, it will help a lot [Silence]." (JA, age 24, Kangemi)

Building capacity and acknowledging the team

"When I lost my child on delivery, I also want to thank YO, I don't know what to tell him, but there is a time I looked and realized that he is a very different person. We hadn't known each other- we had known each other for only three days, but when I had a problem, he came with MK to my house and consoled me, and I felt that it wasn't even about friendship, they are just part of like my family, and he helped me." (LN, age 34, CHA, Kangemi)

"- - it has changed us, as much as we were the teachers, but we feel that it helped us. So I just pray that more of that kind comes and the way I said that when you just change one person, he/she will change five others and those five others will change others and at the end of the day, you may find that you have changed the whole country and even the world, so thank you." (JA, age 24, Kangemi)

"So, we are also still doing follow-ups. Some even call by themselves, sometimes I call them, some even when they come for clinics, they just come looking for us which is good so, so they trust us. So, there is that trust, there is that friendship, there are so many benefits that came out of this, so I was just gladly sharing."(EO, age 24, Kariobangi)

"Follow-up of that client, you have done IPT for this client you have done termination session; you have referred that client from facility to the community, who will do that follow-up? The community health workers. They are the linkage between the facility and the community and community to the facility."(LN, age 34, Kangemi)

Third IPT session is when disclosure happens

"It was just like Kangemi; at first for the people with whom you are not familiar enough, they could not open up; you ask her a question, and she feels like where do you want to lock and take her? But now, the second time they will be free, and the third time she will feel like 'I can remember what happened to me and how it is on somebody else,' because we had supervision like from CHA and MK and could correct us when wrong and it becomes normal." (SN, age 65, Kariobangi)

"- -yes, they exist; when we started, we had a challenge because one we had not been trained, we had a challenge, but we reached where we reached. I can say that even those girls when we start with them there are usually problems, but the good thing is that mid-way they pick and can listen to you, and sessions go well." (JA, age 24, Kangemi)

"At the beginning, there were challenges because all the people were still new, so it is later that people came to know each other so everyone could say all her issues." (SK, age 50, Kariobangi)

What I can say; when I joined- let me talk about group two, we came well but after attending like three sessions is when you could see them now pouring out [Laughter] they tell you all their troubles in life- -." (FC, age 30, Kangemi)

"- - yes, yet at that time we are about to finish. I am pretty sure that even at the moment if we would still be going on, we would have known several things." (FC, age 30, Kangemi)

"So, it was a very big problem at the beginning, but I am glad that as the sessions were proceeding, we became good friends; actually, we developed a rapport, and even until now, some still call "when are we meeting again?" [Laughter] - -." (EO, age 24, Kariobangi)

Less time consuming

"Not a burden because it was usually once a week, and if you are meeting those clients later, it is the one in which you can negotiate the time that you will meet, so I don't think, maybe if others think otherwise." (LN, age 34, CHA, Kangemi)

IPT Impact in the community

"In fact, we always talk about that group wherever I go, and maybe I meet a partner. I always talk about that group, that's why I am saying I am still looking for a partner to support them; I always talk about it because we felt that we changed them and we wouldn't like them to get lost on the way, we would love them to come back and help the others." (LN, age 34, Kangemi)

"I think there is a time when we began IPT those girls most of them were locking themselves in the house....but now, after the sessions in Kariobangi, we realized that they went back to work- most of them have gone back to work, some others have started businesses, MA got a job and also has a business, EL has a business, so people have gone back to work, there is SA has gone back to work; people are going back to work, people have started businesses, but for one or two we are still following." (EO, age 24, Kariobangi)

"I think even these girls have become role models in the community.... we told them, 'if you find somebody who is in a situation, maybe you can assist and feel that it closer to yours or it is similar to yours, you are now empowered, and you can help this person at your level and if you feel that it is difficult is when you can refer.' Still, now they are doing on their own, which is good." (EO, age 24, CHV, Kariobangi)

Group strengthens cohesion and empowers

"She (PPA) realizes that she is not the only one and that they are several, don't you even see that the first thing they were accepting so much whenever she hears that this one is also like me, even this one and the other one, so she feels that 'we are many.'" (NG, age 43, Kangemi)

"It used to help them to unwind because maybe somebody has an issue and feels like 'maybe it is only me who has this issue' so when she finds somebody in the group who says almost like similar to hers, then she also opens her heart and speaks." (EO, age 24, Kariobangi)

4.1.10.3. Barriers and facilitators of IPT-G

On analysing the findings we found some barriers that could affect delivery of IPT-G within primary health care. Three sub-themes were identified considering the common challenges that could hinder the delivery process of IPT-G within the health centers. These were systemic, social and logistic challenges (see Table 26).

Table 26: Summary of themes related to barriers towards delivery of IPT-G as narrated by CHVs

Themes	Key results
<i>Systemic challenges</i>	<ul style="list-style-type: none"> -Lack of private space for mental health services -No compensation for work done -Limited knowledge about depression in the community
<i>Social challenges</i>	<ul style="list-style-type: none"> -HIV-related stigma (shy, afraid to share) -Perceived mistrust in group confidentiality -Poor communication from CHA at Kariobangi -Lack of communication device by some PPAs -Poor time management by CHVs
<i>Logistical challenges</i>	<ul style="list-style-type: none"> -No personal protective equipment for CHVs at work -Unclearly defined roles of CHVs -Overburdening with any emerging activity -Competing obligations -Lack of professional respect for CHVs by other trained medical personnel -Transport problems for CHVs -Financial Constraint -Poor sustainability of a program without funds to motivate CHVs

a) Systemic challenges

The community health workers felt that private space for mental health services is lacking and thus could affect confidentiality.

“I think for us Kariobangi we had a big challenge when it came to venue of the meeting because sometimes you find we are here...sometimes we are displaced at the tent, maybe the other tent is very dirty, sometimes we are in this other tent we come here displaced, so it was a very big challenge [cross talk].” (EO, age 24, Kariobangi)

“We were okay; we had been given the maternity, a place somewhere...You see, if we close the middle too and pull the curtains, it was so good; it didn't have an issue.” LN, age 34, Kangemi)

“Even though but let's just say it was okay; even if it is bad it is our place so we cannot say that it is bad [Laughter], but it was fine.” (JA, age 24 Kangemi)

“The space was okay; it was somewhere where we don't have issues with noise, but we don't know next.” (SN, age 65, Kariobangi)

The CHVs narrated with All the CHVs were very concerned about the Government not improving allowances and further engaging them in employment regrets the practice of Government leaving them without pay despite their commitment to serving the less privileged in society living with health problems.

“Challenge, the challenge I think is the motivation but you know as community health workers that is our work in the community, but still they are still volunteers they don't have anything that they usually receive so even if we say that they should conduct that IPT in the community they can only do a few because they only volunteer for around two hours then the rest of the hours they go to look for something to do to get something to eat.”(LN, age 34, Kangemi)

“Do you think that there is somewhere we go to the bank with an ATM all of us? [cross talk]” (JA, age 24, Kangemi);

“Work without payment.” (SK, age 50, Kangemi)

On issues to do with depressive illness in the community, one of our CHA believes that some are not aware of the symptoms and thus struggle with them without understanding what is ailing them.

“It is important; people are dying because of depression, yet somebody doesn't know, you just realize that you are depressed the moment you go down to a stage of going to Mathari (National mental health referral hospital), yet you think you are normal.” (LN, age 34, Kangemi)

b) Social challenges

HIV-related stigma is still a hindrance to seeking help. The PPAs have concerns about sharing their problems, generally distrusting groups, and worrying about confidentiality.

“For me I think the biggest challenge is to get this girl especially that she is HIV positive, they are shy, they don't want to talk about it so to get them to be really engaged is a challenge.” (CA, age 37, Kangemi); “The stigma is still there [Silence].” (LO, age 34, Kariobangi)

“Also, the issue of confidentiality like in a group you don't know each person's character and behaviour, you cannot guarantee that whatever will be said here everyone will keep to themselves. Someone can be afraid to share.” (EO, age 24, Kariobangi)

The quality of communication between CHA with CHVs was observed to be inadequate for one of our health centers. Some PPAs were reported to be lacking phones; hence could affect the coordination of group session. One of the CHA exposed habits of poor time management in attending meetings among CHVs and not being receptive to adolescents or their colleagues.

“I think communication has been a very big challenge. You find that CHA was even told last week about IPT meeting, but maybe she comes, tells, or she sends me a message today- the meeting is today, she sends me a message at seven in the morning, what if I had my other plans?” (EO, age 24, Kangemi)

“Communication needs to be passed clearly.” (SN, age 65, Kariobangi)

“I don't access WhatsApp most of the time [Laugh], so I get from EO(one of the younger CHV); for example, that message EO informed me yesterday that it was on WhatsApp then CHA called me today morning that there is a meeting yet I knew that the information was passed yesterday.” (SK, age 50, Kariobangi)

“Like the way NG has said, some didn't have phones so someone is late and it is approaching ten, and she has not reached so there is no way you can look for her, you get it?” (EO, age 24, Kariobangi)

“Sometimes you ring and find that it is her husband who is having the phone [Laughter].” (JA, age 24, Kangemi)

“Yes, as a CHA there is a challenge; if you call for a meeting [Laugh] when you call them (CHVs) at eight they come at ten, so I usually tell them to come at seven so that by eight they will have arrived [Laugh].” (LN, age 34, Kangemi)

c) Logistical challenges

The CHVs were worried that their roles are not clearly defined, exposing them to overburdening work and competing obligations. They believe this could have the trained health workers (nurses) to task them duties of escorting patients for referral to level 6 hospital without even providing them

with personal protective equipment even when dealing with patients with infectious diseases like Tuberculosis (TB).

“There is another one; you can enter that household maybe somebody has gotten sick due to TB, and you have gone there, and you know how it spreads, at that time h/she just wants to talk to you and infect you, you see?. So, you just try 'oh my God, just help me.'” (NG, age 43, Kangemi);

“Yet the house is tiny.” (JA, age 24, Kangemi)

“Someone sick due to TB - - yes, so you carry him/her here without a mask, and you say, ‘we have arrived, get out.’ So you are in danger, the nurse fears because h/she is here and gets paid yet you don't have, so you immerse yourself in TB [Crosstalk] if you refuse then you are told if polio comes - -[Laugh] you will not be given programs with allowances.” (SN, age 65, Kariobangi)

“Even me, I used to be in room number one for TB, so you tell them how they can prevent infecting others, so you talk to him, and he says, "I haven't heard. [Coughs and laughter]” (SN, age 65, Kariobangi)

Providing transport to the CHVs to assist them in performing their duties effectively is also missing, making them vulnerable as they use their finances to accomplish the assigned work.

“Something as a CHV sometimes you take a patient to Kenyatta but coming from there you don't have transport; the ambulance took the patient - - you have to walk to Kariobangi.” (SN, age 65, Kariobangi)

“Yes; because somebody cannot come here and spend almost two hours and you are- you want her to just come and sits then leaves without anything.” (EO, age 24, Kariobangi)

“You know they just ask for fare [Laugh] where she comes from; she doesn't need fare, so you just tell her that she has gotten knowledge; you know the community have their own issues - -.” (SN, age 65, Kariobangi)

4.1.10.4. Availability of CHVs and support groups

The health center already has running support groups for adolescents offering varied services; thus some of the PPAs who participated in the study were enrolled in some support groups to improve their social skills and maintain social networks in society.

“Like we always have support groups and support groups are divided into I think around five groups; so there are those people with one for adolescents, but it is not specific to young girls, but it is general adolescents.” (EO, age 24, Kariobangi)

“There is usually a support group.... we have a support group people just come without a problem because they know there is somewhere, they are going to meet.” (SN, age 65, Kariobangi)

Though there is a shortage of trained mental health personnel, Kariobangi health center had a counsellor to provide support services to those undergoing HIV testing and even other psychological needs.

“We have a counsellor, so they get counselled, even let's say somebody comes to the clinic today and gets tested she goes to a counsellor for counselling.” (SK, age 50, Kariobangi)

4.1.10.5. IPT is seen to focus on relevant psycho-stressors

The community health workers pledged their support in the delivery of IPT-G and expressed that it had a high potential of helping vulnerable adolescents. This feeling was based on their prior knowledge of psychosocial stressors within the community and various cultural dynamics that

could predispose them to depression and other related life challenges post-pregnancy and HIV diagnosis.

“I think that will help a lot because you see for the young girls you might find that when they do HIV test the husband is negative and the lady is positive, so you see the girl gets stressed because she is harassed by the husband “where did you get the virus?” And whatever, it will help a lot [Silence].” (JA, age 24, Kangemi)

“They will accept because it will help them.” (SK, age 50, Kariobangi); “It is possible.” (LO, age 34, Kariobangi); “We will sustain.” (SN, age 65, Kariobangi); “Because we are the ones who are in the community.” (SN, age 65, Kariobangi)

4.1.10.6. Existing support systems

Despite the concern about the meagre allowances of about 20 USD per month, they were grateful and hopeful that the government reviews their wages soon to compensate for their hard work on health at the community level.

“Yes because they told us that they will take care of our wellbeing in Nairobi for CHVs to get an allowance from the government, then for you when you come you should add for us then we will say “yes the government plan is good, but if you top up for us like MK and team then we can be able to educate our children,” because we have a house where we pay rent, children are in school, and we have our needs, so Nairobi is just Nairobi.” (SN, age 65, Kariobangi); “- - we have the facility sectors [Inaudible].” (EO, age, 24, Kariobangi)

One of the oldest CHV has been performing tasks related to community service on health matters since 1987, with over 30 years of experience in community work.

“You know I am not sure how I understand; NGOs as we have said they come, let's say since we are on ground, I have been here since nineteen eighty-seven; just here, I haven't gone out of this place.” (SN, age 65, Kariobangi)

Community workers agreed with the concept that treatment care and linkage to support services or opportunities to empower them with livelihood and self-help skills were crucial for combating mental illness.

“I think; that is per my view, with links with other partners like the one that you have said is in Langata that do hospitality services. If these girls these adolescents can be linked to such like institutions, it will encourage maybe more adolescents, or you can link these adolescents to these TVET institutions I think it will encourage other adolescents or any other age group of the same status to join the group. It would be easier even talking to them, mobilizing and convincing them that after such a thing, at least we will connect you to some other activities that maybe will help them.” (LO, age 34, Kariobangi)

4.1.10.7. Sense of empowerment of CHA and CHVs in the health ministry

CHAs are government employees and thus more empowered than CHVs considering they earn a monthly salary hence their engagement in a health center is more predictable whereas CHVs have challenges coping with only a tiny allowance of about 20 USD a month. Some of the comments we gathered from CHA and CHV supported this: *“CHA is a government individual.” (JA, age 24, Kangemi; LN, age 34, Kangemi)*

“I have been here since nineteen eighty seven; the flour(financial support for earning a living)- they gave us two thousand and just that two thousand all those years despite increase in prices of

flour, increase in transport, increasing school fees, but we are just at two thousand, that two thousand don't you increase it?." (SN, age 65, Kariobangi)

"Non-Governmental Organizations (NGOs) come because it depends with the time some come just for a while; they tell us "we are here for one year" it is not one year, they just go up to six months then they get data and leave us hanging." (SN, age 65, Kariobangi)

4.1.10.8. IPT training feedback highlighted by CHVs

The CHWs who were to administer IPT-G participated in FGDs to share their perceptions and experiences about the delivery process and possible outcomes. Three sub-themes from their interaction were identified (see Table 27).

Table 27: Summary of themes related to IPT training feedback highlighted by CHVs

Themes	Key results
Availability of CHVs and support groups	<ul style="list-style-type: none"> - Available support groups (PPAs) in the health center can easily transition to IPT-G groups - Availability of a counsellor complements CHVs effort
IPT is seen to focuses on relevant psycho-stressors	<ul style="list-style-type: none"> - IPT-G help the PPAs cope with HIV status and other challenges - CHVs have good knowledge of the community
Existing support systems	<ul style="list-style-type: none"> - Government is providing a small allowance to CHVs - Health centers offer varied services - Linkage to livelihood and self-help skills - One of the CHV Knowledge of same community since the year 1987

4.1.10.9. CHWs commitment to support the health care for the community

The community health workers have made an impact on improving the quality of health care within low- resource settings and are committed to their roles:

“These people (CHA and CHVs) are very important in the community; because without them, we wouldn't even be getting clients in the facility. We would be getting those who do self-referral, but most of the clients that we find in the facility, we get them from these people. So, without them in the community, that's why you hear 'community health has gone on its own'. Now we have a department of community health because it has changed the lives of people, and it's not here alone; it was piloted the whole Country. So, if we could do that for IPT, I am very sure these guys would do a very good job in bringing those clients.” (LN, age 34, Kangemi)

c) Service outcomes

4.1.10.10. Pre and Post IPT-G changes observed

In both study sites, there was a shortage of trained mental health personnel. Kangemi health center has one nurse in training under the sponsorship of a non-governmental organization. In Kariobangi health center, there are only two health care workers with post-diploma training in psychiatry. There was no mental health designated space and counsellors under HIV testing services (HTS) were operating in mobile tents. After our study, most healthcare providers within the two health centers had appreciated the impact of IPT-G on PPAs attending PMTCT citing improved social functioning, better communication and appealing personal hygiene/grooming by the adolescent mothers.

The loss of one of the CHVs emotionally affected most of the PPA participants and it could be because he was youthful and could quickly identify with him during subsequent sessions. A function to mourn and plant a tree within Kangemi health center was organised at the facility and the family members joined the session. The clinical supervisor organized a loss and grief therapy session for the group (PPA and CHWs) using one of the IPT problem areas. We also visited the family and arranged for tree planting to bring closure for all who knew the deceased CHV. We notified the ethics office of the incident which was documented in our protocol.

4.1.10.11. Contribution of CHWs in building integrated mental health services

Community Health Assistants are the management wing on community health matters in low resource settings as envisage in the ministry of health in Kenya set-up. They are tasked to coordinate all activities within the community and also supervise CHVs in their day-to-day activities. Community health volunteers are the selected representatives of a community who champion health matters within the vicinity where they live and do it voluntarily with no monthly salary from the government (see Table 28).

Table 28: Differences and similarities between CHAs and CHVs on their approach to mental health

	CHAs	CHVs
Community health workers' role in mental health care	<ul style="list-style-type: none"> -Roles well defined -Supervise the CHVs -Taking reports to DHIS at sub-county -Coordinate all the community health unit activities -Report any challenges, disease outbreak -advice and support CHVs and the client 	<ul style="list-style-type: none"> -Screening in the community - Contact tracing -Coordinate patient /client referrals -Defaulter tracing -Creating awareness -Follow- up /home visits of patients -Social mobilization Encourage adherence to medication -Door to door household visits -Direct Observed Treatment -Bridging the gap between community members and health care workers -Health talks in the community and also at the facility level -Conduct community dialogue days -Encourage adherence to medication at the community level -Participate in Action days -Participate in clean up days -Door to door household visits -Assist with screening for patient needs and in medical camps and outreaches
Their sense of empowerment	<ul style="list-style-type: none"> -Government employee -Post-secondary school training (Diploma) -Involved in all government community programs hence collects more allowances 	<ul style="list-style-type: none"> -CHVs must live within the community they serve -Rely mostly on NGOs and other independent sponsors -Only about 20 USD per month

<p>Their commitment to support</p>	<ul style="list-style-type: none"> -Competing obligations -Few within sub-county regions hence overstretched -Involved in different unrelated community programs by different NGOs/sponsors 	<ul style="list-style-type: none"> -Basic qualification is to know how to read and write -Their education on the work is a three-week training on community activities -Readily available if allowances are offered -Lives within the community hence knows their subjects -Committed to following up the progress of their subjects even to their homes
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Our study findings show that CHAs are an essential link between the health facility and the community population. One of the CHA could candidly explain their roles:

“CHA's roles; to supervise the CHVs, taking reports from CHVs to the District health information system – It is at the sub-county in Westlands.” (LN, age 34, Kangemi)

On the other hand, CHVs are the lowest cadre of the operational health wing within the community charged with the responsibility of creating awareness, defaulter tracing, follow- up, direct observed treatment, social mobilization, encourage adherence to medication at the community level, participate in action days, and even clean-ups. CHA reassured us that continuity of IPT-G impact was possible to happen by saying that:

“Follow-up of that client, you have done IPT for this client you have done termination session; you have referred that client from facility to the community, who will do that follow-up? The community health workers. They are the linkage between the facility and the community and community to the facility.” (LN, age 34, Kangemi)

5. CHAPTER 5

5.1. DISCUSSION

We piloted IPT-G delivered by CHWs to assess its efficacy in reducing depression, minimizing HIV-related stigma, improving social functioning, and enabling adolescent mothers living with HIV to improve their quality of life and their children within the community. HIV disease and depression are interrelated because HIV is a solid psychological stressor that can elicit mental disorders, whereas depression worsens HIV/AIDS related complications (Kim et al., 2015; Mutumba et al., 2016). The depression and HIV-related complications are strongly interdependent, and thus some may allude that depression is triggered by HIV/AIDS, as demonstrated in our qualitative findings (Andersen et al., 2015; Nakimuli-Mpungu et al., 2015).

5.1.1. Efficacy of IPT-G in reducing depression

The main finding of this feasibility piloting suggests that IPT-G significantly reduced the depression scores when we use generalized estimating equations whereby for every unit drop in the depressive scores in the wait-list group, the intervention group dropped by about 6 unit scores on the EPDS. The effectiveness of IPT-G on depression is acknowledged even in other similar studies (O'Hara et al., 2000; Schramm et al., 2020; Toth et al., 2013). A study in Uganda demonstrated that informal health providers competently delivered IPT-G, and as the depression reduced, the participants became more hopeful, motivated, and productive in their lives (Lewandowski et al., 2016). It is worth acknowledging that, improvement of depression without treatment is also notable where it is estimated that about a quarter of the patients improve within 3 months and 50 % after one year (Whiteford et al., 2013), and about 30 % do not respond to any form of treatment (Cuijpers, 2018; Rush et al., 2006). Meta-analysis has found out that IPT-G is an effective psychological intervention recommended for treating depression in LMICs (Cuijpers

et al., 2018), with another similar systematic review affirming the same (Asrat, Schneider, et al., 2020).

5.1.2. Findings of the intervention and wait-list control group

Overall, education on depression after administering IPT-G yielded a more substantial effect size of 1.569 (95% CI=0.617 to 2.492) on the intervention group compared with the wait-list control group with an effect size of 0.651 (95% CI=-0.177 to 1.466). Our findings are supported by a recent study that reported that IPT significantly decreased depression with a more significant effect size after intervention (Bäck et al., 2020). A comprehensive meta-analysis found that IPT in sub-threshold depression significantly prevented the onset of severe depression, and maintenance IPT significantly reduced relapse. The acute depressive phase was seen to have moderate-to-large effects compared with control groups (Cuijpers et al., 2016; van Hees et al., 2013).

IPT-G has been adapted for adolescents (Mufson, Gallagher, et al., 2004) and the general population of depressed patients (Levkovitz et al., 2000). We noted statistically significant differences in reduction of depression, whereby a drop in mean depression scores before and after intervention with a more significant effect size. This could be explained by the evidence that IPT helps individuals improve their interpersonal relationships, thus minimizing possible distress. The role of IPT in improving interpersonal relationships was also previously reported in another previous comprehensive meta-analysis (Cuijpers et al., 2016). The outcomes from this study suggest that IPT-G is more effective in mitigating depression (O'Hara et al., 2000). Previous studies documented the efficacy of cognitive behaviour therapy and IPT on being at par with one another (Lemmens et al., 2020; Luty et al., 2007). IPT-G is thus a promising psychological intervention in addressing depression for a vulnerable population such as peripartum adolescents

and those living with HIV; it has been recommended for use with diverse populations (Schramm et al., 2020).

A systematic review identified interpersonal problems like separation from immediate family members, conflict, HIV-related stigma, and loneliness; life changes associated with living with HIV, such as unemployment and low income, could easily precipitate depression (Bernard et al., 2017). External and internal HIV-related stigma was noticeable on our engagement with PPAs and seemed to inform more of their negative feelings, beliefs, and daily living within the community (Florom-Smith & De Santis, 2012). In another psychological intervention that aimed at imparting coping skills, linkages to other peers living with HIV to enlarge social support network, HIV-related internalized stigma decreased significantly among female adolescents, and gains could be sustained for over 3 months (Harper et al., 2014). During our focus group discussions, we noted that HIV-related stigma could pose the danger of low self-esteem among the participants when they start feeling ashamed of their HIV status and can later trigger depression (Sherr et al., 2014). A study that assessed 30 adolescents on the level of traumatic experiences associated with living with HIV reported a mean of 5.63 traumatic events, with 93 % of the participants reporting that receiving a diagnosis of being HIV positive was the most traumatic (Radcliffe et al., 2007). In our focus group discussions, most participants had not disclosed their HIV status to their family members due to negative self-evaluation related to their status, leading to poor adherence to ART. A study in one of the developed countries assessed the effect of social stigma on adherence to ART and found out that, among the 204 people living with HIV those with high HIV stigma were 2.5 times less likely to interpret their CD4 count and had a chance of 3.3 times defaulting ART (Rintamaki et al., 2006).

5.1.3. Our choice of IPT-G for adolescent mothers living with HIV

IPT-G is an ideal psychological intervention for adolescent mothers living with HIV since it focuses on interpersonal context, enhancing of interpersonal skills, and improvement in social support (Weissman et al., 2000), and it has also demonstrated evidence in addressing long-term effects of depression (Saloheimo et al., 2016). Furthermore, it focuses on improving attachment among the close persons (partner, family members, or peers) to develop healthy interpersonal relationships, which makes one acknowledge social support with ease (John Bowlby, 1988). In our qualitative work, participants kept narrating some of the psychosocial stressors emanating from the immediate family members and the HIV-related stigma and linking their current state of having depression (Willis et al., 2018). Our intervention improved communication and enhanced social interaction among the family members and the society, thus enabling them to adhere to ART and overall quality of life.

5.1.4. Task-sharing of the intervention

The findings of our work are in agreement with previous studies that have suggested that task-sharing is a better approach to overcome a shortage of trained health care specialists which is a significant barrier to scaling up mental health services (Padmanathan & De Silva, 2013). We trained CHWs to deliver IPT-G, and with continuous supervision, they could deliver, as shown by the significant difference when we compare the intervention and wait-list control group. When task-sharing is embraced in primary health care, CHWs carry on with preventive and early intervention for mild cases as the specialist health care workers focus their expertise on individuals with more severe mental illnesses (Patel et al., 2010). CHWs are community lay leaders who, in our study, acted as a link between the health facility and the participants within the community. CHWs who are informal health providers can carry out psycho-education, monitor drug adherence,

early intervention for mild mental disorders, and detect and refer persons with severe mental illness for further management (Petersen et al., 2011). During sessions, weekly continuous supportive supervision instilled confidence among the CHWs and delivered the intervention as per the IPT-G protocol. A systematic review emphasized the training of informal health providers, supervision, and partnership with the local community as a pillar for task shifting within low-resource settings (Hoeft et al., 2018). CHWs have the advantage of living within the community hence can quickly build trust among the PPAs (Katigbak et al., 2015). A study's findings suggest that family and peer-led interventions are potentially valuable for preventing and managing depression in adolescents living with HIV (Willis et al., 2018).

5.1.5. Notable achievements of our intervention study

IPT-G was acceptable and feasible for adolescent mothers living with HIV when delivered by trained CHWs. One of the current studies in Ethiopia focusing on the adaptation of IPT-G to the general population for people living with HIV/AIDS agreed with our findings(Asrat, Lund, et al., 2020),and this also is supported by another similar randomized trial(Nakimuli-Mpungu et al., 2015).

The CHWs delivered IPT-G satisfactorily and can be task-shifted to lay workers. PPAs narrated notable improvements in social interaction, decision making, and communication skills (see table 24). This indicates a good way forward for low- and middle-income countries to embrace non-medical specialists (Kok et al., 2015). Notably, some PPAs became confident to discuss their issues in life after interacting with their peers, which improved their self-esteem.

The termination phase was a crucial period since feelings of impending separation elicited anxiety. Our study findings are comparable to the Kenyan step-wise community approach study on capacity building finding, which appreciated empowering CHWs towards mental health service delivery

(Onu et al., 2016a). Lack of monthly remuneration for CHWs led them to over-commit to other activities to secure a livelihood (see table28). During the termination phase, some adolescents had started small businesses with notable improvement in communication and interaction with others for peer-to-peer support. The notable improvements in social functioning are similar to previously reported findings (Grote et al., 2009; Jacobson & Mufson, 2012).

CHWs were empowered in other mental health and psychosocial competencies, such as addressing signs of HIV related stigma in adolescent mothers; relationship problems; sexual and reproductive health services; the importance of highlighting personal values and decision-making process in youth; the importance of social influences; and enforcing self-care and positive living principles in their work with adolescents and youth. These competencies complemented the IPT-G impetus on forming social support and addressing life transitions. Unfortunately, in Kenya, there are few mental health workers. Promising findings from this study support the task-sharing approach in strengthening the integration of mental health into primary care, which has been of great focus in Kenya for nearly three decades (Ministry of Health, 1994). Our findings suggest that IPT-G ameliorates depression and improves the social functioning of the PPAs.

5.2. CONCLUSION

We uphold the observation that group interpersonal therapy that was being delivered by community health workers is feasible and acceptable, and depressed PPAs living with HIV can benefit from group interpersonal therapy in reducing depression, minimizing HIV-related stigma and improving social functioning while attending primary health care.

5.3. RECOMMENDATIONS

Research recommendations to test the effectiveness of IPT

1. A follow-up randomized trial with a larger sample size with even distribution across urban and rural health care centers be conducted to scale up IPT-G across counties.

Empowerment of community workers

2. More IPT-G training be conducted among the CHWs within all primary health care settings to create awareness and intervention.

Need for skilled Mental Health specialists

3. Need to train and employ more psychiatrists, psychologists, counsellors and social workers within the primary health care facilities.

Resourcing of Primary health care facilities

4. Transport services be availed to the CHWs to enhance their mobility in serving the underserved within the community.
5. Space or rooms for mental health services be designated across all levels of health care facilities.

5.4. Implications for further research on IPT-G

We recommend further research in a larger population across diverse counties in Kenya to ascertain the effectiveness of IPT-G on depression and its feasibility, acceptability, and

sustainability aimed at scaling up the intervention. It is of importance for a study testing the peer-delivered model of IPT. We also envisage getting PMTCT to integrate IPT in their clinics. Male partners of the young mothers could also be enrolled in the similar group sessions with a view to enhancing interpersonal building skills among the young couples.

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Ethical approvals



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June 26, 2018

Obadia Kipkurui Yator
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Dear Obadia,

RESEARCH PROPOSAL – PRIMARY HEALTH CARE BASED GROUP INTERPERSONAL THERAPY (IPT-G) FOR DEPRESSED POSTPARTUM ADOLESCENTS LIVING WITH HIV IN NAIROBI. AN IMPLEMENTATION SCIENCE STUDY (P97/02/2018)

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH- UoN ERC) has reviewed and **approved** your above research proposal. The approval period is from 26th June 2018 – 25th June 2019.

This approval is subject to compliance with the following requirements:

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

Protect to discover

For more details consult the KNH- UoN ERC website <http://www.erc.uonbi.ac.ke>

Yours sincerely,



PROF. M.L. CHINDIA
SECRETARY, KNH-UoN ERC

c.c. The Principal, College of Health Sciences, UoN
The Deputy Director, CS, KNH
The Chairperson, KNH-UON ERC
The Assistant Director, Health Information, KNH
The Dean, School of Medicine, UoN
The Chair, Dept. of Psychiatry, UoN
Supervisors: Dr. Manasi Kumar (Dept. of Psychiatry, UoN),
Dr. Lincoln I. Khasakhala (Dept. of Psychiatry, UoN),
Prof. Grace John-Stewart (Depts. of Global Health, Medicine, Epidemiology and Pediatrics,
University of Washington)

Protect to discover

THIS IS TO CERTIFY THAT:
MR. OBADIA KIPKURUI YATOR
of UNIVERSITY OF NAIROBI, DEPT OF
PSYCHIATRY, 799-517 Nairobi, has been
permitted to conduct research in
Nairobi County

Permit No : NACOSTI/P/19/57311/28972
Date Of Issue : 24th May, 2019
Fee Received : Ksh 2000

on the topic: PRIMARY HEALTH CARE
BASED GROUP INTERPERSONAL
THERAPY (IPT-G), FOR DEPRESSED
POSTPARTUM ADOLESCENTS LIVING
WITH HIV, IN NAIROBI. AN
IMPLEMENTATION SCIENCE STUDY.

for the period ending:
23rd May, 2020

Applicant's
Signature



Director General
National Commission for Science,
Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and Innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke



REPUBLIC OF KENYA



**National Commission for Science,
Technology and Innovation**

RESEARCH LICENSE

Serial No.A 24833

CONDITIONS: see back page



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/19/57311/28972**

Date: **24th May, 2019**

Obadia Kipkurui Yator
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “*Primary health care based Group Interpersonal Therapy (IPT-G), for depressed postpartum adolescents living with HIV, in Nairobi. An implementation science study*” I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **23rd May, 2020.**

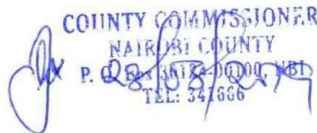
You are advised to report to **the County Commissioner, the County Director of Education and the County Director of Health Services, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Nairobi County.



The County Director of Education
Nairobi County.

The County Director of Health Services
Nairobi County.



Republic of Kenya
 MINISTRY OF EDUCATION
 STATE DEPARTMENT OF EARLY LEARNING & BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
 Telephone: Nairobi 020 2453699
 Email: rcenairobi@gmail.com
edenairobi@gmail.com

When replying please quote

REGIONAL DIRECTOR OF EDUCATION
 NAIROBI REGION
 NYAYO HOUSE
 P.O. Box 74629 – 00200
 NAIROBI

Ref: RCE/NRB/GEN/1/VOL. 1

DATE: 23rd August, 2019

Obadia Kipkurui Yator
 University of Nairobi
 P O Box 30197-00100
 NAIROBI

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on "Primary health care based Group Interpersonal Therapy (IPT-G), for depressed postpartum adolescents living with HIV, in Nairobi. An implementation science study.'

This office has no objection and authority is hereby granted for a period ending 23rd May, 2020 as indicated in the request letter.


 REGIONAL DIRECTOR OF EDUCATION
 NAIROBI
 AUG 2019
 FOR: REGIONAL DIRECTOR OF EDUCATION
 NAIROBI
 MINISTRY OF EDUCATION
 P. O. Box 74629, NAIROBI

c.c

Director General/CEO
 National Commission for Science, Technology and Innovation
 NAIROBI



NAIROBI CITY COUNTY

Telegrams: "PRO-MINHEALTH", Nairobi
Telephone: Nairobi 217131/313481
Fax: 217148
E-mail: pmonairobi@yahoo.com



COUNTY HEALTH OFFICE
NAIROBI
NYAYO HOUSE
P.O. Box 34349-00100
NAIROBI

When replying please quote

Ref. No. CMO/NRB/OPR/VOL.1/2018/62

COUNTY HEALTH SERVICES

July 9, 2018

Obadia Kipkurui Yator
Reg. No. H80/52406/2017
PhD Candidate
Dept. of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

RE: RESEARCH AUTHORIZATION

This is to inform you that the Nairobi City County Operational Technical Working Team reviewed the documents on "**Primary Health Care Based Group Interpersonal Therapy (IPT-G) for Depressed Postpartum Adolescents Living with HIV in Nairobi.**".

I am pleased to inform you that you have been authorized to undertake the study in Nairobi County.

On completion of the study, you will submit **one hard copy and one copy in PDF** of the research findings to our operational research technical working group.

A handwritten signature in blue ink, appearing to read 'R. K. Muli'.

R. K. MULI

FOR: COUNTY DIRECTOR OF HEALTH SERVICES

FOR: COUNTY DIRECTOR
HEALTH SERVICES
NAIROBI COUNTY

Cc: All Medical Superintendents
All SCMOHs

Appendices

Appendix I: Consent explanation for participants

Dear Participant,

Introduction

I, Obadia Kipkurui Yator is a post graduate student pursuing a Doctoral of philosophy degree in clinical psychology at the school of Medicine, Department of Psychiatry, University of Nairobi. As part of the requirement for completion of the course, am required to carry out a study. I would like to seek your consent to participate in this study titled “**Primary health care-based Group Interpersonal Therapy (IPT-G), for depressed postpartum adolescents living with HIV, in Nairobi. An implementation science study.**”

Aim

The purpose of the study is to assess whether IPT-G administered by primary health care workers will alter the depressive symptoms and other mental health outcomes among adolescents living with HIV after child delivery.

Procedures

The procedure will involve following two groups of adolescents living with HIV after delivery and administer IPT-G intervention for 8 sessions at different times (Intervention group initiated at 12 weeks and control group at week 20 post-delivery) and later compare whether there are benefits of this treatment when administered by primary health care workers in a low resource setting. Benefits of IPT-G management will be assessed by comparing the changes in depressive symptoms before and after intervention. The essence of time of initiating intervention will be considered.

Benefits

All participants will be trained on livelihood skills and self-help activities by contracting certified relevant professionals to train. Those participants found to have severe depression anxiety, HIV related stigma, suicidal ideations and poor child developmental profile will be administered psychological support and if need be referred to Kenyatta National Hospital for specialized mental health care.

There will be no monetary or financial rewards to be given. However, indirect benefits could be to inform policy makers in Kenya on the benefits of primary care health workers implementing IPT-G for adolescents living with HIV after child delivery in low resource settings.

Risks

There is no procedure that requires getting inside your body physically in the entire study such as injection or drawing of blood except that you may experience an emotional pain on asking questions that raises your emotions. In case of psychological risk like overwhelming emotional reactions, I will be there to listen and give you the necessary support and thereafter if need be refer for further psychosocial support.

Confidentiality/ Privacy

All information obtained from this study will remain confidential and your privacy will be maintained. Identification will be by number only; no names will be used in this study or in its future publications.

Rights to Refuse or Withdraw

Your participation in the study is entirely voluntary and you may withdraw from the study at any time. Refusal to participate will not lead to any penalty or withdrawal of benefit to which you are otherwise entitled.

Persons to contact

In case you are in need of any clarification or complaints during the study, kindly call Obadia Yator on cell phone number 0722234414, P.O. Box 799-00517 Nairobi or my lead supervisors Dr. Manasi Kumar on cell phone number 0717379687 at the department of Psychiatry, University of Nairobi and Prof Grace John-Stewart on phone Number: 206-543-4278 at University of Washington or email: gjohn@uw.edu. You may also forward any concerns to the Chairman, KNH /UON Ethics and Research Committee at Kenyatta National Hospital on telephone number 726300-9 or P.O. Box 20723, Nairobi.

Maelezo Kwa watakaoshiriki utafiti huu

Kwa Mshiriki,

Utangulizi

Mimi, Obadia Kipkurui Yator ni mwanafunzi kuhitimu kutafuta shahada ya juu kwa Saikolojia katika shule ya Tiba, Idara ya Psychiatry, Chuo Kikuu cha Nairobi. Kama sehemu ya mahitaji ya kukamilika kwa kozi, ni lazima kufanya utafiti. Ningependa kutafuta idhini yako kushiriki katika utafiti huu ulioitwa "**Matibabu ya msingi ya huduma ya afya (IPT-G) ya kupunguza ugonjwa wa unyogovu na matokeo mengine ya afya ya akili kati ya vijana wenye viruzi vya ukimwi baada ya kujifungua huko Nairobi**".

Lengo

Madhumuni ya utafiti ni kuchunguza kama IPT-G inavyosimamiwa na wafanyikazi wa huduma za afya ya msingi kupunguza ugonjwa wa unyogovu na matokeo mengine ya afya ya akili kati ya vijana wenye viruzi vya ukimwi baada ya kujipungua.

Taratibu

Utaratibu utahusisha kufuatia vikundi viwili vya vijana walioishi baada ya kuambukizwa na viruzi vya ukimwi na kusaidiwa kwa kutumia IPT-G kwa vikao 8 kwa nyakati tofauti (Kikundi cha kuingilia kilianzishwa kwa wiki 12 na kikundi cha kudhibiti katika wiki 20 baada ya kujifungua) na baadaye kulinganisha matokeo kwa tathmini ya kukubalika, uwezekano na uaminifu wa kuingilia kati wakati unasimamiwa na wafanyakazi wa huduma za afya ya msingi katika mazingira ya chini ya rasilimali. Ufadhili wa usimamizi wa IPT-G utahesabiwa kwa kulinganisha mabadiliko katika dalili za kuumia kabla na baada ya kuingilia kati. Kiini cha muda wa kuingilia kati utazingatiwa.

Faida

Washiriki wote watafundishwa ujuzi wa maisha na shughuli za kujisaidia. Washiriki waliona na ugonjwa wa unyogovu kiasi mkubwa baada ya kujifungua, wasiwasi, unyanyapaa unaohusiana na

viruzi vya ukimwi, mawazo ya kujiua na matatizo la watoto ya wamama hao kukua vizuri watumwa kwa msaada wa kisaikolojia na ikiwa kunahitajika kwa hospitali ya taifa ya Kenyatta kwa ajili ya huduma maalum za afya ya akili.

Hakutakuwa na tuzo za kifedha. Hata hivyo, faida za moja kwa moja zinaweza kuwa kuwajulisha watunga sera nchini Kenya juu ya manufaa ya wafanyakazi wa afya ya msingi kutekeleza IPT-G kwa vijana baada ya kujifungua wanaoishi na viruzi vya ukimwi katika mazingira ya chini ya rasilimali.

Hatari

Hakuna utaratibu vami katika somo lote kama vile sindano au utoaji wa damu ila kwamba unaweza pata maumivu ya kihisia juu ya kuuliza maswali ya kibinafsi. Katika kesi ya hatari ya kisaikolojia kama balaa athari hisia, nitakuwa pale kwa kusikiliza na kutoa msaada muhimu na baada ya hapo kukuongoza kwa huduma yasaikolojia/usahuri katika hospitali ya Kenyatta.

Kuweka Siri/Faragha

Taarifa zote zilizopatikana kutoka utafiti huu kubaki siri na faragha yako itakuwa kuzingatiwa. Kitambulisho itakuwa na idadi tu ; hakuna majina zitatumika katika utafiti huu au katika machapisho yake ya baadaye.

Haki Ya Kukataa Au Kujitoa

Ushiriki wako katika utafiti ni kwa hiari kabisa na unaweza kujiondoa kutoka utafiti wakati wowote. Kukataa kushiriki si kusababisha adhabu yoyote au uondoaji wa faida ambayo ni haki yako kama wamama wengine.

Jinzi ya Kuwasiliana

Hukitaka kuongea kuhuzu ufafanuzi au malalamiko wakati wa utafiti , tafadhali nipigie Obadia Yator kwenye simu ya mkononi namba 0722234414 na barua ya la posta 799-00,517 Nairobi au wasimamizi wangu Daktari Manasi Kumar kwenye simu ya mkononi namba 0717379687 anayefunza katika idara ya Psychiatry Chuo Kikuu cha Nairobi na na Prof Grace John-Stewart kwa nambari ya simu: 206-543-4278 katika Chuo Kikuu cha Washington au barua pepe: gjohn@uw.edu. Unaweza pia kutoa hoja yoyote au pigia kwa Mwenyekiti, KNH / UON ERC Maadili na Kamati ya Utafiti katika Hospitali kuu ya taifa ya Kenyatta kupitia namba ya simu 726300-9 au a barua ya posta 20723 , Nairobi.

Appendix II: Study eligibility checklist (Mark your appropriate response)
 Study ID.....Date.....

The researcher will conduct some screening for patients attending PMTCT clinic by asking questions to help respond to inclusion and exclusion criteria appropriately. The responses will inform if the patient qualifies to participate in the study. Thereafter, EPDS will be administered by the researcher and any participants scoring above the cut-off point of a score >10 will be considered for the study upon signing an informed consent or being assented to by the parent or the guardian.

Inclusion criteria (If any inclusion criteria is marked “NO”, the patient is not eligible for enrolment).

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	1. Postpartum adolescent living with HIV aged 15-24 years old
<input type="checkbox"/>	<input type="checkbox"/>	2. Post-partum adolescents living with HIV who are 6-12 weeks post delivery
<input type="checkbox"/>	<input type="checkbox"/>	3. Available to attends sessions continuously for 8 weeks
<input type="checkbox"/>	<input type="checkbox"/>	4. Post-partum adolescents is of sound mind, understands the study and ready to signed informed consent
<input type="checkbox"/>	<input type="checkbox"/>	5. Post-partum adolescent is competent in English or Kiswahili as a language of communication.

Exclusion criteria (If any exclusion criteria is marked “YES”, the patient is not eligible for enrolment).

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	1. Those with cognitive impairment and making them unable to sign informed consent.
<input type="checkbox"/>	<input type="checkbox"/>	2. Total EPDS score less than 10
<input type="checkbox"/>	<input type="checkbox"/>	3. Post-partum adolescent with severe suicidal ideation

4. Post-partum adolescent with current drug and alcohol dependence requiring substance use treatment.

Is the patient eligible for the study? Yes

No

Those who will present with severe depression and suicidal ideations will be referred for psychiatric review at Kenyatta National hospital.

Orodha ya uhakiki wa kujihusisha (andika kwa majibu yako sahihi)

Nambari la Siri.....Tarehe.....Jina la mtafiti.....

Mtafiti atafanya uchunguzi fulani kwa wagonjwa wanaohudhuria kliniki ya PMTCT kwa kuuliza maswali kusaidia kuitikia vigezo vya kuingizwa na kutengwa kuhusishwa kwa utafiti. Majibu yatajulisha ikiwa mgonjwa huyo atachaguliwa kushiriki katika utafiti huo. Baadaye, EPDS itatumika kutathmini

na mtafiti kama mgonjwa atashiriki akiwa na alama juu ya 10 .Kisha atatakiwa kupeana saina kwa ajili ya utafiti juu kuidhinishwa na mzazi au mlezi.

Vigezo vya kujihusisha(Ikiwa vigezo vingi vya kujihushisa vinawekwa "LA", mgonjwa hastahili kuandikishwa)

Ndio

La

1. Mischana baada ya kujifungua anaishi na viruzi vya ukimwi wenye umri wa miaka 15-24

2. Baada ya mscichana kujifungua wanaoishi na viruzi vya ukimwi ambao ni wiki 8-12

3. Unapatikana kuhudhuria vikao kwa kuendelea kwa vibanda 8

4. Msichana niwa akili nzuri, anaelewa utafiti huu na tayari tayari kujiunga nayo

5. Msichana anafahamu Kiingereza au Kiswahili kama lugha ya mawasiliano.

Vigezo vya kutengwa (Ikiwa vigezo vyovyote vya kutengwa vimewekwa "NDIO", mgonjwa hastahili kuandikishwa)

Ndio

La

1. Wale wenye uharibifu mkubwa wa akili na kuwafanya hawawezi kusaini kibali cha habari.

2. Jumla ya alama ya EPDS chini ya 10

3. Msichana wenye tamaa kali ya kujiua

4. Msichana mwenye utegemezi wa madawa ya kulevya na pombe ambao wanahitaji matibabu ya matumizi ya dawa.

Je, mgonjwa anastahili kujifunza?

Ndio

La

Wale ambao watapatikana na unyogovu mkubwa na mapendekezo ya kujiua watatumwa kwa matibabu maalum wa akili katika hospitali ya taifa ya Kenyatta.

Appendix III: Consent form for participants
Study ID.....Date.....

I have fully understood the pupose of this study and now volunteer to participate in it. The researcher Obadia K Yator have explained the processes involved and now I am satisfied about it.

I understand that all the information obtained will be used for this study only and that I can withdraw my consent at any time without losing any benefits which I am entitled. I have had a chance to ask questions, if I have questions later about the study I can ask the researcher.

Study participant's signature/thumbprint.....Date.....

I Obadia Yator (researcher) confirm that I have explained the nature and effect of the study.
Signature..... Date.....

Fomu ridhaa

Nambari la Siri.....Tarehe.....

Mimi nimeelewa maana ya utafiti huu na nakubali kujiidhinisha kwa hiari yangu. Mtafiti Obadi k Yator amenielezea kikamilifu yoteyaliyomo na sasa nimetosheka kabisa.

Nimeelewa yote yaliyomo na kwamba maswala yote nitakayopeana yatatumika kwa utafiti huu pekee na kwamba naweza kujiuzulu wakati wowote bila ya kukosa fiada zozote nitakazopata kutokana na kushiriki kwangu kwa utafiti huu. Nimeuliza maswali, na nikiwa na maswali mengine baadaye nitauliza mtafiti baadaye.

Jina..... Nambari.....

Sahihi ya Mshriki..... Tarehe.....

Mimi Obadia Yator (mtafiti) huthibitisha kwamba nimeelezea asili na athari za utafiti.

SahihiTarehe.....

Appendix IV: Assent form for Parent/Guardian
Study IDDate

I have fully understood the purpose of this study and now agree this adolescent whom I provide for all her needs to participate in this study.

The researcher Obadia K Yator have explained the processes involved and now I am satisfied about it.

I understand that all the information obtained will be used for this study only and that I can withdraw my assent at any time without her losing any benefits which she is entitled. I have had a chance to ask questions and if I have questions later about the study I can ask the researcher.

Parent/Guardian's signature/thumbprint..... Date.....

I Obadia Yator (researcher) confirm that I have explained the nature and effect of the study.

Signature..... Date.....

Fomu ya kukubali kwa Mzazi / Mlezi

Nambari la Siri.....Tarehe.....

Nimeelewa kikamilifu madhumuni ya utafiti huu na sasa kukubaliana na kijana huyu ambaye ninatoa mahitaji yake yote kushiriki katika utafiti huu.

Mtafiti Obadia K Yator ameelezea mchakato unaosababishwa na sasa nina kuridhika juu yake.

Ninaelewa kwamba habari zote zitakazopatikana zitatumika kwa ajili ya utafiti huu tu na kwamba ninaweza kuondoa idhini yangu wakati wowote bila ya kupoteza faida yoyote ambayo yeye ana haki. Nimekuwa na nafasi ya kuuliza maswali na ikiwa nina maswali baadaye juu ya utafiti ninauwezo kumuuliza mtafiti.

Saini au Kidole ya Mzazi / Mlinzi Tarehe

Mimi Obadia Yator (mtafiti) uthibitisha kwamba nimeelezea asili na athari za utafiti.

Saini Tarehe

Appendix V: Consent form for Health Care workers
Study IDDate

I have fully understood the purpose of this study and now volunteer to participate in the administration of Group Interpersonal Therapy (IPT-G) as an intervention for depression among adolescents living with HIV after child delivery. The researcher Obadia K Yator have explained the protocols involved and I have been trained on tasks, steps and techniques to be followed .I am now competent to administer it.

Health care worker's
signature/thumbprint.....Date.....

I Obadia Yator (researcher) confirm that I have explained and trained the health care worker on protocols of Group Interpersonal Therapy (IPT-G)

Signature..... Date.....

Fomu ya kibali kwa wafanyakazi wa afya

Nambari La Siri..... Tarehe

Nimeelewa kikamilifu madhumuni ya utafiti huu na sasa najitolea kushiriki katika Tiba ya maelezo kwa Vikundi (IPT-G) kama kutibu unyogovu kati ya vijana wanaoishi na viruzi vya Ukimwi baada ya kujifungua mtoto. Mtafiti Obadia K Yator ameelezea mwenendo zinazohusika na nimepewa mafunzo juu ya kazi huu, hatua na mbinu za kufuatiwa sasa nina uwezo wa kuitekeleza.

Sahihi au Kidole ya mfanyakazi wa huduma ya afya Tarehe

Mimi Obadia Yator (mtafiti) uthibitisha kwamba nimewaelezea na kuwafundisha mfanyakazi wa huduma za afya kwenye mwenendo Tiba ya maelezo kwa Vikundi(IPT-G)

Saini Tarehe

Appendix VI: Consent form for Health centre Management team
Study IDDate

I have fully understood the purpose of this study and now volunteer to support it by availing the necessary health care workers and providing conducive environment with any other resources required within our facility during the study period.

Manager's signature/thumbprint.....Date.....

I Obadia Yator (researcher) confirm that I have explained the nature and requirements of the study.

Signature..... Date.....

Fomu ya kibali kwa timu ya Usimamizi wa Kituo cha Afya

Nambari La Siri.....Tarehe

Nimeelewa kikamilifu madhumuni ya utafiti huu na sasa najitolea kuunga mkono kwa kuwapa wafanyikazi wa huduma za afya muhimu na kutoa mazingira mazuri na rasilimali nyingine zinazohitajika ndani ya kituo hiki wakati wa utafiti.

Saini ya Meneja au Kidole Tarehe

Mimi Obadia Yator (mtafiti) uthibitisha kwamba nimeelezea asili na mahitaji ya utafiti huu.

Saini Tarehe

Appendix VII: Socio-demographic and Clinical Questionnaire
Study IDDate

Instructions of Use

Kindly select one of the response by putting a tick on the box provided. You are expected to choose an option that closely applies to your current status and life experiences in your daily activities of living.

Personal Information

1. Age

15-17 years

18-20 years

21-24 years

2. Gender

Female

3. Residence

Kangemi

Kariobangi

Other (specify).....

4. Religion

Christian

Islam

Other (specify).....

5. Marital Status

Single

Married

Divorced

Separated

Cohabiting

Others (specify).....

6. Education Level

No formal education

Primary

Secondary

College

University

Others (specify).....

7. Occupation

Employed (specify)

Self employed

Unemployed

Others (specify)

8. Social economic status

Amount of income per month (Kenya shillings)

0-10000

10000-20000

20000-30000

30000-40000

40000-50000

Above 50000

Possessions (specify)

9. Number of children.....

Adolescent pregnancy

10. At what age did you engage in your first sexual intimacy with a male friend?

_____ Years

11. Have you ever used a contraceptive (pregnancy preventive method) at any one time before your first pregnancy?

Yes

No

12. At what age did you get your first pregnancy?

_____ Years

13. Indicate what could have influenced you to having your first sexual intercourse?

Peer pressure

Need for money

Lack of school fees

Need for food

Partying/fun

14. Approximate the age range of the male friend who made you pregnant?

15-24 years

25-34 years

35-44 years

Above 45 years

15. What could be your preferred option in your current state of life?

Go back to school/College

Remain married

Seek for marriage

Start income generating activity

Confused and stuck

HIV Knowledge

16. Do you think a healthy-looking person can be infected with HIV, the disease that causes AIDS?

Yes

No

17. Can the HIV virus be transmitted from mother to child during delivery?

Yes

No

18. Have you been treated for any Sexual transmitted Infection (STI) in the last one month?

Yes

No

Reactions to HIV Status

19. When were you diagnosed HIV positive?

Before pregnancy

At antenatal clinic

During delivery

After delivery

Others (specify)

20. How did you immediately take the results of your status in (19) above?

Accepted
Not Accepted

PMTCT Adherence

21. Are you able to keep all your PMTCT appointments?

Yes
No

22. If ' No' in the above 21, explain the reason?.....

23. Current Viral load of the participant _____IU/mL

Infant Profile

24. Where did you deliver your child?

Hospital
Home
Others (specify).....

25. What was the mode of delivery?

Normal delivery
Caesarean section

26. Did your child cry immediately on delivery?

Yes
No

27. Kindly, do you know the HIV status of your child?

Positive
Negative
Not sure

28. Current weight of the child _____grams

29. Does your child experience frequent illness (Sicknesses)?

Yes
No

30. Have your child received all appropriate immunization as per KEPI?

Yes

No

31. Have your child grown/developed as expected in normal developmental profile?

Yes

No

Mode of Feeding

32. How do you feed your child at the moment?

Exclusive Breast Feeding

Formula Feeding

Mixed Feeding

Social support

33. How often does your male partner accompany you to the PMTCT clinic?

Never

Rarely

Quite often

Always

34. Kindly share how you can rate social support from your family?

Very good

Good

Not so good

Not good at all.

35. Kindly share how you can rate social support from your friends?

Very good

Good

Not so good

Not good at all.

36. Kindly share how you can rate social support from your Significant others (Uncles, Aunties, cousins, Nephew, Nieces)?

Very good

Good

Not so good
Not good at all.

37. Whom do you reside with at the moment?

Male partner
Parents (Biological)
Parents (In-law)
Alone

Others specify.....

Gender Based Violence

38. Has your male partner abused you in your relationship since delivery of this child?

Physically (beating)
Emotionally (hostile)
Verbal abuse
None (Supportive)

39. Does your male partner engage in extramarital sexual affairs currently?

Yes
No
Not Sure
Not applicable

Substance use/Abuse

40. Did you ever drink alcohol (beer, wine, home-brewed beer or spirits) in the past month?'

Yes
No

41. List any other substance you are using such as cigarette smoking if any?

.....

PMTCT Experiences

42. How do you rate your experience on first joining the PMTCT Clinic?

Good

Bad

43. How do you rate your experience now after being in the PMTCT Clinic for a while?

Good

Bad

Any additional comment you could wish to make?.....

MASWALI YA KIBINAFSI NA AFYA

Maelezo ya kibinafsi

Nambari ya siriTarehe.....

Maelekezo ya Matumizi

Chagua chaguo moja kwa kuweka alama kwenye sanduku inayotolewa. Utarajiwa kuchagua chaguo ambalo linahusu hali yako ya sasa na uzoefu wa maisha katika mnyenendo yako ya kila siku ya maisha.

1. Umri

Miaka 15-17

Miaka 18-20

Miaka 21-24

2. Jinsia

Kike

3. Makazi

Kangemi

Kariobangi

Nyingine (taja)

4. Dini

Mkristo

Uislamu

Nyingine (taja).....

5. Hali ya ndoa

Sijaoa

Kwa ndoa

Talaka

Kujitenga

Kukaa tu pamoja

Nyingine (taja).....

6. Ngazi ya elimu

Hakuna elimu rasmi

Msingi

Sekondari

Chuo

Chuo Kikuu

Nyingine (taja).....

7. Haina ya Kazi

Nimeajiriwa (taja)

Kazi binafsi

Sijaajiriwa kazi

Nyingine (taja)

8. Hali ya kiuchumi ya kijamii

Kiasi cha mapato kwa mwezi (Shilingi ya Kenya)

0-10000

10000-20000

20000-30000

30000-40000

40000-50000

Above 50000

Utajiri Zinginezo (taja)

9. Idadi ya watoto.....

Mimba ya vijana

10. Je, ulikuwa na umri gani katika uhusiano wako wa kwanza wa ngono na rafiki wa kiume?

Miaka _____

11. Je! Umewahi kutumia njia za kuzuia mimba wakati wowote kabla ya ujauzito wako wa kwanza?

Ndiyo

Hapana

12. Ulipata mimba ya kwanza kwa umri gani? Miaka _____

13. Eleza nini kinachoweza kukuchochea kufanya ngono yako ya kwanza ya ngono?

Shinikizo la rika

Haja ya fedha

Ukosefu wa ada za shule

Haja ya chakula

Kushiriki pamoja / kujifurahisha

14. Kiwango cha umri wa rafiki wa kiume aliyekufanya mjamzito?

Miaka 15-24

Miaka 25-34

Miaka 35-44

Zaidi ya miaka 45

15. Je! Inaweza kuwa chaguo lako la kupendelea katika hali yako ya sasa ya maisha?

Rudi kwenye shule / chuo

Endelea kuolewa

Kutafuta ndoa

Anza shughuli za kuzalisha mapato

Kuchanganyikiwa na kukwama

Maarifa ya HIV

16. Je! Unafikiri mtu anayeonekana mwenye afya anaweza kuambukizwa HIV, ugonjwa unaosababisha UKIMWI?

Ndiyo

Hapana

17. Je, virusi vya HIV inaweza kuambukizwa kutoka mama hadi mtoto wakati wa kujifungua?

Ndiyo

Hapana

18. Je, umetibiwa Kwa ugonjwa wowote wa ngono mwezi mmoja uliopita?

Ndiyo

Hapana

Maoni Kwa hali ya HIV

19. Uligunduliwa kuwa na HIV wakati gani?

Kabla ya ujauzito

Katika kliniki ya ujauzito

Wakati wa kujifungua

Baada ya kujifungua

Nyingine (taja)

20. Je, ulipataje matokeo ya hali yako katika (19) hapo juu?

Nilikubali
Sikukubali

Utekelezaji wa PMTCT

21. Je! Una uwezo wa kuenda kliniki wako wote wa PMTCT?

Ndiyo

Hapana

22. Ikiwa 'Hapana' katika hapo juu 21, elezea sababu?.....

23. Kiwango cha virusi wa sasa kwa mshiriki _____ IU / mL

Profaili ya Mtoto

24. Ulizaa wapi mtoto wako?

Hospitali

Nyumbani

Mahali Nyingine (taja).....

25. Ni njia gani ya kuzaa?

Uzazi wa kawaida

Kuzaidiwa kuzaa kwa kukatwa

26. Je, mtoto wako alilia mara moja kwa haraka wakati wa kujifungua?

Ndiyo

Hapana

27. Kwa heshima, unajua hali ya HIV ya mtoto wako?

Hako na virusi

Hana virusi

Sijui

28. Uzito wa motto kwa sasa _____ gramu

29. Je! Mtoto wako hupata ugonjwa wa mara kwa mara (magonjwa)?

Ndiyo

Hapana

30. Je, mtoto wako amepata chanjo zote zinazofaa kwa KEPI?

Ndiyo

Hapana

31. Je! Mtoto wako amekua kama inavyotarajiwa katika maelezo ya kawaida?

Ndiyo

Hapana

Jinzi ya Kulisha

32. Je, unalisha mtoto wako kiviipi kwa wakati huu?

kunyonyesha pekee

Maziwa ya kununua kwa mkepe

Kulisha Mchanganyiko

Usaidizi wa kijamii

33. Ni mara ngapi mwenzi wako wa kiume akikupeleka kwenye kliniki ya PMTCT?

Hakuna

Mara kwa mara

Mara nyingi

Kila mara

34. Elezea jinsi gani unaweza kupima usaidizi wa kijamii kutoka kwa familia yako?

Vizuri sana

Nzuri

Sio nzuri sana

Sio nzuri kabisa.

35. Elezea jinsi gani unaweza kupima usaidizi wa marafiki yako?

Vizuri sana

Nzuri

Sio nzuri sana

Sio nzuri kabisa

36. Elezea jinsi unavyoweza kupima usaidizi wa kijamii kutoka kwa wengine wako muhimu (wajomba, wajukuu, binamu, Ndugu, watoto wa nduguye)?

Vizuri sana

Nzuri

Sio nzuri sana

Sio nzuri kabisa

37. Unakaa nani kwa sasa?

- Rafiki wa kiume
- Wazazi walionizaa
- Wazazi (mkwe)
- Pekee
- Wengine(taja).....

Ukatili wa kijinsia

38. Has your male partner abused you in your relationship since delivery of this child? Je! Mwenzi wako wa kiume amekufanyia vibaya katika uhusiano wako tangu kuzaliwa kwa mtoto huyu?

- Kimwili (kumpiga)
- Kihisia (chuki)
- Matumizi ya maneno mabaya
- Hakuna (Uniunga mkono)

39. Je! Mpenzi wako wa kiume anajihusisha na masuala ya ngono ya kimapenzi kando ya ndoa?

- Ndiyo
- Hapana
- Sijui
- Hapikusiki kwangu

Matumizi ya pombe, sigara au dawa ya kulevya

40. Je! Umewahi kunywa pombe (bia, divai, bia ya nyumbani) mwezi uliopita? '

- Ndiyo
- Hapana

41. Andika orodha ya viitu vyovyote ambavyo unatumia kama sigara au vinginevyo?

.....

Uzoefu wa PMTCT

42. Je, maoni yako kliniki ya PMTCT wakati wa kwanza ulivyojiunga nayo?

- Nzuri
- Sio nzuri

43. Je, maoni yako kliniki ya PMTCT wakati wa sasa baada ya kuhudumiwa kwa muda? _____

Maoni yoyote ya ziada ambayo ungependa hifanywe?.....

Appendix VIII: Edinburgh Postnatal Depression Scale (EPDS)

Study ID: _____ Date: _____

Baby's Date of Birth: _____

Instructions of Use

The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for “perinatal” depression. The total score of **10** and above depicts

depression, where item **10** is important to assess suicidal ideation more so any response of more than **1**, thus necessitating immediate hospitalization. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

SCORING

QUESTIONS 1, 2, & 4 (without an *)

Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5-10(marked with an *)

Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

Maximum score: 30

Possible Depression: 10 or greater

Always look at item 10 (suicidal thoughts)

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today. Here is an example, already completed.

I have felt happy:

- Yes, all the time
- Yes, most of the time
- No, not very often
- No, not at all

This would mean: "I have felt happy most of the time" during the past week.

Please complete the other questions in the same way.

In the past 7 days:

1. I have been able to laugh and see the funny side of things

- As much as I always could
- Not quite so much now to cope at all
- Definitely not so much now
- Not at all

2. I have looked forward with enjoyment to things

- As much as I ever did
- Rather less than I used to
- Definitely less than I used to
- Hardly at all

*3. I have blamed myself unnecessarily when things went wrong

- Yes, most of the time
- Yes, some of the time
- Not very often
- No, never

4. I have been anxious or worried for no good reason

- No, not at all
- Hardly ever
- Yes, sometimes
- Yes, very often

*5 I have felt scared or panicky for no very good reason

- Yes, quite a lot
- Yes, sometimes
- No, not much
- No, not at all

*6. Things have been getting on top of me

- Yes, most of the time I haven't been able to cope at all
- Yes, sometimes I haven't been coping as usual
- No, most of the time I have coped quite well
- No, I have been coping as well as ever

*7 I have been so unhappy that I have had difficulty sleeping

- Yes, most of the time
- Yes, sometimes
- Not very often
- No, not at all

*8 I have felt sad or miserable

- Yes, most of the time
- Yes, quite often
- Not very often
- No, not at all

*9 I have been so unhappy that I have been crying

- Yes, most of the time
- Yes, quite often
- Only occasionally
- No, never

*10 The thought of harming myself has occurred to me

- Yes, quite often
- Sometimes
- Hardly ever
- Never

Administered/Reviewed by _____ Date _____

**MIZANI YA EDINBURGH KUHUSU KIPIMO CHA UGONJWA WA UNYOGO VU
(EPDS) UNAOWAATHIRI AKINA MAMA BAADA YA KUJIFUNGUA**

Nambari la siri.....Tarehe.....

Tarehe ya kuzaliwa ya mtoto.....

Maelekezo ya Matumizi

Mizani ya Edinburgh kuhusu kipimo cha ugonjwa wa kisaikolojia unaowaathiri akina mama baada ya kujifungua (EPDS)

EPDS ina maswali 10 ambayo mara nyingi yanaweza kukamilishwa katika muda wa chini ya dakika tano. Uchunguzi huu umetumia misingi tofauti ya kuweka alama kugundua ni mwanamke yupi ni mwasiriwa na angehitaji kupelekwa hospitalini. Mwanamke anayepata alama 10 au zaidi au anaonyesha ishara yoyote ya kutaka kujiua – hii ni, amepata alama 1 au zaidi katika swali la #10 – anapaswa kupelekwa mara moja hospitalini kwa uchunguzi.

Alama za EPDS zisipuzilie mbali maamuzi ya kliniki. Uchunguzi wa kina wa kliniki unapaswa kufanywa kuthibitisha ugonjwa. Mizani hii inaonyesha jinsi mama amehisi katika wiki iliyopita. Katika kesi ambapo kuna shauku ni vyema kufanya marudio ya zoezi hili baada ya kipindi cha wiki mbili. Mizani haitawatambua akina mama walio na woga wa kiakili, hofu au kuchanganyikiwa kimaadili.

ALAMA

Maswali ya 1, 2, na 4 (bila *) yana alama 0, 1, 2, au 3, huku sanduku la juu likipewa alama 0 na sanduku la chini likipewa alama 3.

Maswali 3 na 5-10 (imewekwa *) ni alama zilizogeuzwa, huku sanduku la juu likipewa alama 3 na sanduku la chini likipewa alama 0.

Alama ya juu zaidi ni : 30

Uwezekano wa ugonjwa wa kisikolojia: alama 10 au zaidi

Kila mara tazama swali #10, ambalo linaonyesha mawazo kuhusu kutaka kujiua.

MAAGIZO

1. Mama anaulizwa kupigia mstari jibu moja tu kati ya majibu manne aliyopewa, jiibu lililokaribia zaidi kuhusu jinsi amekuwa akiishi kwa kipindi cha siku saba zilizopita.
2. Maswali yote 10 lazima yajibiwe.
3. Lazima kuwe na uangalifu kuzuia uwezekano wa mama kujadili majibu yake na wengine.

4. Mama lazima ajibu maswali haya mwenyewe, atasaidiwa tu iwapo hawezi kusoma au ana ufahamu mdogo wa lugha hii.

FOMU YA MIZANI YA EDINBURGH (EPDS)

Ulivyo mja mzito au hivi karibuni ulijifungua mtoto, tungependa kujua jinsi unavyojisikia(hisi) . Tafadhali tia alama katika jibu ambalo linakaribia kabisa kueleza jinsi umejisikia katika kipindi cha **SIKU SABA ZILIZOPITA**. Sio tu unavyojisikia leo.

Huu ni mfano, tayari umekamilishwa.

Nimesikia(hisi) nina furaha:

Ndio kila wakati

Ndio, mara nyingi

La, sio kila mara

La, sijawahi kamwe

Hili litamaanisha: “Nimesikia(hisi) furaha mara nyingi” katika kipindi cha wiki moja iliyopita.

Tafadhali jaza maswali haya mengine kwa njia hii hii.

Kwa kipindi cha siku saba zilizopita:

1. Nimeweza kucheka na kuona jambo la kuchekesha katika mambo

Ndio, kama kawaida

Sio, kama hapo mbeleni (awali)

Kwa hakika, sio kama hapo mbeleni

La, hasha

2. Nimetarajia mambo kwa furaha

Kama tu hapo mbeleni

Imepunguka kidogo

Imepunguka kabisa

Mara chache sana

3. Nimejilaumu bila sababu wakati mambo yalipoenda vibaya

Ndio, mara nyingi

Ndio, mara kadhaa

Sio, kawaida

La, sijawahi

4. Nimekuwa na wasiwasi bila sababu nzuri

La, sijawahi

Sio, kwa kawaida

Ndio, mara kwa mara

Ndio, mara nyingi

5. Nimeshikwa na woga au hofu bila sababu njema

Ndio, mara nyingi

Ndio, mara kwa mara

La, si sana

La, sijawahi

6. Mambo yamekuwa yakinilemea

Ndio, mara nyingi nimeshindwa kukabiliana nayo

Ndio, mara kwa mara sijaweza kukabiliana nayo

La, mara nyingi, nimeweza kukabiliana vyema

La, mara nyingi, nimeweza kukabiliana vyema kama hapo mbeleni/awali

7. Nimekuwa na huzuni sana hadi nimekuwa na ugumu kupata usingizi

Ndio, mara nyingi

Ndio, mara kwa mara

Sio kila wakati

La, hapana

8. Nimesikia huzuni sana na kutokua na furaha

Ndio, mara nyingi

Ndio, mara kwa mara

Sio, kila wakati

La, hapana

9. Sijakuwa na furaha kabisa hadi nimetokwa na machozi

Ndio, mara nyingi

Ndio, mara kwa mara

mara moja moja

La, sijawahi

10. Nimekuwa na mawazo ya kujitendea mabaya

Ndio, mara nyingi

Ndio, mara kwa mara

Sio, kwa kawaida

Imechunguzwa na _____ Tarehe _____

*Chanzo: Cox JL, Holden JM, Sagovsky R. Utambulizi wa ugonjwa wa mawazo baada ya mama kujifungua: uundaji wa maswali 10 ya Mizani ya Edinburgh. Br J Psychiatry 1987;150: 782-786.

Appendix IX: HIV/AIDS Stigma Instrument – PLWHA (HASI – P)

Study ID: _____ Date: _____

Instructions of Use

I'm going to read a list of events that may have happened to you during the past three months. After I read each item, please tell me how often it happened to you because of your HIV status. Rate your experience on a scale of 0 – 3.

In the past 3 months, how often did the following events happen because of your HIV status?

Scores		0	1	2	3
		Never	Once or twice	Several times	Mostly
1	I was told to use my own eating utensils.	0	1	2	3
2	I was asked not to touch someone's child.	0	1	2	3
3	I was made to drink last from the cup.	0	1	2	3
4	Someone mocked me when I passed by.	0	1	2	3
5	I stopped eating with other people.	0	1	2	3
6	I was asked to leave because I was coughing.	0	1	2	3
7	Someone stopped being my friend.	0	1	2	3
8	A friend would not chat with me	0	1	2	3
9	I was called bad names.	0	1	2	3
10	People sang offensive songs when I passed by.	0	1	2	3
11	I was told that I have no future.	0	1	2	3
12	Someone scolded me.	0	1	2	3
13	I was told that God is punishing me.	0	1	2	3
14	I was made to eat alone.	0	1	2	3
15	Someone insulted me.	0	1	2	3
16	People avoided me.	0	1	2	3

17	People cut down visiting me.	0	1	2	3
<p><u>The next set of questions is about your experiences in the hospital or clinic.</u></p> <p>In the past 3 months, how often did the following events happen because of your HIV status?</p>					
Scores		Never	Once or twice	Severally	Mostly
18	People ended their relationships with me	0	1	2	3
19	I was blamed for my HIV status.	0	1	2	3
20	Someone tried to get me fired from my job.	0	1	2	3
21	My employer denied me opportunities.	0	1	2	3
22	I was denied health care.	0	1	2	3
23	I was refused treatment because I was told I was.	0	1	2	3
24	I was discharged from the hospital while still needing care.	0	1	2	3
25	I was shuttled around instead of being helped by a nurse	0	1	2	3
26	At the hospital/clinic, I was made to wait until last	0	1	2	3
27	At the hospital, I was left in a soiled bed.	0	1	2	3
28	In the hospital or clinic, my pain was ignored.	0	1	2	3
<p><u>These questions are about some of your thoughts or feelings.</u></p> <p>How often have you thought or felt this way during the past 3 months because of your HIV status?</p>					
29	I felt that I did not deserve to live.	0	1	2	3
30	I felt ashamed of having this disease.	0	1	2	3
31	I felt completely worthless.	0	1	2	3
32	I felt that I brought a lot of trouble to my family.	0	1	2	3
33	I felt that I am no longer a person.	0	1	2	3

Source: W. L. Holzemer et al., 2007

**KIDODOSI CHA KUPIMA UNYANYAPAA WA UKIMWI BAINA YA WAADHIRIKA
WA UGONJWA WA UKIMWI (HASI – P)**

Nambari la Siri _____ Trarehe _____

Maelezo ya Matumizi

Nitakusomea maelezo ya matukio ambayo yamekuadhiri katika muda wa miezi mitatu iliyopita. Nikishasoma kila jambo, tafadhali nielezee tukio hilo lilitendeka mara ngapi kwa ajili ya hali yako ya ukimwi. Pimisha matukio yako kuanzia 0 – 3.

Katika miezi mitatu iliyopita, ni mara ngapi matukio haya yalitendeka kwa ajili ya hali yako ya ukimwi?

Majibu		0	1	2	3
		Hajjawahi fanyika	Mara moja au mbili	mara kadhaa	kawaida
1	Niliambiwa nitumie vyombo vyangu kwa maamkuli.	0	1	2	3
2	Niliambiwa nisiguse mtoto wa wenyewe.	0	1	2	3
3	Nilikuwa wa mwisho kukunywia kwa kikombe.	0	1	2	3
4	Mtu alinitania nilipompita.	0	1	2	3
5	Niliacha kukula na watu wengine.	0	1	2	3
6	Niliambiwa nitoke kwa ajili ya kukohoa.	0	1	2	3
7	Mtu aliwacha kuwa rafiki yangu.	0	1	2	3
8	Rafiki alikataa kuongea nami.	0	1	2	3
9	Nilitusiwa kwa majina mabaya.	0	1	2	3
10	Watu waliimba nyimbo za matusi nilipowapita.	0	1	2	3
11	Niliambiwa sina mazuri maishani yajayo.	0	1	2	3
12	Mtu alinisuta.	0	1	2	3

13	Niliambiwa Mola yuanikosoa.	0	1	2	3
14	Nililazimishwa nile pekee yangu.	0	1	2	3
15	Mtu alinitusi.	0	1	2	3
16	Watu walinikwepa	0	1	2	3
17	Watu walipunguza kunitembelea.	0	1	2	3
<u>Maswali yafuatayo yanahusu matukio yako katika hospital au kliniki.</u>					
Katika miezi mitatu iliyopita, ni mara ngapi matukio haya yalitendeka kwa ajili ya hali yako ya ukimwi?					
Scores		Never	Once or twice	Several ly	Mostly
18	Watu waliacha uhusiano wao nami.	0	1	2	3
19	Nilisingiziwa hali yangu ya ukimwi.	0	1	2	3
20	Mtu alijaribu kusababisha nifutwe kazi yangu.	0	1	2	3
21	Mwajiri wangu alinyima fursa.	0	1	2	3
22	Nilinyimwa huduma ya afya.	0	1	2	3
23	Nilinyimwa matibabu, nikambiwa nitafa mwishowe	0	1	2	3
24	Nilitolewa hospitali ilhali naihitaji matibabu.	0	1	2	3
25	Niligereshwa ovyo badala ya kusaidiwa na muuguzi	0	1	2	3
26	Hospitalini, nilikuwa wa mwisho kuhudumiwa.	0	1	2	3
27	Hospitalini, niliwachwa kwa kitanda chafu.	0	1	2	3

28	Hospitalini hawakuni hudumia maumivu yangu.	0	1	2	3
<u>Maswali yafuatayo yangusia mafikira na hisia zako.</u> Katika miezi mitatu iliyopita, ni mara ngapi umefikiria au kuhisi hivi kwa ajili ya hali yako ya ukimwi?					
29	Nilihisi siku stahili kuwa hai.	0	1	2	3
30	Nilihisi aibu kuuguwa ugonjwa huu.	0	1	2	3
31	Niliji hisi kukata tamaa maishani.	0	1	2	3
32	Nilihisi ya kwamba nimesumbua familia sana.	0	1	2	3
33	Nilihisi ya kwamba mie si binadamu kamilifu.	0	1	2	3

Chanzo: W. L. Holzemer et al., 2007

Appendix X: Clinical Outcomes in Routine Evaluation Outcome Measure

Study ID: _____ Date: _____

Age _____

Gender: Female

Sub codes: Therapist ID _____ numbers only (1) _____ numbers only (2) _____

Stage Completed:

S Screening

Stage

R Referral

A Assessment

F First Therapy Session

P Pre-therapy (unspecified)

D During Therapy

L Last therapy session

Episode

X Follow up 1

Y Follow up 2

Date form given: Date _____ Month _____ Year _____

IMPORTANT - PLEASE READ THIS FIRST

This form has 34 statements about how you have been OVER THE LAST WEEK.

Please read each statement and think how often you felt that way last week.

Then tick the box which is closest to this.

Please use a dark pen (not pencil) and tick clearly within the boxes.

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Over the last week		Not at all	Only Occasio nally	Some times	Often	Most or all the times	OFFICIAL USE ONLY
1.	I have felt terribly alone and isolated	0	1	2	3	4	F
2.	I have felt tense, anxious or nervous	0	1	2	3	4	P
3.	I have felt I have someone to turn to for support when needed	0	1	2	3	4	F
4.	I have felt O.K. about myself	0	1	2	3	4	W
5.	I have felt totally lacking in energy and enthusiasm	0	1	2	3	4	P
6.	I have been physically violent to others	0	1	2	3	4	R
7.	I have felt able to cope when things go wrong	0	1	2	3	4	F
8.	I have been troubled by aches, pains or other physical problems	0	1	2	3	4	P
9.	I have thought of hurting myself	0	1	2	3	4	R
10.	Talking to people has felt too much for me	0	1	2	3	4	F
11.	Tension and anxiety have prevented me doing important things	0	1	2	3	4	P
12.	I have been happy with the things I have done.	0	1	2	3	4	F
13.	I have been disturbed by unwanted thoughts and feelings	0	1	2	3	4	P
14.	I have felt like crying	0	1	2	3	4	W
15.	I have felt panic or terror	0	1	2	3	4	P
16.	I made plans to end my life	0	1	2	3	4	R
17.	I have felt overwhelmed by my problems	0	1	2	3	4	W
18.	I have had difficulty getting to sleep or staying asleep	0	1	2	3	4	P
19.	I have felt warmth or affection for someone	0	1	2	3	4	F

20.	My problems have been impossible to put to one side	0	1	2	3	4	P
21.	I have been able to do most things I needed to	0	1	2	3	4	F
22.	I have threatened or intimidated another person	0	1	2	3	4	R
23.	I have felt despairing or hopeless	0	1	2	3	4	P
24.	I have thought it would be better if I were dead	0	1	2	3	4	R
25.	I have felt criticized by other people	0	1	2	3	4	F
26.	I have thought I have no friends	0	1	2	3	4	F
27.	I have felt unhappy	0	1	2	3	4	P
28.	Unwanted images or memories have been distressing me	0	1	2	3	4	P
29.	I have been irritable when with other people	0	1	2	3	4	F
30.	I have thought I am to blame for my problems and difficulties	0	1	2	3	4	P
31.	I have felt optimistic about my future	0	1	2	3	4	W
32.	I have achieved the things I wanted to	0	1	2	3	4	F
33.	I have felt humiliated or shamed by other people	0	1	2	3	4	F
34.	I have hurt myself physically or taken dangerous risks with my health	0	1	2	3	4	R

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE.

	(W)	(P)	(F)	(R)	All items	All minus R
Total Scores						
	(W)	(P)	(F)	(R)	All items	All minus R
Mean Scores (Total score for each dimension divided by number of items completed in that dimension)						

Clinical Outcomes In Routine Evaluation Outcome Measure

Nambari la eneo _____

Nambari la mhusika: Herufi Pekee _____ Nambari pekee _____.

Age _____ insia: Kike

Nambari ndogo: Nambari la mshauri _____ Nambari pekee (1) _____ Nambari pekee (2) _____

Hatua Iliokamilishwa:

S Uchunguzi

Stage

R R Rufaa

A Tathmini

F Matibabu la kwanza

P Mpango kabla la tiba (Haijulikani)

D Katika tiba

L Tiba lamwisho

Sehemu

X Fuatilio la 1

Y Fuatilio la 2

Tarehe la Kutolewa kwa fomu: Tarehee _____ Mwezi _____ Mwaka _____

MUHIMU – TAFADHALI SOMO HILI KWNAZA

Fomu hii ina taarifa 34 kuhusu jinsi ulivyokuwa wiki iliyopita

Tafadhali soma kila maelezo na fikiria juu vile ulihisi tangu wiki moja iliyopita.

Kisha chaza kisanduku kilicho karibu zaidi na hii.

Tafadhali tumia kalamu nyeusi (si penseli) na uandike wazi ndani ya masanduku.

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Zaidi ya wiki iliyopita		Hapa na	Mara kwa mara	mara nyingine	Mara nyingi	Mara nyingi au wakati wote	UTUMISHAJI WA OFISI PEKEE
1	Nimejisikia sana peke yangu na pekee	0	1	2	3	4	F
2	Nimejisikia kuwa na wasiwasi	0	1	2	3	4	P
3	Nimesikia kuwa nina mtu wa kugeukia kwa msaada wakati inapohitajika	0	1	2	3	4	F
4	Nimesikia kuwa sawa. Kuhusu mimi mwenyewe	0	1	2	3	4	W
5	Nimesikia kabisa kukosa nguvu na shauku	0	1	2	3	4	P
6	Nimekuwa mtu wa vurugu kwa wengine	0	1	2	3	4	R
7	Nimehisi kuwa na uwezo wa kukabiliana na mambo yanapotokea vibaya	0	1	2	3	4	F
8	Nimekuwa na wasiwasi na maumivu au matatizo mengine ya kimwili	0	1	2	3	4	P
9	Nimefikiria kujiumiza mwenyewe	0	1	2	3	4	R
10	Kuzungumza na watu umejisikia kuwa na ugumu sana	0	1	2	3	4	F
11	Mvutano na wasiwasi vimezuia kufanya mambo muhimu	0	1	2	3	4	P
12	Nimefurahia mambo niliyoyatenda.	0	1	2	3	4	F
13	Nimesumbuliwa na mawazo na hisia zisizohitajika	0	1	2	3	4	P
14	Nimehisi kulia	0	1	2	3	4	W
15	Nimesikia hofu	0	1	2	3	4	P
16	Nilifanya mipango ya kumaliza maisha yangu	0	1	2	3	4	R
17	Nimesikia kuzidiwa na shida aumatatizo yangu	0	1	2	3	4	W
18	Nimekuwa vigumu kupata usingizi au kulala usingizi	0	1	2	3	4	P
19	Nimesikia joto au upendo kwa mtu	0	1	2	3	4	F
20	Matatizo yangu haijawezekana kuwekwa upande mmoja	0	1	2	3	4	P
21	Nimeweza kufanya mambo mengi	0	1	2	3	4	F

	niliyoyahitaji						
22	Nimesitisha mtu mwingine	0	1	2	3	4	R
23	Nimesikia kukata tamaa au kupoteza tumaini	0	1	2	3	4	P
24	Nimefikiri itakuwa bora ikiwa ningekufa	0	1	2	3	4	R
25	Nimesikia nikidhihakiwa na watu wengine	0	1	2	3	4	F
26	Nimefikiria kuwa sina marafiki	0	1	2	3	4	F
27	Nimesikia kutokuwa nafuraha	0	1	2	3	4	P
28	Picha au kumbukumbu zisizohitajika zimekuwa zinisumbua	0	1	2	3	4	P
29	Nimekuwa na hasira wakati niko watu wengine	0	1	2	3	4	F
30	Nimefikiria kuwa nina lawama kwa shida na matatizo yangu	0	1	2	3	4	P
31	Nimeona matumaini kuhusu maisha yangu ya baadaye	0	1	2	3	4	W
32	Nimefanya mambo niliyotaka	0	1	2	3	4	F
33	Nimesikia aibu na watu wengine	0	1	2	3	4	F
34	Nimejeruhi kimwili au kuchukua hatua hatari kwa afya yangu	0	1	2	3	4	R

ASANTE KWA WAKATI WAKO WA KUJIBU MASWALI HAYO.

	(W)	(P)	(F)	(R)	Vitu vyote	Vitu vyote hizipokwepo R
Jumla ya alama						
	(W)	(P)	(F)	(R)	Vitu vyote	Vitu vyote hizipokwepo R

Alama wastani(Jumla ya alama kwa kila mwelekeo umegawanyika na Idadi ya vitu iliyokamilishwa katika halihyo)						
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Appendix XI: Impact of Events Scale-Revised (IES-R)

Study ID: _____ Date: _____

INSTRUCTIONS: Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS** with respect to _____ (event) that occurred on _____ (date). How much have you been distressed or bothered by these difficulties?

		Not at all	A little bit	Moderately	Quite a bit	Extremely
1	Any reminder brought back feelings about it	0	1	2	3	4
2	I had trouble staying asleep	0	1	2	3	4
3	Other things kept making me think about it	0	1	2	3	4
4	I felt irritable and angry	0	1	2	3	4
5	I avoided letting myself get upset when thought about it or was reminded of it	0	1	2	3	4
6	I thought about it when I didn't mean to	0	1	2	3	4
7	I felt as if it hadn't happened or wasn't real	0	1	2	3	4
8	I stayed away from reminders of it.	0	1	2	3	4
9	Pictures about it popped into my mind.	0	1	2	3	4
10	I was jumpy and easily startled.	0	1	2	3	4
11	I tried not to think about it.	0	1	2	3	4
12	I was aware that I still had a lot of feelings about	0	1	2	3	4

	it, but I didn't deal with them.					
13	My feelings about it were kind of numb.	0	1	2	3	4
14	I found myself acting or feeling like I was back at that time.	0	1	2	3	4
15	I had trouble falling asleep.	0	1	2	3	4
16	I had waves of strong feelings about it.	0	1	2	3	4
17	I tried to remove it from my memory.	0	1	2	3	4
18	I had trouble concentrating.	0	1	2	3	4
19	Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	0	1	2	3	4
20	I had dreams about it.	0	1	2	3	4
21	I felt watchful and on-guard.	0	1	2	3	4
22	I tried not to talk about it.	0	1	2	3	4

Total IES-R Score: -----

INT: 1, 2,3,6,9, 14, 16, 20

AVD: 5, 7, 8, 11, 12, 13, 17, 22

HYP: 4, 10, 15, 18, 19, 21

Weiss, D.S. (2007). The Impact of Event Scale-Revised. In J.P. Wilson, & T.M. Keane (Eds.) *Assessing psychological trauma and PTSD: a practitioner's handbook* (2nd ed., pp. 168-189). New York: Guilford Press.

AETR2N 22

KIPIMO CHA MATUKIO (IES-R) AU IMPACT OF EVENTS SCALE-Revised (IES-R)

Nambari la Siri.....Tarehe.....

UTANGULIZI: Chini ni orodha ya matatizo ambayo watu huwa nayo baada ya matukio ya maisha yenye shida. Tafadhali soma kila kipengee, na kisha uonyeshe jinsi shida ya kila shida imekuwa kwa ajili yako **KATIKA SIKU SABA ZILIZOPITA** kwa heshima _____
 _____(tukio) lililofanyika kwenye _____(tarehe). Je, umesumbuliwa na shida gani au unasumbuliwa na shida hizi?

		Hapana	kiasi kidogo sana	Kiasi	Juu Kiasi	kiasi kikubwa
1	Mkumbusho wowote ulileta hisia juu yake	0	1	2	3	4
2	Nilikuwa na shida kukaa usingizi	0	1	2	3	4
3	Mambo mengine yanaendelea kunifanya kufikiri kuhusu hilo	0	1	2	3	4
4	Nilihisi hasira na hasira	0	1	2	3	4
5	Niliepuka kuruhusu nikasikitishwe wakati ulifikiriwa au ulikumbushwa	0	1	2	3	4
6	Nilifikiria kuhusu hilo wakati sikuwa na haja ya kufanya hivyo	0	1	2	3	4
7	Nilihisi kama haikutokea au sio kweli	0	1	2	3	4
8	Nilikaa mbali na mawazo yake	0	1	2	3	4
9	Picha kuhusu hilo zimeingia ndani ya akili yangu	0	1	2	3	4
10	Nilikuwa na mshutuko na hukashirishwa haraka	0	1	2	3	4

11	Nilijaribu kuepukana na kutafakari.	0	1	2	3	4
12	Nilijua kwamba nilikuwa na hisia nyingi kuhusu hilo, lakini sikushugulika nao	0	1	2	3	4
13	Hisia zangu kuhusu hilo zilikuwa la kukandisha mwili	0	1	2	3	4
14	Nilijikuta nikitenda au kujisikia kama nilikuwa nimerudi kwa hicho kitendo wakati huo	0	1	2	3	4
15	Nilikuwa na matatizo ya kulala.	0	1	2	3	4
16	Nilikuwa na mawimbi ya hisia kali juu yake.	0	1	2	3	4
17	Nilijaribu kuiondoa kwenye kumbukumbu yangu	0	1	2	3	4
18	Nilikuwa na shida kuzingatia	0	1	2	3	4
19	Wakumbusho wake walinifanya kuwa na athari za kimwili, kama vile jasho, shida ya kupumua, kichefuchefu, au moyo piga unaozidi.	0	1	2	3	4
20	Nilikuwa na ndoto juu yake.	0	1	2	3	4
21	Nilihisi kuwa macho na kujilinda	0	1	2	3	4
22	Nilijaribu nisizungumze juu yake	0	1	2	3	4

Jumla ya IES-R : -----

INT: 1, 2,3,6,9, 14, 16, 20

AVD: 5, 7, 8, 11, 12, 13, 17, 22

HYP: 4, 10, 15, 18, 19, 21

Weiss, D.S. (2007). The Impact of Event Scale-Revised. In J.P. Wilson, & T.M. Keane (Eds.) *Assessing psychological trauma and PTSD: a practitioner's handbook* (2nd ed., pp. 168-189). New York: Guilford Press.

AETR2N 22



WHODAS 2.0

36-item version, self-administered

Study ID: _____ Date: _____

Instructions of Use

This questionnaire asks about difficulties due to health conditions. Health conditions include diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems, and problems with alcohol or drugs.

Think back over the past 30 days and answer these questions, thinking about how much difficulty you had doing the following activities. For each question, please circle only one response.

In the past 30 days, how much difficulty did you have in:						
Understanding and communicating						
D1.1	Concentrating on doing something for ten minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.2	Remembering to do important things?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.3	Analyzing and finding solutions to problems in day-to-day life?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.4	Learning a new task, for example, learning how to get to a new place?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.5	Generally understanding what people say?	None	Mild	Moderate	Severe	Extreme or cannot do

D1.6	Starting and maintaining a conversation?	None	Mild	Moderate	Severe	Extreme or cannot do
Getting around						
D2.1	Standing for long periods such as 30 minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.2	Standing up from sitting down?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.3	Moving around inside your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.4	Getting out of your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.5	Walking a long distance such as a kilometer [or equivalent]?	None	Mild	Moderate	Severe	Extreme or cannot do
Self-Care						
D3.1	Washing your whole body?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.2	Getting dressed?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.3	Eating?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.4	Staying by yourself for a few days?	None	Mild	Moderate	Severe	Extreme or cannot do
In the past 30 days, how much difficulty did you have in:						
Getting along with people						
D4.1	Dealing with people you do not know?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.2	Maintaining a friendship?	None	Mild	Moderate	Severe	Extreme or cannot do

D4.3	Getting along with people who are close to you?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.4	Making new friends?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.5	Sexual activities?	None	Mild	Moderate	Severe	Extreme or cannot do
Life activities						
D5.1	Taking care of your household responsibilities?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.2	Doing most important household tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.3	Getting all the household work done that you needed to do?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.4	Getting your household work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do
If you work (paid, non-paid, self-employed) or go to school, complete questions D5.5–D5.8, below. Otherwise, skip to D6.1.						
Because of your health condition, in the past 30 days, how much difficulty did you have in:						
D5.5	Your day-to-day work/school?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.6	Doing your most important work/school tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.7	Getting all the work done that you need to do?	None	Mild	Moderate	Severe	Extreme or cannot do

D5.8	Getting your work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do
Participation in society						
In the past 30 days:						
D6.1	How much of a problem did you have in joining in community activities (for example, festivities, religious or other activities) in the same way as anyone else can?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.2	How much of a problem did you have because of barriers or hindrances in the world around you?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.3	How much of a problem did you have living with dignity because of the attitudes and actions of others?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.4	How much time did you spend on your health condition, or its consequences?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.5	How much have you been emotionally					

	affected by your health condition?					
D6.6	How much has your health been a drain on the financial resources of you or your family?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.7	How much of a problem did your family have because of your health problems?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.8	How much of a problem did you have in doing things by yourself for relaxation or pleasure?	None	Mild	Moderate	Severe	Extreme or cannot do
H1	Overall, in the past 30 days, how many days were these difficulties present?					Record number of days _____
H2	In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?					Record number of days _____
H3	In the past 30 days, not counting the days that you were totally unable, for how many days did you cut back or reduce your usual activities or work because of any health condition?					Record number of days _____

This completes the questionnaire. Thank you.

WORLD HEALTH ORGANIZATION DISABILITY ASSESSMENT SCHEDULE 2.0



WHODAS 2.0

Maswali thelathini na sita(36) ya kujibu mwenyewe

Namari la Siri.....Tarehe.....

Maelezo ya Matumizi

Jarida hili linauliza kuhusu matatizo kutokana na hali ya afya.

Hali za afya ni pamoja na magonjwa, matatizo mengine ya afya ambayo inaweza kuwa ya muda mfupi au ya muda mrefu, majeruhi, matatizo ya akili au kihisia, na matatizo ya pombe au madawa ya kulevya.

Fikiria nyuma siku thelathini(30) zilizopita na jibu maswali haya, fikiria jinsi ulivyokuwa mgumu kufanya shughuli zifuatazo. Kwa swali lolote, tafadhali mzunguko wa jibu moja tu.

Katika siku 30 zilizopita, ulikuwa na kiasi gani:						
Kuelewa na kuwasiliana						
D1.1	Kuzingatia kufanya kitu kwa dakika kumi?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D1.2	Kumbuka kufanya mambo muhimu?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D1.3	Kuchambua na kutafuta ufumbuzi wa matatizo katika maisha ya kila siku?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D1.4	Kujifunza kazi mpya, kwa mfano, kujifunza jinsi ya kufikia mahali mapya?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D1.5	Kwa ujumla kuelewa nini watu wanasema?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au

						Zingeweza hata
D1.6	Kuanza na kudumisha mazungumzo?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Vitendo za maisha						
D2.1	Kusimama kwa muda mrefu kama dakika 30?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D2.2	Kusimama kutoka kukaa chini?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D2.3	Kuzunguka ndani ya nyumba yako?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D2.4	Kuondoka nyumbani kwako?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D2.5	Kutembea umbali mrefu kama kilomita [au kiasi sawa]?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Kujitegemea						
D3.1	Kuosha mwili wako wote?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D3.2	Kuvaa?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata

D3.3	Kula?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D3.4	Kukaa peke yako kwa siku chache?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Katika siku 30 zilizopita, ulikuwa ugumu kiasi gani katika:						
Kupatana pamoja na watu						
D4.1	Kuhusika na watu usiowajua?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D4.2	Kudumisha urafiki?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D4.3	Kushirikiana pamoja na watu ambao wakokaribu nawe?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D4.4	Kufanya marafiki wapya?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D4.5	Shughuli za ngono?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Shughuli za maisha						
D5.1	Kutunza majukumu yako ya nyumbani?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D5.2	Kufanya kazi muhimu zaidi za kaya vizuri?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au

						Zingeweza hata
D5.3	Kuwezasha kazi yote ya nyumbani ambayo ulihitaji kufanya?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D5.4	Kuwezesha kazi ya kaya yako kufanyika haraka iwezekanavyo?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Ikiwa unafanya kazi (kulipwa, isiyolipwa, kujitegemea) au kwenda shule, jibu maswali D5.5-D5.8, chini yake. Vinginevyo, ruka mpaka kwa D6.1.						
Kwa sababu ya hali yako ya afya, katika siku 30 zilizopita, ulikuwa ungumu kiasi gani katika:						
D5.5	kazi yako ya kila siku / shule?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D5.6	Kufanya kazi yako muhimu/kazi ya shule vizuri?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D5.7	Kuhakikisha kazi yote ambayo ulihitaji kufanya imefanyika?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D5.8	Kufanya kazi yako kufanyika haraka iwezekanavyo?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
Kushiriki katika jamii:						
Katika siku 30 zilizopita:						
D6.1	Ulikuwa na shida ngapi katika kujiunga na shughuli za jamii (kwa mfano, sikukuu, shughuli za kidini au nyingine) katika	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata

	Njia sawa na mtu mwingine yeyote anayeweza?					
D6.2	Ni shida ngapi uliyo nayo kwa sababu ya vikwazo katika Ulimwengu unaokuzunguka?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.3	Ulikuwa na shida kiasi gani na heshima kwa sababu ya mitazamo na Vitendo vya wengine?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.4	Ulitumia muda gani juu ya hali yako ya afya, au matokeo yake?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.5	Je! Umetaabika kiasi gani kihisia kwa sababu ya hali yako ya afya?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.6	Je! Afya yako imefunguza kiasi gani rasilimali za kifedha zako au familia yako?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.7	Familia yako ilikuwa na shida kiasi gani kwa sababu ya matatizo yako ya afya?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
D6.8	Ulikuwa na shida kiasi ganai katika kufanya mambo peke yako kwa ajili ya kujituliza au kujifuraisha?	Hakuna	Kidogo	Kiasi	Sana	Sana Kupita kiasi au Zingeweza hata
H1	Kwa ujumla, katika siku 30 zilizopita, ni siku ngapi hizi Matatizo zilikuwa?				Andika nambari ya masiku _____	

H2	Katika siku 30 zilizopita, kwa siku ngapi ulikuwa kabisa hauwawezi kufanya shughuli zako za kawaida au kufanya kazi kwa sababu ya hali yoyote ya afya?	Andika nambari ya masiku _____
H3	Katika siku 30 zilizopita, bila kuhesabu siku ambazo haungeweza kabisa, kwa siku ngapi umezuia au kupunguza shughuli zako za kawaida au kazi kwa sababu ya hali yoyote ya afya?	Andika nambari ya masiku _____

Hii inakamilisha maswali. Asante.

Appendix XIII: Adherence assessment to antiretroviral therapy (ART)

Study IDDate

Instructions of Use

From the participant’s clinic file, the principal investigator will extract results of latest CD4 and viral load at the beginning of the intervention (12 weeks of post delivery) and at the end during follow-up at 36 weeks.

Date	CD4(cells/ul or cells/mm ³)	Viral load(copies/ml)	Comments

CRAFFT Srcreening for Alcohol and Drug Use Disorders for Adolescents

Ask the participant the six questions below. Answering **YES to two or more** questions indicates an alcohol or drug use problem and requires further assessment management.

Question	No	Yes
7. Have you ever ridden in a Car driven by someone (including yourself who was “high” or had been using alcohol or drugs?		
8. Do you ever use alcohol or drugs to Relax, feel better about yourself or fit in?		
9. Do you ever use Alcohol or drugs while you are by yourself, or alone?		
10. Do you ever Forget things you did while using alcohol or drugs?		
11. Do your Family or Friend ever tell you that you should cut down on your drinking or drug use?		

12. Have you ever gotten into Trouble while you were using alcohol or drugs?		
--	--	--

Nambari la SiriTarehe

Maelekezo ya Matumizi

Kutoka kwenye faili ya kliniki ya mshiriki, uchunguzi mkuu atachukua matokeo ya CD4 ya hivi karibuni na mzigo wa virusi mwanzoni mwa kuingilia kati (wiki 12 za utoaji) na mwishoni wakati wa kufuatilia katika wiki 36.

Tarehe	CD4(cells/ul or cells/mm ³)	Viral load(copies/ml)	Maoni

Kuchochea kwa Siri kwa Matumizi ya Pombe na Matumizi ya Madawa kwa Vijana

Uliza mshiriki maswali sita hapa chini. Kujibu **NDIYO** kwa maswali mawili au zaidi inaonyesha shida ya matumizi ya pombe au madawa ya kulevya na inahitaji usimamizi zaidi wa tathmini.

Swali	Hapana	Ndiyo
1. Je! Umewahi kuingia kwenye Gari linaloongozwa na mtu (ikiwa ni pamoja na wewe aliye "juu" au alikuwa akiwa pombe au madawa ya kulevya?		
2. Je! Umewahi kutumia pombe au madawa ya kulevya Kufurahia, Kujisikia vizuri zaidi juu yako mwenyewe au kuzingatia?		
3. Je, umewahi kutumia Pombe au madawa ya kulevya wakati wewe pekee yako, au pekee?		
4. Je, umewahi Kusahau mambo uliyotenda wakati wa kutumia pombe au madawa ya kulevya?		
5. Je! Familia yako au Rafiki atakuambia kamwe unapaswa kupunguza matumizi yako ya kunywa au madawa ya kulevya?		
6. Je! Umewahi kupata Shida wakati unavyotumia pombe au madawa ya kulevya?		

Case Adherence Index questionnaire

Instructions of Use

Please ask each question and circle the corresponding number next to the answer, then add up the numbers circled to calculate Index score.

A1. How often do you feel that you have difficulty taking your HIV medications on time? By 'on time' we mean no more than two hours before or two hours after the time your doctor told you to take it.

4 Never

3 Rarely

2 Most of the time

1 All of the time

A2. On average, how many days per week would you say that you missed at least one dose of your HIV medications?

1 Everyday

2 4–6 days/week

3 2–3 days/week

4 Once a week

5 Less than once a week

6 Never

A3. When was the last time you missed at least one dose of you HIV medications?

1 Within the past week

2 1–2 weeks ago

3 3–4 weeks ago

4 Between 1 and 3 months ago

5 More than 3 months ago

6 Never

INDEX SCORE: _____

>10 = good adherence

≤10 = poor adherence

Case Adherence Index questionnaire

Nambari La Siri..... Tarehe

Maelekezo ya Matumizi

Kutoka kwenye faili ya kliniki ya mshiriki, uchunguzi mkuu atachukua matokeo ya CD4 ya hivi karibuni na Uzito wa virusi mwanzoni mwa kuingilia kati (wiki 12 za baada ya Kujifungua) na mwishoni wakati wa kufuatilia katika wiki 36.

Tafadhali uliza swali lolote na weka mpiringo kwa namba inayoendana na jibu, halafu ongeze nambari uliyozunguka ili uhesabu alama ya ujumla.

A1. Ni mara ngapi unahisi kuwa una ugumu kuchukua dawa zako za HIV kwa wakati unaofaa?.'kwa wakati' tunamaanisha si zaidi ya masaa mawili kabla au masaa mawili baada ya maagizo za matumizi kutoka daktari wako.

4 Hapana

3 mara kwa mara

2 Mara nyingi

1 wakati wote

A2. Kwa wastani, ni siku ngapi kwa wiki unasema kwamba umekosa angalau dozi moja ya dawa zako za HIV?

1 kila siku

2 Masiku4-6/ wiki

3 Masiku 2–3/wiki

4 mara moja kwa wiki

5 Chini ya mara moja kwa wiki

6 Hapana

A3. Wakati gani uliopita ulikosa angalau dozi moja ya dawa za HIV?

1 Katika wiki iliyopita

2 wiki 1-2 zilizopita

3 wiki 3-4 zilizopita

4 kati ya miezi 1 na 3 iliyopita

5 zaidi ya miezi 3 iliyopita

6 Hapana

Ujumla: _____

>10 = kuzingatia vizuri

≤ 10 = kutozingatia vizuri

Appendix XIV: IPT Interpersonal Inventory and Interpersonal Rating scale

Study ID**Date**

If applicable, approximate date symptoms of current episode of major depression began.

Is this the first time in your life that you've been depressed? YES NO

If NO, how many times have you been depressed (total)?

When was the first time you became depressed?

If applicable, for dysthymia, date symptoms began:

Think about what was going on in your life when you started to feel depressed, unhappy, anxious, or unsatisfied. If you answer YES to a question below, please take a moment to describe. If you need more space, please attach a piece of paper.

Did someone you care about die? YES NO

If YES, was there anyone who helped you feel better? YES NO

Was it the anniversary of someone's death? YES NO

Were you thinking about someone who died? YES NO

Were you having problems with your spouse or partner? YES NO N/A

Were you having problems with your children? YES NO N/A

Were you having problems with your parent(s)? YES NO N/A

Were you having problems with your in-laws? YES NO N/A

Were you having problems at work? YES NO N/A

Were you having problems with friends? YES NO N/A

Were there problems with other people in your life not mentioned above? YES NO

Were there more arguments with family or friends? YES NO

Were you disappointed in a love relationship? YES NO

Did your marriage or partnership begin to have problems? YES NO N/A

Were you going through divorce or separation? YES NO N/A

Did your children leave home? YES NO N/A

Did you lose a job? YES NO

Did you start a new job? YES NO

Did you get promoted? YES NO

Did you retire? YES NO

Did you move? YES NO

Did you have financial problems? YES NO

Did you start living alone? YES NO

Was there serious illness in your family? YES NO

Did you become ill? YES NO

Were you put in a situation where you had to meet new people? YES NO

Were you lonely? YES NO

Were you bored? YES NO

Were there any big changes in your life? YES NO

Do you have difficulty making friends? YES NO

Do you pick your friends or do they pick you?

Is it difficult for you to meet new people? YES NO

If yes, what is difficult about meeting new people?

Do you have people you can confide in? YES NO

If yes, who are they?

Do you often feel uncomfortable in your relationships? YES NO

Current Relationship Inventory

Think about the important people in your life. For each important relationship, complete a copy of this page and the next page.

Name of person

Relationship of this person to you (friend, mother, brother, spouse, etc)

How close are you currently to this person (0 = Not all all close, 100 = very close)

How close do you wish you were to this person? (0 to 100)

If you would like to be closer to this person that you currently are, what gets in the way?

How often do you see this person?

List the activities you do with this person and how often you do each activity. These may be activities you do in person (watch TV, go to dinner, etc) as well as activities you do apart from one another (talk on the phone, send letters, email, etc)

When you are with this person, how do you feel?

How do you generally get along with this person?

How often do you talk to this person about personal things and/or confide in them?

If it is hard to talk to this person about personal things, do you wish this was different? What gets in the way?

Are there things that you and this person cannot agree on? If yes, what are those things? What happens when you try to talk about it?

List the aspects of this relationship that are currently satisfying and/or positive to you, including things you like about this person and/or your relationship with them.

List the aspects of this relationship that are currently dissatisfying and/or negative to you, including things you dislike about this person and/or your relationship with them, or things that you wish would change.

Have you had any expectations that this person has not met? What are they?

If you could change one thing about this relationship, what would it be?

Have you ever tried to make this change occur? What have you done?

Life satisfaction

List the aspects of your life (as it is currently is) that are satisfying and/or positive to you.

List the aspects of your life (as it is currently is) that are dissatisfying and/or negative to you.

Is your life, as it currently is, what you had expected it to be? Discuss.

If you could change one thing in your life, what would it be?

IPT rating Scale

Study IDDate

IPT Rating Scale

For each item assess the therapist on a scale from 0 to 6, and record the rating in the box next to the heading.

0	1	2	3	4	5	6
Poor	Barely	Mediocre Adequate	Satisfactory	Good	Very Good	Excellent

For all items focus on the skill of the therapist, taking into account how difficult the patient may seem.

Initial Sessions Checklist

Specific Tasks

- Inquire Re: Chief complaint and depressive symptoms
- History of current depressive episode
- Inquire Re: Previous history of depressive episodes and treatment, if any
- Brief social history
- Inquire Re: Patient’s expectations about psychotherapy
- Explanation of IPT and its basic assumptions
- Translation of chief complaint (depressive symptoms) into interpersonal context.....
- Reassurance of patient Re: positive prognosis
- Explanation of IPT techniques.....
- Contract setting Re: administrative details, i.e. length of sessions, frequency,
duration of treatment, appointment times, etc.....
- Interpersonal Inventory (detailed review of patient’s important relationships)
- Feedback to patient Re: therapist’s general understanding of the patient’s
interpersonal difficulties (IPT problem area).....
- Contract setting Re: treatment goals.....
- Explanation of therapist and patient tasks in working toward treatment goals

For each item assess the therapist on a scale from 0 to 6, and record the rating in the box next to the heading.

0	1	2	3	4	5	6
Poor	Barely	Mediocre Adequate	Satisfactory	Good	Very Good	Excellent

For all items focus on the skill of the therapist, taking into account how difficult the patient may seem.

Termination Sessions Checklist

Specific Tasks

- Explicit discussion of the end of treatment.....
- Elicit/discuss patient's reaction to the termination
- Acknowledgment of the end of treatment as a time of potential grieving
- Help patient move toward a recognition of his/her independent competence
- Review with the patient the course of treatment, and his progress in therapy
- Patient given opportunity to evaluate the treatment and to assess future needs
- Assess with patient early warning signals, and discuss procedures for re-entry into treatment, if needed.....

0	1	2	3	4	5	6
Poor	Barely	Mediocre Adequate	Satisfactory	Good	Very Good	Excellent

Middle Sessions Checklist: Grief & Loss

Review depressive symptoms

.....

Relate symptom onset to death of significant other

.....

Reconstruct the patient's relationship with the deceased

.....

Describe the sequence and consequences of events just prior to, during and after the death

.....

Explore availability and use of social supports around the mourning

.....

Explore associated feelings (negative as well as positive)

.....

Consider alternative ways of becoming involved with others

.....

Interpersonal Role Disputes

Review depressive symptoms

.....

Relate symptom onset to overt or covert dispute with significant other with whom the patient is currently involved

.....

Determine the stage of the dispute, i.e. renegotiation, impasse, or dissolution

.....

Identify **issues** in the dispute

.....

Explanation of how non-reciprocal role expectations relate to the dispute

.....

Exploration and discussion of differences in expectations and values

.....

Exploration of parallels in other relationships

.....

Exploration and discussion of options available to patient

.....

Discussion of communication patterns; (the structural, emotional, expectational, and wish aspects of communication)

.....

Role Transitions

Review depressive symptoms

.....

Relate depressive symptoms to difficulty in coping with some recent life change

.....

Review positive and negative aspects of old role and possible new ones

.....

Explore feelings about what is lost

.....

Explore feelings about the change itself

.....

Explore opportunities in new role

.....

Realistic evaluation of what is lost

.....

Encourage appropriate release of affect

.....

Encourage development of social support system and new skills called for in new role

.....

Interpersonal Deficits

Review depressive symptoms

.....

Relate depressive symptoms to problems of social isolation, or social unfulfilment

.....

Review past significant relationships including the negative and positive aspects

.....

Explore repetitive dysfunctional patterns of behaviour and/or expectations in relationships

.....

Discuss patient's positive and negative feelings about therapist and explore parallels in other relationships

.....

0	1	2	3	4	5	6
Poor	Barely	Mediocre Adequate	Satisfactory	Good	Very Good	Excellent

All Sessions

General Tasks

- Exploration of recent and remote losses and reactions to these losses
- Facilitation of mourning
- Exploration of ways patient can develop and/or resume relationships and activities
- Information gathering and exploration Re: nature of the disputes and/or role transition
- Clarification of patient's position in the disputes and/or transition
- Exploration and discussion of possible changes that could be made
- Review of past and current relationships in detail
- Review of self-concept with emphasis on self-destructive unrealistic attitudes/expectations
- Careful attention to the positive and negative elements of the patient/therapist relationship

0	1	2	3	4	5	6
Poor	Barely	Mediocre Adequate	Satisfactory	Good	Very Good	Excellent

Process

Techniques Used

- Exploratory Techniques
 - Supportive acknowledgment
 - Extension of the topic
 - Non-directive exploration
 - Administrative details.....
 - Encourage expression of affect
 - Inquiry into sensitive areas
 - Acceptance/acknowledgment of affect
 - Inquiry into feelings associated with content
 - Clarification/confrontation
 - Restructuring, rephrasing, feedback
 - Development of interpersonal awareness: Interpretation.....
 - Communication analysis.....
 - Use of therapeutic relationship
 - Directive techniques: Advice giving, limit setting, education, modelling, direct help
 - Decision analysis
 - Use of Significant Other
 - Other
 - Non-IPT techniques, i.e. Behaviouristic, overly Psychoanalytic
- (NB. Rate low if used)

Patient Difficulty (rate 1 = yes; 0 = no)

- Lateness
- Missed appointments
- Changing topics/tangential
- Direct uncooperativeness.....
- Excessive dependency/demands
- Suicide threats
- Early termination threats.....
- Distorted view of therapist.....
- Other (Explain)

Vanderbilt Questions

1 2 3 4 5
Not at all Fair amount Great deal

-
- (11) Reacted negatively to the therapist's comments.....
 - (29) Hostile
 - (30) Frustrated.....
 - (32) Impatient
 - (33) Intellectualizing
 - (38) Defensive.....

0	1	2	3	4	5	6
Poor	Barely Adequate	Mediocre	Satisfactory	Good	Very Good	Excellent

Overall Ratings of Therapist

Therapist’s skill at helping patient with intimate self-disclosure.....

Therapist’s ability to tend to the therapeutic relationship

Therapist’s ability to focus session on appropriate topic

Therapist’s ability to maintain appropriate IPT therapeutic stance

Overall quality of the session

Patient receptivity in this session.....

Appropriate activity level

Appropriate degree of supportiveness

Focus on current interpersonal functioning

Overall Therapist Competence

0	1	2	3	4	5	6
Poor	Barely Adequate	Mediocre	Satisfactory	Good	Very Good	Excellent

I. How would you rate the clinician OVERALL in this session as an interpersonal therapist?

0	1	2	3	4
Definitely Not	Probably Not	Uncertain – Borderline	Probably Yes	Definitely Yes

II. If you were conducting an OUTCOME study in interpersonal therapy, do you think you would select this therapist to participate at this time (assuming this session is typical)?

0	1	2	3	4	5	6
Not Difficult Very receptive			Moderately Difficult			Extremely Difficult

III. How difficult did you feel this PATIENT was to work with?

IPT Interpersonal inventory

Nambari la Siri.....Tarehe.....

Maelezo ya Matumizi

Ikiwa inafaa, elezea siku dalili za unyogovu mkubwa zilianza.

Je! Huu ndio mara ya kwanza katika maisha yako kwamba umesumbuliwana unyogovu? NDIO
LA

Ikiwa hapana, mara ngapi umesumbuliwa na unyogovu(jumla)?

Ulikuwa lini mara ya kwanza ulipata shida ya unyogovu?

Ikiwa inafaa, kwa “dysthymia”, dalili za tarehe zilianza:

Fikiria juu ya kile kilichokuwa kikiendelea katika maisha yako wakati ulianza kujisikia unyogovu,
kutokuwa na furaha, wasiwasi, au kutoridisha. Ikiwa unajibu NDIO kwa swali hapo chini, tafadhali
elezea. Ikiwa unahitaji nafasi zaidi, tafadhali ongeza karatasi nyingine na ambatisha na hiki.

Je, kuna mtu unayemjali alikufa? NDIO LA

Ikiwa NDIYO, kuna mtu yeyote aliyekusaidia kujisikia vizuri? NDIO LA

Ilikuwa ni kumbukumbu ya kifo cha mtu? NDIO LA

Je! Unafikiri juu ya mtu aliyekufa? NDIO LA

Je, ulikuwa na shida na mke au mwenzi wako? Ndio Hapana Haina maana kwangu

Je, ulikuwa na shida na watoto wako? Ndio Hapana N / A

Je! Ulikuwa na matatizo na wazazi wako? Ndio Hapana N / A

Je! Ulikuwa na matatizo na mashemeji zako? Ndio Hapana Haina maana kwangu

Je, ulikuwa na matatizo katika kazi? Ndio Hapana Haina maana kwangu

Je! Ulikuwa na matatizo na marafiki? Ndio Hapana Haina maana kwangu

Je, kuna matatizo na watu wengine katika maisha yako hayajaelezewa hapo juu? NDIO LA

Je! Kuna majibizano zaidi na familia au marafiki? NDIO LA

Je, ulikuwa umevunjika moyo katika uhusiano wa upendo? NDIO LA

Je! Ndoa au ushirika wako ulianza kuwa na matatizo? Ndio Hapana Haina maana kwangu

Je, wewe unakwenda kupitia talaka au kujitenga? Ndio Hapana Haina maana kwangu

Je! Watoto wako waliondoka nyumbani? Ndio Hapana Haina maana kwangu

Ulipoteza kazi? NDIO LA

Je, ulianza kazi mpya? NDIO LA

Je, umepanda ngazi(chao)kazini? NDIO LA

Je! Umestaafu? NDIO LA

Je, umehama/umeondoka? NDIO LA

Je! Una matatizo ya kifedha? NDIO LA

Je, umeanza kuishi peke yake? NDIO LA

Je! Kuna magonjwa makubwa katika familia yako? NDIO LA

Je! Umekuwa mgonjwa? NDIO LA

Je! Umewekwa katika hali ambapo unapaswa kukutana na watu wapya? NDIO LA

Je! Wewe ulikuwa peke yake? NDIO LA

Je! Ulikuwa umevumba? NDIO LA

Je, kuna mabadiliko makubwa katika maisha yako? NDIO LA

Je! Una shida kufanya marafiki? NDIO LA

Je, huchagua marafiki wako au wanakuchukua?

Je, ni vigumu kwako kukutana na watu wapya? NDIO LA

Ikiwa ndio, ni vigumu gani kukutana na watu wapya?

Je! Una watu unaowaweza kuwambia siri zako? NDIO LA

Ikiwa ndiyo, ni nani?

Je! Mara nyingi hujisikia wasiwasi katika mahusiano yako? NDIO LA

Jinzi ilivyo husiano wa sasa

Fikiria kuhusu watu muhimu katika maisha yako. Kwa kila uhusiano muhimu, jaza nakala ya ukurasa huu na ukurasa unaofuata.

Jina la mtu

Uhusiano wa mtu huyu na wewe (rafiki, mama, ndugu, mke/bwana, nk)

Je, unakaribia mtu huyu kiasi gani kwa sasa(0 = Si karibu hata kidogo, 100 = karibu sana)

Ungependa kuwa karibu na mtu huyu kiasi gani? (0 hadi 100)

Ikiwa ungependa kuwa karibu na mtu huyu kwa sasa, ni nini huzuia njiani?

Ni mara ngapi unamwona mtu huyu?

Andika orodha za shughuli unazofanya na mtu huyu na mara ngapi unafanya kila shughuli.

Hizi zinaweza kuwa shughuli unazofanya kwa kibinafsi (angalia TV, kwenda kwa chakula cha jioni, nk) pamoja na shughuli unazofanya mbali na mtu mwingine (kuzungumza kwenye simu, kutuma barua, barua pepe, nk)

Unapokuwa na mtu huyu, unajisikiaje?

Je! Kwa kawaida unahishije na mtu huyu?

Ni mara ngapi unamwambia mtu huyu kuhusu mambo ya kibinafsi na / au kuwaambia siri yako? kiwa ni vigumu kuzungumza na mtu huyu kuhusu mambo ya kibinafsi, unataka kwamba hii ilikuwa tofauti? Nini huzuia maelewano?

Kuna mambo ambayo wewe na mtu huyu huwezi kukubaliana? Ikiwa ndiyo, ni mambo gani? Ni nini kinachotokea unapojaribu kuzungumza juu yake?

Andika orodha ya uhusiano huu ambao unafurahisha kwa sasa na / au unofaa kwako, ikiwa ni pamoja na mambo unayotoshelezi kuhusu mtu huyu na / au uhusiano wako nao.

Andika orodha ya uhusiano huu ambao haujatoshelezi kwa sasa na / au hudhuru kwako, ikiwa ni pamoja na mambo ambayo hupendi juu ya mtu huyu na / au uhusiano wako nao, au mambo unayotamani ingebadilika.

Umekuwa na matarajio yoyote ambayo mtu huyu hajatekeleza? Hizo nigani?

Ikiwa unaweza kubadilisha jambo moja kuhusu uhusiano huu, itakuwa nini?

Umewahi kujaribu mabadiliko haya? Umefanya nini?

kuridhika au Kutosheleka kimaisha

Andika orodha ya vitu maisha yako (kama ilivyo sasa) ambayo yanatosheleza na / au inafaa kwako.

Andika orodha ya vitu maisha yako (kama ilivyo sasa) ambayo yanasisimua na / au hayakubaliki/hay furahishi kwako.

Je, maisha yako, kama ilivyo sasa, ulikuwa umetarajia kuwa vipi? Jadili.

Ikiwa unaweza kubadilisha jambo moja katika maisha yako, itakuwa ni kitu gani?

Tathmini cha IPT

Nambari la Siri Tarehe

Kwa kila kitu, andika kulingana na mtaalamu, wa kiwango kutoka 0 hadi 6, na urekodi upimaji kwenye sanduku.

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Kwa vitu vyote zingatia ujuzi wa mtaalamu, kwa kuzingatia jinsi ugumu wa mgonjwa wa kuweza kuonekana.

Orodha ya Majaribio ya awali

Kazi maalum

Kuuliza : Malalamiko kuu na dalili za huzuni. Historia ya sehemu ya sasa ya huzuni.....

Kuuliza : Historia ya awali ya matukio ya huzuni na matibabu, ikiwa ni.....

Historia ya kifupi ya jamii.....

Kuuliza Re: Matarajio ya mgonjwa kuhusu kisaikolojia.....

Maelezo ya IPT na mawazo yake ya msingi.....

Tafsiri ya malalamiko ya kuu (dalili za huzuni) katika mazingira ya kibinafsi.....

Kuhakikishiwa na mgonjwa Re: utambuzi mzuri.....

Maelezo ya mbinu za IPT.....

Mpangilio wa mkataba: Maelezo ya utawala, yaani, masaa ya vikao, mzunguko,

muda wa matibabu, nyakati za uteuzi, n.k.....

Maliasili (upitizi wa kina wa mahusiano muhimu ya mgonjwa).....

Maoni kwa mgonjwa : Kuelewa kwa jumla wa mtaalamu wa mgonjwa matatizo ya kibinafsi (eneo la tatizo la IPT).....

Mpangilio wa Mkataba : Malengo ya matibabu.....

Ufafanuzi wa wahusika na kazi za mgonjwa katika kufanya kazi kwa malengo ya matibabu.....

Kwa kila kitu, andika kulingana na mtaalamu, wa kiwango kutoka 0 hadi 6, na ure upimaji kwenye sanduku.

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Kwa vitu vyote kuzingatia ujuzi wa mtaalamu, kwa kuzingatia jinsi mgumu mgonjwa anaweza kuonekana.

Orodha ya Kukamilisha Mkutano

Kazi Maalum

Mjadala wazi wa mwisho wa matibabu.....

Kuja / kujadili majibu ya mgonjwa kwa kukomesha.....

Kuthibitisha mwisho wa matibabu kama wakati wa kuomboleza..... ..

Msaada hoja ya mgonjwa kuelekea kutambua uwezo wake wa kujitegemea..

Tathmini ya mgonjwa wakati wa matibabu, na maendeleo yake katika tiba..... .

Mgonjwa alipewa fursa ya kutathmini matibabu na kutathmini mahitaji ya baadaye.

Tathmini na dalili za kuonya mapema, na ujadili taratibu za kuingia tena katika matibabu, ikiwa inahitajika.....

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Orodha ya Vikao vya Kati: Maumivu wa Kupoteza mtu wa karibu

- Kagua dalili za kuumiza.....
- Kueleza dalili huanza kufa kwa mambo mengine muhimu.....
- Kujenga upya uhusiano wa mgonjwa na marehemu.....
- Eleza mlolongo na matokeo ya matukio tu kabla, wakati na baada ya kifo.....
- Kuchunguza upatikanaji na matumizi ya kijamii kusaidia kuzungumza.....
- Kuchunguza hisia zinazohusiana (hasi pamoja na chanya).....
- Fikiria njia mbadala za kushirikiana na wengine.....

Majadiliano ya majukumu ya kibinafsi

- Kagua dalili za kuumiza.....
- Kuelezea dalili inakaribia kupindua au kupinga mgongano na wengine muhimu ambao kwa sasa mgonjwa anahusika.....
- Kuamua hatua ya mgogoro, yaani, kujadiliana, kupoteza, au kufutwa.....
- Tambua masuala katika mgogoro.....
- Maelezo ya jinsi matarajio ya majukumu yasiyo ya kawaida yanayohusiana na mgogoro.....
- Uchunguzi na majadiliano ya tofauti katika matarajio na maadili.....

- Kuchunguza usawa katika mahusiano mengine.....
- Uchunguzi na majadiliano ya chaguzi zinazopatikana kwa mgonjwa.....
- Majadiliano ya mifumo ya mawasiliano; (miundo, kihisia, matarajio, na matakwa ya mawasiliano)

Uhamisho wa Wajibu

- Kagua dalili za kuumiza.....
- Eleza dalili za kuumiza kwa ugumu wa kukabiliana na mabadiliko ya maisha ya hivi karibuni.....
- Kagua mambo mazuri na mabaya ya jukumu la zamani na iwezekanavyo.....
- Kuchunguza hisia kuhusu kile kilichopotea.....
- Kuchunguza hisia kuhusu mabadiliko yenyewe.....
- Kuchunguza fursa katika jukumu jipya.....
- Tathmini halisi ya kile kilichopotea.....
- Kuhimiza kutolewa kwa ufanisi.....
- Kuhimiza maendeleo ya mfumo wa usaidizi wa kijamii na ujuzi mpya unaoitwa kwa jukumu jipya.....

Mapungufu ya watu

- Kagua dalili za kuumiza.....
- Eleza dalili za kuumiza kwa matatizo ya kutengwa kwa jamii, au kutotosheleza ijamii.....
- Kagua mahusiano muhimu ya zamani ikiwa ni pamoja na mambo mabaya na mazuri....

Kuchunguza mwelekeo usiofaa wa tabia na / au matarajio katika mahusiano.....

Jadili hisia za mgonjwa na hasi kuhusu mganga na kuchunguza uwiano katika mahusiano mengine.....

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Sherehe zote

Kazi za Kawaida

Kuchunguza hasara za hivi karibuni na za kijijini na athari za hasara hizi.....

Kuwezesha maombolezo.....

Kuchunguza njia za mgonjwa unaweza kuendeleza na / au kuanza tena mahusiano na shughuli.....

Mkusanyiko wa habari na utafutaji Re: asili ya migogoro na / au mabadiliko ya jukumu

Ufafanuzi wa nafasi ya mgonjwa katika migogoro na / au mpito.....

Uchunguzi na majadiliano ya mabadiliko iwezekanavyo ambayo yanaweza kufanywa...

Tathmini ya mahusiano ya zamani na ya sasa kwa undani.....

Mapitio ya dhana ya kujitegemea kwa kusisitiza juu ya mitazamo / matarajio yasiyo ya kweli ya uharibifu.....

Makini sana na mambo mazuri na mabaya ya uhusiano wa mgonjwa / mtaalamu.....

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Mchakato Mbinu Zilizotumika

Mbinu za Uchunguzi.....	<input type="checkbox"/>
Kukubaliana kwa usaidizi.....	<input type="checkbox"/>
Ugani wa mada.....	<input type="checkbox"/>
Uchunguzi usio na maelekezo.....	<input type="checkbox"/>
Maelezo ya utawala.....	<input type="checkbox"/>
Kuhimiza kujieleza kwa athari.....	<input type="checkbox"/>
Uchunguzi katika maeneo nyeti.....	<input type="checkbox"/>
Kukubali / kukubali kuathirika.....	<input type="checkbox"/>
Uchunguzi katika hisia zinazohusiana na maudhui.....	<input type="checkbox"/>
Ufafanuzi / mapambano.....	<input type="checkbox"/>
Marekebisho, kurudia sentensi, maoni.....	<input type="checkbox"/>
Maendeleo ya ufahamu wa kibinafsi: Ufafanuzi.....	<input type="checkbox"/>
Uchunguzi wa mawasiliano.....	<input type="checkbox"/>
Matumizi ya uhusiano wa matibabu.....	<input type="checkbox"/>
Mbinu za maagizo: Ushauri wa ushauri, kuweka mipaka, elimu, mfano, msaada wa moja kwa moja.....	<input type="checkbox"/>
Uchunguzi wa uamuzi.....	<input type="checkbox"/>
Matumizi ya Nyingine muhimu.....	<input type="checkbox"/>
Nyingine.....	Mbinu zisizo za
IPT, yaani, Msaada, Psychoanalytic zaidi.....	
Kiwango cha chini cha kutumika)	

Ugumu wa mgonjwa (kiwango cha 1 = Ndiyo; 0 = Hapana)

- Kuchelewa.....
- Uteuzi uliopotea.....
- Mabadiliko ya mada / tangential.....
- Ushauri wa moja kwa moja.....
- Utegemeaji / mahitaji.....
- Majeraha ya kujiua.....
- Majisho ya kukomesha mapema.....
- Mtazamo usiofaa wa mtaalamu.....
- Nyingine (Eleza)

Maswali ya Vanderbilt

- | | | | | | |
|--|---|-------|---|---------------|--------------------------|
| 1 | 2 | 3 | 4 | 5 | |
| | | Kiasi | | Hifadhi kubwa | |
| Hapana | | | | | |
| (11) Aliitikia kinyume na maoni ya mtaalamu..... | | | | | <input type="checkbox"/> |
| (29) chuki..... | | | | | <input type="checkbox"/> |
| (30) wamefadhaika..... | | | | | |
| (32) subira..... | | | | | |
| (33) Mwenye akili..... | | | | | |
| (38) kujihami..... | | | | | |

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

Jumla ya kiwango cha Mtaalamu

Ustaalamu wa mtaalamu katika kusaidia mgonjwa wa kujitangaza binafsi.....	<input type="checkbox"/>
Uwezo wa mtaalamu wa kuathiri uhusiano wa matibabu.....	<input type="checkbox"/>
Uwezo wa mtaalamu wa kuzingatia kikao kwenye mada sahihi.....	<input type="checkbox"/>
Uwezo wa mtaalamu wa kudumisha hali nzuri ya matibabu ya IPT.....	<input type="checkbox"/>
Ubora wa kikao.....	<input type="checkbox"/>
Kupokea uvumilivu katika kipindi hiki.....	<input type="checkbox"/>
Ngazi ya shughuli sahihi.....	<input type="checkbox"/>
Kiwango cha haki cha kuunga mkono.....	<input type="checkbox"/>
Kuzingatia kazi ya sasa ya watu binafsi.....	<input type="checkbox"/>
Ustadi Mkuu wa Mtaalamu.....	<input type="checkbox"/>

0 1 2 3 4 5 6

Vibaya Kiazi ndogo Kiazi tu Yakutosha Nzuri Vizuri sana Vizuri Zaidi

I. Je, unaweza kiwango gani kwa daktari kwa kijumla katika kipindi hiki kama mtaalamu wa kibinafsi?

0 1 2 3 4

Hakika hapana Labda kiwango Labda kiazi Labda Ndiyo Ndiyo kabisa

II. Ikiwa unafanya utafiti matokeo katika tiba ya kibinafsi, unadhani wewe ingeweza kuchagua mtaalamu huyu kushiriki wakati huu (kuchukua somo hili ni kawaida)?

0 1 2 3 4 5 6
Si vigumu kupokea kiasi kikubwa vigumu vigumu sana

III. Ulihisi shida gani ilikuwa ukifanya kazi na mgonjwa?.....

Appendix XV: Malawi Developmental Assessment Tool (MDAT)
Study IDDate

DEVELOPMENTAL KIT

1. Naming objects (need 12 of them, must have 1- 9):
 - i. Small car

- ii. Ball (tennis ball size)
 - iii. Plastic jar with lid
 - iv. Toy broom
 - v. Matchbox (empty)
 - vi. Cup
 - vii. Pencil or ball point pen
 - viii. Plastic bottle (e.g., juice or water)
 - ix. Spoon
 - x. Plate
 - xi. Soap
 - xii. Coin (any type) or bottle caps
 - xiii. Bicycle (or substitute object/toy)
2. Blocks – 12 (square one inch size)
 3. Maize pieces (dried) or beans
 4. Plain paper to write on
 5. Small containers looking the same but of different weights (one hollow and one with sand)
 6. Sticks of two different lengths
 7. Board with eight pegs
 8. Small cloth
 9. Sound tin/rattle
 10. Red woolen ball (pompom)
 11. Beads - 6
 12. String -- 1 meter long
 13. Watch with a second hand (or stopwatch)
 14. Basket (for putting items in and for throwing balls into)
 15. Mat
 16. Clay/playdough

INSTRUCTIONS

This adaptation of the Malawi Developmental Assessment Test (MDAT) was developed for study purposes and should only be used in the context of Kenya Research Program affiliated studies.¹⁸²

Included in this manual are instructions for administering each item. Some items only require parent report, some require passive observation and some require direct administration to the child. The type of administration for each item is indicated by the following symbols:



Items requiring parental report only.



Items requiring passive observation (byhearing the child perform the behavior).



Items requiring direct administration.

27

Items that are co-administered with another item within the same domain. The number indicates the co-administered item.



Items requiring use of a stop watch.

In some instances you will be unable to observe or test the specific behavior (e.g. child fussy or shy). For some items passive observation or direct administration is preferred but parental report is acceptable if the behavior cannot be observed/tested. These items are noted using both the symbol for either passive observation or direct administration

(preferred) and the symbol for parental report. Items requiring verbal prompts or questions have been translated into Kiswahili (in red). Use of these translated prompts/questions is preferred to maintain consistency.

CALCULATING THE CHILD’S AGE

Compute the child’s age by subtracting the date of birth from the date of testing. It is very important the child’s age is calculated correctly.

Example # 1:

Date of test: May 15, 2013

Date of birth: April 13, 2011

	Year	Month	Day
Date of Test	13	5	15
Date of Birth	-11	-4	-13
Age of Child	2	1	2

CALCULATING THE AGE OF A PREMATURE CHILD

If a child was born more than 2 weeks before his/her expected date of delivery and is currently under 2 years old, the calculated age must be adjusted. To adjust, subtract the months, weeks, and/or days premature from the child’s calculated age. Use this resulting age when proceeding with testing and scoring.

Example #2:

Date of test: July 8, 2013

Date of birth: April 16, 2013. Born 6 weeks premature.

	Year	Month	Day
Date of Test	13	7	8
Date of Birth	-13	-4	-16
Age of Child		2	22
6 weeks premature		-1	-14
Adjusted Age of Child		1	8















ORDER OF TESTING













In general, test items should be administered first from the Personal-Social sector, then from the Fine Motor sector, the Language sector, and, finally, the Gross Motor sector. This order allows for items requiring less active participation of the child to be administered first and items requiring greater confidence to be administered last. The order of testing may be adjusted according to the responsiveness of the child.

SCORING












Determine the starting column based on child's chronological age. Test all items in that column. Test forward until the child has failed 6 consecutive items (including items in the chronological age column). Test backwards until the child has passed 6 consecutive items (including items in the chronological age column). The examiner can use his/her discretion when deciding whether to test forward or backward first. Certain items can be scored based on the child's performance on other items (e.g. a child who walks well automatically passes all previous items pertaining to walking skills, a child who can draw a cross automatically passes "copies a vertical line") and are noted accordingly. Check the appropriate score box for each item tested: P-O (Pass-observed), P-R (Pass-reported), F (Fail).


SOCIAL














		<p>1. Smiles, but not at a particular person.</p> <p>Smiles, but not always sure whether it is in response to someone else or not.</p> <p>“Je, mwanao anatabasamu vipi?”</p>
		<p>2. Smiles in response to a person.</p> <p>With the child in mum’s arms or on his or her back, see if the baby will smile in response to the mum’s or your smile and vocalizations.</p> <p>“Je, mwanao anaweza kutabasamu ukitabasamu?”</p>
		<p>3. Frolics with mother or caregiver (moves body in response to another person).</p> <p>See if the child moves his or her body in response to being played with by mom.</p> <p>“Mwanao anaweza kujisongesha wakati anachezeshwa?”</p>
		<p>4. Frolics alone, plays around moving body, kicking legs in a happy way.</p> <p>Lies on his or her back and plays around with self, moving body and kicking legs happily. Can ask mom.</p> <p>“</p> <p>“Mwanao anaweza kujichezeshwa kwa kujisongesha na kurusha miguu kwa furaha?”</p>
		<p>5. Recognizes or calms and quiets with caregivers/known family members.</p> <p>Stops crying or quiets when mom or another known family member takes the baby. Ask mom if not observed.</p> <p>“Mwanao anaweza kunyamaza au kutulia wakati wewe au mtu wa familia anayemjua anapomchukua?”</p>
		<p>6. Will take porridge from a spoon when fed by a caregiver.</p> <p>Able to eat porridge off a spoon when given by mom/caregiver, but cannot yet hold a spoon. Can eat off mom’s fingers rather than spoon if this is what is usually used by mom.</p> <p>“Mwanao ana uwezo wa kula uji kutoka kwa kijiko au vidole zako?”</p>
		<p>7. Helps to hold a cup while mom gives a drink.</p> <p>Cannot yet manage to drink from a cup by self, but will put hand up to cup when mom puts the cup to his or her lips.</p> <p>“Je mwanao anasaidia kushikilia kikombe wakati unaweka kwa midomo zake ili anywe?”</p>
		<p>8. Puts arms up or indicates in some way that they want to be picked up.</p> <p>Baby deliberately shows that they want to be picked up by either stretching out arms or trying to lift self towards mom/caregiver. Ask mom if not observed.</p> <p>“Jemwanao ananyoosha mikono ama kuashiria kwa njia fulani eti anataka kubebwa?”</p>
		<p>9. Can hold a spoon with porridge but not get to mouth well.</p> <p>Can hold a spoon in hands when being fed and may try to put the spoon in mouth, but cannot do it very well. Need to be clear that it is a spoon with food on it.</p> <p>“Mwanao anaweza kushika kijiko kilicho na chakula kwa mikono yake wakati analishwa? Si lazima aweze kukitia mdomoni.”</p>
		<p>10. Drinks from a cup well without spilling.</p> <p>Is able to pick up a cup of water half full and drink from it without spilling any.</p> <p>“Mwanao ana uwezo wa kujinywesha kutoka kwa kikombe bila kumwaga chini?”</p>
		<p>11. Is able to indicate, by pointing, that they want something.</p> <p>Can show by either pointing or maybe by simple language/noises that they want a particular thing eg. Pointing to the water/cup when they want a drink.</p> <p>“Mwanao aweza elekeza kwa vitu ambavyo anataka?”</p>







	12. Can eat by picking up morsels of food from a plate.	Picks up food in little small portions that mom has separated from the main bit of food. Can hold them in his/her hand and put to mouth. Recognizes it is food, not just grasping it when put in hand. “Mwanao anaweza chukua vipande vidogo vya chakula na kujilisha akitumia mkono?”
	13.Puts hands out to have them washed.	Cannot wash hands by self, but understands that he/she needs to have them washed before eating, therefore helps by putting or holding hands out when mom washes them. Not just having them washed in any way, but must understand that they are having them washed. “Mwanao aweza nyoosha mikono ilizioshwe?”
	14.Can hold a spoon and take porridge by self, but spills some.	Able to feed self with a spoon, but not that well. Spoon sometimes even turns over and spills some, but child enjoys feeding self. “Mwanao aweza kujilisha akitumia kijiko? Ni sawa hata kama anamwaga zingine.”
	15.Indicates in some way that they need to go for a poo/pee, for example by crying, pulling at pants or saying something.	“Je Mwanao anaweza kuashiria kwa njia fulani kwamba anataka kuenda haja ndogo au kubwa?”
	16.Wants to join in with singing games.	Is not yet able to do the singing games, but likes them and wants to be part of it even in a small way. “Hata ingawa mwanao hawezi kufanya michezo ya kuimba, je, yeye hufurahia na kutaka kuhushisha?”
	17.Able to greet either by extending hand or verbally.	Has learned to put out hand to greet someone or can say a verbal greeting. “Je mwanao anaweza kusalimia watu kwa kunyoosha mkono au kusema “habari?””
	18. Sharing things, including food with others.	Understands to share things with others, for example if with friends or other family members, will share food that he or she is given. “Mwanao atagawanana wengine (kama vile) chakula?”
	19. Does a poo or pees by themselves without wetting their pants.	Is able to know that they need to pee or pass a stool and do it without wetting or soiling themselves. Never wets self. [PASS = AUTOMATIC PASS FOR #15] “Mwanao anaweza kujipeleka haja kubwa au ndogo bila ajali (kulowa au kujichafua)?”
	20.Can feed self well using a spoon without spilling.	Can use a spoon well and does not spill or make a mess. [PASS = AUTOMATIC PASS FOR #14] “Je mwanao anaweza kujilisha kwa kijiko bila kumwaga?”
	21.Can make own morsels of food and put in mouth.	Can separate balls of food from main portion and form into a ball to put into mouth. Does not need to be making a perfect ball. [PASS = AUTOMATIC PASS FOR #12] “Je mwanao anaweza kuvunja chakula kwa vipande na kujilisha?”
	22. Able to undress by themselves.	Can take off any item of clothing by themselves. Need to be able to remove it completely. Can be just one item of clothing. “Je mwanao anaweza kujivua angalau nguo moja?”
	23. Wants to go and visit a friend’s house (shows independence).	“Je mwanao huonyesha kuwa huru (kwa mfano)anataka kuenda kutembelea rafiki nyumbani kwao?”








FINE MOTOR







	<p>24.Can go to the toilet by themselves anywhere.</p> <p>Can go poo or a pee by themselves without help, but anywhere eg. Outside, not necessarily on the toilet.</p> <p>[PASS = AUTOMATIC PASS FOR #19]</p> <p>“Mwanao anaweza kujitoa nguo na kuenda haja kubwa au ndogo bila msaada (popote)?”</p>
	<p>25.Can eat food with bits in it or bones.</p> <p>Is able to eat for example fish with bones in it or tangerines with seeds.</p> <p>“Mwanao anaweza kula chakula kilicho na mbegu au mifupa?”</p>
	<p>26.Is able to dress self but not completely.</p> <p>Is able to put on at least one article of clothing, for example a T-shirt or skirt.</p> <p>“Mwanao ana uwezo wa kujivalisha angalau nguo moja?”</p>
	<p>27. Washes hands well by self before/after eating.</p> <p>Is able to wash his or her hands without any help before and after eating.</p> <p>[PASS = AUTOMATIC PASS FOR #13]</p> <p>“Je mwanao anaweza kujiosha mikono kabla na baada ya kula?”</p>
	<p>28.Knows to keep quiet at important meetings or ceremonies.</p> <p>“Mwanao anaweza kunyamaza katika mikutano ya maana au sherehe?”</p>
	<p>29.Does household chores or helps father or mother in a useful way.</p> <p>eg. Drawing water/hoeing. This can even be just a small amount of help, but not just pretend. Make sure there are tasks that you ask about that boys could do.</p> <p>“ Mwanao husaidia kwa shughuli za nyumbani?”</p>
	<p>30.Able to dress by themselves completely.</p> <p>Can put on clothes without help, may have help only if tying shoelaces, buttoning or zipping things which are hard to do.</p> <p>[PASS = AUTOMATIC PASS FOR #26]</p> <p>“Mwanao anajivisha mwenyewe bila kusaidiwa (Isipokuwa kufunga kamba za viatu, kufunga vifungo, kuzipu)?”</p>
	<p>31.Understands the concept of discipline</p> <p>e.g. Causes and consequences eg. Knowing that bad words may lead to punishment.</p> <p>“Je mwanao anajua kwamba matendo Fulani yanaweza kuelekeza kuadhibiwa?”</p>
	<p>32.Plays games with turn taking.</p> <p>“Mwanao aweza kucheza na wengine michezo ya kuchukua zamu?”.</p>
	<p>33. Knows how to be respectful to elders.</p> <p>Is polite and shows respect when around elders. For example, putting hands together as a sign of respect or kneeling.</p> <p>“Je mwanao huonyesha heshima kwa wakubwa wake?”</p>
	<p>34. Is able to go to the toilet/pit latrine by self.</p> <p>Is able to go and use the pit latrine by themselves and does not need any help in any way.</p> <p>[PASS = AUTOMATIC PASS FOR #24]</p> <p>“Je Mwanao ana uwezo wa kuenda msalani mwenyewe?”</p>







	<p>1. Follows face/object to midline.</p> <p>Put the child on his/her back and hold a bright object or place your face above the child’s face at about 15 cms. Move the object/face in an arc from one side to the other. See if the child follows the object/face with eyes to the midline.</p>
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		<p>2. Fixes and follows through 180 degrees.</p> <p>See if the child will follow the face or bright object through a complete arc from left to right e.g. through 180 degrees.</p> <p>[PASS = AUTOMATIC PASS FOR #1]</p>	
		<p>3. Puts hands together in front of eyes or mouth.</p> <p>While the child is lying on his/her back, put the child's hands in front of his/her eyes to look at them and see if he/she keeps them there to look at them. Child also passes if he/she brings hands in front of eyes or mouth spontaneously. Do not cradle the baby in the parent's arms during this.</p>	
		<p>4. Reaches for large thing.</p> <p>If child is sitting in parent's lap, see if the child will try and grasp an object such as the rattle. Examiner to bring the rattle near the child and observe whether child could reach object. Use bright object that child can see well.</p> <p>“Je mwanao hujaribu kufikia sesere(vitu za kuchezea)?”</p>	6
		<p>5. When holding objects, tends to put in mouth.</p> <p>Often when the baby has picked up toys, they like to explore them by putting them in their mouth.</p> <p>“Je mwanao huleta sesere kwa mdomo wake wakati anazishikilia?”</p>	
		<p>6. Grasps hold of large thing.</p> <p>See if the child able to pick up/grasp an object. The examiner gives the child a spoon, rattle or a pen in his hands and sees whether the child can grasp the object in his hands without letting it fall off.</p> <p>[PASS = AUTOMATIC PASS FOR #4]</p> <p>“Mwanao atachukua au kushika kwa nguvu sesere?”</p>	4
		<p>7. Can pick up a larger object from ground. (e.g. spoon or rattle)</p> <p>When sitting on mom's lap or on the floor, likes to try and reach out and pick up objects off the ground or table. Keep objects slightly out of reach, so that they have to reach.</p> <p>[PASS = AUTOMATIC PASS FOR #4 & 6]</p> <p>“Je mwanao anaweza kuchukua sesere sakafuni?”</p>	
		<p>8. Can see a small object such as a piece of maize or a bean.</p> <p>When the child is sitting on mom's lap, place a small object like a piece of maize or a bean in your hand and show it to the child. See if they notice it by pointing, looking at it, or if they want to touch it or pick it up. They don't have to pick it up – can just look at it.</p>	
		<p>9. Transfers objects from one hand to the other hand.</p> <p>Give the child a block and then try and give them another to the same hand. The child will often pass the first block to the other hand so that he/she can take the second one.</p> <p>“Je mwanao aweza toa sesere kutoka kwa mkono mmoja hadi mwingine?”</p>	

		<p>10. Picks up small things in a RAKING fashion.</p> <p>Place a piece of maize or a bead on the table (or a small piece of food) and ask the child to pick it up. Score a YES if child can pick it up by RAKING (using all four fingers). 13</p> <p>[PASS = AUTOMATIC PASS FOR #7]</p>
		<p>11. Strikes on object with another in imitation with the examiner.</p> <p>Take a block in each hand and strike them together while the child is watching. Put a block in each of the child’s hands and ask the child to do the same. Also passes if claps toys or hands together. The examiner can repeat the procedure 2 times.</p>
		<p>12. Finds object under piece of cloth.</p> <p>Show child an interesting object (e.g., car or ball) and let him/her play with it. Then put it under a piece of cloth while the child is watching. Ask child to find the toy. Score as YES if child looks for, reaches for OR retrieves object under cloth. Child DOES NOT have to succeed in getting object; the point is that the child knows it is hidden and searches for it.</p>
		<p>13. Picks up maize or bean with thumb and one finger.</p> <p>Place a piece of maize or a bead on a surface and ask the child to pick it up. Score a YES if child can pick it up with thumb and one of small fingers only. 10</p> <p>[PASS = AUTOMATIC PASS FOR #10]</p>
		<p>14. Puts 1 or more blocks in and out of cup.</p> <p>One by one, put 2 blocks into the cup, explaining what you are doing. Remove each block one by one, also explaining what you are doing. Then put the cup and blocks directly in front of the child and say, “Now you do it. Put the blocks [POINT TO THE BLOCKS] into the cup [POINT TO INSIDE THE CUP]”. “Sasa wewe fanya .Weka gabi. [ELEKEZA KWA GABI] ndani ya kikombe [ELEKEZA NDANI YA KIKOMBE]” Allow about 1 minute. If the child puts at least one block into the cup, say “Great! Now take the block [POINT TO BLOCK IN THE CUP] and put it on the mat “Vyema! Sasa chukua gabi [ELEKEZA KWA GABI NDANI YA KIKOMBE] na uweke kwa mkeka.”</p> <p>Score as a YES if the child puts at least 1 cube in and out of a cup when shown by an examiner.</p>
		<p>15. Pushes a little car along.</p> <p>Put the car on the mat in front of the child and say, “See, look at the car.” “Angalia, tazama gari .” DO NOT push the car or tell the child to push the car. Score as YES if child pushes the little car along playing with it and showing that he or she knows it should be moving.</p>














		<p>16.Puts blocks into jar with screw on lid in imitation.</p> <p>One by one, put 4 blocks into the jar,explaining what you are doing. Dump the blocks from the jar. Place the jar and blocks directly in front of the child and say, “Now you do it. Put the blocks [POINT TO THE BLOCKS] into the bottle [POINT TO INSIDE THE BOTTLE]”.. “Sasa wewe fanya. Weka gabi [ELEKEZA KWA GABI] ndani ya chupa [ASHIRIA NDANI YA CHUPA]”Allow about 1 minute. Score as a YES if the child puts at least one cube in the jar when shown by an examiner.</p>	
		<p>17.Dumps blocks out of jar purposefully.</p> <p>If child does not turn the jar on the side or upside down during administration of item 16, show child how to turn the jar over to dump the blocks out. Then ask the child to do it. “Sasa wewe fanya. Mwaga gabi kutoka kwa chupa.”Score as YES if child is able to turn the bottle upside down or sideways to get the blocks out, even if only ONE block is dumped out. DO NOT score yes if child pulls blocks out of the jar with fingers or hands.</p>	
		<p>18.Scribbles on paper (straight scribble)</p> <p>Put a piece of paper in front of the child and put the pen/pencil in the child’s hand. Say, “Go ahead and draw a picture.” “Endelea na uchore picha.”DO NOT show child what to do. The child must make purposeful marks on the paper, more than just slight marks on the paper, in a back and forth manner. Score NO if child stabs paper with pen/pencil.</p>	<p>19</p>
		<p>19. Scribbles on paper (circular scribble).</p> <p>Put a piece of paper in front of the child and put the pen/pencil in the child’s hand. Say, “Go ahead and draw a picture “Endelea na uchore picha.”DO NOT show child what to do. Child must scribble in a circular way, not just back and forth.</p> <p>[PASS = AUTOMATIC PASS FOR #18]</p>	<p>18</p>
		<p>20.Builds a tower of 2 blocks.</p> <p>Get 12 blocks out of the basket. On a solid, flat surface, build a tower of 2 blocks. Give 2 blocks to the child and ask the child to build a tower of blocks just like yours. Blocks must remain stacked for ≤ 3 seconds.</p> <p>“Sasa wewe fanya. Jenga mnara ukitumia gabi.”</p>	<p>22&23</p>
		<p>21.Puts pegs into board in ≤ 2 minutes.</p> <p>Take all the pegs out of the pegboard. Show the child how to put 1-2 pegs into the board, explaining what you are doing. Ask the child if s/he understands how to put the pegs in the board. “Do you understand how to put the pegs in the board?” “Je,Waelewa jinsi ya kuweka pegi ndani ya bodi?”If child does not seem to understand, demonstrate again. Remove all pegs and then ask the child to put them back in as quickly as possible. “Now you put all the pegs in the board as fast as you can.” “Sasa weka pegi zote ndani ya bodi haraka uwezavyo.”Score a YESfor this item if</p>	<p>24</p> 









		child places all pegs in board in 2 minutes or less.	
		<p>22. Builds tower of 4 blocks.</p> <p>See item 20. After building tower with 2 blocks, demonstrate for child how to add blocks to make a tower of 4 blocks. Score YES if tower of 4 blocks remains standing for ≤ 3 sec.</p> <p>“Sasa wewe ifanye.Ongeza gabi mbili kwa mnara wako.”</p>	20& 23
		<p>23. Builds tower of 6 blocks.</p> <p>See items 20 & 22.After building tower with 4 blocks, demonstrate how to add blocks to make a tower of 6 blocks. Score YES if tower of 6 blocks remains standing ≤ 3sec.</p> <p>“Sasa wewe ifanye.Ongeza gabi mbili kwa mnara wako.”</p>	20&22
		<p>24.Puts pegs into board in up to ≤ 30 seconds.</p> <p>See item 21. Score a YES for this item if child places all pegs in board in ≤ 30 seconds.</p> <p>[PASS = AUTOMATIC PASS FOR #21]</p>	21 
		<p>25.Unscrews and screws back on lid of jar.</p> <p>Hold the jar in one hand, and the lid in the other. Directly in front of the child, slowly screw the lid on the jar then take the lid off, explaining what you are doing. “See how I screw the lid on and unscrew the lid to take it off?” “Angalia jinsi ninavyo fungua na kufungua kifuniko ili kukitoe. ”DEMONSTRATE TWICE. Put the jar and lid in front of the child and say, “Now you do it. Put the lid on and take it off, just as I showed you “Sasa wewe fanya .Weka kifuniko na ukitoe,vile nilivyo kuonyesha.”Score a YES if child is able to screw lid on (and not just “push” or “pat” lid on)ANDunscrew (and not just pull) lid off the jar.</p>	
		<p>26.Threads 6 beads.</p> <p>Get the string and 8 beads out and put them in front of you. Directly in front of the child, place 2 beads on the string, explaining what you are doing. “See how I am putting the string through the hole in the beads?” “Angalia jinsi ninavyo pitisha uzi kwa shimo”la shanga?”Put the string with 2 beads threaded on it, along with the remaining 6 beads in front of the child and say, “Now you do it. Put all the beads on the string, just as I showed you “Sasa wewe fanya..Weka shanga zote kwa uzi,Jinsi nilivyokuonyesha.”</p>	








		<p>27. Copies a vertical line (as drawn by the examiner) within about 30 degrees</p> <p>Draw a vertical line MOVING TOWARD THE CHILD, while saying, “See, I make a line here.” “Angalia, nachora mstari hapa.” Show the child and ask him/her to make a line that looks just like yours. “Now you make a line just like mine.” “Sasa tengeneza mstari kama wangu.” Score YES if child's line is within about 30 degrees of from your line.</p>
		<p>28.Picks longest stick 3 times out of 3 tries</p> <p>Put down 2 sticks of different lengths and say to the child, “Show me which one is longest” “Nionyeshe ni ipi refu zaidi” DO NOT indicate whether the child was correct. Administer this item 2 more times, switching the location of the longest stick each time. Child must pick the longest stick all 3 times to get a YES for this item.</p>
		<p>29.Picks heaviest box 3 time out of 3 tries</p> <p>Put the two weights in the child’s hands at the same time and ask, “Which one is heavier?” “Gani ni nzito zaidi?” Do not indicate which response was correct. Administer this item 2 more times, being certain to alternate placing the heavier weight in both the right and left hands. Child must pick the heavier box all 3 times to get a YES for this item.</p>
		<p>30.Can make a bridge with 3 blocks.</p> <p>Get 6 blocks out. Make a bridge for the child out of 3 blocks, explaining to the child what you are doing. “See how I make a bridge with the blocks?” “Angalia jinsi ninavyo tengeneza daraja nikitumia gabi?” Leave your model in place and put 3 blocks in front of the child. Ask the child to make a bridge that looks just like yours. “Now can you make a bridge with these blocks just like mine?” “Sasa waweza tengeneza daraja kama yangu kwa kutumia gabi hizi?” Score YES if child makes bridge with gap in bottom two blocks.</p>
		<p>31. Makes a doll out of clay.</p> <p>Can make a doll out of clay by themselves or another complicated toy such as a car. “Can you make a doll or car out of this clay” “Waweza tengeneza kitu cha kuchezea au gari kutoka kwa udongo huu?”</p>
		<p>32.Copies a circle</p> <p>Draw a circle, explaining to the child what you are doing. “See how I am drawing a circle?” “Angalia jinsi ninavyo chora mviringo?” Show the child the circle and ask him/her to make one just like yours. “Now can you draw a circle like mine?” “Sasa waweza chora mviringo kama wangu?” You can allow up to 3 trials for the child to make a circle. Score YES for any nearly complete or complete circle.</p>
		<p>33.Copies a cross</p> <p>Draw a vertical line MOVING TOWARD THE CHILD, while saying, “See, I make one line here.” “Angalia,nachora mstari mmoja hapa” Then, draw a horizontal line crossing. “And another line here?” “Na mstari mwingine hapa” Ask the child to make a cross just like yours. “Now can you make a cross like mine?” “Sasa waweza tengeneza</p>




		<p>msalaba kama wangu?”Credit is given for anything where the 2 lines intersect. [PASS = AUTOMATIC PASS FOR #27]</p>
		<p>34.Copies a square: Draw a square, describing what you are doing. “See how I make four lines to make a square?” “Angalia jinsi ninavyo tengeneza mistari minne kuunda miraba minne?”Ask the child to make a square just like yours. “Now can you draw a square like mine?” “Sasa waweza chora miraba minne kama yangu?” To receive credit, the child's drawing must have four sides and be a similar shape to a square, but does not need to be perfect.</p>







LANGUAGE

		<p>1. Startles or jumps/responds to sounds.</p> <p>If child responds or jumps when a loud sound is made. Can be a response in any way e.g. change in activity or expression or eye movement.</p> <p>“Je, mwanao hubumburuka (kuruka au kuitikia kwa njia yeyote) sauti kubwa ikifanywa?”</p>
		<p>2. Happy vocalizing or making sounds – not crying.</p> <p>Makes sounds other than crying e.g. throaty sounds or sounds such as “uh” or “eh” or “a, a, a” or gurgling sounds. Any vocal sound rather than crying.</p> <p>“Je,mwanao hutoa sauti kama sio kulia?”</p>
		<p>3. Laughs/chuckles.</p> <p>See if the child laughs out loud or whether the mom or guardian says they do.</p> <p>“Je,mwanao hucheka?”</p>
		<p>4. Turns to voice.</p> <p>In response to the rattle or to mom’s voice, does the child turn his or her head towards the sound? Best to test both sides.</p> <p>“Mwanao aweza geuza kichwa chake kwenye sauti yako?”</p>
		<p>5. Uses single syllables or sounds, for example Ma, Pa, Da, Ba, Ta.</p> <p>Listen for these sounds. If you do not hear baby make these sounds, ask mom if child makes at least one syllable-vowel combination as described.</p> <p>“Je,mwanao hufanya sauti za silabi moja mfano) Ma, Pa, Da, Ba, Ta?”</p>
		<p>6. Responds to his or her name.</p> <p>Score a YES if child looks at you when you call his/her name. Be careful to distinguish between a response just to being called in a certain tone of voice and knowing his name. Child does not need to say his or her name.</p>
		<p>7.Uses 2/4 syllable babble such as Dada, Mama, Mimi, Tata, Papa, Yaya, Baba. Listen to whether the baby is able to make sounds that could be copied and sound almost like words. Needs to be clear or distinct sounds, not just vocalizations. Or ask mom if child makes at least one syllable-vowel combination as described.</p> <p>[PASS = AUTOMATIC PASS FOR #5]</p> <p>“Je,Mwanao hufanya sauti za silabi mbili mfano) MaMa, Dada, Mimi, Tata?”</p>
		<p>8. Understands when being cautioned about danger.</p> <p>For example when parent says “STOP!” to child, s/he stops even briefly. Ask mom if child understands to stop doing something when told “No,” e.g., going too close to the fire, playing in dirty water, etc. Score as YES if child stops activity in response to “no.”</p> <p>“Je,Mwanao hukoma chenye anafanya ukimwambia “akome!”hata kama ni kwa</p>

		sekunde ?”
		<p>9. Indicates by gesture to say “No”.</p> <p>This requires definite shaking of head or shrugging of shoulders, etc., in showing refusal. Not just turning away from the situation or withdrawing. If not observed, ask mother. “Je mwanao hufanya ishara kuashiria”Hapana” ?”</p>
		<p>10. Follows simple commands (1 step)</p> <p>Give the CUP to the child and let him/her play with it for about 10 seconds. Then, ask the child to give you the cup. DO NOT GESTURE IN ANY WAY OR HOLD OUT YOUR HAND. Mark as YES if child completes action. Can ask up to 2 times. “Hapa kuna kikombe.” (ngoja sekunde 10) “Tafadhali nipe kikombe.” “</p>
		<p>11. Unclear talk/jabber in sentences - pretends to talk.</p> <p>Listen to whether you hear child talk to themselves or while playing with any of the test materials. If unable to witness this, ask mom. Mark YES if child makes sentence-like sounds (even if they are not all real words or sentences). “Je, Mwanao hujifanya anaongea kwa sentenzi hata kama hatumii maneno halisi?”</p>
		<p>12. Says 2 words, but words other than those used for mother and father.</p> <p>Ask mom how many words the child says and write down all words she mentions. These can include names of people as long as they are directed toward the person. Words need to be directed at some particular object. [PASS = AUTOMATIC PASS FOR #7] “Ni maneno yapi mwanao husema?” “</p>
		<p>13. Says 2 words together.</p> <p>Listen to whether the child is putting two words together in a meaningful phrase that indicates something. This does not include the use of 2 words to indicate one idea, such as “all gone” or “bye bye”. If not heard, ask the parent. [PASS = AUTOMATIC PASS FOR #12] “Je, Mwanao huweka maneno mawili pamoja mfano) “Na taka” au “na fanya”?”</p>
		<p>14. Says 6 words, but words other than those used for mother and father.</p> <p>Ask mom how many words the child says and write down all words she mentions. These can include names of people as long as they are directed toward the person. Score a YES if 6 words or more are heard or mentioned by parent. [PASS = AUTOMATIC PASS FOR #12] “Mwanao husema maneno magapi?”</p>

		<p>15. Follows 2 step commands.</p> <p>Child is able to follow a command where they have to understand and then do a succession of two things. Place the CAR and BALL on the mat/table. Say to the child, “Get the CAR/BALL and put it in the basket” or “Get the CAR/BALL and give it to your mother [OR OTHER PERSON]” Do not indicate how to complete the action by pointing, looking or gesturing. Mark as YES if child completes action. Can ask upto 2 times.</p> <p>“Chukua GARI/MPIRA na uweke kwenye kikapu” au “Chukua GARI/MPIRA na umpe mamako” [AU MTU MWINGINE]” “</p>	
		<p>16. Child can IDENTIFY (point to or give you) 5 objects you name.</p> <p>Remove 12 objects from the basket. Say to the child “Give [OR SHOW] me the spoon,” “Pass me [OR POINT TO] the cup,” etc. Score a YES if child can identify at least 5 of the objects. Doesn’t matter which objects are identified.</p> <p>“Nipe [AU NIONYESHE] mimi kijiko. Nipe [AU NIONYESHE] mimi kikombe.” Rudia kwa jumla ya vitu kumi.</p>	22
		<p>17. Speaks clearly in sentences.</p> <p>Child’s speech is fully understandable. Score as YES if child can use one or more sentences to describe or explain something. If not heard, ask mother.</p> <p>[PASS = AUTOMATIC PASS FOR #14]</p> <p>“Je, mwanao huongea kwa sentenzi zinazo sikika na kueleweka ?”</p>	
		<p>18. Points to 2 or more body parts.</p> <p>Ask the child, “Where is your nose? Where are your eyes? Show me your ears? Where is your mouth?” Score a YES if child knows TWO or more body parts.</p> <p>“pua lako liko wapi? Macho yako yako wapi? Nionyeshe masikio yako? Mdomo wako uko wapi?”</p>	
		<p>19. Child can NAME 5 objects in the basket.</p> <p>Remove 12 objects from the basket. Say to the child “What is this?” as you point to or hand the child the object. Score a YES if the child can name at least FIVE (5) items. It does not matter which objects the child names.</p> <p>[PASS = AUTOMATIC PASS FOR #16]</p> <p>“Hii ni nini?” Rudia kwa jumla ya vitu 12. “</p>	23
		<p>20. Child can tell you his or her first name.</p> <p>Ask the child, “What is your name?” “Jina lako ni nani?” Score as a YES if child can say their first name. Do NOT administer this item by saying, “Is your name John?” Child must tell you their name.</p>	

		<p>21. Knows actions of 3 or more objects.</p> <p>USE cup, pencil, matchbox, and car. Ask “Which one is for drinking/eating?” “Which one is for writing?” “Which one is for lighting fire?” “Which one is for driving?” DO NOT LOOK AT OR GESTURE TOWARD THE OBJECTS WHEN ASKING THEIR FUNCTION. Score as a YES if child can point to 3 or more correctly.</p> <p>“Niipi ya kunywa/kulia?” “Niipi ya kuandika?” “Niipi ya kuasha moto?” “Niipi ya kuendesha?”</p>
		<p>22. Child can IDENTIFY (point to or give you) 10 objects you name.</p> <p>Remove 12 objects from the basket. Say to the child “Give [OR SHOW] me the spoon,” “Pass me [OR POINT TO] the cup,” etc. Score a YES if child can identify at least 10 of the objects. Doesn’t matter which objects are identified.</p> <p>[PASS = AUTOMATIC PASS FOR #16]</p> <p>“Nipe [AU NONYESHE] mimi kijiko,” “Nipitishie [AU ELEKEZA KWA] Kikombe,” nakadhalika.</p>
		<p>23. Child can NAME 10 objects in the basket.</p> <p>Remove 12 objects from the basket. Say to the child “What is this?” “Hii ni nini?” as you point to or hand the child the object. Score a YES if the child can name at least TEN (10) items. It does not matter which objects the child names.</p> <p>[PASS = AUTOMATIC PASS FOR #19& #22]</p>
		<p>24. Child is able to categorize things.</p> <p>Ask the child – “Tell me some things that you eat.” “Niambie baadhi ya vitu ambavyo wewe hula.” Each food must be distinct (e.g child CANNOT receive credit for saying “fruit” and “mango”). Then say, “Good. Now tell me some animals that you know....” “Vizuri. Sasa niambie baadhi ya wanyama ambao unawajua....” “Each animal must be distinct. Score YES if child is able to tell you 3 or more different foods OR 3 or more different animals.</p>
		<p>25. Child is able to follow a 3 step command.</p> <p>For example, “stand up, clap your hands and turn around in a circle” “Inuka juu, piga makofi na uzunguke kwa mvingo” Score a YES if child is able to understand command and carry out all 3 actions in correct order. Do not demonstrate.</p> <p>[PASS = AUTOMATIC PASS FOR #15]</p>
		<p>26. Is able to tell you the use of 3 or more objects.</p> <p>Get out the car, spoon, broom, bottle. Without naming the object, POINT to each item and say, “What do you do with THIS?” or “What is THIS for?” “Wewe hufanya nini na HII?” au “Hii ni ya nini?” Score YES if child correctly uses action words (verbs) for 3 or more objects. For example, when asked, “What do you do with a spoon?” the child can say “Eat” or “It's for eating.” Answers such as “It's for food,” or “Food,” lack verbs and are not</p>










		acceptable.
		<p>27. Cando 2 syllable recall.</p> <p>Say to the child. “When I say this, copy me...Pa, Chi, Tu, Go”. “Nikisema hivi,nikopi ...Pa, Chi, Tu, anza”..... Say to the child, say “pa.” “Sema “pa” “Wait for the child to say “pa.”Then say to the child “say pa, chi”, “sema pa, chi.””Wait for the child to say “pa, chi.”Then say to the child “say pa, chi, tu”,“sema pa, chi, tu.” Wait for the child to say “pa, chi, tu.” Then say to the child “say pa, chi, tu, go”, “sema pa, chi, tu, anza”See how far the child can get i.e. How many they can do. Answer YES to this if they can at least do the first TWO eg. Pa and Pa, Chi.</p>
		<p>28.Child knows 2 of 3 comprehension questions.</p> <p>Ask the child, “What do you do when you are hungry?” “What do you do when you are tired?” “What do you do when you are cold?” “Wewe hufanya nini ukiwa na njaa?” “Wewe hufanya nini ukiwa umechoka?” “Wewe hufanya nini ukiwa umelowa/mbaridi?”</p> <p>Score a YES for this item if child can answer with responses for 2 or more of the questions.</p>
		<p>29.Understands the adjectives such as “faster” by answering “Which goes faster, a car or a bicycle?” “Ni gani huenda kwa kazi,gari au baisikeli?” Show the child the car and the bicycle when asking this question. Score as YES if child responds “car.”</p>
		<p>30.Can do 4 syllable recall.</p> <p>SEE ITEM 27. Answer YES if child can repeat all FOUR (4) e.g., “Pa, Chi, Tu, Go.”</p> <p>[PASS = AUTOMATIC PASS FOR #27]</p>
		<p>31.Child can understand prepositions and follow tasks related to this.</p> <p>Get the cup and a bottle cap out of the basket. Place the cup upside down in front of the child. Give the child the bottle cap. Tell the child, “Put the bottle cap under the cup,” “Put it on the cup,” “Put it next to the cup,” “Put it behind the cup.”“Weka kifuniko cha chupa chini ya kikombe,” “kiweke juu ya kikombe,” ” “kiweke kando ya kikombe,” “Kiweke nyuma ya kikombe.” Wait after each statement to allow the child to perform the action. Child needs to be able to do at least 3 of the 4 of these to score a YES.</p>
		<p>32. Understands the concept of opposites</p> <p>e.g. A boy is big, a baby is _____. If the sun comes up in the day, the moon comes up _____.A cheetah is fast, a turtle is _____. The sun is hot, ice is _____. Mvulana ni</p>














		<p>mkubwa,mtoto ni_____.Ikiwa jua huenda juu mchana,Mwezi huenda juu_____. Chui anambio ,, turtle ni_____. Jua ni kali , barafu ni_____.Score a YES if child correctly provides 2 opposites.</p>
		<p>33.Knows quantities – can count at least 3 objects.</p> <p>Line up 12 blocks in a row. Ask the child, “Can you tell me how many are here? Count them for me.” ”Waweza niambia ni ngapi ziko hapa?Nihasabie.” “Write down the maximum the child can count. Child MUST be able to correctly count objects, and is not assigning numbers incorrectly to objects. Score as a YES if child can correctly count 3 or more.</p>
		<p>34. SEE ITEM 33</p> <p>Score as a YES if child can count 5 or more objects.</p> <p>[PASS = AUTOMATIC PASS FOR #33]</p>

34











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GROSS MOTOR

		<p>1. Lifts chin off floor. Put the child on his/her stomach on a flat surface. See if the child can at least lift his/her head so that the chin is off the surface for a short period of time.</p> <p>NOTE: IF FAILS THEN STOP.</p>	2&5
		<p>2. Prone (on tummy), can lift head up to 90 degrees. Put child on his/her stomach on a flat surface. See if the child is able to lift head up so that his/her face makes a 90 degree angle with the mat for several seconds. The child may support themselves on their forearms.</p> <p>[PASS = AUTOMATIC PASS FOR #1]</p>	1&5
		<p>3. Holds head upright for a few seconds. Hold the child in the sitting position. See if the child is able to hold his or head upright and steady for at least several seconds.</p>	
		<p>4. Pulls to sit with no head lag. Put the child on his/her back on a flat surface. Hold the child's hands and pull the baby up to a sitting position. See if the child's head comes with the body and does not lag or fall behind while the body is being pulled up. If it does from early on, stop.</p>	
		<p>5. Lifts head, shoulders and chest when prone. Put the child on his/her stomach on a flat surface. See if the child is able to lift his/her head and chest off the surface using their arms for support so that he/she is looking ahead or even upwards.</p> <p>[PASS = AUTOMATIC PASS FOR #1 & #2]</p>	1&2
		<p>6. Bears weight on legs when held in standing position. Hold the child up as if they were standing with their feet on the table/mat. See if the child supports his/her weight on the legs for a few seconds. Do not let go of the child.</p>	
		<p>7. Sits with help. Put the child in the sitting position on mom's lap or on the floor between mom's legs. See if the child will sit with the help of mom with a nice straight back.</p> <p>[PASS = AUTOMATIC PASS FOR #1-5]</p>	
		<p>8. Rolls over from back to front. See if the child rolls over any time during the examination. "Je, mwanao hubiringika kutoka nyuma hadi mbele?"</p>	
		<p>9. Sits without help for a short time. Put the child in the sitting position on a flat surface. See if the child is able to sit for a short time unsupported (seconds)</p>	10

		[PASS = AUTOMATIC PASS FOR #7]
		<p>10. Sits by self well.</p> <p>Put the child in the sitting position on a flat surface. See if the child can be left sitting and maintain balance in this position by self for a long period of time.</p> <p>[PASS = AUTOMATIC PASS FOR #7 AND #9]</p>
		<p>11. Crawls in any way.</p> <p>Is able to get about either by shuffling on bottom or on all four limbs. See if the child crawls any time during the examination.</p> <p>“Je mwanao hutambaa au kuzunguka kama ameketi kwa kujisukuma kwa miguu yake?”</p>
		<p>12. Pulls self to stand/trying to get to standing.</p> <p>Will grasp hold of furniture or other objects and pull self to standing position. Does not need to stay there for any length of time and may fall back down quickly.</p> <p>[PASS = AUTOMATIC PASS FOR #7 AND #9-10]</p> <p>“Je mwanao aweza jivuta kusimama kwa sekunde chache kama amejishikilia kwa samani?”</p>
		<p>13. Able to stand well if holding onto things.</p> <p>See if the child can stand and hold on to a solid object such as a chair for a few seconds. May pass this without getting themselves to the standing position.</p> <p>“Je mwanao aweza simama kwa sekunde chache kama amejishikilia kwa samani? (sio mikono yako)?”</p>
		<p>14. Walks using both hands of someone.</p> <p>If you hold both hands to balance the baby, can they take several steps without tripping or falling?</p> <p>[PASS = AUTOMATIC PASS FOR #13]</p> <p>“Je, mwanao aweza tembea hatua kadhaa akiwa amejishikilia kwa mikono yako?”</p>
		<p>15. Walks with help (using somebody’s hand as if led or a piece of furniture).</p> <p>See if child can walk with the help of the mother holding out one hand to the child. See if the child will take a few steps with help or on the furniture, but not alone.</p> <p>[PASS = AUTOMATIC PASS FOR #13-14]</p> <p>“Je, mwanao aweza tembea akiwa amejishikilia kwa mkono wako mmoja”?.</p>
		<p>16. Walks, but falls over at times.</p> <p>Child is able to walk but not that confidently yet and falls over at times/quite often still.</p> <p>[PASS = AUTOMATIC PASS FOR #13-15]</p> <p>“Je mwanao aweza tembea hatua chache peke yake?”</p>

		<p>17. Stoops and recovers.</p> <p>See if the child is able to bend over and pick up a toy and return to a standing position without holding on to things around them or sitting down. (Picks up object off floor without falling)</p> <p>“Je mwanao aweza chukua chombo che kuchezea kutoka sakafuni akiwa amesimama bila kuanguka?”</p>
		<p>18. Walks well.</p> <p>See if the child walks well without falling over often with good balance.</p> <p>[PASS = AUTOMATIC PASS FOR #13-16]</p> <p>“Je mwanao hutembea vyema peke yake bila kuanguka?”</p>
		<p>19. Basic running, may fall over.</p> <p>Able to get about quickly but not completely confident and falls over occasionally.</p> <p>[PASS = AUTOMATIC PASS FOR #18]</p> <p>Kwa mtoto: “Je unaweza kimbia nione?”</p> <p>Kwa mama: “Je, mwanao aweza kimbia hata kama huanguka wakati mwingine?”</p>
		<p>20. Kicks ball, tries to kick ball.</p> <p>Can kick a ball by trying to move leg forward to meet it or by walking into it. Not necessarily kicking well with a really good swing of the leg. Can be demonstrated.</p> <p>Kwa mtoto: “Je unaweza kupiga mpira kwa mguu?”</p> <p>Kwa mama: “Je mwanao aweza kupiga mpira kwa mguu au kujaribu kusongesha mpira mbele</p>
		<p>21. Runs well, stopping and starting without falling.</p> <p>Runs with confidence with feet lifted up behind him/her as legs go forward.</p> <p>[PASS = AUTOMATIC PASS FOR #19]</p> <p>Kwa mtoto: “Je, unaweza kimbia nione?”</p> <p>Kwa mama: “Je mwanao anaweza kimbia vizuri, kusimama na kuanza bila kuanguka?”</p>
		<p>22. Kneels and gets up without using hands.</p> <p>Able to get down on to his/her knees staying in an upright position and then get up without using hands. Can be demonstrated.</p> <p>Kwa mtoto: “Je, unaweza piga magoti? Sasa hebu simama?”</p> <p>Kwa mama: “Je, mwanao anaweza piga magotiakiwa amesimama halafu bila kutumia mikono?”</p>
		<p>23. Throws a ball into a basket (at least one of 3 times) 1 meter away.</p> <p>Stands one meter away from examiner’s basket and is able to throw the ball in on at least one of three tries. Can be demonstrated. Can use meter long string to measure.</p> <p>“Hebu angalia jinsi ninavyotupa mpira ndani ya kikapu? Sasa wewe jaribu?”</p>

		<p>24.Runs, stops and is able to kick a ball some distance.</p> <p>Able to run up to the ball and kick it a good distance with a good swing forward of the leg and balancing on one foot. Can be demonstrated.</p> <p>[PASS = AUTOMATIC PASS FOR #20-21]</p> <p>Kwa mtoto: “Je, unaweza kimbilia mpira na kujaribu kuigonga?”</p> <p>Kwa mama: “Je mwanao anaweza kimbilia, simama kasha agonge mpira?”</p>	20
		<p>25.Jumps with feet together off the ground.</p> <p>Able to jump with both feet leaving the floor together. Needs to get both feet off the ground. Can be demonstrated.</p> <p>“Kwa mtoto: Je, unaweza ruka na miguu zote pamoja?”</p> <p>Kwa mama: “Je mwanao anaweza ruka na miguu zake zote zikiwa juu ya sakafu?”</p>	
		<p>26.Jumps over line/string on the ground.</p> <p>Able to jump well lifting both feet off the ground together over a string/line painted on the ground. Not a hop or skip. Feet should remain together and both feet reaching the floor at the same moment. Can be demonstrated.</p> <p>[PASS = AUTOMATIC PASS FOR #25]</p> <p>“Je, unaweza ruka juu ya hii laini/kamba na miguu zote?”</p>	
		<p>27.Stands on one foot for less than 5 seconds.</p> <p>Ask child to raise one foot usually by bending his knee and maintain a good balance on his other foot for at least a second – up to 5 seconds. Can be demonstrated.</p> <p>“Je, unaweza simama kwa mguu mmoja kwa muda unaoweza?”</p>	32
		<p>28.Walks on heels for 6 + steps.</p> <p>Can walk 6 steps on heels easily. Can be demonstrated.</p> <p>Kwa mtoto: “Je, unaweza kutembea kwa visigino zako kwa hatua nyingi unavyoweza?”</p> <p>Kwa mama: “Je, mwanao anaweza tembea hatus sita kwa visigino?”</p>	
		<p>29.Jumps over a piece of paper (widthways).</p> <p>Put a piece of paper (A4 size) on the ground. Ask the child to stand close to the paper with both feet together and to jump over the less wide part of the paper, landing with both feet together. Both feet need to come off the ground.Can be demonstrated.</p> <p>[PASS = AUTOMATIC PASS FOR #25-26]</p> <p>“ Je, unaweza ruka juu ya hii karatasi?”</p>	
		<p>30.Walks on tip toes for six or more steps.</p> <p>Able to balance on tip toes and walk 6 steps keeping up on the toes well with good balance. Can be demonstrated.</p> <p>“ Je unaweza tembea kwa vidole vya miguu kwa hatua nyingi unavyoweza?”</p>	

		<p>31.Hops on one foot without support, has to go 3 steps.</p> <p>Makes three consecutive hops with the same leg raised throughout. Can be demonstrated.</p> <p>“ Je, unaweza ruka ruka kwa mguu moja kwa hatua nyingi unavyoweza?”</p>
		<p>32.Stands on one foot for a longer time – (at least 5 seconds and up to a minute).</p> <p>Ask child to raise one foot usually by bending his knee and maintain a good balance on his other foot for more than 5-10 seconds, up to a minute or two counts. Can be demonstrated.</p> <p>[PASS = AUTOMATIC PASS FOR #27]</p> <p>“Je unaweza simama kwa mguu mmoja kwa kiasi cha muda unaoweza?”</p>
		<p>33.Can throw a ball up in the air and catch it with 2 hands.</p> <p>Can throw the ball up a good distance and catch it with two hands together. May try 3 times. Can be demonstrated.</p> <p>Kwa mtoto: “Je, unaweza rucha mpira hewani kisha uushike na mikono miwili?”</p> <p>Kwa mama: “Je, mwanao anaweza rucha mpira hewani kisha aushike kwa mikono miwili?”</p>
		<p>34.Heel/toe walk with one foot behind the other along the string with good balance:</p> <p>Can walk along the same line but this time heel to toe with his feet touching with good balance. Can be demonstrated.</p> <p>Kwa mtoto: “Je unaweza tembea kwa laini hii ukitumia kisigino na kidole cha mguu?”</p> <p>Kwa mama: “Je mwanao anaweza kutembea kwa laini hii akitumia kisigino na vidole vya mguu?”.</p>



be
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Instructions of Use

IPT-G intervention is administered for 8 sessions at different times (Intervention group initiated at 12 weeks and control group at week 20 post-delivery) and later compare the outcome in view of ascertaining the acceptability, feasibility fidelity and adoption of the intervention when administered by primary health care personnel in a low resource setting. Benefits of IPT-G management will be assessed by comparing the changes in depressive symptoms before and after intervention. The essence of time of initiating intervention will be considered. Semi-structured interview questions for participants, primary health care workers, clinic personnel and health center management team will be administered;

c. Study participants:

1. What are the notable positive aspects of IPT-G including content, delivery and resources required to administer?
2. What are the notable negative aspects of IPT-G including content, delivery and resources required to administer?
3. Could you advice a friend like you to undergo IPT-G treatment and why?
4. What can be done to improve the process of admistering IPT-G?

d. IPT-G primary health care workers will be asked:

1. What are the notable positive aspects of IPT-G including content, delivery and resources required to administer?
2. What are the notable negative aspects of IPT-G including content, delivery and resources required to administer?
3. Are you comfortable administering IPT-G in its current approach?
4. What kind of extra training is needed to enhance effeciency of IPT-G?
5. What can be done to improve the process of admistering IPT-G?

e. Other clinic personnel and Health center management team

1. What are the notable positive aspects of IPT-G including content, delivery and resources required to administer?
2. What are the notable negative aspects of IPT-G including content, delivery and resources required to administer?
3. What are the notable positive impacts of IPT-G treatment on the PMTCT clinic and health center?
4. What are the notable negative impacts of IPT-G treatment on the PMTCT clinic and health center?
5. Would you like to continue IPT-G treatment for postpartum depression and psychosocial stressors among HIV+ adolescents attending PMTCT clinic/health center and why/why not?
6. What can be done to improve IPT-G in terms of facility change, health workers training or creation of awareness about postpartum depression for the health care workers/patients?
7. Do you foresee additional unit costs per patient in running PMTCT clinic if this IPT-G is sustained in your facility?

f. Qualitative process evaluation alongside clinical outcomes (adapted from Curran et al., 2012, Implementation Science). Interview Guide on core questions for all qualitative focus groups discussions(FGDs):

1. How did IPT-G operate in your clinic?
2. What worked and what didn't work?
3. How did IPT-G affect workload, burden, and space?
4. How IPT-G was received by you and others in your site and how did that change over time?
5. Were there "champions" or "opinion leaders" for IPT-G?
6. Did the communication between the Principal Investigator, the IPT-G supervisor and primary health care workers work?
7. What outcomes are/were you seeing?
8. What changes should be made to IPT-G?
9. What are the prospects for IPT-G being sustained and why?

On completion of the interviews, analysis will be done by putting into themes responses with similar meanings. The findings will enable our study get to understand whether the IPT-G can be rolled-out in routine clinical settings in similar processes by primary health care workers.

Kiambatisho XVI: Swala la Uwezekano, Uaminifu na Kukubalika

Nabari la Siri Tarehe

Maelekezo ya Matumizi

Uingizaji wa IPT-G unasimamiwa kwa vikao 8 kwa nyakati tofauti (Kikundi cha kuingilia kilichoanzishwa kwa wiki 12 na kikundi cha kudhibiti katika wiki 20 baada ya utoaji) na baadaye kulinganisha matokeo kwa mtazamo wa kutambua kukubalika, uaminifu wa uwezekano na kupitishwa kwa kuingiliwa wakati unasimamiwa na wafanyakazi wa huduma ya afya ya msingi katika mazingira ya chini ya rasilimali. Faida za usimamizi wa IPT-G zitapimwa kwa kulinganisha mabadiliko katika dalili za shida kabla na baada ya kuingilia kati. Kiini cha muda wa kuingilia kati utazingatiwa. Maswali ya mahojiano ya washiriki, washiriki wa huduma za afya ya msingi, wafanyakazi wa kliniki na timu ya usimamizi wa kituo cha afya watasimamiwa;

a. Wasomaji washiriki:

1. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kusimamia?
2. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kuendesha?
3. Je! Unaweza kuwashauri rafiki kama wewe kufanyiwa matibabu ya IPT-G na kwa nini?
4. Nini kinaweza kufanywa ili kuboresha mchakato wa kusimamia IPT-G?

b. Watumishi wa huduma za afya ya msingi wa IPT-G wataulizwa:

1. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kusimamia?
2. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kuendesha?
3. Je, wewe ni vizuri kusimamia IPT-G katika njia yake ya sasa?
4. Ni aina gani ya mafunzo ya ziada inahitajika ili kuboresha ufanisi wa IPT-G?
5. Nini kinaweza kufanywa ili kuboresha mchakato wa kusimamia IPT-G?

c. Wafanyakazi wengine wa kliniki na timu ya usimamizi wa kituo cha Afya

1. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kusimamia?
2. Ni vipi vyema IPT-G ikiwa ni pamoja na maudhui, utoaji na rasilimali zinazohitajika kuendesha?
3. Ni matokeo gani mazuri ya athari za IPT-G kwenye kliniki ya PMTCT na kituo cha afya?
4. Je! Ni matokeo gani mabaya ya matibabu ya IPT-G kwenye kliniki ya PMTCT na kituo cha afya?
5. Je! Ungependa kuendelea na matibabu ya IPT-G kwa unyogovu baada ya kujifungua na matatizo ya kisaikolojia kati ya vijana wa VVU + wanaohudhuria kliniki ya afya ya PMTCT na kwa nini / kwa nini?
6. Ni nini kinachoweza kufanywa ili kuboresha IPT-G katika suala la mabadiliko ya kituo, mafunzo ya wafanyakazi wa afya au uumbaji wa awarenenss kuhusu unyogovu baada ya kujifungua kwa wafanyakazi wa afya / wagonjwa?
7. Je! Unaona gharama za kitengo cha ziada kwa mgonjwa katika kliniki ya PMTCT ikiwa hii IPT-G inalindwa katika kituo chako?

d. Tathmini ya utaratibu wa kustahili pamoja na matokeo ya kliniki (yaliyotokana na Curran et al., 2012, Sayansi ya Utekelezaji). Mwongozo wa Mahojiano juu ya maswali ya msingi kwa majadiliano yote ya makundi ya ubora (FGD):

1. IPT-G ilifanya kazi katika kliniki yako?
2. Ni nini kilichofanya kazi na kilichofanya kazi?
3. IPT-G imeathirije mzigo wa kazi, mzigo, na nafasi?
4. Jinsi IPT-G ilitambuliwa na wewe na wengine kwenye tovuti yako na jinsi gani mabadiliko hayo kwa muda?
5. Je, kuna "mabingwa" au "viongozi wa maoni" kwa IPT-G?
6. Je, mawasiliano kati ya Mpelelezi Mkuu, Msimamizi wa IPT-G na wafanyakazi wa huduma za afya ya msingi hufanya kazi?
7. Ni matokeo gani unayoona?
8. Ni mabadiliko gani yanayotakiwa kufanywa kwa IPT-G?
9. Ni matarajio gani ya IPT-G yanayoendelea na kwa nini?

Baada ya kukamilika kwa mahojiano, hesabu itafanyika kwa kuweka maoni ya mandhari na maana sawa. Matokeo haya yatasaidia utafiti wetu kupata kuelewa magurudumu IPT-G inaweza kufutwa katika mazingira ya kawaida ya kliniki katika taratibu zinazofanana na wafanyakazi wa huduma za afya ya msingi .

Appendix XVII: Budget preparation (Kenya Shillings)

	Description	Unit	Cost per unit(Kshs)	Total costs(Kshs)
A. PROPOSAL PREPARATION				
	1. Proposal Typing	200 pages	30	6,000.00
	2. Printing proposal	8 sets x 200 pages	10	16,000.00
	3. Photocopies	8 sets x 200 pages(Questionnaires for pilot testing)	2	3,200.00
	4. KNH ethical Committee Fees	1	4,000.00	4,000.00
	5. Clearance by the National Council of Science and Technology	1	1,000.00	1,000.00
	Renewal of ERC approval	1	4,000.00	4,000.00
B. MATERIALS AND EQUIPMENT				
	1. Pens	24	15	360.00
	2. Stapler and 2 packets staples	1	500.00	500.00
	3. Folders	28	50.00	1,400.00
C. QUESTIONAIRES				
	1. Printing(200 pages)	5	10	10,000.00
	2. Photocopying(200 pages)	24 subjects	2	9,600.00
D. SUPPORT STAFF				
	1. Training on IPT-G	8 facilitators	30,000.00	240,000.00
	2. Biostatician(Quantitative data)	1	60,000.00	60,000.00
	3. Biostatician(Qualitative data)	1	100,000.00	100,000.00
	4. Six(6) of research Assistant (IPT-G facilitators)	8 Sessions	3,000.00	144,000.00
	5. Two(2) clinic managers stipend(Kangemi/Kariobangi)	For entire study	20,000.00	40,000.00

E. COMMUNICATION				
	1. Literature search from Internet(Modem)	During study period	6,000.00	6,000.00
	2. Telephone/email services	During study period	5,000.00	5,000.00
	3. Transport while visiting site/collecting data	During study period	20,000.00	20,000.00
F. DATA PROCESSING AND BOOK BINDING				
	1. Typing preliminary results	20 pages	30	600.00
	2. Photocopies to supervisors	4 sets x 200 pages	2	1,600.00
	3. Printing final report	4 sets x200 pages	10	8,000.00
	4. Binding of research books	4 copies	1,000.00	4,000.00
	Sub totals		665,260.00	
	Contingencies 10% of sub total			66,526.00
	Grand Totals		731,786.00	